Package 'PatientProfiles'

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```
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       Model
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```

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addAge

Compute the age of the individuals at a certain date

Description

Compute the age of the individuals at a certain date

Usage

```
addAge(
    x,
    indexDate = "cohort_start_date",
    ageName = "age",
    ageGroup = NULL,
    ageMissingMonth = 1,
    ageMissingDay = 1,
    ageImposeMonth = FALSE,
    ageImposeDay = FALSE,
    missingAgeGroupValue = "None",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

indexDate Variable in x that contains the date to compute the age.

ageName Name of the new column that contains age.

ageGroup List of age groups to be added.

ageMissingMonth

Month of the year assigned to individuals with missing month of birth. By

default: 1.

ageMissingDay day of the month assigned to individuals with missing day of birth. By default:

1.

ageImposeMonth Whether the month of the date of birth will be considered as missing for all the

individuals.

ageImposeDay Whether the day of the date of birth will be considered as missing for all the

individuals.

missingAgeGroupValue

Value to include if missing age.

name Name of the new table, if NULL a temporary table is returned.

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Value

tibble with the age column added.

Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addAge()
mockDisconnect(cdm = cdm)
```

addAgeQuery

Query to add the age of the individuals at a certain date

Description

'r lifecycle::badge("experimental")' Same as 'addAge()', except query is not computed to a table.

Usage

```
addAgeQuery(
    x,
    indexDate = "cohort_start_date",
    ageName = "age",
    ageGroup = NULL,
    ageMissingMonth = 1,
    ageMissingDay = 1,
    ageImposeMonth = FALSE,
    ageImposeDay = FALSE,
    missingAgeGroupValue = "None"
)
```

Arguments

Table with individuals in the cdm.

indexDate Variable in x that contains the date to compute the age.

ageName Name of the new column that contains age.

ageGroup List of age groups to be added.

ageMissingMonth

Month of the year assigned to individuals with missing month of birth. By

default: 1.

ageMissingDay day of the month assigned to individuals with missing day of birth. By default:

1.

ageImposeMonth Whether the month of the date of birth will be considered as missing for all the

individuals.

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ageImposeDay Whether the day of the date of birth will be considered as missing for all the individuals.

missingAgeGroupValue

Value to include if missing age.

Value

tibble with the age column added.

Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addAgeQuery()

mockDisconnect(cdm = cdm)
```

addCategories

Categorize a numeric variable

Description

Categorize a numeric variable

Usage

```
addCategories(
   x,
   variable,
   categories,
   missingCategoryValue = "None",
   overlap = FALSE,
   name = NULL
)
```

Arguments

x Table with individuals in the cdm.

variable Target variable that we want to categorize.

categories List of lists of named categories with lower and upper limit.

missingCategoryValue

Value to assign to those individuals not in any named category. If NULL or NA,

missing will values will be given.

overlap TRUE if the categories given overlap.

name Name of the new table, if NULL a temporary table is returned.

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Value

The x table with the categorical variable added.

Examples

```
cdm <- mockPatientProfiles()

result <- cdm$cohort1 |>
   addAge() |>
   addCategories(
    variable = "age",
    categories = list("age_group" = list(
        "0 to 39" = c(0, 39), "40 to 79" = c(40, 79), "80 to 150" = c(80, 150)
   ))
   ))
   mockDisconnect(cdm = cdm)
```

addCdmName

Add cdm name

Description

Add cdm name

Usage

```
addCdmName(table, cdm = omopgenerics::cdmReference(table))
```

Arguments

table Table in the cdm
cdm A cdm reference object

Value

Table with an extra column with the cdm names

```
library(PatientProfiles)

cdm <- mockPatientProfiles()
cdm$cohort1 |>
  addCdmName()
```

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addCohortIntersectCount

It creates columns to indicate number of occurrences of intersection with a cohort

Description

It creates columns to indicate number of occurrences of intersection with a cohort

Usage

```
addCohortIntersectCount(
    x,
    targetCohortTable,
    targetCohortId = NULL,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    targetStartDate = "cohort_start_date",
    targetEndDate = "cohort_end_date",
    window = list(c(0, Inf)),
    nameStyle = "{cohort_name}_{window_name}",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

targetCohortTable

name of the cohort that we want to check for overlap.

targetCohortId vector of cohort definition ids to include.

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.

targetStartDate

date of reference in cohort table, either for start (in overlap) or on its own (for

incidence).

targetEndDate date of reference in cohort table, either for end (overlap) or NULL (if incidence).

window window to consider events of.

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with overlap information.

