

Package ‘fingertipscharts’

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Type Package

Version 0.0.10

Title Produce Charts that you See on the Fingertips Website

Description Use Fingertips charts to recreate the visualisations that are displayed on the Fingertips website (<<http://fingertips.phe.org.uk/>>).

Depends R (>= 3.4.0)

BugReports <https://github.com/PublicHealthEngland/fingertipscharts/issues>

Imports curl, dplyr, geojsonio, ggplot2 (>= 3.0), httr, leaflet, lemon, mapproj, purrr, rlang, scales, sf (>= 0.7), stats, stringr, tibble, tidyr (>= 1.0.0), utils

Suggests gdtools, knitr, rmarkdown, testthat, vdiff

License GPL-3

VignetteBuilder knitr

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| | |
|---------------|-------------------------|
| area_profiles | <i>Plot spine chart</i> |
|---------------|-------------------------|

Description

Returns ggplot of spine chart

Usage

```
area_profiles(data, value, count, area_code, local_area_code, indicator,
  timeperiod, polarity, significance, area_type, cols = "fingertips",
  median_line_area_code = "E92000001", comparator_area_code = NA,
  bar_width = 0.75, local_point_shape = 21,
  local_point_outline = "black", comparator_point_shape = 23,
  comparator_point_outline = "gray30",
  comparator_point_fill = "gray30", relative_point_size = 1,
  relative_text_size = 1, header_positions = c(-1.43, -0.53, -0.35,
  -0.25, -0.15, -0.05, 1.05), header_labels = c("Indicator",
  "Time\nperiod", "Local\ncount", "Local\nvalue", "England\nvalue",
  "Worst/\nLowest", "Best/\nHighest"), indicator_label_nudgex = -0.075,
  domain = no_domains, relative_domain_text_size = 1,
  show_dividers = "none", datatable = TRUE,
  datatable_line_height = 0.6, dps = 1, percent_display = 0.25)
```

Arguments

| | |
|-------|--|
| data | a data frame to create the spine chart from. the data frame should contain data for all area types included in the chart (eg, if plotting for County & UA with a comparator of region and a median line for national, the data frame should contain all of these data) |
| value | unquoted field name containing the values to be plotted |
| count | unquoted field name where the count (numerator) is stored |

| | |
|--------------------------|--|
| area_code | unquoted field name where area codes are stored (local_area_code, median_line_area_code and comparator_area_code, if using, should all exist in this field) |
| local_area_code | string; the code of the area that the spine chart is being drawn for |
| indicator | unquoted field name of the field containing the indicator labels. Take care as errors will occur where indicator labels are the same but data exist for multiple sub-categories (for example, sex or age) |
| timeperiod | unquoted field name of the time period field |
| polarity | unquoted field name containing the polarity information (currently only handles polarity returned by fingertipsR package) |
| significance | unquoted field name describing the statistical significance for that indicator (eg, Better, Worse, Similar etc) |
| area_type | unquoted field name containing area type information. This ensures the vertebrae are only plotted for the same area types as the local_area area type (eg, when plotting a spine chart for County & UA areas, regions and national area types will be removed) |
| cols | named character vector for the cols that will be applied to the significance field. The names should contain all of the levels in the significance field of the data frame. Defaults to the Fingertips colours based on the outputs from the API |
| median_line_area_code | string; area code for the median line. Defaults to "E92000001" (England) |
| comparator_area_code | string; area code for the comparator point. Defaults to NA |
| bar_width | numeric value; the distance between bars (0 to 1) |
| local_point_shape | numeric value; shape type for local area point (defaults to 21, circle). See ggplot2 shape types for different values |
| local_point_outline | string; control colour of the outline of the local point in the spine chart |
| comparator_point_shape | numeric value; shape type for regional area point (defaults to 23, diamond). See ggplot2 shape types for different values |
| comparator_point_outline | string; control colour of the outline of the regional point in the spine chart |
| comparator_point_fill | string; control the fill colour of the regional point in the spine chart |
| relative_point_size | numeric value; control the size of the points on the spine chart |
| relative_text_size | numeric value; control the size of the text in the accompanying table |
| header_positions | numeric vector; used to adjust columns of data table if they are overlapping. The final value shouldn't be less than 1. Must have a length of 7. Defaults to c(-1.43, -.53, -.35, -.25, -.15, -0.05, 1.05) |

