# Information Visualization

# CHECKPOINT I: Visualization Proposal

G22

**1. Domain**

In the context of the project, we are going to focus on what affects our health. The study will be relative to OECD countries. In terms of definitions, we will be using several indicators relative to the percentage of the population aged 15 and older, such as for overweight or obese population, smokes daily, alcohol consumption, deaths by cancer, suicide rates, life expectancy at birth and age 65 and life satisfaction.  
On the other hand, the variables used to correlate to the health will be work (based on wages, employment rates and hours worked), air pollution (exposure), adult education level, social spending and GDP.   
We hope to find what factors are more relevant in terms of what constitutes a healthy life. This visualization will be entitled: “What makes us healthy?”

**2. Dataset**

For heath indicators the following datasets will be used:

* Life expectancy at birth[[1]](#endnote-1), life expectancy at 65[[2]](#endnote-2), suicide rates[[3]](#endnote-3), daily smokers[[4]](#endnote-4), alcohol consumption[[5]](#endnote-5), overweight or obese population[[6]](#endnote-6) and deaths from cancer[[7]](#endnote-7).

And for potential health influencers:

* Average wages[[8]](#endnote-8), employment rate[[9]](#endnote-9), hours worked[[10]](#endnote-10), adult education level[[11]](#endnote-11), social spending[[12]](#endnote-12), gross domestic product (GDP)14 and life satisfaction 15 and air exposure[[13]](#endnote-13).

All the data used in this project will be static. The time span of the visualization is from 2000 to 2017.

**3. Questions**

* + - 1. - Does a better wage mean a healthier life or a longer life expectancy?
    1. - What is the optimal number of hours to work that lead to a healthier life or more life expectancy?
       1. - What is the relationship between, more people working and being healthier and live more?
       2. - How does adult education influence our health?
       3. - How does air exposure affect our health? (Based on life expectancy and suicide.)
          1. - Does a bigger social spending or a higher GDP in general influences people to live more and suicide, smoke and drink less?
       4. **4. Data Sample**
       5. (from “Life\_expectancy\_at\_birth.csv”) and “Life\_expectancy\_at\_65.csv”

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUS; LIFEEXP; TOT; YR; A; 1972; 72;

(from “Suicide\_rates.csv”)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUS; SUICIDE; TOT; 100000PER; A; 1983; 12.1;

(from “Daily\_smokers\_population.csv”) (PC\_POP15 is % of population aged 15+)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUS; SUICIDE; TOT; 100000PER; A; 1968; 15.6; B

(from “Cancer\_deaths.csv”)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUS; DEATHCANCER; TOT; 100000PER; A; 1968; 230.6; B

(from “Alcohol\_consumption.csv”) (LT\_CAP15 is Liters/capita aged 15+)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUS; ALCOHOL; TOT; LT\_CAP15; A; 1966; 10.3;

(from “Overweight\_or\_obese\_population.csv”)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUT; OVEROBESE; SELFREPORTED; PC\_POP15; A; 2014; 46.7;

(from “Average\_wage.csv”) (USD is dollars)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUT; AVWAGE; TOT; USD; A; 2008; 49509.35566;

(from “Employment\_rate.csv”) (THND\_PER is thousands of persons and PC\_WKGROUP is % of working age population)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUT; EMP; MEN; THND\_PER; A; 1974; 1847; B

AUS; EMP; WOMEN; PC\_WKGPOP; A; 1994; 56.85906;

(from “Hours\_worked.csv”) (HR\_WKD is Hours/worker)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUS; HRWKD; TOT; HR\_WKD; A; 1991; 1773.5;

(from “Adult\_education\_level.csv”) (BUPPSRY is Below upper secondary, TRY is Tertiary and UPPSRY is Upper secondary)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUS; EDUADULT; BUPPSRY; PC\_25\_64; A; 2017; 19.012659

AUS; EDUADULT; TRY; PC\_25\_64; A; 2018; 45.727478

AUS; EDUADULT; UPPSRY; PC\_25\_64; A; 2011; 35.735386

(from “Air\_pollution\_exposure.csv”) (THND\_TONNE is thousands of tonnes)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

FIN; POLLUTIONEXP; EXPOS2PM25; MICGRCUBM; A; 1990; 7.41045

(from “Social\_spending.csv”) (PC\_GDP is % of GDP)

Location; Subject; Measure; Time; Value

AUT; SOCEXP; PRIV; PC\_GDP; A; 1984; 0.624

AUT; SOCEXP; PUB; PC\_GDP; A; 1997; 25.854

(from “Gross domestic product (GDP)” (USD\_CAP is US dollars/capita)

LOCATION; INDICATOR; SUBJECT; MEASURE; FREQUENCY; TIME; Value; Flag Codes

AUS; GDP; TOT; USD\_CAP; A; 1976; 7377.136633;

(from “Better Life Index”)

LOCATION; Country; INDICATOR; Indicator; MEASURE; Measure; INEQUALITY; Inequality; Unit Code; Unit; PowerCode; Code; PowerCode; Reference; Period; Code; Reference; Period; Value; Flag; Codes; Flags

EST; Estonia; SW\_LIFS; Life satisfaction; L; Value; WMN; Women; AVSCORE; Average score; 0; Units; 5.7

1. https://data.oecd.org/healthstat/life-expectancy-at-birth.htm#indicator-chart [↑](#endnote-ref-1)
2. https://data.oecd.org/healthstat/life-expectancy-at-65.htm#indicator-chart [↑](#endnote-ref-2)
3. https://data.oecd.org/healthstat/suicide-rates.htm#indicator-chart [↑](#endnote-ref-3)
4. https://data.oecd.org/healthrisk/daily-smokers.htm#indicator-chart [↑](#endnote-ref-4)
5. https://data.oecd.org/healthrisk/alcohol-consumption.htm#indicator-char [↑](#endnote-ref-5)
6. https://data.oecd.org/healthrisk/overweight-or-obese-population.htm#indicator-chart [↑](#endnote-ref-6)
7. https://data.oecd.org/healthstat/deaths-from-cancer.htm [↑](#endnote-ref-7)
8. https://data.oecd.org/earnwage/average-wages.htm [↑](#endnote-ref-8)
9. https://data.oecd.org/emp/employment-rate.htm [↑](#endnote-ref-9)
10. https://data.oecd.org/emp/hours-worked.htm [↑](#endnote-ref-10)
11. https://data.oecd.org/eduatt/adult-education-level.htm [↑](#endnote-ref-11)
12. https://data.oecd.org/socialexp/social-spending.htm

    14 https://data.oecd.org/gdp/gross-domestic-product-gdp.htm

    15 https://stats.oecd.org/Index.aspx?DataSetCode=BLI [↑](#endnote-ref-12)
13. https://data.oecd.org/air/air-pollution-exposure.htm#indicator-chart [↑](#endnote-ref-13)