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# **Health Profile: Oslo, Norway**

DOI:

10.3927/171838

#### Link to publication record in Manchester Research Explorer

Citation for published version (APA):

van Ameijden, E., Koster, E., de Gelder, R., van Buren, L., & Verma, A. (2012). *Health Profile: Oslo, Norway*. University of Manchester. https://doi.org/10.3927/171838

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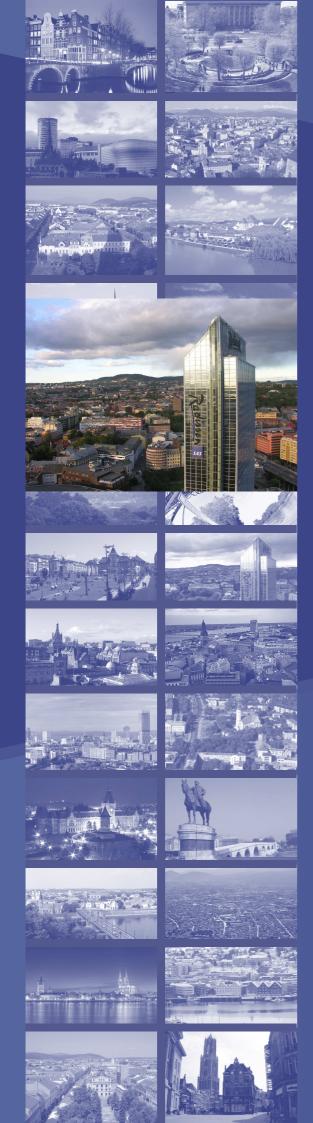
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# Health Profile: Oslo, Norway

Taking cities to a healthier future







Depression and anxiety were as often reported in Oslo as in the other EURO-URHIS 2 cities.

All-cause mortality in both males and females is lower in Oslo compared to other EURO-URHIS 2 cities. Mortality from malignant neoplasms in males and mortality from diseases of the circulatory system are substantially lower than the overall EURO-URHIS 2 mean. Mortality from diseases of the respiratory system does not differ.

Heavy episodic drinking in Oslo youth occurs less often compared to other EURO-URHIS 2 cities, whereas binge drinking in adults occurs more often. Smoking in both youth and adults occurs less often in Oslo compared to other EURO-URHIS 2 cities.

The proportion of youth who are overweight or obese is similar to the overall EURO-URHIS 2 proportion, whereas the proportion of overweight or obese adults is lower.

Health and health determinants in Oslo vary considerably by age, gender and level of education.

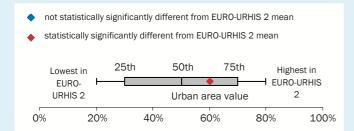
# This health profile describes the health situation and associated health determinants in Oslo compared with those observed in other European urban areas.

Oslo is one of the urban areas chosen for EURO-URHIS 2 (European Urban Health Indicator System Part 2), a project that aims to identify health problems in urban areas. The EURO-URHIS 2 project describes health and health determinants specific to urban areas in Europe, covering cities in North, East, South, and West Europe. This project may add to information that is already locally available, in that it is the first study to enable reliable comparisons of health status between different cities in Europe. Policy makers can use the information to prioritise topics for urban health policy and for interventions in an evidence-based way.

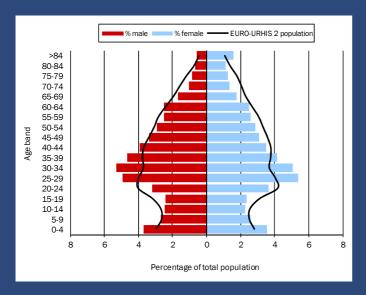
EURO-URHIS 2 gathered information by collecting data from routinely available registration data, and by conducting youth and adult surveys at the end of 2010. In total, data from 26 urban areas in Europe were available for between-city comparisons and benchmarking.

The routinely available registration data relate to the most recently available year (2005-2010). The youth survey was a school-based survey of 14-16 year olds. In Oslo, 497 students completed a valid questionnaire. The adult survey was carried out involving a representative sample of adults aged 19-64 and 65+. In Oslo, 403 19-64 year olds and 435 65+ year olds completed valid questionnaires.

