

Do Europe and Asia experience similar trends in Life Expectancy and Life Satisfaction?

Often Imitated, never depulicated

Table of contents

1	Executive Summary	1
2	Introduction	1
3	Methodology	1
4	Results	4
5	Discussion, Conclusion and Recommendations	4
6	References	4

1 Executive Summary

(To be written after all parts are complete)

2 Introduction

3 Methodology

Our data was sourced from the online data repository, Our World in Data (OWID). Specifically, we used the [Life satisfaction vs. life expectancy](#) dataset. This dataset tracks two main variables for countries and geographic regions, those being life expectancy (measured in years) and life satisfaction (measured on a 1-10 scale using the Cantril Ladder score). These variables are tracked on a yearly basis, alongside population statistics where appropriate.

This dataset suffers from a degree of sparsity, particularly regarding the Cantril Ladder score, as several observations for many countries were missing. The data was filtered such that only observations containing both metrics were present. From there, Europe and Asia stood out as regions of interest for further analysis. Further filtering the dataset for observations containing only the Europe or Asia region variable resulted in the final dataset used for analysis.

```
# A tibble: 6 x 7
  Entity      Code  Year `Cantril ladder score` `Population (historical)`
  <chr>      <chr> <dbl>          <dbl>          <dbl>
1 Afghanistan AFG   2011           4.26          29347668
2 Afghanistan AFG   2012           4.04          30559988
3 Afghanistan AFG   2014           3.58          32792472
4 Afghanistan AFG   2015           3.36          33831716
5 Afghanistan AFG   2016           3.79          34700565
6 Afghanistan AFG   2017           3.63          35688889
# i 2 more variables: `World regions according to OWID` <chr>,
#   `Life expectancy (years)` <dbl>
```

Initial inspection of the data was performed using a distribution curve and a density map of both variables in 2023. Figure 1 displays an immediate disparity between Europe and Asia for both life satisfaction and life expectancy. For both variables, Europe displays more countries with preferable results when compared to Asia. This is not to say that Asia does not contain comparable countries Figure 2 shows that while European nations are clustered closer together in a region of high life satisfaction and life expectancy, there are Asian countries present in *the same region*. The density map merely shows that while there are comparable Asian countries, the tighter clustering of European countries in this region is indicative of greater consistency between nations.

Distribution of Life Expectancy and Life Satisfaction (2023)

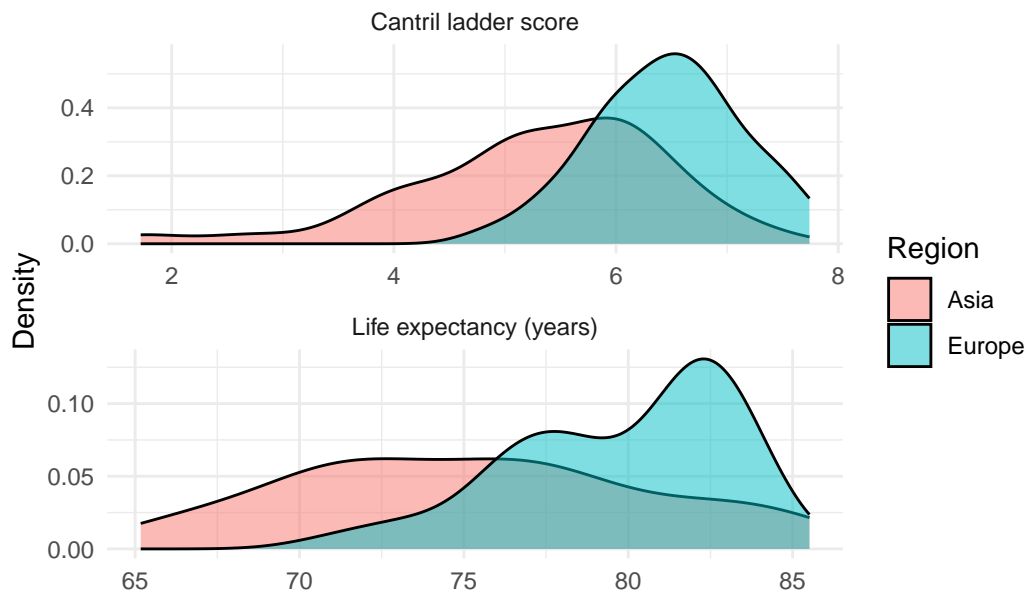


Figure 1: Country-Level Distribution Curves of Life Satisfaction and Life Expectancy in Asia and Europe (2023)