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Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addCohortIntersectCount(
    targetCohortTable = "cohort2"
)

mockDisconnect(cdm = cdm)
```

addCohortIntersectDate

Date of cohorts that are present in a certain window

Description

Date of cohorts that are present in a certain window

Usage

```
addCohortIntersectDate(
    x,
    targetCohortTable,
    targetCohortId = NULL,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    targetDate = "cohort_start_date",
    order = "first",
    window = c(0, Inf),
    nameStyle = "{cohort_name}_{window_name}",
    name = NULL
)
```

Arguments

Table with individuals in the cdm.

target Cohort Table

Cohort table to.

targetCohortId Cohort IDs of interest from the other cohort table. If NULL, all cohorts will be

used with a time variable added for each cohort of interest.

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.

targetDate Date of interest in the other cohort table. Either cohort_start_date or cohort_end_date.

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order	date to use if there are multiple records for an individual during the window of interest. Either first or last.
window	Window of time to identify records relative to the indexDate. Records outside of this time period will be ignored.
nameStyle	naming of the added column or columns, should include required parameters.
name	Name of the new table, if NULL a temporary table is returned.

Value

x along with additional columns for each cohort of interest.

Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addCohortIntersectDate(targetCohortTable = "cohort2")

mockDisconnect(cdm = cdm)
```

addCohortIntersectDays

It creates columns to indicate the number of days between the current table and a target cohort

Description

It creates columns to indicate the number of days between the current table and a target cohort

Usage

```
addCohortIntersectDays(
    x,
    targetCohortTable,
    targetCohortId = NULL,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    targetDate = "cohort_start_date",
    order = "first",
    window = c(0, Inf),
    nameStyle = "{cohort_name}_{window_name}",
    name = NULL
)
```

Arguments

Table with individuals in the cdm. targetCohortTable Cohort table to. targetCohortId Cohort IDs of interest from the other cohort table. If NULL, all cohorts will be used with a days variable added for each cohort of interest. 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. targetDate Date of interest in the other cohort table. Either cohort_start_date or cohort_end_date. date to use if there are multiple records for an individual during the window of order interest. Either first or last. window Window of time to identify records relative to the indexDate. Records outside of this time period will be ignored. nameStyle naming of the added column or columns, should include required parameters.

Name of the new table, if NULL a temporary table is returned.

Value

name

x along with additional columns for each cohort of interest.

Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addCohortIntersectDays(targetCohortTable = "cohort2")

mockDisconnect(cdm = cdm)
```

addCohortIntersectFlag

It creates columns to indicate the presence of cohorts

Description

It creates columns to indicate the presence of cohorts

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Usage

```
addCohortIntersectFlag(
    x,
    targetCohortTable,
    targetCohortId = NULL,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    targetStartDate = "cohort_start_date",
    targetEndDate = "cohort_end_date",
    window = list(c(0, Inf)),
    nameStyle = "{cohort_name}_{window_name}",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

targetCohortTable

name of the cohort that we want to check for overlap.

targetCohortId vector of cohort definition ids to include.

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.

targetStartDate

date of reference in cohort table, either for start (in overlap) or on its own (for

incidence).

targetEndDate date of reference in cohort table, either for end (overlap) or NULL (if incidence).

window window to consider events of.

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with overlap information.

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addCohortIntersectFlag(
     targetCohortTable = "cohort2"
   )
mockDisconnect(cdm = cdm)
```

addCohortName

Add cohort name for each cohort_definition_id

Description

Add cohort name for each cohort_definition_id

Usage

```
addCohortName(cohort)
```

Arguments

cohort

cohort to which add the cohort name

Value

cohort with an extra column with the cohort names

Examples

```
library(PatientProfiles)

cdm <- mockPatientProfiles()
cdm$cohort1 |>
  addCohortName()
```

addConceptIntersectCount

It creates column to indicate the count overlap information between a table and a concept

Description

It creates column to indicate the count overlap information between a table and a concept

Usage

```
addConceptIntersectCount(
    x,
    conceptSet,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
```

```
targetStartDate = "event_start_date",
targetEndDate = "event_end_date",
inObservation = TRUE,
nameStyle = "{concept_name}_{window_name}",
name = NULL
)
```

Arguments

x Table with individuals in the cdm.

conceptSet Concept set list.

indexDate Variable in x that contains the date to compute the intersection.

censorDate whether to censor overlap events at a date column of x

window window to consider events in.

targetStartDate

Event start date to use for the intersection.

inObservation If TRUE only records inside an observation period will be considered.

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with overlap information

```
library(PatientProfiles)
cdm <- mockPatientProfiles()</pre>
concept <- dplyr::tibble(</pre>
 concept_id = c(1125315),
 domain_id = "Drug",
 vocabulary_id = NA_character_,
 concept_class_id = "Ingredient",
 standard_concept = "S",
 concept_code = NA_character_,
 valid_start_date = as.Date("1900-01-01"),
 valid_end_date = as.Date("2099-01-01"),
 invalid_reason = NA_character_
) |>
 dplyr::mutate(concept_name = paste0("concept: ", .data$concept_id))
cdm <- CDMConnector::insertTable(cdm, "concept", concept)</pre>
cdm$cohort1 |>
 addConceptIntersectCount(conceptSet = list("acetaminophen" = 1125315))
mockDisconnect(cdm = cdm)
```

addConceptIntersectDate

It creates column to indicate the date overlap information between a table and a concept

Description

It creates column to indicate the date overlap information between a table and a concept

Usage

```
addConceptIntersectDate(
    x,
    conceptSet,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
    targetDate = "event_start_date",
    order = "first",
    inObservation = TRUE,
    nameStyle = "{concept_name}_{window_name}",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

conceptSet Concept set list.

indexDate Variable in x that contains the date to compute the intersection.

censorDate whether to censor overlap events at a date column of x

window window to consider events in.

targetDate Event date to use for the intersection.

order last or first date to use for date/days calculations.

inObservation If TRUE only records inside an observation period will be considered.