More detailed information on the justification of methods and instruments that were used, as well as response rates, selection of cities and indicators, and statistical methodology, can be found on our websites: www.urhis.eu and http://results.urhis.eu. The websites also provide data from other participating urban areas and comparisons between specific cities can be made.



The graphs in this health profile show the health status of the urban area compared to other EURO-URHIS 2 urban areas. The whiskers represent the lowest and highest value within the EURO-URHIS 2 project on a scale of 0 to 100%. The grey bar represents the  $25^{th}$ ,  $50^{th}$ , and  $75^{th}$  percentile. The urban area value is shown as a diamond, which is blue when the value is not statistically significantly different from the EURO-URHIS 2 mean and red when the difference is statistically significant (at the 5% level).



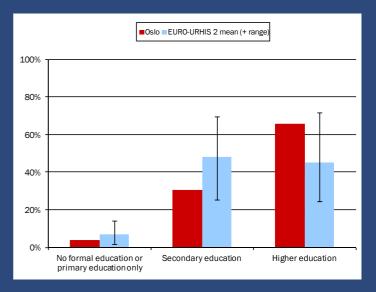


Figure 1. Age distribution

Figure 2. Level of education

Differences in health status may possibly be explained by age and education. Figures 1 and 2 show the age distribution and level of education in Oslo compared to the other EURO-URHIS 2 urban areas. Age differences between adults from Oslo and other EURO-URHIS 2 cities could explain the significantly different level of psychological problems. Education differences could explain the significantly different levels of psychological problems, long-standing illness with restrictions, and overweight and obesity.

#### **DISCLAIMER**

To achieve maximum quality of the data, all instruments used were based on knowledge of earlier studies and expert consultations, and were piloted, validated, and optimised. The survey questionnaires of EURO-URHIS 2 were based on already existing, validated instruments; selected indicators were as little culturally sensitive as possible. Questionnaires were translated in the local language(s) and, for validation purposes, back-translated into English. Youth survey response rates were generally very high. In the adult survey, a minimum response rate of 30% was required to be included for benchmarking. Despite all our efforts, and as in any survey, the point estimates for certain health indicators in your urban area may deviate from other estimates, and may not be comparable to other local information due to differences in study methodology and indicator definitions. If you would like further information regarding the methodology, please see our websites: http://www.urhis.eu and http://results.urhis.eu.

#### **Health-related Characteristics of Oslo**

Indicator		Oslo	Norway	EURO-URHIS 2 range (percentiles)					EURO- URHIS 2	
				min	25th	50th	75th	max	mean	N
	1. Population size (x1,000)	587	4,737	67	264	406	708	2,565	570	23
	2. Population density	1,348	16	27	1,115	2,040	2,840	4,580	1,974	24
Sign	3. Population aged 0-19 years	22%	26%	17%	20%	22%	24%	28%	22%	23
grap	4. Population aged 65+ years	12%	15%	7%	11%	14%	15%	20%	14%	23
Demographic	5. Live births	74	64	39	45	52	58	75	53	24
۵	6. Teenage pregnancies	5	9	4	7	11	20	33	14	18
	7. Pregnancies after age 35	59	33	7	18	23	33	59	28	18
				<u> </u>		<u>'</u>	_			
e	8. Unemployment (age 19-64)	4.0%	-	3.6%	4.0%	4.9%	7.2%	10.2%	5.8%	16
∃ SiE	9. Higher level education	66%	-	25%	33%	45%	53%	72%	45%	16
Socio- economic	10. Not enough money	5%	-	5%	11%	16%	22%	61%	21%	16
Ō	11. Low family wealth	5%	-	5%	7%	13%	21%	44%	16%	20
40	12. MMR vaccinated	91%	93%	83%	88%	94%	97%	100%	93%	19
≨ E	13. DTP vaccinated	93%	94%	83%	93%	95%	97%	99%	94%	19
Health System	14. Cervical smear test	69%	-	41%	62%	70%	76%	83%	68%	16
, , , , , , , , , , , , , , , , , , ,	15. Cholesterol measurement	44%	-	23%	42%	47%	52%	64%	47%	16
	16. Life expectancy - male	76.1	78.4	68.2	71.0	75.3	76.1	77.0	73.6	18
the su	17. Life expectancy - female	81.0	83.2	76.2	78.5	80.2	81.0	82.0	79.7	18
Health Status	18. Infant mortality	4.2	2.7	1.3	3.5	4.9	5.7	9.4	5.0	24
	19. Low birth weight	5.9%	5.2%	2.7%	5.2%	6.6%	8.1%	11.8%	6.7%	22

