

European
Commission

## HEALTH EQUITY PILOT PROJECT

## Portugal

## Profile of socio-economic inequalities in alcohol, nutrition and physical activity



## CONTENTS

Summary ..... 4
Introduction ..... 6
Background information ..... 7
Inequalities in behaviours and outcomes ..... 9
Lifecourse ..... 15
a) Lifecourse stage - A good start in life ..... 15
b) Lifecourse stage - Ages 11 to 15 ..... 18
c) Lifecourse stage - Ages 15 to 24 ..... 23
d) Lifecourse stage - Adult behaviour ..... 32
Annex ..... 40

## SUMMARY

This report compares socio-economic inequalities relating to alcohol, nutrition and physical activity in Portugal with gradients for the European Union as a whole.

To set this in context, life expectancy in Portugal is similar to that in the EU as a whole for men and slightly more than for the EU for women - differences of 0.1 and 0.7 years of life for men and women, respectively. Differences in healthy life expectancy are larger - around four and seven years less than the EU figure for men and women, respectively. There are substantial income inequalities in Portugal by level of educational attainment and life expectancy is related to educational attainment - a five year difference among males and a three year difference among females.

There are steep gradients in self perceived health by education and income for both men and women - differences are much greater than for the EU as a whole. Gradients in long term illness are steeper than those for the EU as a whole by education and similar to the EU as a whole by income for both males and females. Self-reported diabetes decreases with increased education for both men and women more sharply than for the EU as a whole.

Some of the differences in health and the behaviours that lead to these differences are apparent from early in life. There is a gradient by education in both pre-obesity and obesity among women at ages 15 to 44 , the principal reproductive ages - both steeper than for the EU as a whole. There is also a steep gradient in infant mortality by education. At ages four to seven, among boys and girls, both pre-obesity and obesity decrease with increased level of mother's educational attainment. At ages 11 to 15, girls from low family affluence groups are much more likely to report drinking sugar sweetened beverages daily and be overweight than those from high affluence groups. Boys are more likely to consume fruit daily than those in low ones. At ages 15 to 16, the proportion of female students who drank alcohol in the previous month, were ever drunk, reported binge drinking in the last month, were drunk at age 14 or less, and drank alcohol at age 12 or less all increased with mother's education in contrast to the reverse gradient, in most cases, for the EU as a whole. Among male students, with the exception of drinking at age 12 or less, those whose mother's had low levels of educational attainment were less likely than others to report these patterns of consumption.

Among adults, vegetable consumption and physical activity outside work increase sharply with increased levels of educational attainment for both men and women. The gradients for vegetable consumption are steeper than for the EU as a whole, while for physical activity they are less steep. Fruit consumption, among those with tertiary education is markedly higher than for other levels of education and for those with tertiary education in the EU as a whole. Physical activity in work decreases with increased education for both men and women, more sharply than for the EU as a whole. Among women, both obesity and preobesity decrease with increased education more sharply than for the EU as a whole.

Daily alcohol consumption is considerably more common among men and women with low levels of educational attainment than other educational groups and those in the EU as a whole with low levels of education. A similar pattern is seen at ages 18 to 64. At this age, binge drinking monthly is markedly less common than in the EU as a whole in each educational group.

## INTRODUCTION

This report summarises the data that are available to compare socio-economic inequalities relating to alcohol, nutrition and physical activity in Portugal with gradients for the European Union as a whole. It is based solely on data sources harmonised across Member States, available on or before April 2018, from data bases such as Eurostat and WHO European Health Information Gateway. All graphs and tables presented in this report relate solely to data for Portugal.

Inequalities in life chances, behaviours and their health outcomes begin at the earliest stages in life, through intergenerational transmission, and accumulate across the life-course ${ }^{1}$. This observation provides two guiding principles for the structure of this report. First, the presentation of results is ordered according to the stages of the life course - from conditions in the womb through to adult behaviours. Second, both to reflect differentials that are established early in life and to achieve the greatest level of comparability, level of educational attainment is used as the principle measure of socio-economic variation in this report ${ }^{2}$. Other indicators, such as family affluence or income are used where this significantly extends the range of analyses possible.

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## BACKGROUND INFORMATION

The average population of Portugal during 2017 was 10.3 million, 2 percent of the figure for the European Union (EU) as a whole. Half of the population was aged under 44.4 years - the comparable figure for the EU was 42.8 years. Net migration was -0.8 per 1,000 population i.e. a net outflow of migrants (compared to a net inflow of 2.4 for the EU as a whole). In terms of age dependency, the number aged under 15 or 65 and over was 54.1 percent of the figure for age 15 to 64 - similar to the figure of 53.9 for the EU as a whole.

In 2016, life expectancy at birth was 78.1 years for males and 84.3 years for females - a gender gap of 6.2 years. Comparable figures for the EU were 78.2, 83.6 and 5.4 years. The comparable figures for healthy life years in Portugal were 59.9, 57.4 and -2.5 years (i.e. men stayed healthier for longer than women in Portugal) and 63.5, 64.2 and 0.7 years for the EU. These figures meant that men in Portugal could expect to spend 18.2 years in ill-health and women 26.9 years - a difference of 8.7 years. The comparable figures for the EU were 14.7 and 19.4 years - a difference of 4.7 years.

## INCOME INEQUALITY

## INEQUALITIES WITHIN COUNTRY

In terms of income inequality, the Gini coefficient was 33.9 for Portugal compared to 30.8 for the EU. The fifth of the population with the highest incomes received 5.9 times the income of the lowest fifth - the ratio across the EU was 5.2.

Both equivalised mean and median income per household increased with level of educational attainment in 2016. Average equivalised household income was around 11,900 Euros higher for men with tertiary education than for those with lower levels of educational attainment. For women of this age the difference was around 10,400 Euros. The comparable differences in median income were 10,000 and 9,000 Euros, respectively.

## Equivalised mean income (pps) by level of educational attainment and sex, 2016



Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE No figures are available for the EU as a whole.

Equivalised median income (pps) by level of educational attainment and sex, 2016


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE No figures are available for the EU as a whole.

## INEQUALITIES IN BEHAVIOURS AND OUTCOMES

## HEALTH AND LIFE EXPECTANCY

LIFE EXPECTANCY
INEQUALITIES WITHIN COUNTRY
The data suggest clear social gradients in life expectancy for both and women in Portugal. Life expectancy at birth increases with increased level of educational attainment. There are 5.2 and 2.8 year gaps in life expectancy for men and women, respectively.

Life expectancy at birth by level of educational attainment and sex, 2015


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
No figures are available for the EU as a whole. Only 16 Member States report these data to Eurostat, of which three are for earlier years than 2015. In all these 16 Member States there are social gradients in life expectancy by educational attainment.

## SELF PERCEIVED HEALTH

## (a) By educational attainment

INEQUALITIES WITHIN COUNTRY
The data suggest there are clear social gradients among men and women in Portugal by level of educational attainment in self-perception of good or very good health. Self-reported health of the least educated men is 23 percentage points less than the most educated. For women, the gradient is steeper with a gap of 27 percentage points.

Age standardised percentage with good or very good self-perceived health by level of educational attainment and sex, 2016


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
The data suggest there is a clear social gradient in self-perception of good or very good health in the EU as a whole. Self-reported health of the least educated men is 14 percentage points less than the most educated. For women, the gradient is slightly steeper with a gap of 16 percentage points.