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with overlap information

Examples

```
library(PatientProfiles)
cdm <- mockPatientProfiles()</pre>
concept <- dplyr::tibble(</pre>
  concept_id = c(1125315),
  domain_id = "Drug",
  vocabulary_id = NA_character_,
  concept_class_id = "Ingredient",
  standard_concept = "S",
  concept_code = NA_character_,
  valid_start_date = as.Date("1900-01-01"),
  valid_end_date = as.Date("2099-01-01"),
  invalid_reason = NA_character_
) |>
  dplyr::mutate(concept_name = paste0("concept: ", .data$concept_id))
cdm <- CDMConnector::insertTable(cdm, "concept", concept)</pre>
cdm$cohort1 |>
  addConceptIntersectDate(conceptSet = list("acetaminophen" = 1125315))
mockDisconnect(cdm = cdm)
```

addConceptIntersectDays

It creates column to indicate the days of difference from an index date to a concept

Description

It creates column to indicate the days of difference from an index date to a concept

Usage

```
addConceptIntersectDays(
    x,
    conceptSet,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
    targetDate = "event_start_date",
    order = "first",
    inObservation = TRUE,
    nameStyle = "{concept_name}_{window_name}",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

conceptSet Concept set list.

indexDate Variable in x that contains the date to compute the intersection.

censorDate whether to censor overlap events at a date column of x

window window to consider events in.

targetDate Event date to use for the intersection.

order last or first date to use for date/days calculations.

in Observation If TRUE only records inside an observation period will be considered.

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with overlap information

```
library(PatientProfiles)
cdm <- mockPatientProfiles()</pre>
concept <- dplyr::tibble(</pre>
 concept_id = c(1125315),
 domain_id = "Drug",
 vocabulary_id = NA_character_,
 concept_class_id = "Ingredient",
 standard_concept = "S",
 concept_code = NA_character_,
 valid_start_date = as.Date("1900-01-01"),
 valid_end_date = as.Date("2099-01-01"),
 invalid_reason = NA_character_
 dplyr::mutate(concept_name = paste0("concept: ", .data$concept_id))
cdm <- CDMConnector::insertTable(cdm, "concept", concept)</pre>
cdm$cohort1 |>
 addConceptIntersectDays(conceptSet = list("acetaminophen" = 1125315))
mockDisconnect(cdm = cdm)
```

```
addConceptIntersectFlag
```

It creates column to indicate the flag overlap information between a table and a concept

Description

It creates column to indicate the flag overlap information between a table and a concept

Usage

```
addConceptIntersectFlag(
    x,
    conceptSet,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
    targetStartDate = "event_start_date",
    targetEndDate = "event_end_date",
    inObservation = TRUE,
    nameStyle = "{concept_name}_{window_name}",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

conceptSet Concept set list.

indexDate Variable in x that contains the date to compute the intersection.

censorDate whether to censor overlap events at a date column of x

window window to consider events in.

targetStartDate

Event start date to use for the intersection.

in Observation If TRUE only records inside an observation period will be considered.

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with overlap information

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Examples

```
library(PatientProfiles)
cdm <- mockPatientProfiles()</pre>
concept <- dplyr::tibble(</pre>
 concept_id = c(1125315),
 domain_id = "Drug",
 vocabulary_id = NA_character_,
 concept_class_id = "Ingredient",
 standard_concept = "S",
 concept_code = NA_character_,
 valid_start_date = as.Date("1900-01-01"),
 valid_end_date = as.Date("2099-01-01"),
 invalid_reason = NA_character_
) |>
 dplyr::mutate(concept_name = paste0("concept: ", .data$concept_id))
cdm <- CDMConnector::insertTable(cdm, "concept", concept)</pre>
cdm$cohort1 |>
 addConceptIntersectFlag(conceptSet = list("acetaminophen" = 1125315))
mockDisconnect(cdm = cdm)
```

addDateOfBirth

Add a column with the individual birth date

Description

Add a column with the individual birth date

Usage

```
addDateOfBirth(
    x,
    dateOfBirthName = "date_of_birth",
    missingDay = 1,
    missingMonth = 1,
    imposeDay = FALSE,
    imposeMonth = FALSE,
    name = NULL
)
```

Arguments

x Table in the cdm that contains 'person_id' or 'subject_id'. dateOfBirthName

Name of the column to be added with the date of birth.

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missingDay	Day of the individuals with no or imposed day of birth.
missingMonth	Month of the individuals with no or imposed month of birth.
imposeDay	Whether to impose day of birth.
imposeMonth	Whether to impose month of birth.
name	Name of the new table, if NULL a temporary table is returned.

