



# Health Profile:

## *Šiauliai, Lithuania*

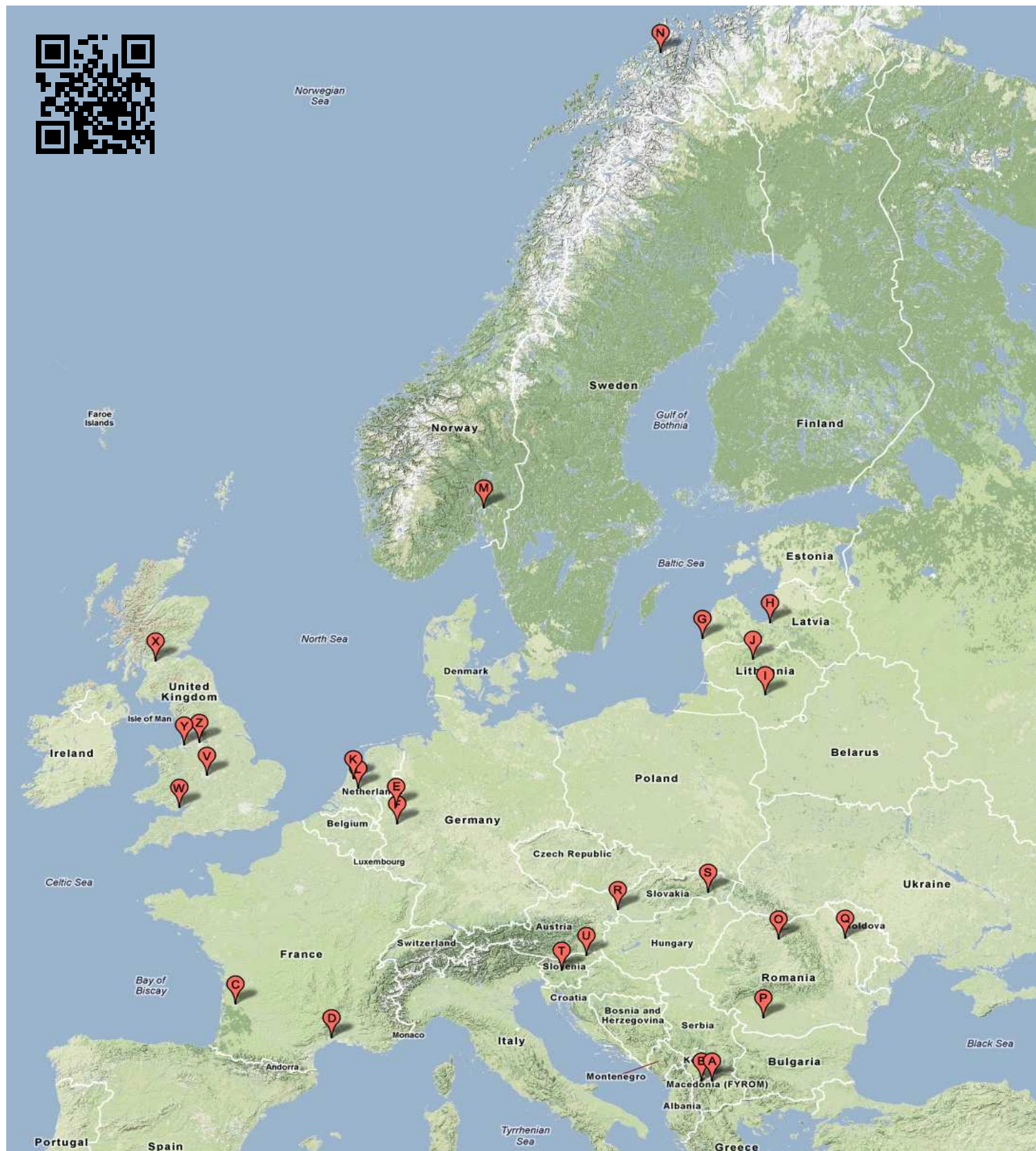
*Taking cities to a  
healthier future*

**EURO-URHIS 2**

European Urban Health Indicators System Part 2  
Urban Health Monitoring and Analysis System to Inform Policy







