

Package: jenner (via r-universe)

October 8, 2026

Title Internal Montagu Helpers

Version 0.0.27

Description Helpers for Montagu.

License MIT + file LICENSE

Imports DBI, RcppRoll, RPostgres, vault (>= 0.2.0), whisker, yaml

RoxygenNote 7.3.2

Suggests RSQLite, testthat (>= 1.0.2)

Encoding UTF-8

Config/pak/sysreqs libssl-dev libpq-dev

Repository <https://vimc.r-universe.dev>

Date/Publication 2025-06-11 11:13:52 UTC

RemoteUrl <https://github.com/vimc/jenner>

RemoteRef master

RemoteSha 6c514b54dd54332f4fb16245680e2619c23bd3b6

Contents

admin_set_active_touchstone	2
calculate_dalys	2
create_touchstone	3
database_connection	4
fix_coverage_fvps	5
impact_calculation	6
modified_update_calculate	6
modified_update_summary_output	7
mu_scale	7
mu_year_introduction	8
prepare_recipe	8
project_coverage	9

Index	10
--------------	-----------

admin_set_active_touchstone
Set the active touchstone

Description

Set the active touchstone

Usage

```
admin_set_active_touchstone(con, touchstone_id, dry_run = TRUE)
```

Arguments

con	Database connection (will require write access to the database)
touchstone_id	Touchstone id to set as "open"
dry_run	Don't commit the transaction - just test if it would work

calculate_dalys *DALYs calculation*

Description

Calculate dalys

Usage

```
calculate_dalys(
  con,
  touchstone_name,
  year_min = 2000,
  year_max = 2030,
  vimc_dalys_only = TRUE,
  modelling_group = NULL,
  stochastic_data = NULL,
  dalys_parameters = NULL,
  life_table = NULL
)

create_dalys_parameters(con, touchstone_name = "201710gavi", vimc_dalys_only)

create_dalys_life_table(
  con,
  touchstone_name = "201710gavi",
  year_min = 2000,
  year_max = 2030
)
```

Arguments

con	You can be readonly user to run this function. But if you need to import dalys for Ferrari, Li and LiST (201710gavi), you can use import user.
touchstone_name	touchstone for which dalys are calculated
year_min	minimal year
year_max	maximum year
vimc_dalys_only	set to be TRUE if we are only interested in Ferrari, Li and LiST (201710gavi)
modelling_group	This parameter makes the calculation more flexible, specify a vector of modelling_group(s) that you are interested in.
stochastic_data	If this is not NULL, then instead of querying the database for the burden estimate set, use the specified stochastic_data, which must be a data frame containing the columns "burden_estimate_set", "country", "year", "age", "burden_outcome" and "burden". The burden_estimate_set should refer to the central burden estimate set for that group, which daly parameters related to. "country" is the 3-character representation. "year" and "age" are trivial; "burden_outcome" is the integer code for the burden, for each line, and "burden" is the data value.
dalys_parameters	Leave as NULL, for single calls to calculate_dalys, but for many calls, for example stochastic runs, call create_dalys_parameters first, and pass the result as an argument here to speed things up.
life_table	Leave as NULL, for single calls to calculate_dalys, but for many calls, for example stochastic runs, call create_dalys_life_table first, and pass the result as an argument here to speed things up significantly.

create_touchstone	<i>Create a new touchstone</i>
-------------------	--------------------------------

Description

Create and import a new touchstone.

Usage

```
create_touchstone(
  con,
  dat,
  demography_from = NULL,
  path_meta = "meta",
  transaction = TRUE,
  dry_run = TRUE
)
```

Arguments

con	Database connection. You will need to be the vimc or import user (not readonly) to run this function.
dat	A data.frame of coverage data to import.
demography_from	Touchstone id to import demographic statistics from. This must currently be given, but in future we'll allow this to be imported from a csv
path_meta	Path that we look for various metadata files. Eventually we'll document what they look like.
transaction	Do in one transaction (logical scalar)
dry_run	Don't commit (just rollback the transaction after completion)

database_connection	<i>Connect to database</i>
---------------------	----------------------------

Description

Connect to database

Usage

```
database_connection(
  location = "science",
  user = "readonly",
  local_port = NULL,
  local_password_group = "science"
)
```

Arguments

location	One of "science", "production", "uat" or "localhost". Be <i>very</i> careful if using production
user	Username to connect as
local_port	Port (when running locally)
local_password_group	Password group (when running locally)

fix_coverage_fvps	<i>Impact Calculation (method 2)</i>
-------------------	--------------------------------------