Value

The function returns the table x with an extra column that contains the date of birth.

Examples

```
library(PatientProfiles)
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addDateOfBirth()

mockDisconnect(cdm = cdm)
```

addDateOfBirthQuery

Query to add a column with the individual birth date

Description

'r lifecycle::badge("experimental")' Same as 'addDateOfBirth()', except query is not computed to a table.

Usage

```
addDateOfBirthQuery(
   x,
   dateOfBirthName = "date_of_birth",
   missingDay = 1,
   missingMonth = 1,
   imposeDay = FALSE,
   imposeMonth = FALSE
)
```

Arguments

```
x Table in the cdm that contains 'person_id' or 'subject_id'.

dateOfBirthName

Name of the column to be added with the date of birth.

missingDay

Day of the individuals with no or imposed day of birth.
```

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missingMonth Month of the individuals with no or imposed month of birth.

imposeDay Whether to impose day of birth.

imposeMonth Whether to impose month of birth.

Value

The function returns the table x with an extra column that contains the date of birth.

Examples

```
library(PatientProfiles)
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addDateOfBirthQuery()

mockDisconnect(cdm = cdm)
```

addDeathDate

Add date of death for individuals. Only death within the same observation period than 'indexDate' will be observed.

Description

Add date of death for individuals. Only death within the same observation period than 'indexDate' will be observed.

Usage

```
addDeathDate(
   x,
   indexDate = "cohort_start_date",
   censorDate = NULL,
   window = c(0, Inf),
   deathDateName = "date_of_death",
   name = NULL
)
```

Arguments

Table with individuals in the cdm.

indexDate Variable in x that contains the window origin.

censorDate Name of a column to stop followup.
window window to consider events over.
deathDateName name of the new column to be added.

name Name of the new table, if NULL a temporary table is returned.

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Value

table x with the added column with death information added.

Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addDeathDate()

mockDisconnect(cdm = cdm)
```

addDeathDays

Add days to death for individuals. Only death within the same observation period than 'indexDate' will be observed.

Description

Add days to death for individuals. Only death within the same observation period than 'indexDate' will be observed.

Usage

```
addDeathDays(
    x,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = c(0, Inf),
    deathDaysName = "days_to_death",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

indexDate Variable in x that contains the window origin.

censorDate Name of a column to stop followup.
window window to consider events over.
deathDaysName name of the new column to be added.

name Name of the new table, if NULL a temporary table is returned.

Value

table x with the added column with death information added.

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Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addDeathDays()

mockDisconnect(cdm = cdm)
```

addDeathFlag

Add flag for death for individuals. Only death within the same observation period than 'indexDate' will be observed.

Description

Add flag for death for individuals. Only death within the same observation period than 'indexDate' will be observed.

Usage

```
addDeathFlag(
    x,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = c(0, Inf),
    deathFlagName = "death",
    name = NULL
)
```

Arguments

Table with individuals in the cdm.

indexDate Variable in x that contains the window origin.

censorDate Name of a column to stop followup. window window to consider events over.

deathFlagName name of the new column to be added.

name Name of the new table, if NULL a temporary table is returned.

Value

table x with the added column with death information added.

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Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addDeathFlag()

mockDisconnect(cdm = cdm)
```

 ${\tt addDemographics}$

Compute demographic characteristics at a certain date

Description

Compute demographic characteristics at a certain date

Usage

```
addDemographics(
  indexDate = "cohort_start_date",
  age = TRUE,
  ageName = "age",
  ageMissingMonth = 1,
  ageMissingDay = 1,
  ageImposeMonth = FALSE,
  ageImposeDay = FALSE,
  ageGroup = NULL,
 missingAgeGroupValue = "None",
  sex = TRUE,
  sexName = "sex",
 missingSexValue = "None",
  priorObservation = TRUE,
  priorObservationName = "prior_observation",
 priorObservationType = "days",
  futureObservation = TRUE,
  futureObservationName = "future_observation",
  futureObservationType = "days",
  dateOfBirth = FALSE,
  dateOfBirthName = "date_of_birth",
  name = NULL
)
```

Arguments

x Table with individuals in the cdm.

24 addDemographics

indexDate Variable in x that contains the date to compute the demographics characteristics.

age TRUE or FALSE. If TRUE, age will be calculated relative to indexDate.

ageName Age variable name.

ageMissingMonth

Month of the year assigned to individuals with missing month of birth.

ageMissingDay day of the month assigned to individuals with missing day of birth.

ageImposeMonth TRUE or FALSE. Whether the month of the date of birth will be considered as

missing for all the individuals.

ageImposeDay TRUE or FALSE. Whether the day of the date of birth will be considered as

missing for all the individuals.

ageGroup if not NULL, a list of ageGroup vectors.

missingAgeGroupValue

Value to include if missing age.

sex TRUE or FALSE. If TRUE, sex will be identified.

sexName Sex variable name.

missingSexValue

Value to include if missing sex.

priorObservation

TRUE or FALSE. If TRUE, days of between the start of the current observation

period and the indexDate will be calculated.

priorObservationName

Prior observation variable name.

priorObservationType

Whether to return a "date" or the number of "days".

futureObservation

TRUE or FALSE. If TRUE, days between the indexDate and the end of the

current observation period will be calculated.

futureObservationName

Future observation variable name.

futureObservationType

Whether to return a "date" or the number of "days".

dateOfBirth TRUE or FALSE, if true the date of birth will be return.

dateOfBirthName

dateOfBirth column name.

name Name of the new table, if NULL a temporary table is returned.

