

# Package ‘PatientProfiles’

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**Type** Package

**Title** Identify Characteristics of Patients in the OMOP Common Data Model

**Version** 1.1.0

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**Description** Identify the characteristics of patients in data mapped to the Observational Medical Outcomes Partnership (OMOP) common data model.

**License** Apache License (>= 2)

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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.

**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**

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.

**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.

**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

**Examples**

```
library(PatientProfiles)

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

---

 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.

**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**

x	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 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.
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**

x	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.
sensorDate	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.
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 %>%
  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

**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**

<code>x</code>	Table with individuals in the cdm.
<code>targetCohortTable</code>	name of the cohort that we want to check for overlap.
<code>targetCohortId</code>	vector of cohort definition ids to include.
<code>indexDate</code>	Variable in <code>x</code> that contains the date to compute the intersection.
<code>censorDate</code>	whether to censor overlap events at a specific date or a column date of <code>x</code> .
<code>targetStartDate</code>	date of reference in cohort table, either for start (in overlap) or on its own (for incidence).
<code>targetEndDate</code>	date of reference in cohort table, either for end (overlap) or NULL (if incidence).
<code>window</code>	window to consider events of.
<code>nameStyle</code>	naming of the added column or columns, should include required parameters.
<code>name</code>	Name of the new table, if NULL a temporary table is returned.

**Value**

table with added columns with overlap information.

**Examples**

```
cdm <- mockPatientProfiles()

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

---

addCohortName	<i>Add cohort name for each cohort_definition_id</i>
---------------	--

---

**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",
    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.
sensorDate	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.
targetEndDate	Event end date to use for the intersection.
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()
concept <- dplyr::tibble(
  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$concept_id))
cdm <- CDMConnector::insertTable(cdm, "concept", concept)
result <- cdm$cohort1 %>%
  addConceptIntersectCount(
    conceptSet = list("acetaminophen" = 1125315)
  ) %>%
  dplyr::collect()
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",
  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.
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()
concept <- dplyr::tibble(
  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$concept_id))
cdm <- CDMConnector::insertTable(cdm, "concept", concept)
result <- cdm$cohort1 %>%
  addConceptIntersectDate(
    conceptSet = list("acetaminophen" = 1125315)
  ) %>%
  dplyr::collect()
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",
  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.

sensorDate	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.
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()
concept <- dplyr::tibble(
  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$concept_id))
cdm <- CDMConnector::insertTable(cdm, "concept", concept)
result <- cdm$cohort1 %>%
  addConceptIntersectDays(
    conceptSet = list("acetaminophen" = 1125315)
  ) %>%
  dplyr::collect()
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",
  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.
targetEndDate	Event end date to use for the intersection.
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()
concept <- dplyr::tibble(
  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$concept_id))
cdm <- CDMConnector::insertTable(cdm, "concept", concept)
result <- cdm$cohort1 %>%
```

```
addConceptIntersectFlag(  
  conceptSet = list("acetaminophen" = 1125315)  
) %>%  
dplyr::collect()  
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.
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.
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	<i>Add date of death for individuals. Only death within the same observation period than 'indexDate' will be observed.</i>
--------------	--

---

**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**

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.
deathDateName	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.

## Examples

```
cdm <- mockPatientProfiles()
cdm$cohort1 %>%
  addDeathDate()
mockDisconnect(cdm = cdm)
```

---

addDeathDays	<i>Add days to death for individuals. Only death within the same observation period than 'indexDate' will be observed.</i>
--------------	--

---

## 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.

**Examples**

```
cdm <- mockPatientProfiles()
cdm$cohort1 %>%
  addDeathDays()
mockDisconnect(cdm = cdm)
```

---

addDeathFlag	<i>Add flag for death for individuals. Only death within the same observation period than 'indexDate' will be observed.</i>
--------------	---

---

**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**

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.
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.

**Examples**

```
cdm <- mockPatientProfiles()
cdm$cohort1 %>%
  addDeathFlag()
mockDisconnect(cdm = cdm)
```

---

addDemographics	<i>Compute demographic characteristics at a certain date</i>
-----------------	--

---

**Description**

Compute demographic characteristics at a certain date

**Usage**

```
addDemographics(  
  x,  
  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.
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(
  x,
  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

<code>x</code>	Table with individuals in the cdm.
<code>indexDate</code>	Variable in <code>x</code> that contains the date to compute the demographics characteristics.
<code>age</code>	TRUE or FALSE. If TRUE, age will be calculated relative to <code>indexDate</code> .
<code>ageName</code>	Age variable name.
<code>ageMissingMonth</code>	Month of the year assigned to individuals with missing month of birth.
<code>ageMissingDay</code>	day of the month assigned to individuals with missing day of birth.
<code>ageImposeMonth</code>	TRUE or FALSE. Whether the month of the date of birth will be considered as missing for all the individuals.

<code>ageImposeDay</code>	TRUE or FALSE. Whether the day of the date of birth will be considered as missing for all the individuals.
<code>ageGroup</code>	if not NULL, a list of <code>ageGroup</code> vectors.
<code>missingAgeGroupValue</code>	Value to include if missing age.
<code>sex</code>	TRUE or FALSE. If TRUE, sex will be identified.
<code>sexName</code>	Sex variable name.
<code>missingSexValue</code>	Value to include if missing sex.
<code>priorObservation</code>	TRUE or FALSE. If TRUE, days of between the start of the current observation period and the <code>indexDate</code> will be calculated.
<code>priorObservationName</code>	Prior observation variable name.
<code>priorObservationType</code>	Whether to return a "date" or the number of "days".
<code>futureObservation</code>	TRUE or FALSE. If TRUE, days between the <code>indexDate</code> and the end of the current observation period will be calculated.
<code>futureObservationName</code>	Future observation variable name.
<code>futureObservationType</code>	Whether to return a "date" or the number of "days".
<code>dateOfBirth</code>	TRUE or FALSE, if true the date of birth will be return.
<code>dateOfBirthName</code>	<code>dateOfBirth</code> column name.

**Value**

cohort table with the added demographic information columns.

**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

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".

### Value

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

### Examples