#### Table 1. Health-related characteristics of Oslo

Source. Indicators 1-7, 12-13, and 16-19: routinely available registration data; indicators 8-10 and 14-15: adult survey; indicator 11: youth survey. Missing data are indicated by "-".

N = number of urban areas that were able to collect data on the specific indicator.

1. number of inhabitants; 2. number of inhabitants per km²; 3. % of inhabitants aged 0-19 years; 4. % of inhabitants aged 65 years or older; 5. number of births per 1,000 women aged 15-44 years; 6. number of births per 1,000 women aged 15-49 years; 7. number of births per 1,000 women aged 35-44 years; 8. % of adults aged 19-64 years who are unemployed; 9. % of adults who attained higher level education; 10. % of adults who do not have enough money for daily expenses; 11. % of youth who live in a low wealth family, as defined by a FAS (Family Affluence Scale) score of ≤3; 12. % of population who have completed measles, mumps, and rubella (MMR) vaccination courses before school-age; 13. % of population who have completed diphtheria, tetanus, and poliomyelitis (DTP) vaccination courses before school-age; 14. % of adult women who have undergone a cervical smear test within the past three years; 15. % of adults who had their serum cholesterol measured within the last year; 16-17. number of years that a newborn is expected to live if current mortality rates continue to apply; 18. annual number of deaths of children under one year of age, per 1,000 births; 19. % of total live births weighing less than 2,500 grams

Compared to other cities in EURO-URHIS 2, Oslo is an urban area with average population density and a relatively large population of 25-39 year olds. The number of annual live births in Oslo is higher than the overall EURO-URHIS 2 mean. Teenage pregnancies are relatively uncommon, whereas pregnancies after the age of 35 years are relatively common.

The percentage of inhabitants with higher level education in Oslo (66%) is relatively high compared to the overall EURO-URHIS 2 mean. The proportion of adults who reported to not have enough money for daily expenses (5%) is significantly lower than in the other EURO-URHIS 2 urban areas. The percentage of youth that reported to live in poor families (5%) is significantly lower than the EURO-URHIS 2 mean.

Life expectancy at birth is an indicator for the general health

status of a population. In Oslo, male life expectancy is 76.1 years and female life expectancy is 81.0 years, which are both similar to the overall average in EURO-URHIS 2.

Infant mortality is an indicator for population health and quality of health care services. With an infant mortality rate of 4.2 per 1,000 live births, Oslo is comparable to other EURO-URHIS 2 urban areas.

At the population level, low birth weight is an indicator for pregnancy conditions and perinatal care. Low birth weight can at the individual level also result in health problems later in life. Of all newborns in Oslo, 5.9% had a low birth weight, which is comparable to the overall EURO-URHIS 2 mean.