Value

cohort table with the added demographic information columns.

Examples

```
library(PatientProfiles)
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addDemographics()

mockDisconnect(cdm = cdm)
```

addDemographicsQuery Query to add demographic characteristics at a certain date

Description

'r lifecycle::badge("experimental")' Same as 'addDemographics()', except query is not computed to a table.

Usage

```
addDemographicsQuery(
  indexDate = "cohort_start_date",
  age = TRUE,
  ageName = "age",
  ageMissingMonth = 1,
  ageMissingDay = 1,
  ageImposeMonth = FALSE,
  ageImposeDay = FALSE,
  ageGroup = NULL,
 missingAgeGroupValue = "None",
  sex = TRUE,
  sexName = "sex",
 missingSexValue = "None",
  priorObservation = TRUE,
 priorObservationName = "prior_observation",
  priorObservationType = "days",
  futureObservation = TRUE,
  futureObservationName = "future_observation",
  futureObservationType = "days",
  dateOfBirth = FALSE,
  dateOfBirthName = "date_of_birth"
)
```

Arguments

x Table with individuals in the cdm.

indexDate Variable in x that contains the date to compute the demographics characteristics.

age TRUE or FALSE. If TRUE, age will be calculated relative to indexDate.

ageName Age variable name.

ageMissingMonth

Month of the year assigned to individuals with missing month of birth.

ageMissingDay day of the month assigned to individuals with missing day of birth.

ageImposeMonth TRUE or FALSE. Whether the month of the date of birth will be considered as

missing for all the individuals.

ageImposeDay TRUE or FALSE. Whether the day of the date of birth will be considered as

missing for all the individuals.

ageGroup if not NULL, a list of ageGroup vectors.

missingAgeGroupValue

Value to include if missing age.

sex TRUE or FALSE. If TRUE, sex will be identified.

sexName Sex variable name.

missingSexValue

Value to include if missing sex.

priorObservation

TRUE or FALSE. If TRUE, days of between the start of the current observation

period and the indexDate will be calculated.

priorObservationName

Prior observation variable name.

priorObservationType

Whether to return a "date" or the number of "days".

futureObservation

TRUE or FALSE. If TRUE, days between the indexDate and the end of the

current observation period will be calculated.

futureObservationName

Future observation variable name.

 $future {\tt Observation Type}$

Whether to return a "date" or the number of "days".

dateOfBirth TRUE or FALSE, if true the date of birth will be return.

dateOfBirthName

dateOfBirth column name.

Value

cohort table with the added demographic information columns.

addFutureObservation 27

Examples

```
library(PatientProfiles)
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addDemographicsQuery()

mockDisconnect(cdm = cdm)
```

addFutureObservation

Compute the number of days till the end of the observation period at a certain date

Description

Compute the number of days till the end of the observation period at a certain date

Usage

```
addFutureObservation(
    x,
    indexDate = "cohort_start_date",
    futureObservationName = "future_observation",
    futureObservationType = "days",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

indexDate Variable in x that contains the date to compute the future observation.

futureObservationName

name of the new column to be added.

futureObservationType

Whether to return a "date" or the number of "days".

name Name of the new table, if NULL a temporary table is returned.

Value

cohort table with added column containing future observation of the individuals.

Examples

```
cdm <- mockPatientProfiles()
cdm$cohort1 |>
  addFutureObservation()
mockDisconnect(cdm = cdm)
```

addFutureObservationQuery

Query to add the number of days till the end of the observation period at a certain date

Description

'r lifecycle::badge("experimental")' Same as 'addFutureObservation()', except query is not computed to a table.

Usage

```
addFutureObservationQuery(
    x,
    indexDate = "cohort_start_date",
    futureObservationName = "future_observation",
    futureObservationType = "days"
)
```

Arguments

Table with individuals in the cdm.

indexDate Variable in x that contains the date to compute the future observation.

futureObservationName

name of the new column to be added.

futureObservationType

Whether to return a "date" or the number of "days".

Value

cohort table with added column containing future observation of the individuals.

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
  addFutureObservationQuery()
```

addInObservation 29

```
mockDisconnect(cdm = cdm)
```

addInObservation

Indicate if a certain record is within the observation period

Description

Indicate if a certain record is within the observation period

Usage

```
addInObservation(
    x,
    indexDate = "cohort_start_date",
    window = c(0, 0),
    completeInterval = FALSE,
    nameStyle = "in_observation",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

indexDate Variable in x that contains the date to compute the observation flag.

window window to consider events of.

completeInterval

If the individuals are in observation for the full window.

nameStyle Name of the new columns to create, it must contain "window_name" if multiple

windows are provided.

name Name of the new table, if NULL a temporary table is returned.

Value

cohort table with the added binary column assessing inObservation.