## (b) By income

## INEQUALITIES WITHIN COUNTRY

The data suggest there are clear social gradients among men and women in Portugal by income quintile in self-perception of good or very good health. Selfreported health of men in the lowest income quintile is 23 percentage points less than it is for men in the top income quintile. For women, the gradient is similar with a slightly larger gap of 25 percentage points.

Age standardised percentage with good or very good self-perceived
health by income quintile and sex, 2016


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
The data suggest there is a clear social gradient in self-perception of good or very good health in the EU as a whole. Self-reported health of men in the lowest income quintile is 18 percentage points less than for those in the highest income quintile. For women, the gradient is similar with a gap of 19 percentage points.

LONGSTANDING ILLNESS OR HEALTH PROBLEMS
a) By educational attainment

## INEQUALITIES WITHIN COUNTRY

The data suggest there are clear social gradients among men and women in Portugal by level of educational attainment in reporting a long-standing illness or health problem. Reporting of a long-standing illness or health problem by the least educated men is 8 percentage points greater it is by the most educated. For women, the gradient is slightly steeper with a gap of 11 percentage points.

Age standardised percentage reporting a long-standing illness or
health problem by level of educational attainment and sex, 2016 health problem by level of educational attainment and sex, 2016


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

The data suggest that those with tertiary education are much less likely to report a long-standing illness or health problem than those with less educational attainment in the EU as a whole. Reporting of long-standing ill-health is four percentage points lower for the most educated men than for the least educated. For women, the gap is five percentage points.

## (a) By income

## INEQUALITIES WITHIN COUNTRY

The data suggest there is a clear social gradient among men in Portugal by income quintile in reporting a long-standing illness or health problem. Selfreported long-standing ill-health or health problems by men in the lowest income quintile is 11 percentage points greater than for those in the top income quintile. For women, reporting a long-standing illness or health problem generally decreases with increased income, although levels of reporting are similar for some quintiles. The gap between the lowest and highest income quintiles is 12 percentage points.

Age standardised percentage reporting a long-standing illness or health problem by income quintile and sex, 2016


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

The data suggest there is a clear social gradient in reporting a long-standing illness or health problem in the EU as a whole. Self-reported long-standing illhealth in the lowest income quintile is 11 percentage points higher than for those in the highest income quintile, for both men and women.

## SELF REPORTING OF DIABETES

INEQUALITIES WITHIN COUNTRY
The data suggest that reporting of diabetes in Portugal decreases with increased levels of educational attainment among both men and women, differences of five and seven percentage points, respectively, between the highest and lowest levels.

Age standardised percentage reporting diabetes by level of educational attainment and sex, 2014


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
The data suggest that those with tertiary education are less likely to report having diabetes than those with less educational attainment in the EU as a whole. Reporting of diabetes is three percentage points lower for the most educated men than for the least educated. For women, the gap is four percentage points.

## LIFECOURSE

## A) LIFECOURSE STAGE - A GOOD START IN LIFE

## WOMEN OVERWEIGHT AT FERTILE AGES 18 TO 44

## INEQUALITIES WITHIN COUNTRY

Among overweight adults (BMI of 25 or more), the European Health Interview Survey (EHIS) separately identifies those who are obese (BMI of 30 or more) from those who are overweight but not obese (i.e. pre-obese with BMI of at least 25 but less than 30). There is a social gradient in pre-obesity and obesity among women at ages 18 to 44 in Portugal - prevalence decreases as levels of educational attainment increases.

Women overweight at ages 18-44 by educational attainment level, 2014


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

For the EU as a whole, there is a social gradient in both pre-obesity and obesity among women aged 18 to 44 . Among those with lower levels of educational attainment, 24.1 percent are pre-obese. This figure falls to 17.6 per cent among those with tertiary education. The comparable figures for obesity are 14.3 and 7.7 per cent.

## INFANT MORTALITY

## INEQUALITIES WITHIN COUNTRY

There is a social gradient in infant mortality in Portugal by level of maternal education. Infant mortality rates decrease as the level of mother's educational attainment increases. For mothers with lower levels of educational attainment, the rate is more than three times that of mothers with tertiary education.

Infant mortality by level of maternal educational attainment, 2016


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
A similar social gradient occurs across all but one of the other eight countries in the EU for which data are available.

ALCOHOL CONSUMPTION DURING PREGNANCY No EU harmonised data available by socio-economic status

FOETAL ALCOHOL SPECTRUM DISORDER
No EU harmonised data available by socio-economic status
BREAST FEEDING AND COMPLIMENTARY FEEDING
No EU harmonised data available by socio-economic status
SUGAR SWEETENED BEVERAGES IN EARLY CHILDHOOD
No EU harmonised data available by socio-economic status
SALT CONSUMPTION IN EARLY CHILDHOOD
No EU harmonised data available by socio-economic status
SATURATED FAT CONSUMPTION IN EARLY CHILDHOOD
No EU harmonised data available by socio-economic status
FRUIT CONSUMPTION IN EARLY CHILDHOOD
No EU harmonised data available by socio-economic status

VEGETABLE CONSUMPTION IN EARLY CHILDHOOD No EU harmonised data available by socio-economic status

## OVERWEIGHT IN EARLY CHILDHOOD

INEQUALITIES WITHIN COUNTRY
Based on a study by Ruiz et al. that included 10 EU Member States, there are social gradients in Portugal at ages four to seven years in both boys and girls obesity (BMI value at this age equivalent to $30 \mathrm{~kg} / \mathrm{m} 2$ or more at age 18) and boys pre-obesity (a BMI value equivalent to $25 \mathrm{~kg} / \mathrm{m} 2$ or more, but less than $30 \mathrm{~kg} / \mathrm{m} 2$ at age 18). In these cases, prevalence decreases as mother's level of educational attainment increases. Pre-obesity in girls is least common among those whose mothers had post-secondary education.

Children overweight at ages four to seven by sex and mother's educational attainment level, born in 1983-2006


Sources, numbers and definitions: See Annex
INEQUALITIES IN THE EU AS A WHOLE
In the majority of the nine countries in the EU for which data are available, at ages four to seven, children whose mothers attained post-secondary education are less likely to be either obese or pre-obese than those whose mothers have lower levels of educational attainment.

## B) LIfECOURSE STAGE - AGES 11 TO 15

The Health Behaviour of School Age Children (HBSC) survey 2013/2014 is the principal source of information at ages 11 to 15 . To derive their Family Affluence Scale (FAS) the survey used a six-item assessment of common material assets or activities. Responses were scored and summed to form a summary score.

Additional information is available from ESPAD on alcohol consumption and is presented in the next section.

## SUGAR SWEETENED BEVERAGES AT AGES 11 TO 15

INEQUALITIES WITHIN COUNTRY
The HBSC survey suggests that, at ages 11 to 15, girls in Portugal from low family affluence groups are more likely than those from high family affluence groups to consume soft drinks at least once a day - a five percentage point difference. The smaller difference for boys is not statistically significant.

Percentage point difference in prevalence of drinking soft-drinks at least once a day between low and high family affluence groups at ages 11, 13 and 15, 2013/14


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

The HBSC survey does not provide estimates for the EU as a whole. However, soft drink consumption is significantly related to low family affluence for girls in nearly half of EU countries for which these data are available. For boys, the pattern differs between EU countries with few countries showing significant differences.