#### YOUTH HEALTH STATUS

	Indicator	Oslo	EUR	EURO- URHIS 2	N		
	mulcator	USIO	Ο%	0% 50% 100%			
Ω	1. Good self-perceived health	93%			<b>⊢□</b>	92%	20
Health Status	2. Elevated risk of psychological problems	8%	+	$\dashv$		20%	20
s <u>i</u>	3. Psychosomatic symptoms	12%	н 🗀			10%	20
Ę	4. Low back pain	39%		<b>——</b>		42%	20
	5. Overweight and obesity	11%	M <del>-</del> □			13%	15
	6. Physical activity ≥2 hours/week	55%		<b>•</b>		50%	20
	7. Regular fruit consumption	52%		<b>—</b>		49%	20
10	8. Regular vegetable/salad consumption	55%		<b>⊢</b>	<b>—</b>	52%	20
ifestyle Factors	9. Regular tooth brushing	76%		<b>⊢</b>		72%	20
e Fa	10. Frequently watching television	59%		<b>•</b>	4	60%	20
estyl	11. Daily smoking	4%	•			12%	20
Ë	12. First smoking ≤13 years	17%	<b>⊢</b>	<del> </del>		24%	20
	13. Heavy episodic drinking	20%	<b>—</b>			33%	20
	14. First alcohol ≤13 years	31%	F	•		53%	19
	15. Ever used cannabis	6%				16%	20
	16. Unprotected sexual intercourse	6%	HIIH			4%	20
_ بے	17. Crime in area	32%	-	-		35%	20
Environ- ment	18. Involved in traffic accident	5%	HOD-I			7%	18
- 등 -	19. Being bullied	6%	н —			7%	20

Table 2. Health status and determinants in youth (14-16 years)

Source. Indicators 1-19: youth survey. Missing data are indicated by "-". N = number of urban areas that were able to collect data on the specific indicator.

1. % of youth who perceive their health as good, very good, or excellent; 2. % of youth with an overall Strengths and Difficulties Questionnaire (SDQ) score of 20 or higher; 3. % of youth who reported a lot of headaches, stomach aches, or sickness during the past six months; 4. % of youth who experienced low back pain during the past month; 5. % of youth overweight or obese according to the international BMI cut-offs; 6. % of youth who participate in vigorous physical activity for more than two hours per week in their free time; 7. % of youth who eat fruit on most days of the week; 8. % of youth who eat vegetables and/or salads on most days of the week; 9. % of youth who brush their teeth more than once a day; 10. % of youth who watch television for more than two hours on weekdays; 11. % of youth who smoke tobacco every day; 12. % of youth who reported first smoking at ≤13 years; 13. % of youth who drank five or more units of alcohol on one occasion during the past 30 days; 14. % of youth who reported first drinking alcohol at ≤13 years; 15. % of youth who ever used cannabis; 16. % of the total youth population who did not use a condom the last time they had sexual intercourse; 17. % of youth who reported presence of crime, violence, or vandalism in the area where they live; 18. % of youth who had a road traffic accident resulting in injury over the past 12 months; 19. % of youth who have been bullied at least twice in the past couple of months

#### **Health Status and Determinants in Youth**

Table 2 gives an overview of the health status and determinants in Oslo youth, as reported from the survey. Self-perceived health is a measure of adolescent well-being. 93% of youth in Oslo perceived their health to be (very) good or excellent, which is similar to the overall EURO-URHIS 2 proportion. In Oslo, a significantly lower proportion of youth were identified with an elevated risk of psychological problems (8%), compared to the overall EURO-URHIS 2 proportion.

Childhood obesity is related to a higher risk of obesity, disability,

and premature death later in life. In Oslo, 11% of youth are overweight or obese, which is similar to the overall EURO-URHIS 2 proportion. Physical activity can contribute to maintaining a healthy weight and preventing the occurrence of chronic conditions. Furthermore, physical activity is associated with psychological benefits and with a better school performance in young people. The proportion of youth who reported participation in vigorous physical activity for two or more hours per week is significantly higher in Oslo (55%), compared to the overall EURO-URHIS 2 proportion.

Initiation of smoking and drinking alcohol at a young age is a strong predictor of smoking during adulthood and of later problems with alcohol. Smoking and drinking alcohol at the age of 13 or younger occur significantly less often in Oslo. The proportion of youth in Oslo who smoke daily (4%) is lower than the overall EURO-URHIS 2 proportion. Heavy episodic drinking of five or more units of alcohol on one occasion was reported significantly less often in Oslo (20%) compared to the total EURO-URHIS 2 population.

Regular cannabis use in young people can lead to impaired cognitive development. 6% of youth in Oslo have ever used cannabis, which is lower than the overall EURO-URHIS 2 proportion.

Neighbourhood crime, violence, or vandalism was as often reported by youth in Oslo (32%) compared to other cities.

