Package: countyhealthR (via r-universe)

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Type Package

Title Programmatic Access to County Health Rankings & Roadmaps Data

Version 0.1.5

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Description Provides a simple interface to pull County Health Rankings & Roadmaps (CHR&R) county-level health data and metadata directly from 'Zenodo' <doi:10.5281/zenodo.18157681>. Users can retrieve data for CHR&R release years 2010 through 2025. CHR&R data support research and decision-making to promote health equity and policies that help all communities thrive.

License GPL (>= 3)

Encoding UTF-8

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URL https://github.com/countyhealthrankings/countyhealthR

BugReports https://github.com/countyhealthrankings/countyhealthR/issues

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`get_chrr_county_data` *Get County-Level County Health Rankings & Roadmaps Data*

Description

Returns County Health Rankings & Roadmaps (CHR&R) measure data for a specified state and (optionally) county and release year. Data are retrieved from the Zenodo repository and include measure values and associated metadata.

Usage

```
get_chrr_county_data(
  state,
  county = NULL,
  release_year = NULL,
  refresh = FALSE,
  citation = TRUE,
  verbose = TRUE
)
```

Arguments

`state`	`Character`. Specifies the state. May be a full state name (e.g., `"Wisconsin"`), postal abbreviation (e.g., `"WI"`), or two-digit FIPS code (e.g., `"55"`).
`county`	`Character`. Specifies the county. May be a county name (e.g., `"Dane"`) or a three-digit county FIPS code (e.g., `"025"`). Matching is not case sensitive and ignores common suffixes such as "County," "Parish," "City," "Borough," or similar. If missing, `NA`, or `"000"`, state-level data are returned.
`release_year`	`Numeric`. Specifies the CHR&R release year. Defaults to the most recent available release year.
`refresh`	`Logical`. Indicates whether to force a fresh download from Zenodo even if cached data are available. Defaults to `FALSE`.
`citation`	`Logical`. If `TRUE` (default), prints the appropriate Zenodo DOI for the requested release year which is useful for citation. Set to `FALSE` to suppress DOI output.
`verbose`	`Logical`. If `TRUE` (default), additional information about the selected geography is displayed. Set to `FALSE` to return only the requested `data.frame`.

Details

If a county is specified, county-level data are returned. If the `county` argument is missing, `NA`, or `"000"`, state-level data are returned instead.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) containing CHR&R measure values for the specified geography and release year.

For county-level requests, the tibble includes one row per measure for the specified county and contains the following columns:

state_fips Character. Two-digit state FIPS code.

county_fips Character. Three-digit county FIPS code.

measure_id Character. Unique CHR&R measure identifier.

measure_name Character. Measure name.

description Character. Brief measure description.

raw_value Numeric. Reported measure value.

ci_low Numeric. Lower bound of confidence interval, if available.

ci_high Numeric. Upper bound of confidence interval, if available.

numerator Numeric. Measure numerator, if available.

denominator Numeric. Measure denominator, if available.

years_used Character. Years used in calculation of the measure.

compare_years_text Character. Text describing temporal comparison.

compare_states_text Character. Text describing state comparison.

For state-level requests, the structure is identical except that `county_fips` is not included.

The returned tibble represents the full set of CHR&R measures available for the specified geography and release year.

Examples

```
# County-level example
dane <- get_chrr_county_data("WI", "Dane", 2024)
head(dane)

# State-level example
wi <- get_chrr_county_data("WI", county = NULL, 2024)
head(wi)
```

`get_chrr_measure_data` *Retrieve County Health Rankings & Roadmaps measure data from 'Zenodo'*

Description

Downloads and filters County Health Rankings & Roadmaps (CHR&R) data directly from the 'Zenodo' archive (doi:10.5281/zenodo.18157681). Users provide the measure ID, geography type, and release year as inputs. The function returns data for the specified measure across the specified geography for the given release year. It mimics the style and behavior of `tidycensus::get_decennial()`.