## SALT CONSUMPTION AT AGES 11 TO 15

No EU harmonised data available by socio-economic status

SATURATED FAT CONSUMPTION AT AGES 11 TO 15
No EU harmonised data available by socio-economic status

## FRUIT CONSUMPTION AT AGES 11 TO 15

INEQUALITIES WITHIN COUNTRY
The HBSC data suggest that daily fruit consumption is more common in high family affluence groups than in low family affluence groups in Portugal at ages 11 to 15 . There is a 14 percentage point difference for boys. The smaller difference for girls is not statistically significant.

Percentage point difference in daily fruit consumption between low and high family affluence groups at ages 11, 13 and 15, 2013/14


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
The HBSC survey does not provide estimates for the EU as a whole. However, fruit consumption is significantly related to family affluence across most EU countries for which these data are available.

## PHYSICAL ACTIVITY AT AGES 11 TO 15

INEQUALITIES WITHIN COUNTRY
The small differences in daily physical activity between family affluence groups in Portugal at ages 11 to 15 , recorded in the HBSC survey, are not statistically significant.

Percentage point difference in prevalence of reporting at least one hour of moderate or vigorous physical activity daily, between low and high family affluence groups at ages 11, 13 and 15, 2013/14


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

The HBSC survey does not provide estimates for the EU as a whole. However, physical activity is significantly related to family affluence in around half of EU countries for which these data are available. In these countries it is more common among both boys and girls in high family affluence groups than in low ones.

## OVERWEIGHT AT AGES 11 TO 15

INEQUALITIES WITHIN COUNTRY
Among children at ages 11 to 15 in Portugal the HBSC data suggest that those from low family affluence groups are more likely to be overweight than those from high family affluence groups. There is an 11 percentage point difference for girls. The smaller difference for boys is not statistically significant.

Percentage point difference in those overweight between low and high family affluence groups at ages 11, 13 and 15, 2013/14


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
The HBSC survey does not provide estimates for the EU as a whole. However, being overweight is significantly related to family affluence across most EU countries for which these data are available.

## WEEKLY ALCOHOL CONSUMPTION AT AGES 11 TO 15

## INEQUALITIES WITHIN COUNTRY

The small differences in weekly use of alcohol between family affluence groups in Portugal at ages 11 to 15 , recorded in the HBSC survey, are not statistically significant.

Percentage point difference in weekly use of alcohol between low and high family affluence groups at ages 11, 13 and 15, 2013/14


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

The HBSC survey does not provide estimates for the EU as a whole. Weekly alcohol consumption is not significantly related to family affluence in the majority of EU countries for which these data are available.

## C) LIFECOURSE STAGE - AGES 15 TO 24

## ALCOHOL CONSUMPTION REPORTED AT AGES 15 AND 16

The main purpose of the European School Survey Project on Alcohol and Other Drugs (ESPAD) project is to collect comparable data on substance use among 15 to 16 year- old students in as many European countries as possible. The target group consists of students who turn 16 during the year of data collection, which in 2011 meant students born in 1995. The surveys are conducted in schools in the participating country, during the same period of time and using a common methodology.

The ESPAD survey was not conducted in all EU member States in 2011 - no ESPAD data are available for Austria, Germany, Luxembourg and Spain for 2011. However, it did cover 23 Member States as well as Flanders (in Belgium). It is therefore possible to compare figures for Portugal to the average for all survey participants in the EU.

## DRANK ALCOHOL IN THE LAST MONTH

## INEQUALITIES WITHIN COUNTRY

The percentage of female students aged 15 to 16 years in Portugal who drank alcohol in the preceding month increased with increasing level of maternal educational attainment. Among male students at these ages, those with mothers with intermediate levels of educational attainment were most likely to have drunk alcohol in the preceding month.

Percentage of 15 and 16 year old students who drank alcohol in the last month by level of maternal educational attainment and sex, 2011


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

For both males and females, the percentage of participating EU students aged 15 to 16 years who drank alcohol in the preceding month was least among those whose mothers had a lower level of educational attainment.

## DRUNK IN LIFETIME

## INEQUALITIES WITHIN COUNTRY

The percentage of female students aged 15 to 16 years in Portugal who have ever been drunk increases with increasing level of maternal educational attainment. Among male students at these ages, those with mothers with lower levels of educational attainment are less likely than others to have ever been drunk.

Percentage of 15 and 16 year old students who had ever been drunk by level of maternal educational attainment and sex, 2011


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

The percentage of participating EU students aged 15 to 16 years who had ever been drunk in their lifetime differed little by level of maternal educational attainment. For both males and females, it was slightly greater for those whose mothers had intermediate levels of educational attainment and slightly lower for those whose mothers had a tertiary education.

## HEAVY DRINKING IN THE LAST MONTH

## INEQUALITIES WITHIN COUNTRY

The percentage of both male and female students aged 15 to 16 years in Portugal who had five or more drinks on one occasion in the previous month increased with increasing level of maternal educational attainment. There were two and 9 percentage point differences in prevalence between those whose mothers had lower levels of educational attainment and those whose mothers had tertiary education for males and females, respectively.

Percentage of 15 and 16 year old students who drank heavily on at least one occasion in the last month by level of maternal educational attainment and sex, 2011


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

The percentage of participating EU students aged 15 to 16 years who had five or more drinks on one occasion in the previous month decreased with increased level of maternal educational attainment, with a six percentage point difference between lower levels of maternal educational attainment and tertiary education for both males and females.

## GOT DRUNK AT AGE 14 OR LESS

## inEQUALITIES WITHIN COUNTRY

The percentage of female students aged 15 to 16 years in Portugal who got drunk at age 14 or less increased with increasing level of maternal educational attainment. Among male students at these ages, those with mothers with intermediate levels of educational attainment were slightly more likely than others to have got drunk at age 14 or less.

## Percentage of 15 and 16 year old students who had ever been drunk at age 14 or less by level of maternal educational attainment and sex, 2011



Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
The percentage of participating EU students aged 15 to 16 years who got drunk at age 14 or less differed little by level of maternal educational attainment for both males and females. For both males and females, it was slightly greater for those whose mothers had intermediate levels of educational attainment and slightly lower for those whose mothers had a tertiary education.

## FIRST DRANK ALCOHOL AT AGE 12 OR EARLIER

INEQUALITIES WITHIN COUNTRY
The percentage of male or female students aged 15 to 16 years who had first drunk alcohol at age 12 or less was similar for all three levels of maternal educational attainment in Portugal.

Percentage of 15 and 16 year old students who drank alcohol at age 12 or earlier by level of maternal educational attainment and sex, 2011


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

The percentage of participating EU students aged 15 to 16 years who had first drunk alcohol at age 12 or less decreased with increased level of maternal educational attainment. Among males and females, it was five and six percentage points, respectively, lower among those whose mothers had a tertiary education than among those whose mothers had lower levels of educational attainment.

## DIET AND EXERCISE AT AGES 15 TO 24

The European Health Interview Survey (EHIS) is the principal source of information at ages 15 and over. The survey consists of four modules on health status, health care use, health determinants and socio-economic background variables. EHIS targets the population aged at least 15 and living in private households.

SUGAR CONSUMPTION AT AGES 15 TO 24
No EU harmonised data available by socio-economic status
SALT CONSUMPTION AT AGES 15 TO 24
No EU harmonised data available by socio-economic status

## FRUIT CONSUMPTION AT AGES 15 TO 24

INEQUALITIES WITHIN COUNTRY
Data from EHIS suggest a consistent social gradient in consumption of fruit at least daily among women at ages 15 to 24 in Portugal. Daily consumption increases as level of educational attainment increases (although many in this age group will not have attained their final lifetime level of education). Among males at these ages, the proportion consuming fruit daily is least for those with tertiary education.