#### **ADULT HEALTH STATUS**

Indicator		Oslo	Norway	EURO-URHIS 2 range (percentiles)					EURO- URHIS	
				min	25th	50th	75th	max	2 mean	N
dify	1. HIV/AIDS incidence - male	27	8*	2	6	8	23	71	16	19
Morbidity	2. HIV/AIDS incidence - female	16	5*	0	2	6	12	16	7	19
Σ	3. Tuberculosis incidence	18	5	5	11	17	39	153	33	22
	4. Lung cancer incidence	-	54	29	42	55	62	103	54	13
	5. All-cause mortality - male	654	686	654	752	834	1,014	1,426	919	19
	6. All-cause mortality - female	466	459	362	495	542	640	821	560	19
	7. Malignant neoplasms - male	195	197	195	230	245	258	336	250	22
<u>₽</u>	8. Malignant neoplasms - female	149	139	114	143	153	162	232	154	22
Mortality	9. Diseases of the circulatory system - male	215	222	154	227	298	456	676	353	22
y Y	10. Diseases of the circulatory system - female	140	144	91	147	199	299	406	220	22
	11. Diseases of the respiratory system - male	66	63	32	55	62	80	158	72	22
	12. Diseases of the respiratory system - female	48	40	12	21	36	50	120	43	22
	13. Transport accidents	3	6	1	3	5	11	16	7	21
	14. Suicide and intentional harm	11	11	4	8	11	15	29	12	22

#### Table 3. Morbidity and mortality

Source. Indicators 1-14: routinely available registration data. Missing data are indicated by "-".

**1-4.** Number of newly diagnosed cases with a specific disease per 100,000 persons per year; **5-6.** All-cause mortality rate per 100,000 persons per year (standardised on European population); **7-14.** Mortality rate due to a specific cause per 100,000 persons per year (standardised on European population)

## **Health Status and Determinants in Adults**

The health status of a population can be assessed by using a number of parameters, such as those referring to acute and chronic disease, mortality, psychological well-being, and self-perceived health. Table 3 and indicators 1-8 of Table 4 show the overall health status among adults in Oslo, compared to other cities in Europe. The results show that in Oslo the incidence of tuberculosis is similar to the overall average in all EURO-URHIS 2 urban areas, whereas the

incidence of HIV/AIDS is relatively high.

All-cause mortality in both males and females is lower than in other cities. Male mortality from malignant neoplasms and mortality from diseases of the circulatory system are substantially lower than in other cities. Also fatal transport accidents occur less often compared to other EURO-URHIS 2 urban areas.

<sup>\*</sup> Country level data include HIV incidence only.

N = number of urban areas that were able to collect data on the specific indicator.

# **Health Status and Determinants in Adults (continued)**

Indicator		Onlo	EUR	EURO-URHIS 2 range (percentiles)				
	indicator	Oslo	0%	50%	100%	URHIS 2 mean	N	
	1. (Very) good self-perceived health	79%		H	<b>→</b>	64%	16	
	2. Psychological problems	19%	<u> </u>	—		23%	16	
S	3. Depression/anxiety	10%				9%	16	
Health Status	4. Cardiovascular disease (age 65+)	9%	<b>+</b>	—		18%	16	
ig i	5. Cancer	2%	<b>(</b> H			2%	16	
Heg	6. Asthma or bronchitis	6%	₩-			7%	16	
	7. Long-standing illness with restrictions	19%	+			28%	16	
	8. Low back pain	31%		<b>+</b>		45%	16	
	9. Regular consumption of fruit/vegetables	59%	H	•		53%	16	
	10. Regular breakfast	89%		H	<b>—</b>	78%	16	
Lifestyle Factors	11. Being physically active ≥twice a week	59%		<del></del>		46%	16	
Pac	12. Overweight and obesity	43%		<b>├</b>		50%	16	
style	13. Daily smoking	12%	+			18%	16	
Ę	14. Passive smoking by non-smokers	6%	+			13%	16	
	15. Binge drinking	26%	+	_		17%	16	
	16. Cannabis last year (age 19-64)	2%				5%	16	
	17. Green areas suitable for recreational activities	96%		<u> </u>		84%	16	
Jent	18. Belonging to immediate neighbourhood	69%		<b>—</b>		54%	16	
Environment	19. Social cohesion in neighbourhood	69%		<b>—</b>		52%	16	
invir	20. Exposure to severe noise	6%	<b>←</b> □			14%	16	
ш	21. Damp spots or mould at home	9%	<b>→</b>	□⊣		27%	16	