| | |
|---------------------------|---|
| header_labels | character vector; labels used for the titles of the columns for a data table. Must have a length of 7. Defaults to c("Indicator", "Time period", "Local count", "Local value", "England value", "Worst/Lowest", "Best/Highest") |
| indicator_label_nudge_x | number; nudge the placement of the indicator label in the x direction. Negative values nudge to the left |
| domain | unquoted field name describing the grouping of the domains if wishing to split the spine chart into domains |
| relative_domain_text_size | numeric; control the text size for the domain labels (if include.domains = TRUE) relative to 1 |
| show_dividers | string; whether to display horizontal lines between indicators. Values can be "all" or "outer". Any other value will not generate lines |
| datatable | logical; default = TRUE, display data table alongside spine chart |
| datatable_line_height | number; height of wrapped lines in the data table |
| dps | number; number of decimal places to be displayed in the data table. The default is 1. Set to NA if this should be the same as the input data |
| percent_display | number between 0 and 1; the percentage of values that needs to exist for a spine to display. Default is 0.25 |

Details

the function draws a bar chart (which is the spine) and then plots the data table (if `datatable = TRUE`) using `geom_text`. The bar chart is always plotted between 0 and 1 on the x scale. The columns in the data table are controlled by the `header_positions` argument. To adjust the length of the bars in the visualisation, amend the `header_positions` argument. The more negative the first value of the vector that goes into `header_positions`, the more condensed the bar part of the visualisation will be.

This function filters for the area type that is the same as your local area type and then calculates the "vertebra" from those data. Therefore, if you are comparing outputs with those seen on the Fingertips website, ensure you perform the same preprocessing. For example, some profiles display spine charts where small areas, such as Isles of Scilly, are removed before the spine is produced.

Value

a ggplot object containing a spine chart

Examples

```
## An example with differing decimal places for individual indicators

library(dplyr)
df <- create_test_data() %>%
  mutate(Value = case_when(
    grepl("2$|4$|6$", IndicatorName) ~ round(Value, 1),
    TRUE ~ round(Value, 0)))
```

```

full_p <- area_profiles(df,
  value = Value,
  count = Count,
  area_code = AreaCode,
  local_area_code = "AC122",
  indicator = IndicatorName,
  timeperiod = Timeperiod,
  polarity = Polarity,
  significance = Significance,
  area_type = AreaType,
  median_line_area_code = "C001",
  comparator_area_code = "PAC12",
  datatable = TRUE,
  relative_domain_text_size = 0.75,
  relative_text_size = 1.2,
  bar_width = 0.68,
  indicator_label_nudgex = -0.1,
  show_dividers = "outer",
  header_positions = c(-0.7, -0.44, -0.35, -0.25,
    -0.15, -0.05, 1.08),
  dps = NA)

full_p

## An example with domains and non-default indicator ordering

df <- create_test_data()
label_order <- c(1, 2, 4, 3, 6, 5)
df <- df %>%
  mutate(IndicatorName = factor(IndicatorName,
    levels = paste("Indicator", label_order)))

p <- area_profiles(df,
  value = Value,
  count = Count,
  area_code = AreaCode,
  local_area_code = "AC122",
  indicator = IndicatorName,
  timeperiod = Timeperiod,
  polarity = Polarity,
  significance = Significance,
  area_type = AreaType,
  median_line_area_code = "C001",
  comparator_area_code = "PAC12",
  datatable = TRUE,
  relative_domain_text_size = 0.75,
  relative_text_size = 1.2,
  bar_width = 0.68,
  indicator_label_nudgex = -0.1,
  show_dividers = "outer",
  header_positions = c(-0.7, -0.53, -0.35, -0.25,
    -0.15, -0.05, 1.05),
  domain = Domain
)