Fruit consumption at least daily at ages 15 to 24 by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

Data from EHIS for the EU as a whole suggest that there is a consistent gradient in fruit consumption among young women aged 15 to 24, with those who attained a tertiary level of education most likely to eat fruit at least daily. Among young men, those with intermediate levels of educational attainment were least likely to eat fruit at least daily. However, many in this age group will not have attained their final lifetime level of educational attainment.

## VEGETABLE CONSUMPTION AT AGES 15 TO 24

## INEQUALITIES WITHIN COUNTRY

Data from EHIS suggest consistent social gradients in consuming vegetables at least daily among both men and women at ages 15 to 24 in Portugal. Daily consumption increases as level of educational attainment increases (although many in this age group will not have attained their final lifetime level of education).

Vegetable consumption at least daily at ages 15 to 24 by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

Data from EHIS for the EU as a whole suggest that there are consistent gradients in vegetable consumption among young men and women aged 15 to 24 , with those who attained a tertiary level of education most likely to eat fruit at least daily. However, many in this age group will not have attained their final lifetime level of educational attainment.

## PHYSICAL ACTIVITY AT AGES 15 TO 24

## INEQUALITIES WITHIN COUNTRY

EHIS data suggest that physical activity outside work decreases with increased level of educational attainment among women in Portugal at ages 15 to 24. Among men at these ages, physical activity outside work is most common in those with lower levels of educational attainment. In-work physical activity decreases with increased level of educational attainment among men at these ages while, among women, the highest levels are seen in those with tertiary education.

Work and non-work related physical activity at ages 15 to 24 by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

Physical activity recorded in EHIS shows no clear relationship between in-work physical activity and educational attainment level, at ages 15 to 24 across the EU as a whole. Those with intermediate levels of educational attainment are most likely to engage in moderate or heavy physical activity in-work and those with lower levels of attainment least likely to do so. Physical activity outside work is more common among young men with lower levels of educational attainment than among those with intermediate levels. For young women, the highest levels are among those who had attained a tertiary level of education at this age.

Physical activity outside work similarly shows no clear relationship with educational attainment level, at ages 15 to 24 across the EU as a whole. Those with intermediate levels of educational attainment are least likely to engage in significant physical activity outside work at these ages.

Many in this age group will not have attained their final lifetime level of educational attainment.

OVERWEIGHT AT AGES 15 TO 24
INEQUALITIES WITHIN COUNTRY
EHIS data show that there is a social gradient in obesity (equivalent to BMI of at least 30 at age 19) in Portugal for men at ages 15 to 24 - the proportion obese decreases as level of educational attainment increases. Among women at these ages, obesity is most common in those with intermediate levels of educational attainment. For both men and women, pre-obesity (equivalent to BMI of at least 25 but less than 30 at age 19) is similarly most common in those with intermediate levels of educational attainment.

Overweight at ages 15 to 24 by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

In the EU as a whole, at ages 15 to 24, EHIS data suggest that both pre-obesity (equivalent to BMI of at least 25 but less than 30 at age 19) and obesity equivalent to (BMI of 30 or more at age 19) are generally more common among young men and women with intermediate levels of educational attainment than at other levels of attainment. Many in this age group will not have attained their final lifetime level of education.

## D) LIFECOURSE STAGE - ADULT BEHAVIOUR

## SUGAR CONSUMPTION IN ADULTS

No EU harmonised data available by socio-economic status

## SALT CONSUMPTION IN ADULTS

No EU harmonised data available by socio-economic status

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SATURATED FAT CONSUMPTION IN ADULTS
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No EU harmonised data available by socio-economic status

## FRUIT CONSUMPTION AT AGES 18 AND OVER

INEQUALITIES WITHIN COUNTRY
Data from EHIS suggest that, among women at ages 18 and over in Portugal, fruit consumption at least daily increases as level of educational attainment increases. Among males at these ages, the proportion consuming fruit daily is least for those with intermediate levels of educational attainment.

Fruit consumption at least daily at ages 18 and over by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
Data from EHIS for the EU as a whole suggest that those with intermediate levels of educational attainment were least likely to eat fruit at least daily at ages 18 and over, with those who attained a tertiary level of education generally most likely to eat fruit at least daily.

VEGETABLE CONSUMPTION AT AGES 18 AND OVER
INEQUALITIES WITHIN COUNTRY
Data from EHIS suggest that among both men and women at ages 18 and over in Portugal consumption of vegetables at least daily increases as level of educational attainment increases.

Vegetable consumption at least daily at ages 18 and over by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

Data from EHIS for the EU as a whole suggest that those with intermediate levels of educational attainment were least likely to eat vegetables at least daily at ages 18 and over, with those who attained a tertiary level of education generally most likely to eat vegetables at least daily.

## PHYSICAL ACTIVITY AT AGES 18 AND OVER

INEQUALITIES WITHIN COUNTRY
In Portugal, EHIS data suggest that, for both men and women at ages 18 and over, physical activity outside work increases as level of educational attainment increases while in-work physical activity decreases.

Work and non-work related physical activity at ages 18 and over by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
In the EU as a whole, EHIS data suggest that for both men and women there is a marked social gradient in physical activity outside work - the proportion engaging in physical exercise outside work increases with increased levels of educational attainment. Physical activity at work among men and women, aged 18 and over, is most common among those with intermediate levels of educational attainment and least common among those with tertiary education.

## OVERWEIGHT AT AGES 18 AND OVER

## INEQUALITIES WITHIN COUNTRY

In Portugal, EHIS suggest that there are clear social gradients in both female obesity (BMI of at least 30) and pre-obesity (BMI of at least 25 but less than 30) at ages 18 and over - prevalence decrease with increasing levels of educational attainment. Among men at these ages, both pre-obesity and obesity are most common in those with lower levels of educational attainment.

Adults overweight at ages 18 and over by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
For the EU as a whole, there is a social gradient for both men and women in both the proportion who are pre-obese (BMI of at least 25 but less than 30) and obese (BMI of 30 or more) based on EHIS data. That is to say, both decrease as level of educational attainment increases. Among men at this age, however, these differences in levels of pre-obesity by level of educational attainment are small.

## CORONARY HEART DISEASE INCIDENCE

No EU harmonised data available by socio-economic status

## CORONARY HEART DISEASE DEATHS

No EU harmonised data available by socio-economic status

## CANCER INCIDENCE

No EU harmonised data available by socio-economic status

## CANCER DEATHS

No EU harmonised data available by socio-economic status

## DAILY ALCOHOL CONSUMPTION AT AGES 18 AND OVER

INEQUALITIES WITHIN COUNTRY
Based on EHIS data, for both men and women at ages 18 and over in Portugal, the proportions consuming alcohol daily are greatest among those with lower levels of educational attainment - more than double those with other levels of educational attainment.

Daily alcohol consumption at ages 18 and over by sex and educational attainment level, 2014


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
Based on EHIS data, among women aged 18 and over in the EU as a whole, there is a social gradient in the proportion drinking alcohol daily - the figure decreases with the level of education attained. Among men, while the proportion is highest among those with lower levels of educational attainment it is least among those with intermediate levels of educational attainment. The proportion of women drinking every day is around a third of the figure for men.