A	Skopje, the former Yugoslav Republic of Macedonia	N	Tromeø , Norway
B	Tetovo, the former Yugoslav Republic of Macedonia	O	Bistrița, Romania
C	Bordeaux, France	P	Craiova, Romania
D	Montpellier, France	Q	Iași, Romania
E	Oberhausen, Germany	R	Bratislava, Slovakia
F	Köln, Germany	S	Košice, Slovakia
G	Liepāja, Latvia	T	Ljubljana, Slovenia
H	Riga, Latvia	U	Maribor, Slovenia
I	Kaunas, Lithuania	V	Birmingham, United Kingdom
J	Šiauliai, Lithuania	W	Cardiff, United Kingdom
K	Amsterdam, The Netherlands	X	Glasgow, United Kingdom
L	Utrecht, The Netherlands	Y	Merseyside, United Kingdom
M	Oslo, Norway	Z	Greater Manchester, United Kingdom

*Depression and anxiety were more often reported in Siauliai compared to the other EURO-URHIS 2 cities.*

*All-cause mortality in both males and females is higher in Siauliai compared to other EURO-URHIS 2 cities. Male mortality from malignant neoplasms and mortality from diseases of the circulatory system are substantially higher than the overall EURO-URHIS 2 mean. Female mortality from diseases of the respiratory system is lower.*

*Heavy episodic drinking in Siauliai youth and binge drinking in adults occur more often than in other EURO-URHIS 2 cities. Smoking in youth occurs more often, whereas smoking in adults occurs as often as in other EURO-URHIS 2 cities.*

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

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

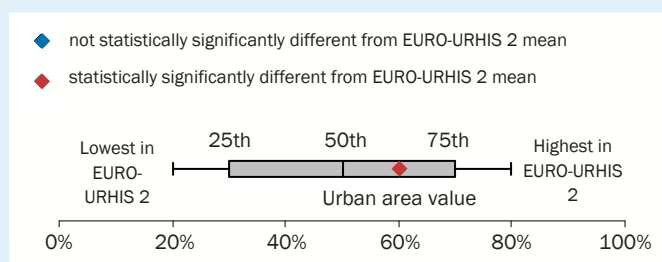
*This health profile describes the health situation and associated health determinants in Siauliai compared with those observed in other European urban areas.*

Siauliai 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.

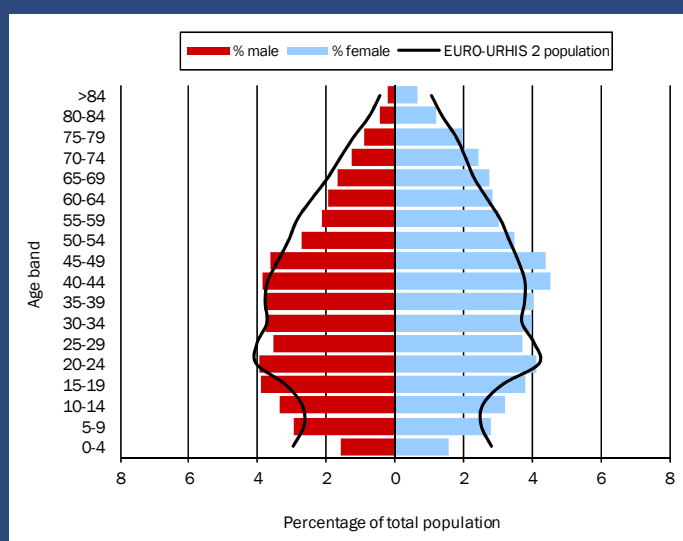
EURO-URHIS 2 gathered information by collecting data from routinely available registration data, and by conducting youth and adult surveys at the end of 2010. In total, data from 26 urban areas in Europe were available for between-city comparisons and benchmarking.

The routinely available registration data relate to the most recently available year (2006-2008). The youth survey was a school-based survey of 14-16 year olds. In Siauliai, 525 students completed a valid questionnaire. The adult survey was carried out involving a representative sample of adults aged 19-64 and 65+. In Siauliai, 390 19-64 year olds and 310 65+ year olds completed valid questionnaires.