```

p

| | |
|-----------|----------------------------------|
| box_plots | <i>Plot a series of boxplots</i> |
|-----------|----------------------------------|

Description

Plot a series of boxplots

Usage

```
box_plots(data, timeperiod, value, title = "", subtitle = "",  
          xlab = "", ylab = "")
```

Arguments

| | |
|------------|--|
| data | data.frame object to plot using ggplot2 functions |
| timeperiod | field containing the time period (unquoted) |
| value | field containing variable to be plotted on x axis (unquoted) |
| title | string; title of chart |
| subtitle | string; text to use as subtitle to graph |
| xlab | string; x-axis title |
| ylab | string; y-axis title |

Value

a ggplot of boxplots for many areas over time

See Also

Other quick charts: [compare_areas](#), [compare_indicators](#), [map](#), [overview](#), [population](#), [trends](#)

Examples

```
library(dplyr)  
df <- create_test_data()  
  
df_box <- df %>%  
  filter(AreaType == "Local") %>%  
  arrange(IndicatorName) %>%  
  mutate(Timeperiod = rep(c("2011", "2012", "2013", "2014", "2015", "2016"),  
                          each = 100))  
  
p <- box_plots(df_box,  
              timeperiod = Timeperiod,  
              value = Value,  
              title = "Title of chart",  
              subtitle = "Boxplot over time",  
              ylab = "Proportion (%)")
```

| | |
|---------------|---------------------------------|
| compare_areas | <i>Plot compare areas chart</i> |
|---------------|---------------------------------|

Description

Returns ggplot of compare areas chart

Usage

```
compare_areas(data, area, value, lowerci, upperci, fill, order = "desc",
  top_areas, title = "", xlab = "", ylab = "",
  legend.position = "bottom", display.values = FALSE, dps = 1)
```

Arguments

| | |
|-----------------|--|
| data | data.frame object to plot using ggplot2 functions |
| area | field containing variable to be plotted on y axis (unquoted) |
| value | field containing variable to be plotted on x axis (unquoted) |
| lowerci | field containing variable to be plotted as lower confidence interval (unquoted - not required) |
| upperci | string; field containing variable to be plotted as upper confidence interval (unquoted - not required) |
| fill | field to be used to determine the colouring of the bars (unquoted) |
| order | one of "alphabetical", "asc" or "desc" - to determine how to order the bars |
| top_areas | character vector; the areas to fix at the top of the chart |
| title | string; title of chart |
| xlab | string; x-axis title |
| ylab | string; y-axis title |
| legend.position | the position of legends ("none", "left", "right", "bottom", "top", or two-element numeric vector) |
| display.values | logical; where or not to display the rounded values next to the bars on the chart |
| dps | number; number of decimal places to be displayed when display.values = TRUE. The default is 1. |

Value

a ggplot of a compare areas chart

See Also

Other quick charts: [box_plots](#), [compare_indicators](#), [map](#), [overview](#), [population](#), [trends](#)

Examples

```

library(dplyr)
df <- create_test_data()
parent <- "PAC11"
top_names <- c("C001", parent)
ordered_levels <- c("Better",
                    "Similar",
                    "Worse",
                    "Not compared")
df_ca <- df %>%
  filter(IndicatorName == "Indicator 3",
         (AreaCode %in% top_names |
          ParentAreaCode == parent))
p <- compare_areas(df_ca, AreaCode, Value,
                  fill = Significance,
                  lowerci = LCI,
                  upperci = UCI,
                  order = "desc",
                  top_areas = top_names,
                  title = "Compare the local areas")
p

```

compare_indicators *Plot compare indicators plot*

Description

Plot compare indicators plot

Usage

```

compare_indicators(data, x, y, xlab = "", ylab = "", point_size = 4,
                  highlight_area, area, add_R2 = FALSE)

```

Arguments

| | |
|----------------|--|
| data | data.frame object to plot using ggplot2 functions |
| x | field containing x variable (unquoted) |
| y | field containing y variable (unquoted) |
| xlab | string; x-axis title |
| ylab | string; y-axis title |
| point_size | number; size of point |
| highlight_area | character vector; list of areas for highlighting |
| area | field containing areas - should contain contents of highlight_area. Only required if highlight_area has a value (unquoted) |
| add_R2 | boolean; should R2 be displayed? |