Description

Provide age-specific coverage-un_pop-fvps

Usage

```
fix_coverage_fvps(
  con,
  touchstone_name = "201710gavi",
  year_min = 2000,
  year_max = 2100,
  pine = FALSE,
  write_table = TRUE,
  report_suspecious_coverage = FALSE,
  touchstone_pop = NULL,
  gavi_support_levels = c("with", "bestminus")
)
```

Arguments

con	Database connection. You will need to be readonlly user to run this function.
touchstone_name	Specify touchstone name only, not with specific version.
year_min	min year of vaccination
year_max	max year of vaccination
pine	this is for testthat. we only grab data for pine countries if true
write_table	If true, create a temporary table; otherwise return a dataframe
report_suspecious_coverage	switch on/off the reporting of suspecious coverage
touchstone_pop	population touchstone, this is for the modups where fvps are calculated using a coverage touchstone and a population touchstone
gavi_support_levels	specify gavi_support_levels that apply to the touchstone_name you are looking at

impact_calculation	<i>Impact Calculation (method 2)</i>
--------------------	--------------------------------------

Description

Calculate impact with method2 that allocate impact by fvps*impact_rate

Usage

```
impact_calculation(
  con,
  meta,
  year_min = 2000,
  year_max = 2030,
  routine_tot_rate_shape = "trace_cohort",
  method = "method2",
  age_max = 100
)
```

Arguments

con	Database connection. You will need to be readonly user to run this function.
meta	This is the metadata that goes into the calculation
year_min	minimal year of vaccination
year_max	maximal year year of vaccination
routine_tot_rate_shape	This parameter determines how we chop off the year-age matrix to calculate impact rates campaign is stratiforward, use all fvps and all burden estimates to calculate impact rate. So no need to specify. Becuase all impacts (years 2000-2100) are derived from campaigns between 2000 and 2030 (relaxed for Cholera). Routine is more complicated. We either trance birth cohort between 2000-2030 or trance all birth cohorts between 2000-2100.
method	impact calculation method - chose from method1 and method2 impact outcome can be provided as age specific if simplified=FALSE
age_max	maximum age considered, eg. age_max = 4 for under 5s

modified_update_calculate	<i>Do a modified update</i>
---------------------------	-----------------------------

Description

Do a modified update

Usage

modified_update_calculate(con, touchstone_name_mod, touchstone_use)

Arguments

con Database connection
touchstone_name_mod Name of the new modified touchstone that we are creating
touchstone_use Name of the touchstone that we are basing this off of

modified_update_summary_output	<i>Modified update summary output</i>
--------------------------------	---------------------------------------

Description

Modified update summary output

Usage

modified_update_summary_output(con, res, path_meta)

Arguments

con Database connection
res A modified update object (returned from modified_update_calculate)
path_meta Path to the metadata directory. In this directory the following files must exist: gavi_country_data.csv, tr_touchstone.csv, and years_output.csv. There is no validation done on these files and providing the wrong thing will break in interesting and unknown ways.

mu_scale	<i>Calculate updated impact</i>
----------	---------------------------------

Description

Calculate updated impact

Usage

mu_scale(name, d)

Arguments

name Impact type: deaths_averted or cases_averted
d Data: use impact_rate_tot (method 2)

mu_year_introduction	<i>Find year of introduction</i>
----------------------	----------------------------------

Description

Look for introduction year and add to summary output

Usage

```
mu_year_introduction(con, dat, dat_summary)
```

Arguments

con	Database connection
dat	Data: the list output from the modup
dat_summary	Data: the summary output from the modup

prepare_recipe	<i>Prepare impact recipe</i>
----------------	------------------------------

Description

Prepare impact calculation recipes

Usage

```
prepare_recipe(con, recipe = "impact.csv")
```

Arguments

con	Database connection. You will need to be readonlly user to run this function.
recipe	at the moment, it is a csv file. Once imported, recipe will be more flexible

project_coverage	<i>Project coverage</i>
------------------	-------------------------

Description

Project coverage

Usage

```
project_coverage(dat, year_project_from, year_from = 1980, year_to = 2100)
```

Arguments

dat	Data with columns...
year_project_from	
	This is the year that the projections start
year_from, year_to	
	Range of the actual coverage data that that you want.

Index

admin_set_active_touchstone, [2](#)

calculate_dalys, [2](#)

create_dalys_life_table
 ([calculate_dalys](#)), [2](#)

create_dalys_parameters
 ([calculate_dalys](#)), [2](#)

create_touchstone, [3](#)

database_connection, [4](#)

fix_coverage_fvps, [5](#)

impact_calculation, [6](#)

modified_update_calculate, [6](#)

modified_update_summary_output, [7](#)

mu_scale, [7](#)

mu_year_introduction, [8](#)

prepare_recipe, [8](#)

project_coverage, [9](#)