Density Map for Europe and Asia (2023)

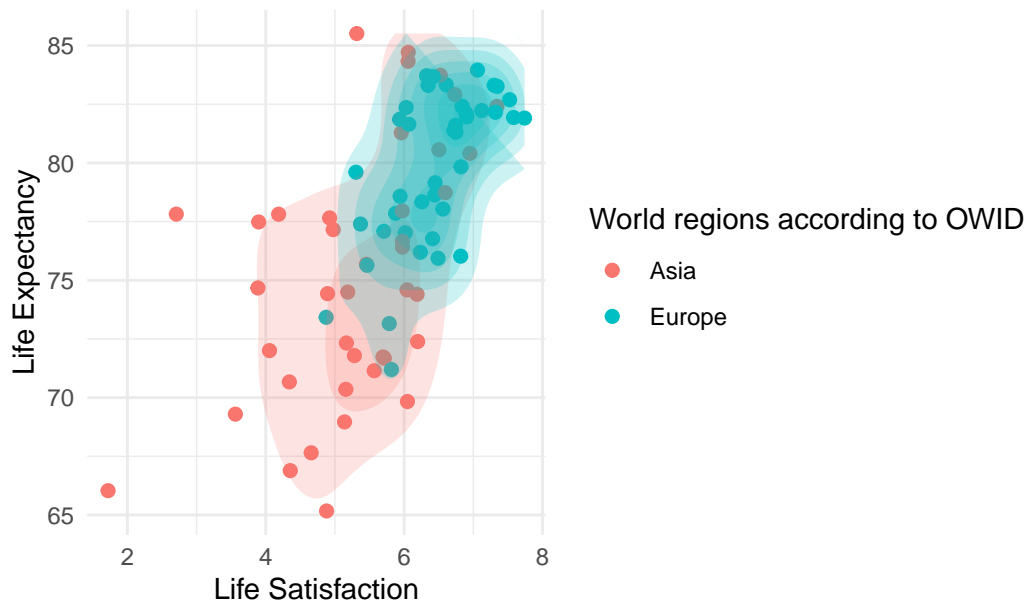


Figure 2: Country-Level Density Map of Life Satisfaction and Life Expectancy in Asia and Europe (2023)

4 Results

Figure 3 presents population-weighted yearly averages of life satisfaction and life expectancy in Asia and Europe from 2011 to 2023. This approach gives more weight to countries with larger populations and offers a clearer view of how the average individual in each region experiences changes in health and well-being.

Europe consistently reported higher values for both indicators. Life expectancy followed a steady upward trend until 2020, with a slight drop afterward, while life satisfaction remained relatively stable. In contrast, Asia showed more fluctuation, with a notable shift in 2019 where both indicators changed direction.

As shown in Figure 4, most countries have improved or maintained both measures between 2011 and 2023. However, some Asian countries continue to lag in life satisfaction, highlighting a need for more balanced development that links well-being with longevity.

Overall, the two regions do not appear to follow similar trends: Europe shows a more consistent alignment between longevity and well-being, while Asia's trajectory is less stable and more fragmented.