Value

a ggplot of compare indicators for 2 indicators

See Also

Other quick charts: [box_plots](#), [compare_areas](#), [map](#), [overview](#), [population](#), [trends](#)

Examples

```
library(tidyr)
library(dplyr)
df <- create_test_data()

df_ci <- df %>%
  filter(IndicatorName %in% c("Indicator 1", "Indicator 3")) %>%
  select(IndicatorName, AreaCode, Value) %>%
  pivot_wider(names_from = IndicatorName,
              values_from = Value) %>%
  rename(Ind1 = `Indicator 1`,
         Ind3 = `Indicator 3`) %>%
  mutate(Ind2 = runif(nrow(.), min = Ind1 * 0.5, max = Ind1 * 1.5))
p <- compare_indicators(df_ci,
                       x = Ind1,
                       y = Ind3,
                       xlab = "Indicator 1 label",
                       ylab = "Indicator 3 label",
                       highlight_area = c("C001", "AC172"),
                       area = AreaCode,
                       add_R2 = TRUE)

p
```

create_datatable

Data table supporting information

Description

Returns a data frame containing the data that sits next to the spine chart

Usage

```
create_datatable(data, indicator, area_code, timeperiod, count, value,
                 local_area_code, median_line_area_code, comparator_area_code, dps = 1)
```

Arguments

data a data frame to create the spine chart from. the data frame should contain data for all area types included in the chart (eg, if plotting for County & UA with a comparator of region and a median line for national, the data frame should contain all of these data)

| | |
|-----------------------|---|
| indicator | unquoted field name of the field containing the indicator labels. Take care as errors will occur where indicator labels are the same but data exist for multiple sub-categories (for example, sex or age) |
| area_code | unquoted field name where area codes are stored (local_area_code, median_line_area_code and comparator_area_code, if using, should all exist in this field) |
| timeperiod | unquoted field name of the time period field |
| count | unquoted field name where the count (numerator) is stored |
| value | unquoted field name containing the values to be plotted |
| local_area_code | string; the code of the area that the spine chart is being drawn for |
| median_line_area_code | string; area code for the median line. Defaults to "E92000001" (England) |
| comparator_area_code | string; area code for the comparator point. Defaults to NA |
| dps | number of decimal places to use in the data table |

Value

A data frame containing the information that sits alongside the spine chart

| | |
|------------------|-------------------------|
| create_test_data | <i>Create test data</i> |
|------------------|-------------------------|

Description

Create dataset to be used in tests (useful for demo purposes too)

Usage

```
create_test_data()
```

Value

a dummy data.frame of data

Examples

```
df <- create_test_data()
```

`ensure_ons_api_available`*Check if the given ONS json is available*

Description

Check if the given ONS json is available

Usage

```
ensure_ons_api_available(ons_api)
```

Arguments

`ons_api` string; GeoJSON address provided from the ONS geography portal

Value

TRUE if the API is available, otherwise `stop()` is called.

`fingertipscharts`*fingertipscharts: A package for creating the visualisations displayed in Fingertips*

Description

The `fingertipscharts` package provides one type of function

quick charts functions

Easy to produce Fingertips charts using tidyverse syntax

 map

Plot a choropleth map for an indicator

Description

Plot a choropleth map for an indicator

Usage

```
map(data, ons_api, area_code, fill, type = "static", value,
     name_for_label, title = "", subtitle = "", copyright_size = 4,
     copyright_year = Sys.Date())
```

Arguments

| | |
|----------------|--|
| data | data.frame object to plot using ggplot2 functions |
| ons_api | string; GeoJSON address provided from the ONS geography portal |
| area_code | field containing area codes to join to shape file imported from ONS API |
| fill | field to be used to determine the colouring of the areas (unquoted) |
| type | string; the output map required. Can be "static" or "interactive" |
| value | field containing variable to be plotted on x axis (unquoted) |
| name_for_label | if interactive map, name of field containing area names to be used for label (unquoted) - optional |
| title | string; title of chart |
| subtitle | string; text to use as subtitle to graph |
| copyright_size | number; fix the size of the copyright text |
| copyright_year | number (length 4 characters) or Date class; the copyright year displayed at bottom of the map. Applies to static maps only |