## HEAVY EPISODIC DRINKING AT AGES 18 AND OVER

## INEQUALITIES WITHIN COUNTRY

Based on EHIS data, for both adult men and women aged 18 and over in Portugal, those with intermediate levels of educational attainment are slightly more likely to drink heavily at least monthly than others. At every level of educational attainment, the proportion of men drinking heavily at least monthly is over three and a half times greater than it is for women.

Heavy episodic drinking at least monthly at ages 18 and over by level of educational attainment and sex, 2014


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

Based on EHIS data in the EU as a whole there are no clear social gradients in the proportion drinking heavily at least monthly for both sexes at ages 18 and over. While those with lower levels of educational attainment are markedly less likely than others to drink heavily at least monthly, proportions for those with intermediate levels of educational attainment are slightly higher than for those with tertiary education. The proportion of women drinking heavily at least monthly is less than half the proportion among men.

ALCOHOL RELATED CAUTIONS AND ARRESTS
No EU harmonised data available by socio-economic status

## ALCOHOL RELATED DEATHS

No EU harmonised data available by socio-economic status

## RARHA ALCOHOL DATA

The EU Joint Action on Reducing Alcohol Related Harm Standardised European Alcohol Survey (RARHA SEAS) was a comprehensive survey of alcohol consumption and harm conducted in 17 EU countries and two non-EU countries. Survey data was gathered from representative samples of the general populations aged 18-64.

## DAILY ALCOHOL CONSUMPTION AT AGES 18 TO 64

## inequalities WITHIN COUNTRY

RARHA survey data for Portugal suggest that, for both men and women aged between 18 and 64 in Portugal, those with lower levels of educational attainment are substantially more likely to consume alcohol daily than others. At every level of educational attainment, the proportion of men drinking alcohol daily is four or more times greater than it is for women.

Daily alcohol consumption at ages 18 to 64 by level of educational attainment and sex, 2015


Sources, numbers and definitions: See Annex
COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE
RARHA survey data for the 17 participant EU Member States suggest that there are clear social gradients by educational attainment in the proportions of both men and women aged between 18 and 64 who consume alcohol every day. The gradient is steeper for men than for women and, in each educational attainment category, the proportion of women who drink alcohol daily is less than that for men. Among women with lower levels of educational attainment the proportion drinking every day is less than a third of the figure for their male counterparts.

## HEAVY EPISODIC DRINKING AT LEAST MONTHLY AT AGES 18 TO 64

## INEQUALITIES WITHIN COUNTRY

RARHA survey data for Portugal suggest that there are small differences by level of educational attainment in the proportion of men and women aged between 18 and 64 who drink heavily at least monthly. At every level of educational attainment, the proportion of men drinking heavily at least monthly is over three and a half times greater than it is for women.

Heavy episodic drinking at least monthly at ages 18 to 64 by level of educational attainment and sex, 2015


Sources, numbers and definitions: See Annex

## COMPARISON WITH INEQUALITIES IN THE EU AS A WHOLE

RARHA survey data for the 17 participant EU Member States suggest that there is a clear reverse social gradient in the proportion of women aged between 18 and 64 who drink heavily at least monthly. The proportion is least among women with lower levels of educational attainment and greatest among those with tertiary education. Among men the proportion is greatest among those with intermediate levels of educational attainment.

## ANNEX

## DATA FOR PORTUGAL, SOURCES AND DEFINITIONS

## INCOME INEQUALITY

Income is computed in EU SILC on the basis of the total equivalised disposable income attributed to each member of the household. The data (for each person) are ordered according to the value of the total equivalised disposable income.

Equivalised mean income in Euros (PPS) at ages 18 and over by level of educational attainment and sex, 2016

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 10,764 | 14,705 | 22,689 | Mean equivalised household <br> income (pps) for males and <br> females aged 18 and over |
| Females | 10,238 | 13,110 | 20,593 |  |

Source: Eurostat, EU-SILC survey [ilc_di08]
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_di08\&/ang=en
Accessed 23 March 2018
Equivalised median income in Euros (PPS) at ages 18 and over by level of educational attainment and sex, 2016

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 9,627 | 13,127 | 19,642 | Median equivalised household <br> income (pps) for males and <br> females aged 18 and over |
| Females | 9,038 | 11,497 | 18,085 |  |

Source: Eurostat, EU-SILC survey [ilc_di08]
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_di08\&/ang=en
Accessed 23 March 2018

## HEALTH AND LIFE EXPECTANCY

## Life expectancy at birth by level of educational attainment

Life expectancy represents the mean number of years still to be lived by a person, if subjected throughout the rest of his or her life to the current mortality conditions (age-specific probabilities of dying).

Level of educational attainment is defined according to the International standard classification of education (ISCED) . The educational attainment level of an individual is the highest ISCED level successfully completed.

Educational attainment levels are presented for three main categories:

- Lower: Less than primary, primary and lower secondary education (ISCED 2011 levels 0-2)
- Intermediate: Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4)
- Tertiary: Tertiary education (ISCED 2011 levels 5-8)

Life expectancy at birth by level of educational attainment and sex, 2015

|  | Educational attainment level |  | Definition |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 77.0 | 80.2 | 82.2 | Mean number of <br> years still to be <br> lived from birth |
| Females | 83.6 | 84.9 | 86.4 |  |

Source: Eurostat [demo_mlexpecedu]
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_mlexpecedu\&lang=en Accessed 20 April 2017

## Self reported health by level of educational attainment and income

The European Statistics of Income and Living Condition (EU-SILC) survey contains a small module on health, composed of three variables on health status and four variables on unmet needs for health care.

The variables on health status represent the so called Minimum European Health Module (MEHM), and measures three different concepts of health:

- Self-perceived health
- Chronic morbidity (people having a long-standing illness or health problem)
- Activity limitation - disability (self-perceived long-standing limitations in usual activities due to health problems)
In this report the first two health status concepts are used since these are the ones most likely to result from behaviours, rather than inherited disorders, accidents and the relationship between health status and the availability of aids to daily living that mitigate health conditions.

Educational attainment level: the level of education attainment of individuals is classified in EU SILC according to the International Standard Classification of Education (ISCED) version of 1997 and are grouped as follows:

- Pre-primary, primary and lower secondary education
- Upper secondary and post-secondary non-tertiary education
- First and second stage of tertiary education

Income quintile group is computed in EU SILC on the basis of the total equivalised disposable income attributed to each member of the household.

The data (of each person) are ordered according to the value of the total equivalised disposable income. Four cut-point values (the so-called quintile cutoff points) of income, dividing the survey population into five groups equally represented by $20 \%$ of individuals each, are found:

- First quintile group of equivalised income
- Second quintile group of equivalised income
- Third quintile group of equivalised income
- Fourth quintile group of equivalised income
- Fifth quintile group of equivalised income.

The first quintile group represents $20 \%$ of population with lowest income and the fifth quintile group $20 \%$ of population with highest income.

Age standardised percentage with good or very good self-perceived health by level of educational attainment and sex, 2016

|  | Educational attainment level |  | Definition |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 46.42 | 59.27 | 69.46 | Percent reporting good or very <br> good health, standardised for <br> age using the European <br> Standard Population |
| Females | 37.84 | 51.24 | 64.84 |  |

Source: Eurostat [hlth_silc_02]
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_silc_02\&lang=en
Accessed 18 March 2018
Note: Age standardisation for males in Portugal is based on ages 16 to 24, then ten-year age groups up to age 74 and then 75 and over. Age standardisation for females in Portugal is based on ages 16 to 24, then ten-year age groups up to age 64 and then 65 and over, due to unavailability of finer age breakdowns at older ages for self-perceived health of those with intermediate levels of educational attainment.