This part should be deleted after merging

1. Calculate population-weighted regional averages

```
Rows: 999 Columns: 7
```

```
-- Column specification -----  
Delimiter: ","
```

```
chr (3): Entity, Code, World regions according to OWID
```

```
dbl (4): Year, Cantril ladder score, Population (historical), Life expectanc...
```

```
i Use `spec()` to retrieve the full column specification for this data.
```

```
i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

2. Plot trends and label final-year positions

Scale for colour is already present.

Adding another scale for colour, which will replace the existing scale.

3. Comparison of 2011 and 2023

5 Discussion, Conclusion and Recommendations

6 References

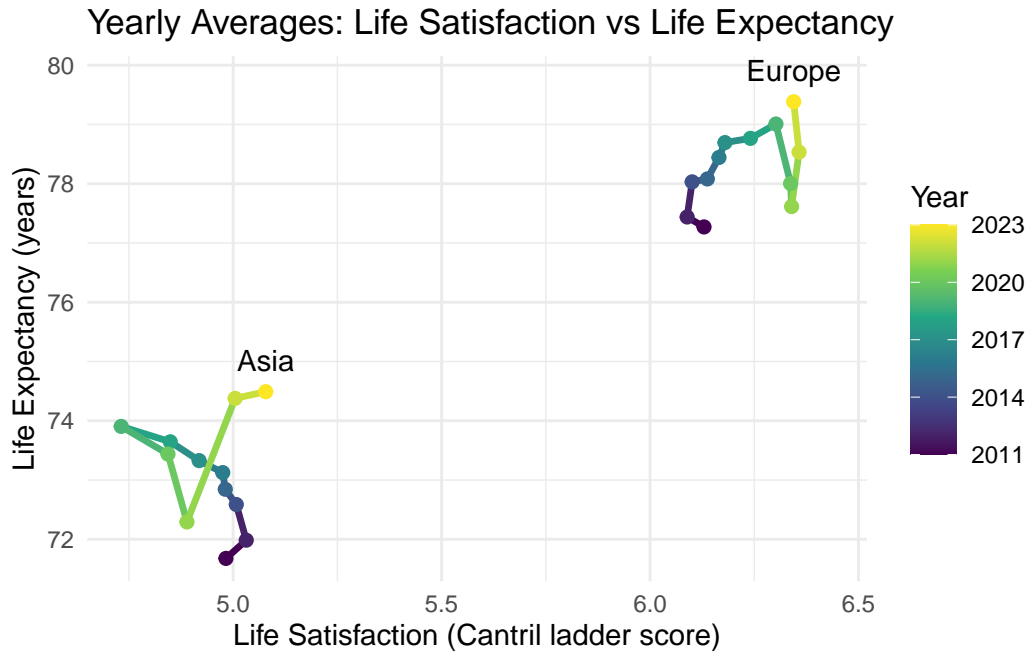


Figure 3: Trajectory of Population-Weighted Life Satisfaction and Life Expectancy in Asia and Europe (2011–2023)

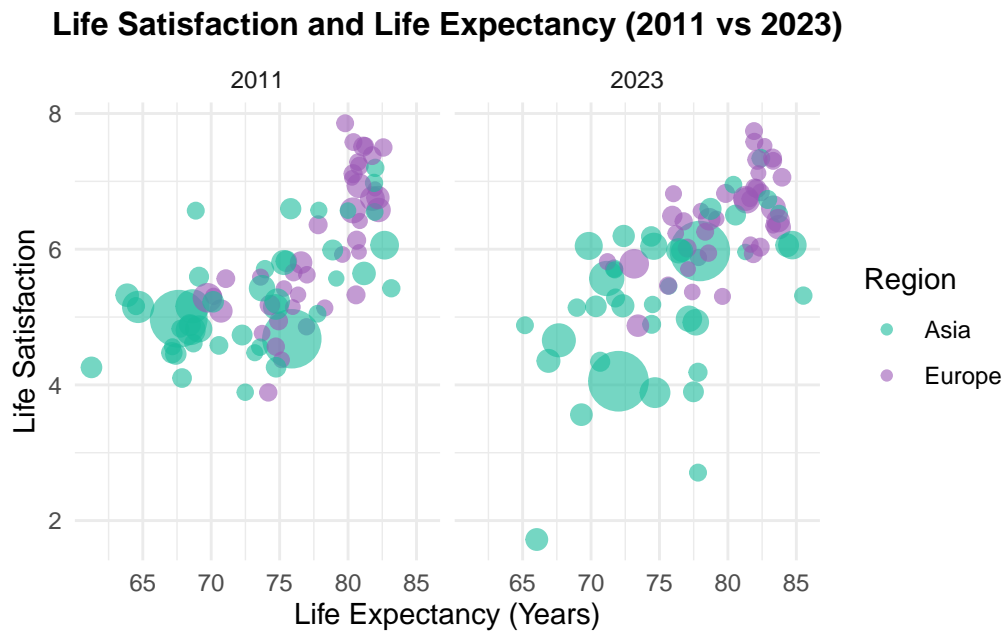


Figure 4: Life Satisfaction and Life Expectancy in Asia and Europe (2011 vs 2023)