Value

a either a static or interactive ggplot choropleth map

See Also

Other quick charts: [box_plots](#), [compare_areas](#), [compare_indicators](#), [overview](#), [population_trends](#)

Examples

```

ons_api <- "https://opendata.arcgis.com/datasets/687f346f5023410ba86615655ff33ca9_4.geojson"

p <- map(mapdata,
  ons_api = ons_api,
  area_code = AreaCode,
  fill = Significance,
  title = "Map example",
  subtitle = "An indicator for Upper Tier Local Authorities England",
  copyright_year = 2019)

p

## For an interactive (leaflet) map
p <- map(mapdata,
  ons_api = ons_api,
  area_code = AreaCode,
  fill = Significance,
  type = "interactive",
  value = Value,
  name_for_label = AreaName,
  title = "An indicator for Upper Tier<br>Local Authorities England")

p

```

mapdata

Dummy data for Upper Tier Local Authorities so dummy maps can be produced

Description

A dataset of indicator values for all Upper Tier Local Authorities

Usage

mapdata

Format

A data frame with 152 records and 4 fields:

AreaCode Office for National Statistics area codes

AreaName Office for National Statistics area names

Significance The statistical significance of the area compared to a benchmark

Value The indicator value for the data

 overview

Plot an overview (tartan rug) of multiple indicators

Description

Plot an overview (tartan rug) of multiple indicators

Usage

```
overview(data, area, indicator, value, fill, timeperiod, top_areas,
  wrap_length = 50, value_label_size = 1)
```

Arguments

| | |
|-------------------------------|--|
| <code>data</code> | data.frame object to plot using ggplot2 functions |
| <code>area</code> | field containing area names (unquoted) |
| <code>indicator</code> | field containing indicator names (unquoted) |
| <code>value</code> | field containing variable to be plotted (unquoted) |
| <code>fill</code> | field to be used to determine the colouring of the bars (unquoted) |
| <code>timeperiod</code> | field containing the time period (unquoted) |
| <code>top_areas</code> | character vector; the areas to fix at the left |
| <code>wrap_length</code> | number; maximum number of characters in indicator before wrapping it |
| <code>value_label_size</code> | number; amount to scale the size of the value label |

Value

a ggplot of the overview/tartan rug plot

See Also

Other quick charts: [box_plots](#), [compare_areas](#), [compare_indicators](#), [map](#), [population](#), [trends](#)

Examples

```
library(dplyr)
df <- create_test_data()

parent <- "PAC14"
top_names <- c("C001", parent)
df_over <- df %>%
  filter((AreaCode %in% top_names |
          ParentAreaCode == parent)) %>%
  mutate(Value = round(Value, 1))
p <- overview(df_over,
  area = AreaCode,
```

```

        indicator = IndicatorName,
        value = Value,
        timeperiod = Timeperiod,
        fill = Significance,
        top_areas = top_names,
        wrap_length = 40,
        value_label_size = 0.8)
p

```

population

Plot population pyramid

Description

Plot population pyramid

Usage

```

population(data, value, sex, age, area, area_name, comparator_1,
           comparator_2, title, subtitle, xlab)

```

Arguments

| | |
|--------------|--|
| data | data.frame object to plot using ggplot2 functions |
| value | field containing variable to be plotted on x axis (unquoted) |
| sex | field containing sex variable (unquoted) |
| age | field containing age variable (unquoted) |
| area | field containing variable to be plotted on y axis (unquoted) |
| area_name | string; name of the local area (this should exist in the field described by the area parameter) |
| comparator_1 | string; name of comparator area (this should exist in the field described by the area parameter) |
| comparator_2 | string; name of comparator area (this should exist in the field described by the area parameter) |
| title | string; title of chart |
| subtitle | string; text to use as subtitle to graph |
| xlab | string; x-axis title |