Usage

```
get_chrr_measure_data(
  geography = c("county", "state", "national"),
  measure,
  release_year = NULL,
  refresh = FALSE,
  citation = TRUE,
  verbose = TRUE
)
```

Arguments

`geography`	A string specifying the level of geography to return. Options are: • `"county"` – returns all county-level estimates. • `"state"` – returns all state-level estimates (excluding national). • `"national"` – returns only national-level estimates (`state_fips == "00"`).
`measure`	Either: • A numeric `measure_id` (e.g., 21, 85, etc.), or • A character string matching a `measure_name` (case-insensitive). Use the `list_chrr_measures()` function to print all available `measure_ids` and `measure_names` for a given release year.
`release_year`	`Numeric`. Specifies the CHR&R release year to pull data. Defaults to the most recent release year.
`refresh`	`Logical`. If `TRUE`, forces re-download of data even if a cached version is available. Defaults to `FALSE`.
`citation`	`Logical`. If `TRUE` (default), prints the appropriate Zenodo DOI for the requested release year which is useful for citation. Set to `FALSE` to suppress DOI output.
`verbose`	`Logical`. If `TRUE` (default), additional information about the selected measure is displayed including the measure name and selected metadata fields. Set to `FALSE` to return only the requested `data.frame`.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) containing CHR&R data for the specified measure, geography, and release year.

The tibble contains one row per geographic unit and includes:

state_fips Character. Two-digit state FIPS code.

county_fips Character. Three-digit county FIPS code. Present only for county-level data.

raw_value Numeric. Reported measure value.

numerator Numeric. Measure numerator, if available.

denominator Numeric. Measure denominator, if available.

ci_low Numeric. Lower confidence interval bound, if available.

ci_high Numeric. Upper confidence interval bound, if available.

The returned tibble represents the full set of observations for the requested measure at the specified geographic level and release year.

Examples

```
# Get county-level data for measure 21 (high school graduation) in 2023
county_data <- get_chrr_measure_data(
                  geography = "county",
                  measure = 21,
                  release_year = 2023)

# Get state-level data for "Insufficient Sleep" in 2022
state_data <- get_chrr_measure_data(
                  geography = "state",
                  measure = "insufficient sleep",
                  release_year = 2022)

# Get national-level data for "Uninsured" in 2024
nat_data <- get_chrr_measure_data(
                  geography = "national",
                  measure = "uninsured",
                  release_year = 2024)
```

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get_chrr_measure_metadata

Get Metadata for a County Health Rankings & Roadmaps Measure

Description

Returns structured metadata for a County Health Rankings & Roadmaps (CHR&R) measure for a given release year. The metadata describes the measure's position within the CHR&R Model of Health, which has evolved over time: releases prior to 2025 follow the legacy model, while 2025 and later releases use the new model of health. Metadata is year-specific, reflecting the measure definitions and groupings used in that release.

Usage

```
get_chrr_measure_metadata(measure, release_year = NULL)
```

Arguments

measure	A character specifying the measure. Can be either a measure_id or measure_name.
release_year	A numeric specifying the release year for which to pull the metadata. Defaults to the most recent release year if NULL.

Value

A tibble (class tbl_df, tbl, data.frame) containing one row of metadata for the requested measure.

Columns include:

year Numeric. CHR&R release year.

measure_id Numeric. Unique identifier for the measure.

measure_name Character. Official name of the measure.

description Character. Text description of the measure definition.

years_used Character. Data years used in calculating the measure.

factor_name Character. Top-level grouping in the CHR&R model.

category_name Character. Category within factor.

focus_area_name Character. Focus area within category.

direction Numeric. Indicates score orientation: 1 = higher values are worse, -1 = higher values are better.

display_precision Numeric. Recommended number of decimal places for reporting values.

format_type Numeric. Suggested display format code: 0 = rate, 1 = percentage, 2 = dollars, 3 = ratio, other values reserved for internal codes.

compare_states_text Character. Notes about comparability across states.

compare_years_text Character. Notes about comparability across release years.

Examples

```
# Return metadata
md <- get_chrr_measure_metadata(21, 2024)
md$display_precision
md$format_type
md$direction
md$compare_states_text
```

`list_chrr_measures` *List available CHR&R measures for a given release year*

Description

Downloads metadata for a release year and returns measure identifiers, names, and descriptions.

Usage

```
list_chrr_measures(release_year = NULL)
```

Arguments

`release_year`	Numeric year corresponding to the year of CHR&R's annual data release. Defaults to the most recent release year if `NULL`.

Value

A tibble (class `tbl_df`) with one row per measure for the specified release year and the following columns:

measure_id Numeric. Unique identifier for the measure.

measure_name Character. Name of the measure.

description Character. Brief description of the measure.

Examples

```
measures <- list_chrr_measures(2023)
head(measures)
```

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