Age standardised percentage with good or very good self-perceived health by income quintile and sex, 2016

| Income quintile |  |  |  |  | Definition |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | First | Second | Third | Fourth | Fifth |  |
| Males | 40.11 | 48.55 | 51.16 | 54.27 | 63.34 | Percent reporting good <br> or very good health, <br> standardised for age <br> using the European <br> Standard Population |
| Females | 35.51 | 40.55 | 43.75 | 48.29 | 60.07 |  |
| Source: Eurostat [h/th_silc_10] <br> http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_silc_10\&lang=en <br> Accessed 18 March 2018 |  |  |  |  |  |  |

Note: Age standardisation for males and females in Portugal is based on ages 16 to 24 , then ten-year age groups up age 74 and then 75 and over.

Age standardised percentage reporting a long-standing illness or health problem by level of educational attainment and sex, 2016

|  | Educational attainment level |  | Definition |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 39.54 | 34.04 | 32.04 | Percent reporting a long-standing <br> illness or health problem, <br> standardised for age using the <br> European Standard Population |
| Females | 45.96 | 39.55 | 34.60 |  |

Source: Eurostat [hith_silc_05]
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_silc_05\&lang=en Accessed 18 March 2018
Note: Age standardisation for males in Portugal is based on ages 16 to 24, then ten-year age groups up to age 74 and then 75 and over. Age standardisation for females in Portugal is based on ages 16 to 24, then ten-year age groups up to age 64 and then 65 and over, due to unavailability of finer age breakdowns at older ages for a long-standing illness or health problem of those with intermediate levels of educational attainment.

Age standardised percentage reporting a long-standing illness or health problem by income quintile and sex, 2016

|  | Income quintile |  |  | Definition |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | First | Second | Third | Fourth | Fifth |  |
| Males | 43.91 | 39.70 | 38.28 | 34.74 | 32.71 | Percent reporting a long- <br> standing illness or health <br> problem, standardised <br> for age using the <br> European Standard <br> Population Sta |

## Source: Eurostat [hlth_silc_11]

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_silc_11\&lang=eneing
Accessed 18 March 2018
Note: Age standardisation for males and females in Portugal is based on ages 16 to 24 , then ten-year age groups up age 74 and then 75 and over.

Age standardised percentage reporting that they have diabetes by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 10.86 | 6.75 | 6.07 | Percent reporting that <br> they have diabetes, <br> standardised for age <br> using the European <br> Standard Population |
| Females | 10.08 | 3.74 | 3.51 |  |
| Source: Eurostat [hlth_silc_05] <br> http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_ehis_cd1e\&lang=en <br> Accessed 11 October 2018 |  |  |  |  |

Note: Age standardisation for males and females in Portugal are based on age groups 15 to 44,45 to 54,55 to 64,65 to 74 and 75 and over.

## LIFECOURSE

## A) LIFECOURSE STAGE - A GOOD START IN LIFE

Educational attainment level: the education attainment levels of individuals are based on data collected in the European Health Interview Survey (EHIS) classified according to the International Standard Classification of Education (ISCED) 2011 and are grouped as above.

Women overweight at ages 18-44 by level of educational attainment, 2014

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Pre-obese | 25.6 | 22.0 | 17.9 | Percent with a BMI <br> of at least 25 but <br> less than 30 |
| Obese | 18.3 | 9.5 | 5.3 | Percent with a BMI <br> of 30 or more |

Source: Eurostat, [hlth_ehis_bm1e], European Health Interview Survey
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_bm1e\&lang=en Accessed 25 April 2017

## Infant mortality

Infant deaths - the death of a live-born infant who has not yet completed one year of life
Level of educational attainment - see life expectancy by educational attainment

Infant mortality by level of maternal education, 2016

|  | Educational attainment level | Definition |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Infant <br> mortality rate | 3.62 | 2.04 | 1.12 | Deaths in the first <br> year of life per <br> 1,000 live births |

Source: Eurostat [demo_minfedu], [demo_faeduc]
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_minfedu\&/ang=en
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_faeduc\&lang=en Accessed 18 May 2018

## OVERWEIGHT IN EARLY CHILDHOOD

Ruiz et al. (2016) defined overweight cases using the age and gender-specific thresholds for BMI recommended by the International Obesity Task Force (IOTF) in each national cohort, which correspond to a BMI value of $25 \mathrm{~kg} / \mathrm{m}^{2}$ at 18 years of age. Obese cases in each cohort were also defined by the IOTF as the ageand gender-specific BMI values that are comparable to an adult BMI value of 30 $\mathrm{kg} / \mathrm{m}^{2}$.

Maternal education was ascertained at entry to each cohort study, either during pregnancy or near the time of birth. The country-specific coding scheme provided by ISCED-1997 was used to classify mothers into the following categories:

- post-secondary non-tertiary to second stage of tertiary education (ISCED 4-6)
- upper secondary education (ISCED 3), and
- pre-primary to lower secondary or second stage of basic education (ISCED 0-2).

Children overweight at ages four to seven by level of maternal educational attainment and sex, born in 1983-2006

|  | Educational attainment level |  |  | Definitions |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
|  | Lower | Inter- <br> mediate | Tertiary |  |  |  |
| Pre-obese |  |  |  |  |  |  |
| Boys | 12.1 | 10.5 | 8.5 | Percent with BMI that is <br> equivalent to at least 25 but less <br> than 30 at age 18 |  |  |
| Girls | 20.0 | 20.6 | 12.6 |  |  |  |
| Obese | Percent with BMI that is <br> equivalent to 30 or more at age <br> 18 |  |  |  |  |  |
| Girls | 6.3 | 5.0 | 2.2 | 4.8 |  |  |

Source: Ruiz et al (2016) Impact of Low Maternal Education on Early Childhood Overweight and Obesity in Europe
http://onlinelibrary.wiley.com/doi/10.1111/ppe.12285/full
Accessed 25 April 2017

## B) LIFECOURSE STAGE - AGES 11 TO 15

The Health Behaviour of School Age Children (HBSC) survey 2013/2014 is the principal source of information at ages 11 to 15 . To derive their Family Affluence Scale (FAS) the survey used a six-item assessment of common material assets or activities as follows:
(1) summing the score on responses to the following six items:

- Does your family own a car, van or truck? (Responses: no, one, two or more);
- Do you have your own bedroom for yourself? (No, yes);
- How many times did you and your family travel out of [insert country/region name] for a holiday/vacation last year? (Not at all, once, twice, more than twice);
- How many computers do your family own? (None, one, two, more than two);
- Does your family have a dishwasher at home? (No, yes); and
- How many bathrooms (rooms with a bath/shower or both) are in your home? (None, one, two, more than two).
(2) comparing the individual's summary score from the FAS to all other scores in the respective country/region. This relative affluence score is then used to identify groups of young people in the lowest 20\% (low affluence), middle 60\% (medium affluence) and highest 20\% (high affluence) in each country and region.