#### Table 4. Health status and determinants in adults (19 years and older)

Source. Indicators 1-21: adult survey. Missing data are indicated by "-".

N = number of urban areas that were able to collect data on the specific indicator.

1. % of adults who perceive their health to be good or very good; 2. % of adults with a score of four or more on the General Health Questionnaire (GHQ); 3. % of adults who reported to be diagnosed with or treated for anxiety or depression during the past year; 4. % of adults aged 65 years and older who were diagnosed with or treated for heart attack, angina, or heart failure during the past year; 5. % of adults who were diagnosed with or treated for chronic bronchitis during the past year; 7. % of adults who suffer from any long-standing illness, long-standing effect from injury, disability, or other long-standing condition; 8. % of adults who had low back pain longer than one day in the past month; 9. % of adults who eat, on average, four or more portions of fruit and/or vegetables per day; 10. % of adults who have breakfast at least four times a week; 11. % of adults who are physically active for at least 30 minutes twice a week or more; 12. % of adults overweight or obese, defined as a BMI of ≥25 kg/m²; 13. % of adults who smoke every day; 14. % of non-smokers who are exposed to second-hand smoking inside their home; 15. % of adults who drink six or more portions of alcohol on one occasion, at least once a week (men) or at least once a month (women); 16. % of adults aged 19-64 years who used cannabis during the past year; 17. % of adults who perceive the green areas in their neighbourhood to be suitable for active recreational activities; 18. % of adults who feel that they belong to their immediate neighbourhood; 19. % of adults who perceive their neighbourhood to be socially cohesive; 20. % of adults who were exposed to severe noise from outdoors during the past 12 months; 21. % of adults who had wet or damp spots and/or mould or mildew inside their homes (other than in basements) within the past 12 months

The proportion of people in Oslo who perceive their health to be good or very good (79%) is higher than the average in the other urban areas in EURO-URHIS 2. The percentage of adults who reported psychological problems in Oslo (19%) is significantly lower than in other urban areas in EURO-URHIS 2. Also long-standing illness with restrictions, cardiovascular disease in the elderly, and low back pain were significantly less often reported in Oslo.

Several lifestyle factors and environmental determinants can affect health (Table 4, indicators 9-21). Daily smoking, for instance, increases the risk of cancer, particularly lung cancer. Smokers are also at far greater risk of developing heart disease, stroke, and emphysema. Binge drinking is associated with many health problems, which include injuries and violence, sexually transmitted diseases, alcohol dependency, liver disease, and neurological damage. The percentage of persons who smoke

daily (12%) is significantly lower than in other EURO-URHIS 2 cities. Exposure to second-hand smoking inside their home was also less often reported in Oslo. The proportion of adults who regularly drink more than six units of alcohol (26%) is significantly higher in Oslo compared to the overall EURO-URHIS 2 mean. A significantly lower proportion of people reported to have used cannabis during the last year.

Being overweight and obese are important determinants of death worldwide. They increase the risk of cardiovascular diseases, diabetes, musculoskeletal disorders, and some cancers. In Oslo, 43% of the adults are overweight or obese, which is lower than the overall EURO-URHIS 2 proportion. Being overweight and obese are related to lack of regular physical activity. Being physically active reduces the risk of hypertension, coronary heart disease, stroke, diabetes, breast and colon cancer, depression, and the risk of injury caused by falls.

The proportion of adults in Oslo physically active more than twice a week (59%) is higher than the total EURO-URHIS 2 proportion. A healthy diet can lower the risk of obesity. Adults in Oslo more frequently eat fruit and vegetables and a regular breakfast was significantly more often reported.

