# Package 'directAgeStd'

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**Type** Package

**Title** Direct Age Standardisation with Confidence Intervals

**Version** 0.0.2

**Description** Provides tools to compute directly age-standardised rates using the 2013 European Standard Population. Includes variance estimation and 95% confidence intervals for population health applications. Functions are flexible to handle any grouping variable and age bands, allowing reproducible and automated analyses.

**License** MIT + file LICENSE

**Encoding** UTF-8

**RoxygenNote** 7.3.3

**LazyData** true

**Imports** dplyr, rlang, magrittr, stats

**Depends** R (>= 3.5)

**URL** https://github.com/JoeBlackford/directAgeStd/

**BugReports** https://github.com/JoeBlackford/directAgeStd/issues

**NeedsCompilation** no

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**Repository** CRAN

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## Contents

`direct_age_standardise` *Direct Age Standardisation with Confidence Intervals*

## Description

Computes directly age-standardised rates with 95% confidence intervals using the 2013 European Standard Population and Byar's method.

## Usage

```
direct_age_standardise(
  data,
  var,
  ageband,
  observed,
  population,
  multiplier = 1000
)
```

## Arguments

| | |
|---|---|
| `data` | Dataframe with observed values and population |
| `var` | One or more grouping variables (quoted or unquoted) |
| `ageband` | Column specifying age bands |
| `observed` | Column with observed counts |
| `population` | Column with denominator population |
| `multiplier` | Scale for rates (default = 1,000) |

## Value

A tibble with directly standardised rates and 95% confidence intervals

## Examples

```
example_data <- data.frame(
  variable = c("A", "A", "B", "B"),
  ageband = c("0-4", "5-9", "0-4", "5-9"),
  observed = c(10, 20, 15, 25),
  population = c(1000, 1200, 1100, 1300)
)

direct_age_standardise(
  data = example_data,
  var = "variable",
  ageband = "ageband",
  observed = "observed",
```

```
  population = "population"
)
```

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`ref_population` *European Standard Population 2013 (abridged)*

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## Description

A dataset containing abridged ESP 2013 standard population counts for use in age standardisation.

## Usage

```
ref_population
```

## Format

A data frame with 19 rows and 2 variables:

**AgeBand** Age group (character, e.g. "0-4", "5-9")

**StdPopulation** Standard population count for that age band

## Source

Eurostat ESP 2013

# Index