Percentage point difference in prevalence of drinking soft-drinks at least once a day between low and high family affluence groups at ages 11, 13 and 15, by sex, 2013/14

|  | Percentage <br> point difference | Definition |
| :--- | :--- | :--- |
| Boys | -1 | Difference in prevalence between those in <br> the low and high affluence groups based on <br> the Family Affluence Scale (FAS) |
| Girls | -5 |  |

Source: HBSC 2016
https://gateway.euro.who.int/en/indicators/hbsc-indicators/hbsc_6-difference-in-drinking-soft-drinks-by-fas/
Accessed 14 March 2017

Percentage point difference in daily fruit consumption between low and high family affluence groups at ages 11, 13 and 15, by sex, 2013/14

|  | Percentage <br> point difference | Definition |
| :--- | :--- | :--- |
| Boys | 14 | Difference in prevalence between those in |
| the low and high affluence groups based on |  |  |
| the Family Affluence Scale (FAS) |  |  |

[^1]Percentage point difference in prevalence of reporting at least one hour of moderate or vigorous physical activity daily, between low and high family affluence groups at ages 11, 13 and 15, by sex, 2013/14

|  | Percentage <br> point difference | Definition |
| :--- | :--- | :--- |
| Boys | 1 | Difference in prevalence between those in <br> the low and high affluence groups based on <br> the Family Affluence Scale (FAS) |
| Girls | 2 | Source: HBSC 2016 <br> https://gateway.euro.who.int/en/indicators/hbsc-indicators/hbsc_12-difference-in- <br> moderate-to-vigorous-physical-activity-by-fas/ <br> Accessed 14 March 2017 |

Percentage point difference in those overweight between low and high family affluence groups at ages 11, 13 and 15, by sex, 2013/14

|  | Percentage <br> point difference | Definition |
| :--- | :--- | :--- |
| Boys | -4 | Difference in prevalence between those in <br> the low and high affluence groups based on <br> the Family Affluence Scale (FAS) |
| Girls | -11 | Source: HBSC 2016 <br> https://gateway.euro.who.int/en/indicators/hbsc-indicators/hbsc_83-differences-in- <br> bmi-by-fas/ <br> Accessed 14 March 2017 |

Percentage point difference in weekly use of alcohol between low and high family affluence groups at ages 11, 13 and 15, by sex, 2013/14

|  | Percentage <br> point difference | Definition |
| :--- | :--- | :--- |
| Boys | 3 | Difference in prevalence between those in |
| the low and high affluence groups based on |  |  |
| the Family Affluence Scale (FAS) |  |  |$|$| Girls |
| :--- |
| Source: HBSC 2016 <br> https://gateway.euro.who.int/en/indicators/hbsc_88-differences-in-alcohol- <br> consumption-by-fas/ <br> Accessed 14 March 2017 |

C) LIFECOURSE STAGE - AGES 15 TO 24

ALCOHOL CONSUMPTION REPORTED AT AGES 15 AND 16
The main purpose of the European School Survey Project on Alcohol and Other Drugs (ESPAD) project is to collect comparable data on substance use among 15 to 16 year- old students in as many European countries as possible. The target group consists of students who turn 16 during the year of data collection, which in 2011 meant students born in 1995. The surveys are conducted in schools in the participating country, during the same period of time and using a common methodology.

Educational attainment level: the level of education attainment of mothers is used here, grouped using the classification in ESPAD as follows:
Lower
Completed primary school or less
Some secondary school
Intermediate
Completed secondary school
Tertiary
Some college or university
Completed college or university
Percentage of 15 and 16 year old students who drank alcohol in the last month by level of maternal educational attainment and sex, 2011

|  | Educational attainment level |  | Definition |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 53.4 | 64.4 | 59.1 | Percent who had any alcohol <br> beverage to drink during the last <br> 30 days |
| Females | 47.9 | 50.8 | 59.4 |  |

Source: ESPAD
http://www.espad.org/
Extracted 13 April 2018
Percentage of 15 and 16 year old students who had ever been drunk by level of maternal educational attainment and sex, 2011

|  | Educational attainment level |  | Definition |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 35.4 | 38.5 | 38.4 | Percent who have been intoxicated <br> from drinking alcoholic beverages, <br> for example staggered when <br> walking, not being able to speak <br> properly, throwing up or not <br> remembering what happened, in <br> their lifetime |
| Females | 28.7 | 29.7 | 40.1 |  |
| Source: ESPAD <br> http://www.espad.org/ <br> Extracted 13 April 2018 |  |  |  |  |

Percentage of 15 and 16 year old students who drank heavily on at least one occasion in the last month by level of maternal educational attainment and sex, 2011

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 26.1 | 27.7 | 28.3 | Percent who had five or more <br> drinks on one occasion during the <br> last 30 <br> days |
| Females | 16.3 | 20.6 | 25.1 |  |
| Source: ESPAD <br> http://www.espad.org/ <br> Extracted 13 April 2018 |  |  |  |  |

Percentage of 15 and 16 year old students who had ever been drunk at age 14 or less by level of maternal educational attainment and sex, 2011

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 18.8 | 22.6 | 21.2 | Percent who had first got drunk on <br> alcohol when aged 14 years of age <br> or less |
| Females | 18.7 | 19.9 | 23.2 | ( |

## Source: ESPAD

http://www.espad.org/
Extracted 13 April 2018
Percentage of 15 and 16 year old students who drank alcohol at age 12 or earlier by level of maternal educational attainment and sex, 2011

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 37.5 | 38.4 | 37.1 | Percent who first drank at least one <br> glass of alcoholic beverage when <br> aged 12 years of age or less |
| Females | 29.5 | 30.6 | 30.4 |  |
| Source: ESPAD <br> http://www.espad.org/ <br> Extracted 13 April 2018 |  |  |  |  |

## DIET AND EXERCISE AT AGES 15 TO 24

The European Health Interview Survey (EHIS) is the principal source of information at ages 15 and over. The survey consists of four modules on health status, health care use, health determinants and socio-economic background variables. EHIS targets the population aged at least 15 and living in private households.

Educational attainment level: the education attainment levels of individuals in EHIS are classified according to the International Standard Classification of Education (ISCED) 2011 and are grouped as follows:

- Lower: less than primary, primary and lower secondary education
- Intermediate: upper secondary and post-secondary non-tertiary
- Tertiary: Tertiary education

Fruit consumption at least daily at ages $\mathbf{1 5}$ to $\mathbf{2 4}$ by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 46.8 | 49.4 | 40.7 | Percent consuming fruit at least <br> daily |
| Females | 48.7 | 62.9 | 65.9 |  |

Source: Eurostat [hlth_ehis_fv1e], European Health Interview Survey http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_fv1e\&lang=en Accessed 26 April 2017

Vegetable consumption at least daily at ages 15 to 24 by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 28.1 | 36.1 | 44.3 | Percent consuming vegetables |
| Females | 38.4 | 45.9 | 56.1 | at least daily |$|$| Source: Eurostat [h/th_ehis_fv1e], European Health Interview Survey |
| :--- |
| http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_fv1e\&/ang=en |
| Accessed 26 April 2017 |

Work and non-work related physical activity at ages 15 to 24 by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definitions |
| :--- | :--- | :--- | :--- | :--- |
| Lower <br> Inter- <br> mediate |  |  |  | Tertiary |
| Non-work related physical activity |  |  |  |  |
| Males | 51.7 | 40.8 | 42.3 | Percent engaging in health- <br> enhancing aerobic physical <br> activity of 150 or more minutes <br> per week outside work |
| Females | 31.7 | 21.4 | 17.9 |  |
| work-related physical activity |  | 16.4 | Percent engaging in moderate <br> or heavy physical activity in <br> work. |  |
| Males | 44.3 | 43.7 |  |  |
| Females | 31.9 | 28.5 | 36.0 |  |