Psychological well-being may be influenced both by the availability of green spaces in the neighbourhood that are suitable for recreational activities and by aspects of social

cohesion. In Oslo, 96% perceived their green spaces to be suitable for recreational activities, whereas this proportion is significantly lower in other cities. Adults from Oslo more often perceived their neighbourhood to be socially cohesive and more often feel that they belong to their immediate neighbourhood (both 69%). Exposure to severe noise from outdoors and the presence of damp spots or mould and mildew inside their homes were less often reported in Oslo.

Indicator			Age		Gender		Education level	
		Total Population	19-64	÷ + 92	Male	Female	Secondary level or lower	Higher level
Hea	1. (Very) good self-perceived health	79%	81%*	68%*	81%	77%	69%*	84%*
Health Status	2. Psychological problems	19%	20%*	9%*	14%*	23%*	20%	18%
ヹ゙゙゙゙゙゙゙゙゙゙゙゙゙゙゙゙゙゙゙゙ヹ	3. Long-standing illness with restrictions	19%	16%*	37%*	16%	22%	28%*	15%*
	4. Overweight and obesity	43%	42%*	51%*	56%*	32%*	53%*	38%*
δ.	5. Daily smoking	12%	12%	12%	10%	15%	17%*	10%*
acto	6. Binge drinking	26%	26%	25%	25%	27%	26%	26%
yle F	7. Regular consumption of fruit/vegetables	59%	59%	60%	50%*	68%*	54%	61%
Lifestyle Factors	8. Being physically active ≥twice a week	59%	59%	61%	61%	58%	51%*	63%*
_	9. Social cohesion in neighbourhood	69%	70%*	61%*	68%	70%	64%	71%

Table 5. Health and health determinants by demographic groups in Oslo

Source. Adult survey.

Indicators are defined in Table 4. Missing data are indicated by "-".

# **Health and Health Determinants by Demographic Groups**

Health and health determinants can vary considerably as according to age, gender, and education. Table 5 subdivides a selection of important health indicators in Oslo by subgroup: respondents aged 19-64 and 65+ years, males and females, and adults who achieved secondary level education or lower and higher level education.

Respondents aged 19-64 years in Oslo more often perceived their health to be good or very good than is the case for older respondents. Older respondents were more often restricted by a long-standing illness, had a greater tendency to be overweight or obese, and less often perceived their neighbourhood as being socially cohesive. Younger respondents more frequently experienced psychological problems. Daily smoking, binge drinking, fruit and vegetable consumption, and physical activity did not differ by age.

Men and women in Oslo did not differ in self-perceived health.

Neither did the percentage of restrictions due to long-standing illness, daily smoking, binge drinking, physical activity, and perceived social neighbourhood cohesion differ between sexes. Men in Oslo had a greater tendency to be overweight or obese and less frequently ate fruit and vegetables compared to women. Women more frequently experienced psychological problems.

Adults in Oslo who attained secondary level education or lower less often perceived their health to be good or very good than adults with higher level education. Lower educated respondents were more often restricted by a long-standing illness, were more likely to be daily smokers, had a greater tendency to be overweight or obese, and less often engaged in physical activity. The occurrence of psychological problems, binge drinking, fruit and vegetable consumption, and perceived social neighbourhood cohesion did not differ by education level.

<sup>\*</sup> Statistically significant difference between subgroups at the 5% level.