Value

a ggplot of a population pyramid against 2 optional comparators

See Also

Other quick charts: [box_plots](#), [compare_areas](#), [compare_indicators](#), [map](#), [overview](#), [trends](#)

Examples

```

library(dplyr)
agelevels <- c("0-4", "5-9", "10-14", "15-19",
              "20-24", "25-29", "30-34",
              "35-39", "40-44", "45-49",
              "50-54", "55-59", "60-64",
              "65-69", "70-74", "75-79",
              "80-84", "85-89", "90+")
areas <- c("Area 1", "Area 2", "Area 3")
pops <- data.frame(Age = factor(rep(agelevels, length(areas) * 2),
                              levels = agelevels),
                  Value = rep(sample(1000:3000, length(agelevels), replace = TRUE),
                              length(areas) * 2),
                  Sex = rep(rep(c("Male", "Female"),
                              each = length(agelevels)), length(areas)),
                  AreaName = rep(areas, each = length(agelevels) * 2))

p <- population(pops,
               value = Value,
               sex = Sex,
               age = Age,
               area = AreaName,
               area_name = "Area 1",
               comparator_1 = "Area 3",
               comparator_2 = "Area 2",
               title = "Age Profile",
               subtitle = "2015/16",
               xlab = "% of total population")

p

```

round2

Proper rounding of values

Description

Proper rounding of values

Usage

```
round2(val, dps)
```

Arguments

| | |
|-----|-----------------------------------|
| val | numeric value to round |
| dps | numeric, number of decimal places |

Details

function taken from this link (<https://stackoverflow.com/questions/12688717/round-up-from-5>)

| | |
|----------------|--|
| scale_fill_phe | <i>Fingertips scale fill for ggplot2</i> |
|----------------|--|

Description

Fingertips scale fill

Usage

```
scale_fill_phe(theme = "fingertips", ...)
```

Arguments

| | |
|-------|---|
| theme | string; current options are fingertips only for discrete scales |
| ... | inputs to the scale_manual (for discrete values) |

| | |
|------------------|---|
| spine_data_check | <i>Check function for multiple values for an area in an indicator for spine chart</i> |
|------------------|---|

Description

Check function for multiple values for an area in an indicator for spine chart

Usage

```
spine_data_check(data, indicator, area_code)
```

Arguments

| | |
|-----------|--|
| data | a data frame to create the spine chart from. the data frame should contain data for all area types included in the chart (eg, if plotting for County & UA with a comparator of region and a median line for national, the data frame should contain all of these data) |
| indicator | unquoted field name of the field containing the indicator labels. Take care as errors will occur where indicator labels are the same but data exist for multiple sub-categories (for example, sex or age) |
| area_code | unquoted field name where area codes are stored (local_area_code, median_line_area_code and comparator_area_code, if using, should all exist in this field) |

spine_preprocess *Preprocess data for spine chart*

Description

Returns a data frame with the latest time period of data for each indicator name.

Usage

```
spine_preprocess(data, indicator, timeperiod_sortable)
```

Arguments

| | |
|---------------------|---|
| data | a data frame to create the spine chart from. the data frame should contain data for all area types included in the chart (eg, if plotting for County & UA with a comparator of region and a median line for national, the data frame should contain all of these data) |
| indicator | unquoted field name for indicators. This should be what is presented as the label for the final spine chart, hence should be unique for each vertebra. Be careful the indicator doesn't have sub-categories based on other fields, such as sex (male, female, persons) or age group |
| timeperiod_sortable | unquoted field name containing the time period that is numeric and sortable, such that higher values are a later time period |

Details

This processing only takes place on the indicator field and the time period field provided. If the data contains multiple sexes or age groups for an indicator, make sure the indicator field reflects this.