```
cdm <- mockPatientProfiles()  
  
cdm$cohort1 %>%  
  addFutureObservationQuery()  
mockDisconnect(cdm = cdm)
```

---

addInObservation	<i>Indicate if a certain record is within the observation period</i>
------------------	--

---

**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.

**Examples**

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

---

addInObservationQuery *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.

### Examples

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

---

addPriorObservation	<i>Compute the number of days of prior observation in the current observation period at a certain date</i>
---------------------	--

---

### 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

x	Table with individuals in the cdm.
indexDate	Variable in x that contains the date to compute the prior observation.
priorObservationName	name of the new column to be added.
priorObservationType	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 prior observation of the individuals.

### Examples

```
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

x                    Table with individuals in the cdm.  
indexDate           Variable in x that contains the date to compute the prior observation.  
priorObservationName  
                     name of the new column to be added.  
priorObservationType  
                     Whether to return a "date" or the number of "days".

## Value

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

## Examples

```
cdm <- mockPatientProfiles()  
  
cdm$cohort1 %>%  
  addPriorObservationQuery()  
mockDisconnect(cdm = cdm)
```



---

addSex	<i>Compute the sex of the individuals</i>
--------	---

---

**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.
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	<i>Query to add the sex of the individuals</i>
-------------	--

---

**Description**

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

**Usage**

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

**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
)
```

**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.

indexDate	Variable in x that contains the date to compute the intersection.
sensorDate	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",
  sensorDate = 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, observation, drug_era, condition_era, specimen.
indexDate	Variable in x that contains the date to compute the intersection.
sensorDate	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.

**Usage**

```
addTableIntersectDays(
  x,
  tableName,
  indexDate = "cohort_start_date",
  sensorDate = 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, observation, drug_era, condition_era, specimen.
indexDate	Variable in x that contains the date to compute the intersection.
sensorDate	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 %>%
  addTableIntersectDays(tableName = "visit_occurrence")

mockDisconnect(cdm = cdm)

```

---

#### 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**

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.
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.

**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.
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 %>%
  addTableIntersectFlag(tableName = "visit_occurrence")
mockDisconnect(cdm = cdm)
```

---

availableEstimates	<i>Show the available estimates that can be used for the different variable_type supported.</i>
--------------------	---

---

## 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.

## Examples

```
library(PatientProfiles)

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



---

endDateColumn	<i>Get the name of the end date column for a certain table in the cdm</i>
---------------	---

---

**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	<i>Function to disconnect from the mock</i>
----------------	---

---

**Description**

Function to disconnect from the mock

**Usage**

```
mockDisconnect(cdm)
```

**Arguments**

cdm	A cdm_reference object.
-----	-------------------------

---

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 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(PatientProfiles)  
library(CDMConnector)  
  
cdm <- mockPatientProfiles()  
  
mockDisconnect(cdm = cdm)
```

---

sourceConceptIdColumn *Get the name of the source concept\_id column for a certain table in the 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.

**Examples**

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

---

startDateColumn	<i>Get the name of the start date column for a certain table in the cdm</i>
-----------------	---

---

**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	<i>Summarise variables using a set of estimate functions. The output will be a formatted summarised_result object.</i>
-----------------	--

---

**Description**

Summarise variables using a set of estimate functions. The output will be a formatted summarised\_result object.

**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**

<code>table</code>	Table with different records.
<code>group</code>	List of groups to be considered.
<code>includeOverallGroup</code>	TRUE or FALSE. If TRUE, results for an overall group will be reported when a list of groups has been specified.
<code>strata</code>	List of the stratifications within each group to be considered.
<code>includeOverallStrata</code>	TRUE or FALSE. If TRUE, results for an overall strata will be reported when a list of strata has been specified.
<code>variables</code>	Variables to summarise, it can be a list to point to different set of estimate names.
<code>estimates</code>	Estimates to obtain, it can be a list to point to different set of variables.
<code>counts</code>	Whether to compute number of records and number of subjects.

**Value**

A summarised\_result object with the summarised data of interest.

**Examples**

```
library(PatientProfiles)
library(dplyr)

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

---

variableTypes	<i>Classify the variables between 5 types: "numeric", "categorical", "binary", "date", or NA.</i>
---------------	---

---

**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.

**Examples**

```
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)
```

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