```
cdm <- mockPatientProfiles()
cdm$cohort1 |>
   addInObservation()
mockDisconnect(cdm = cdm)
```

 ${\it add} \hbox{\tt InObservationQuery} \ \ {\it Query to add a new column to indicate if a certain record is within the} \\ observation period$

Description

'r lifecycle::badge("experimental")' Same as 'addInObservation()', except query is not computed to a table.

Usage

```
addInObservationQuery(
    x,
    indexDate = "cohort_start_date",
    window = c(0, 0),
    completeInterval = FALSE,
    nameStyle = "in_observation"
)
```

Arguments

x Table with individuals in the cdm.

indexDate Variable in x that contains the date to compute the observation flag.

window window to consider events of.

completeInterval

If the individuals are in observation for the full window.

nameStyle Name of the new columns to create, it must contain "window_name" if multiple

windows are provided.

Value

cohort table with the added binary column assessing inObservation.

```
cdm <- mockPatientProfiles()
cdm$cohort1 |>
   addInObservationQuery()
mockDisconnect(cdm = cdm)
```

addObservationPeriodId 31

```
addObservationPeriodId
```

Add the ordinal number of the observation period associated that a given date is in.

Description

Add the ordinal number of the observation period associated that a given date is in.

Usage

```
addObservationPeriodId(
    x,
    indexDate = "cohort_start_date",
    nameObservationPeriodId = "observation_period_id",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

indexDate Variable in x that contains the date to compute the observation flag.

nameObservationPeriodId

Name of the new colum.

name Name of the new table, if NULL a temporary table is returned.

Value

Table with the current observation period id added.

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addObservationPeriodId()

mockDisconnect(cdm = cdm)
```

```
addObservationPeriodIdQuery
```

Add the ordinal number of the observation period associated that a given date is in. Result is not computed, only query is added.

Description

Add the ordinal number of the observation period associated that a given date is in. Result is not computed, only query is added.

Usage

```
addObservationPeriodIdQuery(
    x,
    indexDate = "cohort_start_date",
    nameObservationPeriodId = "observation_period_id"
)
```

Arguments

```
Table with individuals in the cdm.
```

indexDate Variable in x that contains the date to compute the observation flag.

nameObservationPeriodId

Name of the new colum.

Value

Table with the current observation period id added.

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addObservationPeriodIdQuery()

mockDisconnect(cdm = cdm)
```

addPriorObservation 33

addPriorObservation	Compute the number of days of prior observation in the current obser-
	vation period at a certain date

Description

Compute the number of days of prior observation in the current observation period at a certain date

Usage

```
addPriorObservation(
    x,
    indexDate = "cohort_start_date",
    priorObservationName = "prior_observation",
    priorObservationType = "days",
    name = NULL
)
```

Arguments

Value

cohort table with added column containing prior observation of the individuals.

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addPriorObservation()

mockDisconnect(cdm = cdm)
```

addPriorObservationQuery

Query to add the number of days of prior observation in the current observation period at a certain date

Description

'r lifecycle::badge("experimental") 'Same as 'addPriorObservation()', except query is not computed to a table.

Usage

```
addPriorObservationQuery(
    x,
    indexDate = "cohort_start_date",
    priorObservationName = "prior_observation",
    priorObservationType = "days"
)
```

Arguments

Value

cohort table with added column containing prior observation of the individuals.

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addPriorObservationQuery()

mockDisconnect(cdm = cdm)
```

addSex 35

 addSex

Compute the sex of the individuals

Description

Compute the sex of the individuals

Usage

```
addSex(x, sexName = "sex", missingSexValue = "None", name = NULL)
```

Arguments

x Table with individuals in the cdm.

sexName name of the new column to be added.

 ${\tt missingSexValue}$

Value to include if missing sex.

name Name of the new table, if NULL a temporary table is returned.

Value

table x with the added column with sex information.

Examples

```
cdm <- mockPatientProfiles()
cdm$cohort1 |>
   addSex()
mockDisconnect(cdm = cdm)
```

addSexQuery

Query to add the sex of the individuals

Description

'r lifecycle::badge("experimental")' Same as 'addSex()', except query is not computed to a table.

Usage

```
addSexQuery(x, sexName = "sex", missingSexValue = "None")
```

36 addTableIntersectCount

Arguments

```
x Table with individuals in the cdm.

sexName name of the new column to be added.

missingSexValue

Value to include if missing sex.
```

Value

table x with the added column with sex information.

Examples

```
cdm <- mockPatientProfiles()
cdm$cohort1 |>
  addSexQuery()
mockDisconnect(cdm = cdm)
```

addTableIntersectCount

Compute number of intersect with an omop table.

Description

Compute number of intersect with an omop table.