### **Healthy Life Expectancy**

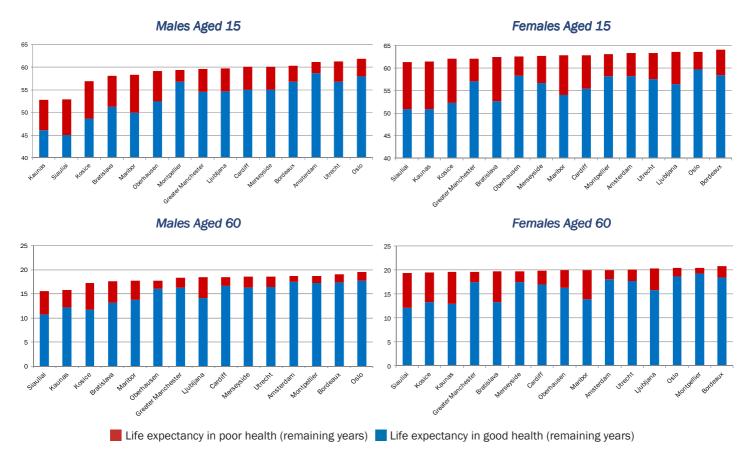


Figure 3. Healthy Life Expectancy

Presented here are estimates of healthy life expectancy (HLE) at ages 15 and 60 for men and women in eligible EURO-URHIS 2 urban areas. HLE was calculated first by estimating life expectancy at each age using recent 5-year averages of all-causes mortality for each urban area. From this, life expectancy was broken down into years living in good and poor perceived health, estimated using responses to the EURO-URHIS 2 adult survey question: How is your health in general?: Very good/Good/Fair/Bad/Very bad/Don't know, and the youth survey question: In general, would you say your health is..?: Excellent/Very Good/Good/Fair/Poor. Those answering very good, good or fair on the adult survey were classed as being in good perceived health, with the remainder in poor perceived health. For the youth survey, fair and poor were categorised as poor perceived health to match the scale applied to the adult survey. It was then possible to calculate the total years in good and poor perceived health and present this as a population level HLE. Full details on this process will be available in the final EURO-URHIS 2 project report, available at www.urhis.eu.

Male life expectancy in Oslo at age 15 was 61.8 years, the highest in the sample. This was 9.0 years more than the lowest (Kaunas, 52.8 years). At this age, males were estimated to spend 58.0 years in good perceived health. This is 0.7 years less than the longest HLE (Amsterdam, 58.7 years) and 12.9 years more than the shortest (Siauliai, 45.1 years).

Male life expectancy in Oslo at age 60 was 19.6 years, the highest in the sample and 4.0 years more than the lowest (Siauliai, 15.6 years). At this age, males were estimated to spend 17.7 years in good perceived health. This is the highest HLE in the sample, 6.9 years more than the shortest (Siauliai, 10.8 years).

Female life expectancy in Oslo at age 15 was 63.7 years. This was 0.4 years less than the highest in the sample (Bordeaux, 64.1 years), and 2.3 years more than the lowest (Siauliai, 61.4 years). At this age, females were estimated to spend 59.7 years in good perceived health. This is 8.8 years more than the shortest HLE (Kaunas, 50.9 years), and was the highest in the sample.

Female life expectancy in Oslo at age 60 was 20.4 years. This was 0.5 years less than the highest in the sample (Bordeaux, 20.9 years), and 1.1 years more than the lowest (Siauliai, 19.3 years). At this age, females were estimated to spend 18.7 years in good perceived health. This is 0.6 years less than the longest HLE (Montpellier, 19.3 years) and 6.6 years more than the shortest (Siauliai, 12.1 years).















#### **GGD** Amsterdam





#### Landeszentrum Gesundheit Nordrhein-Westfalen

























#### **Beneficiaries**

The University of Manchester; Municipal Health Service Utrecht; University of Liverpool; The Iuliu Hatieganu University of Medicine & Pharmacy Epidemiology Department; The Norwegian Institute of Public Health; Municipal Health Service Amsterdam; Kaunas University of Medicine; Regional Public Health and Health Promotion Centre (Slovenia); Institute of Health and Work, North Rhine-Westphalia; Slovak Public Health Association; Hacettepe University, Department of Public Health; North West Regional Health Brussels Office: Latvian Public Health Agency; South East European University; National Federation of Regional Health Observatories; Pham Ngoc Thach University of Medicine

# Local EURO-URHIS 2 representative in Oslo:

Heidi Lyshol Dept. of Health Statistics Norwegian Institute of Public Health

> Heidi.Lyshol@fhi.no +47 21 07 81 53





The research leading to these results has received funding from the European Union's Seventh Framework Programme (FP7/2007 -2013) under grant agreement no 223711

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Municipal Health Service Utrecht, The Netherlands



Design by Nicola Dale