[^2]
## Overweight at ages $\mathbf{1 5}$ to $\mathbf{2 4}$ by level of educational attainment and sex,

 2014|  | Educational attainment level |  |  | Definitions |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Pre-obese | 16.0 | 21.5 | 18.4 | Percent with BMI <br> that is equivalent to <br> at least 25 but less <br> than 30 at age 19 |
| Males | 15.1 | 16.0 | 11.8 | Percent with BMI <br> that is equivalent to <br> 30 or more at age 19 |
| Females |  |  |  |  |
| Obese | Males | 7.5 | 2.6 | 0.6 |
| Females | 4.5 | 6.8 | 1.0 | Sun |

Source: Eurostat, [hlth_ehis_bm1e], European Health Interview Survey
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_bm1e\&/ang=en Accessed 20 April 2017

## D) LIFECOURSE STAGE - ADULT BEHAVIOUR

The European Health Interview Survey (EHIS) is the principal source of information at ages 15 and over. The survey consists of four modules on health status, health care use, health determinants and socio-economic background variables. EHIS targets the population aged at least 15 and living in private households.

Educational attainment level: the education attainment levels of individuals in EHIS are classified according to the International Standard Classification of Education (ISCED) 2011 and are grouped as follows:

- Lower: less than primary, primary and lower secondary education
- Intermediate: upper secondary and post-secondary non-tertiary
- Tertiary: Tertiary education

Fruit consumption at least daily at ages 18 and over by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 68.3 | 61.5 | 73.3 | Percent consuming fruit at least <br> daily |
| Females | 73.9 | 74.3 | 80.0 | d |

Source: Eurostat [hlth_ehis_fv1e], European Health Interview Survey
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_fv1e\&lang=en Accessed 26 April 2017

Vegetable consumption at least daily at ages 18 and over by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 48.1 | 48.8 | 59.2 | Percent consuming vegetables <br> at least daily |
| Females | 57.7 | 62.1 | 71.6 |  |

Source: Eurostat [h/th_ehis_fv1e], European Health Interview Survey
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_fv1e\&lang=en Accessed 26 April 2017

Work and non-work related physical activity at ages 18 and over by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  |  |  |  | Definitions |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
|  | Lower | Inter- <br> mediate | Tertiary |  |  |  |  |
| Non-work related physical activity |  |  |  |  |  |  |  |
| Males | 16.8 | 33.9 | 35.1 | Percent engaging in health- <br> enhancing aerobic physical <br> activity of 150 or more minutes <br> per week outside work |  |  |  |
| Females | 7.6 | 12.4 | 21.2 |  |  |  |  |
| Work-related physical activity |  |  |  |  |  |  |  |
| Males | 57.1 | 50.2 | 31.9 | Percent engaging in moderate or |  |  |  |
| heavy physical activity in work. |  |  |  |  |  |  |  |$|$

Overweight at ages 18 and over by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definitions |
| :---: | :---: | :---: | :---: | :---: |
|  | Lower | Intermediate | Tertiary |  |
| Pre-obese |  |  |  |  |
| Males | 43.9 | 39.1 | 40.6 | Percent with BMI at least 25 but less than 30 at age 19 |
| Females | 37.8 | 25.0 | 22.1 |  |
| Obese |  |  |  |  |
| Males | 18.4 | 9.7 | 10.1 | Percent with a BMI of 30 or more |
| Females | 23.3 | 11.6 | 7.7 |  |
| Source: Eurostat, [hlth_ehis_bm1e], European Health Interview Survey http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_bm1e\&/ang=en Accessed 21 February 2017 |  |  |  |  |

## Daily alcohol consumption at ages 18 and over by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 49.8 | 22.9 | 21.8 | Percent consuming alcohol at <br> least daily |
| Females | 16.3 | 5.5 | 6.3 | at |

Source: Eurostat [hlth_ehis_al1e], European Health Interview Survey
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_al1e\&lang=en Accessed 27 April 2017

Heavy episodic drinking at least monthly at ages 18 and over by level of educational attainment and sex, 2014

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 17.8 | 21.8 | 17.5 | Percent ingesting more than 60 gm of <br> pure ethanol on a single occasion at <br> least once a month |
| Females | 1.8 | 6.0 | 4.9 |  |

Source: Eurostat [h/th_ehis_al3], European Health Interview Survey
http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_a/3e\&/ang=en Accessed 26 July 2017

## EU Joint Action on Reducing Alcohol Related Harm Standardised European Alcohol Survey (RARHA SEAS)

RARHA SEAS was a comprehensive survey of alcohol consumption and harm conducted in 17 EU countries and two non-EU countries. Survey data was gathered from representative samples of the general populations aged 18-64. On average 1,500 interviews per country were carried out, most surveys being completed in 2015.

Questions asked included frequency and usual quantity of drinking alcohol and risky single occasion drinking (RSOD) i.e. heavy episodic or binge drinking. It was assumed that drinking 40 grams of $100 \%$ alcohol or more per woman and 60 grams or more per man constitutes a threshold of RSOD or heavy episodic drinking.

The survey included a number of social and demographic questions, including "What is the highest school grade you have completed?" Answers to this question have been grouped as follows:

1) Less than primary, primary education and lower secondary education (lower)
2) Upper secondary (general and vocation), post-secondary non-tertiary education (intermediate)
3)Short-cycle tertiary, Bachelors, Masters, Doctoral (tertiary)

## Daily alcohol consumption at ages 18 to 64 by level of educational attainment and sex, 2015

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 39.9 | 23.3 | 24.0 | Percent consuming alcohol at least <br> daily |
| Females | 10.0 | 2.7 | 3.9 | Source: RARHA SEAS <br> http://www.rarha.eu/About/Pages/default.aspx <br> Accessed 9 April 2018 |

Heavy episodic drinking at least monthly at ages 18 to 64 by level of educational attainment and sex, 2015

|  | Educational attainment level |  |  | Definition |
| :--- | :--- | :--- | :--- | :--- |
|  | Lower | Inter- <br> mediate | Tertiary |  |
| Males | 10.6 | 11.2 | 9.4 | Percent drinking 40 grams of $100 \%$ <br> alcohol or more per woman and 60 <br> grams or more per man on a single <br> occasion at least once a month |
| Females | 1.3 | 1.4 | 2.6 |  |
| Source: RARHA SEAS <br> http://www.rarha.eu/About/Pages/default.aspx <br> Accessed 9 April 2018 |  |  |  |  |

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[^0]:    ${ }^{1}$ World Health Organization (2013) Review of Social Determinants of Health and the Health Divide in the WHO European Region: final report of a consortium chaired by Michael Marmot. WHO Regional Office for Europe, Copenhagen.
    ${ }^{2}$ Mackenbach, J.P. (2016), Health Inequalities in Europe, Erasmus University Publishing, Rotterdam

[^1]:    Source: HBSC 2016
    https://gateway.euro.who.int/en/indicators/hbsc-indicators/hbsc_4-difference-in-eating-fruit-by-fas
    Accessed 14 March 2017

[^2]:    Source: Eurostat, [hlth_ehis_pe1e, hlth_ehis_pe2e], European Health Interview Survey
    http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=h/th_ehis_pe1e\&/ang=en http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_ehis_pe2e\&lang=en Accessed 17 April 2017