Usage

```
addTableIntersectCount(
    x,
    tableName,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
    targetStartDate = startDateColumn(tableName),
    targetEndDate = endDateColumn(tableName),
    nameStyle = "{table_name}_{window_name}",
    name = NULL
)
```

addTableIntersectDate 37

Arguments

x Table with individuals in the cdm.

tableName Name of the table to intersect with. Options: visit_occurrence, condition_occurrence,

drug_exposure, procedure_occurrence, device_exposure, measurement, obser-

vation, drug_era, condition_era, specimen, episode.

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.

window window to consider events in.

targetStartDate

Column name with start date for comparison.

targetEndDate Column name with end date for comparison.

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with intersect information.

Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addTableIntersectCount(tableName = "visit_occurrence")

mockDisconnect(cdm = cdm)
```

addTableIntersectDate Compute date of intersect with an omop table.

Description

Compute date of intersect with an omop table.

Usage

```
addTableIntersectDate(
    x,
    tableName,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
    targetDate = startDateColumn(tableName),
```

```
order = "first",
nameStyle = "{table_name}_{window_name}",
name = NULL
)
```

Arguments

x Table with individuals in the cdm.

tableName Name of the table to intersect with. Options: visit_occurrence, condition_occurrence,

drug_exposure, procedure_occurrence, device_exposure, measurement, obser-

vation, drug_era, condition_era, specimen, episode.

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.

window window to consider events in.

targetDate Target date in tableName.

order which record is considered in case of multiple records (only required for date

and days options).

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with intersect information.

Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addTableIntersectDate(tableName = "visit_occurrence")

mockDisconnect(cdm = cdm)
```

addTableIntersectDays Compute time to intersect with an omop table.

Description

Compute time to intersect with an omop table.

addTableIntersectDays 39

Usage

```
addTableIntersectDays(
    x,
    tableName,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
    targetDate = startDateColumn(tableName),
    order = "first",
    nameStyle = "{table_name}_{window_name}",
    name = NULL
)
```

Arguments

x Table with individuals in the cdm.

tableName Name of the table to intersect with. Options: visit_occurrence, condition_occurrence,

drug_exposure, procedure_occurrence, device_exposure, measurement, obser-

vation, drug_era, condition_era, specimen, episode.

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.

window window to consider events in.

targetDate Target date in tableName.

order which record is considered in case of multiple records (only required for date

and days options).

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with intersect information.

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addTableIntersectDays(tableName = "visit_occurrence")

mockDisconnect(cdm = cdm)
```

40 addTableIntersectField

addTableIntersectField

Intersecting the cohort with columns of an OMOP table of user's choice. It will add an extra column to the cohort, indicating the intersected entries with the target columns in a window of the user's choice.

Description

Intersecting the cohort with columns of an OMOP table of user's choice. It will add an extra column to the cohort, indicating the intersected entries with the target columns in a window of the user's choice.

Usage

```
addTableIntersectField(
    x,
    tableName,
    field,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
    targetDate = startDateColumn(tableName),
    order = "first",
    nameStyle = "{table_name}_{extra_value}_{window_name}",
    name = NULL
)
```

Arguments

Х	Table with individuals in the cdm.
tableName	Name of the table to intersect with. Options: visit_occurrence, condition_occurrence, drug_exposure, procedure_occurrence, device_exposure, measurement, observation, drug_era, condition_era, specimen, episode.
field	The columns from the table in tableName to intersect over. For example, if the user uses visit_occurrence in tableName then for field the possible options include visit_occurrence_id, visit_concept_id, visit_type_concept_id.
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.
window	window to consider events in when intersecting with the chosen column.
targetDate	The dates in the target columns in tableName that the user may want to restrict to.
order	which record is considered in case of multiple records (only required for date and days options).
nameStyle	naming of the added column or columns, should include required parameters.
name	Name of the new table, if NULL a temporary table is returned.

addTableIntersectFlag 41

Value

table with added columns with intersect information.

Examples

```
cdm <- mockPatientProfiles()
cdm$cohort1 |>
  addTableIntersectField(
    tableName = "visit_occurrence",
    field = "visit_concept_id",
    order = "last",
    window = c(-Inf, -1)
  )
mockDisconnect(cdm = cdm)
```

addTableIntersectFlag Compute a flag intersect with an omop table.

Description

Compute a flag intersect with an omop table.

Usage

```
addTableIntersectFlag(
    x,
    tableName,
    indexDate = "cohort_start_date",
    censorDate = NULL,
    window = list(c(0, Inf)),
    targetStartDate = startDateColumn(tableName),
    targetEndDate = endDateColumn(tableName),
    nameStyle = "{table_name}_{window_name}",
    name = NULL
)
```

Arguments

X	Table with individuals in the cdm.
tableName	Name of the table to intersect with. Options: visit_occurrence, condition_occurrence, drug_exposure, procedure_occurrence, device_exposure, measurement, observation, drug_era, condition_era, specimen, episode.
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.
window	window to consider events in.

42 availableEstimates

targetStartDate

Column name with start date for comparison.

targetEndDate Column name with end date for comparison.

nameStyle naming of the added column or columns, should include required parameters.

name Name of the new table, if NULL a temporary table is returned.

Value

table with added columns with intersect information.

Examples