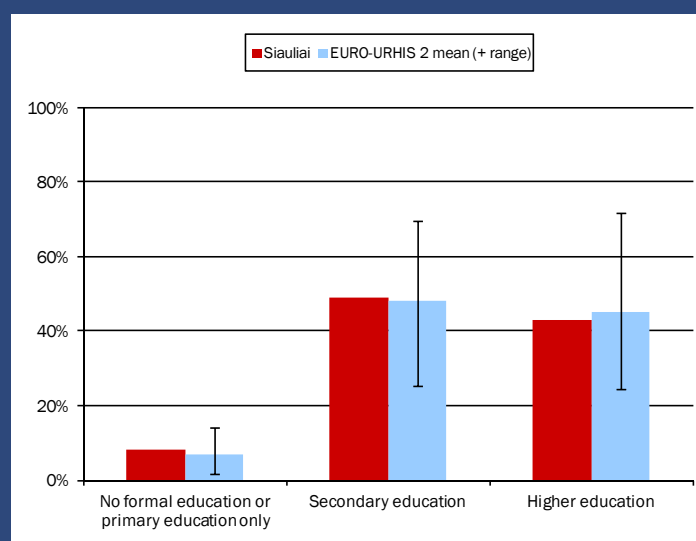
More detailed information on the justification of methods and instruments that were used, as well as response rates, selection of cities and indicators, and statistical methodology, can be found on our websites: [www.urhis.eu](http://www.urhis.eu) and <http://results.urhis.eu>. The websites also provide 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<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> 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 Siauliai compared to the other EURO-URHIS 2 urban areas. Age differences between adults from Siauliai and other EURO-URHIS 2 cities could explain the significantly different level of adults who were diagnosed with or treated for anxiety or depression during the past year and the level of overweight and obesity. Education did not explain any observed differences in the adult survey between Siauliai and other EURO-URHIS 2 urban areas.

## 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 Siauliai

	Indicator	Siauliai	Lithuania	EURO-URHIS 2 range (percentiles)					EURO-URHIS 2 mean	N
				min	25th	50th	75th	max		
Demographic	1. Population size (x1,000)	129	3,366	67	264	406	708	2,565	570	23
	2. Population density	1,558	54	27	1,115	2,040	2,840	4,580	1,974	24
	3. Population aged 0-19 years	23%	23%	17%	20%	22%	24%	28%	22%	23
	4. Population aged 65+ years	14%	16%	7%	11%	14%	15%	20%	14%	23
	5. Live births	46	48	39	45	52	58	75	53	24
	6. Teenage pregnancies	15	19	4	7	11	20	33	14	18
	7. Pregnancies after age 35	12	16	7	18	23	33	59	28	18
Socio-economic	8. Unemployment (age 19-64)	9.3%	-	3.6%	4.0%	4.9%	7.2%	10.2%	5.8%	16
	9. Higher level education	43%	-	25%	33%	45%	53%	72%	45%	16
	10. Not enough money	42%	-	5%	11%	16%	22%	61%	21%	16
	11. Low family wealth	18%	-	5%	7%	13%	21%	44%	16%	20
Health System	12. MMR vaccinated	98%	97%	83%	88%	94%	97%	100%	93%	19
	13. DTP vaccinated	95%	96%	83%	93%	95%	97%	99%	94%	19
	14. Cervical smear test	68%	-	41%	62%	70%	76%	83%	68%	16
	15. Cholesterol measurement	50%	-	23%	42%	47%	52%	64%	47%	16
Health Status	16. Life expectancy - male	69.2	66.3	68.2	71.0	75.3	76.1	77.0	73.6	18
	17. Life expectancy - female	78.6	77.6	76.2	78.5	80.2	81.0	82.0	79.7	18
	18. Infant mortality	4.6	4.9	1.3	3.5	4.9	5.7	9.4	5.0	24
	19. Low birth weight	2.7%	4.6%	2.7%	5.2%	6.6%	8.1%	11.8%	6.7%	22

**Table 1. Health-related characteristics of Siauliai**

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 km<sup>2</sup>; **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 15-19 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, Siauliai is an urban area with average population density and an average aged population. Pregnancies after the age of 35 years are relatively uncommon.

Unemployment in Siauliai is significantly higher than in other EURO-URHIS 2 urban areas. The percentage of inhabitants with higher level education (43%) is similar to the overall EURO-URHIS 2 mean. The proportion of adults who reported to not have enough money for daily expenses (42%) is significantly higher, whereas the percentage of youth that reported to live in poor families (18%) is similar to the EURO-URHIS 2 mean.







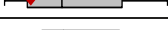
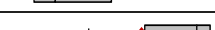


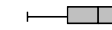
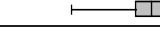
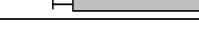
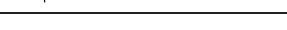





Life expectancy at birth is an indicator for the general health status of a population. In Siauliai, male life expectancy is 69.2

years. This is lower than the overall average in EURO-URHIS 2. Female life expectancy is 78.6 years, which is 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 4.6 per 1,000 live births, Siauliai 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 Siauliai, 2.7% had a low birth weight, which is lower than the overall EURO-URHIS 2 mean.