Value

A processed data frame for latest time periods of given indicators

spine_rescaler *Rescale spine data*

Description

Rescales data so it can be plotted on a spine chart

Usage

```
spine_rescaler(data, area_code, indicator, significance, polarity,
  area_type, value, timeperiod, local_area_code, median_line_area_code,
  comparator_area_code = NA, percent_display, dps = 1)
```

Arguments

| | |
|-----------------------|--|
| data | a data frame to create the spine chart from. the data frame should contain data for all area types included in the chart (eg, if plotting for County & UA with a comparator of region and a median line for national, the data frame should contain all of these data) |
| area_code | unquoted field name where area codes are stored (local_area_code, median_line_area_code and comparator_area_code, if using, should all exist in this field) |
| indicator | unquoted field name of the field containing the indicator labels. Take care as errors will occur where indicator labels are the same but data exist for multiple sub-categories (for example, sex or age) |
| significance | unquoted field name describing the statistical significance for that indicator (eg, Better, Worse, Similar etc) |
| polarity | unquoted field name containing the polarity information (currently only handles polarity returned by fingertipsR package) |
| area_type | unquoted field name containing area type information. This ensures the vertabra are only plotted for the same area types as the local_area area type (eg, when plotting a spine chart for County & UA areas, regions and national area types will be removed) |
| value | unquoted field name containing the values to be plotted |
| timeperiod | unquoted field name of the time period field |
| local_area_code | string; the code of the area that the spine chart is being drawn for |
| median_line_area_code | string; area code for the median line. Defaults to "E92000001" (England) |
| comparator_area_code | string; area code for the comparator point. Defaults to NA |
| percent_display | number between 0 and 1; the percentage of values that needs to exist for a spine to display. Default is 0.25 |
| dps | number; number of decimal places to be displayed in the data table. The default is 1. Set to NA if this should be the same as the input data |

Value

A list containing "bars" and "points" which contains data that can be passed to the phe_spine_chart function

 theme_phe

Fingertips theme for ggplot2

Description

fingertips theme

Usage

```
theme_phe(theme = "fingertips", base_size = 11, base_family = "",
          base_line_size = base_size/22, base_rect_size = base_size/22)
```

Arguments

| | |
|----------------|---|
| theme | string; theme of chart, current are fingertips only |
| base_size | base font size |
| base_family | base font family |
| base_line_size | base size for line elements |
| base_rect_size | base size for rect elements |

trends

*Plot trend chart***Description**

Plot trend chart

Usage

```
trends(data, timeperiod, value, area, comparator, area_name, fill, lowerci,
        upperci, title = "", subtitle = "", xlab = "", ylab = "",
        point_size = 4)
```

Arguments

| | |
|------------|--|
| data | data.frame object to plot using ggplot2 functions |
| timeperiod | field containing the time period (unquoted) |
| value | field containing variable to be plotted on x axis (unquoted) |
| area | field containing variable to be plotted on y axis (unquoted) |
| comparator | string; name of comparator area (this should exist in the field described by the area parameter) |
| area_name | string; name of the local area (this should exist in the field described by the area parameter) |
| fill | field to be used to determine the colouring of the bars (unquoted) |
| lowerci | field containing variable to be plotted as lower confidence interval (unquoted - not required) |
| upperci | string; field containing variable to be plotted as upper confidence interval (unquoted - not required) |
| title | string; title of chart |
| subtitle | string; text to use as subtitle to graph |
| xlab | string; x-axis title |
| ylab | string; y-axis title |
| point_size | number; size of point |

Value

a ggplot of trends for an indicator alongside a comparator

See Also

Other quick charts: [box_plots](#), [compare_areas](#), [compare_indicators](#), [map](#), [overview](#), [population](#)

Examples

```
library(dplyr)
df <- create_test_data()

df_trend <- df %>%
  arrange(IndicatorName) %>%
  mutate(Timeperiod = rep(c("2011", "2012", "2013", "2014", "2015", "2016"),
    each = 111))

p <- trends(df_trend,
  timeperiod = Timeperiod,
  value = Value,
  area = AreaCode,
  comparator = "C001",
  area_name = "AC142",
  fill = Significance,
  lowerci = LCI,
  upperci = UCI,
  title = "Trend compared to country",
  subtitle = "For area AC142",
  xlab = "Year",
  ylab = "Value (%)")

p
```

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