```
cdm <- mockPatientProfiles()

cdm$cohort1 |>
   addTableIntersectFlag(tableName = "visit_occurrence")

mockDisconnect(cdm = cdm)
```

availableEstimates

Show the available estimates that can be used for the different variable_type supported.

Description

Show the available estimates that can be used for the different variable_type supported.

Usage

```
availableEstimates(variableType = NULL, fullQuantiles = FALSE)
```

Arguments

variableType A set of variable types.

fullQuantiles Whether to display the exact quantiles that can be computed or only the qXX to

summarise all of them.

Value

A tibble with the available estimates.

endDateColumn 43

Examples

```
library(PatientProfiles)
availableEstimates()
availableEstimates("numeric")
availableEstimates(c("numeric", "categorical"))
```

endDateColumn

Get the name of the end date column for a certain table in the cdm

Description

Get the name of the end date column for a certain table in the cdm

Usage

```
endDateColumn(tableName)
```

Arguments

tableName

Name of the table.

Value

Name of the end date column in that table.

Examples

```
library(PatientProfiles)
endDateColumn("condition_occurrence")
```

mockDisconnect

Function to disconnect from the mock

Description

Function to disconnect from the mock

Usage

```
mockDisconnect(cdm)
```

Arguments

 cdm

A cdm_reference object.

44 mockPatientProfiles

mockPatientProfiles

It creates a mock database for testing PatientProfiles package

Description

It creates a mock database for testing PatientProfiles package

Usage

```
mockPatientProfiles(
  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 permisions.

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.

```
library(PatientProfiles)
library(CDMConnector)

cdm <- mockPatientProfiles()

mockDisconnect(cdm = cdm)</pre>
```

 $source {\tt ConceptIdColumn} \ \ \textit{Get the name of the source concept_id column for a certain table in} \\ the \textit{cdm}$

Description

Get the name of the source concept_id column for a certain table in the cdm

Usage

sourceConceptIdColumn(tableName)

Arguments

tableName

Name of the table.

Value

Name of the source_concept_id column in that table.

Examples

```
library(PatientProfiles)
sourceConceptIdColumn("condition_occurrence")
```

standardConceptIdColumn

Get the name of the standard concept_id column for a certain table in the cdm

Description

Get the name of the standard concept_id column for a certain table in the cdm

Usage

```
standardConceptIdColumn(tableName)
```

Arguments

tableName

Name of the table.

Value

Name of the concept_id column in that table.

46 summariseResult

Examples

```
library(PatientProfiles)
standardConceptIdColumn("condition_occurrence")
```

startDateColumn

Get the name of the start date column for a certain table in the cdm

Description

Get the name of the start date column for a certain table in the cdm

Usage

```
startDateColumn(tableName)
```

Arguments

tableName

Name of the table.

Value

Name of the start date column in that table.

Examples

```
library(PatientProfiles)
startDateColumn("condition_occurrence")
```

summariseResult

Summarise variables using a set of estimate functions. The output will be a formatted summarised_result object.

Description

Summarise variables using a set of estimate functions. The output will be a formatted summarised_result object.

summariseResult 47

Usage

```
summariseResult(
  table,
  group = list(),
  includeOverallGroup = FALSE,
  strata = list(),
  includeOverallStrata = TRUE,
  variables = NULL,
  estimates = c("min", "q25", "median", "q75", "max", "count", "percentage"),
  counts = TRUE
)
```

Arguments

table Table with different records.
group List of groups to be considered.

includeOverallGroup

TRUE or FALSE. If TRUE, results for an overall group will be reported when a

list of groups has been specified.

strata List of the stratifications within each group to be considered.

includeOverallStrata

TRUE or FALSE. If TRUE, results for an overall strata will be reported when a

list of strata has been specified.

variables Variables to summarise, it can be a list to point to different set of estimate names.

estimates Estimates to obtain, it can be a list to point to different set of variables.

counts Whether to compute number of records and number of subjects.

Value

A summarised_result object with the summarised data of interest.

```
library(PatientProfiles)
library(dplyr)

cdm <- mockPatientProfiles()
x <- cdm$cohort1 |>
   addDemographics() |>
   collect()
result <- summariseResult(x)
mockDisconnect(cdm = cdm)</pre>
```

48 variableTypes

variableTypes Classify the variables between 5 types: "numeric", "categorical", "binary", "date", or NA.

Description

Classify the variables between 5 types: "numeric", "categorical", "binary", "date", or NA.

Usage

```
variableTypes(table)
```

Arguments

table

Tibble.

Value

Tibble with the variables type and classification.

```
library(PatientProfiles)
x <- dplyr::tibble(
  person_id = c(1, 2),
  start_date = as.Date(c("2020-05-02", "2021-11-19")),
  asthma = c(0, 1)
)
variableTypes(x)</pre>
```

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