# YOUTH HEALTH STATUS

	Indicator	Siauliai	EURO-URHIS 2 range (percentiles)			EURO-URHIS 2 mean	N
			0%	50%	100%		
Health Status	1. Good self-perceived health	92%				92%	20
	2. Elevated risk of psychological problems	25%				20%	20
	3. Psychosomatic symptoms	6%				10%	20
	4. Low back pain	38%				42%	20
Lifestyle Factors	5. Overweight and obesity	10%				13%	15
	6. Physical activity ≥2 hours/week	60%				50%	20
	7. Regular fruit consumption	40%				49%	20
	8. Regular vegetable/salad consumption	38%				52%	20
	9. Regular tooth brushing	63%				72%	20
	10. Frequently watching television	61%				60%	20
	11. Daily smoking	17%				12%	20
	12. First smoking ≤13 years	50%				24%	20
	13. Heavy episodic drinking	43%				33%	20
	14. First alcohol ≤13 years	78%				53%	19
	15. Ever used cannabis	19%				16%	20
	16. Unprotected sexual intercourse	4%				4%	20
Environ- ment	17. Crime in area	30%				35%	20
	18. Involved in traffic accident	-				7%	18
	19. Being bullied	14%				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 Siauliai youth, as reported from the survey. Self-perceived health is a measure of adolescent well-being. 92% of youth in Siauliai perceived their health to be (very) good or excellent, which is similar to the overall EURO-URHIS 2 proportion. In Siauliai, a significantly higher proportion of youth were identified with an elevated risk of psychological problems (25%), compared to the overall EURO-URHIS 2 proportion. Psychosomatic symptoms like headaches, stomach aches, and sickness were reported less often.

Childhood obesity is related to a higher risk of obesity, disability, and premature death later in life. In Siauliai, 10% of youth are overweight or obese, which is significantly lower than 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 Siauliai (60%), compared to the overall EURO-URHIS 2 proportion. A healthy diet can lower the risk of obesity. Regular consumption of fruit and vegetables occurs less frequently in Siauliai than in other EURO-URHIS 2 urban areas.

Significantly less students in Siauliai brush their teeth at least twice a day compared to the other cities.



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 more often in Siauliai than in other EURO-URHIS 2 cities. The proportion of youth in Siauliai who smoke daily (17%) is higher than the overall EURO-URHIS 2 proportion. Heavy episodic drinking of five or more units of alcohol on one occasion was reported significantly more often in Siauliai (43%) compared to the total EURO-URHIS 2 population.

Regular cannabis use in young people can lead to impaired cognitive development. 19% of youth in Siauliai have ever used cannabis, which is similar to the overall EURO-URHIS 2 proportion.

Neighbourhood crime, violence, or vandalism was significantly less often reported by youth in Siauliai (30%) compared to other cities. The proportion of youth who were victims of bullying in the past couple of months was significantly higher compared to the other urban areas in EURO-URHIS 2.

## ADULT HEALTH STATUS

Indicator		Siauliai	Lithuania	EURO-URHIS 2 range (percentiles)					EURO-URHIS 2 mean	N
				min	25th	50th	75th	max		
Morbidity	1. HIV/AIDS incidence - male	2	4*	2	6	8	23	71	16	19
	2. HIV/AIDS incidence - female	3	2*	0	2	6	12	16	7	19
	3. Tuberculosis incidence	45	62	5	11	17	39	153	33	22
	4. Lung cancer incidence	41	46	29	42	55	62	103	54	13
Mortality	5. All-cause mortality - male	1,426	1,582	654	752	834	1,014	1,426	919	19
	6. All-cause mortality - female	693	746	362	495	542	640	821	560	19
	7. Malignant neoplasms - male	314	299	195	230	245	258	336	250	22
	8. Malignant neoplasms - female	153	133	114	143	153	162	232	154	22
	9. Diseases of the circulatory system - male	676	741	154	227	298	456	676	353	22
	10. Diseases of the circulatory system - female	382	440	91	147	199	299	406	220	22
	11. Diseases of the respiratory system - male	62	81	32	55	62	80	158	72	22
	12. Diseases of the respiratory system - female	17	17	12	21	36	50	120	43	22
	13. Transport accidents	16	25	1	3	5	11	16	7	21
	14. Suicide and intentional harm	29	29	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 “-”.

\* Country level data include HIV incidence only.

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

**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 Siauliai, compared to other cities in Europe. The results show that in Siauliai the incidence of tuberculosis is higher, whereas the incidence of HIV/AIDS in males and the incidence of lung cancer are lower than the overall average in all EURO-URHIS 2 urban

areas.

All-cause mortality in both males and females is higher than in other cities. Male mortality from malignant neoplasms and mortality from diseases of the circulatory system, from transport accidents, and from suicide and intentional harm are substantially higher, whereas female mortality from diseases of the respiratory system is lower.

## Health Status and Determinants in Adults (continued)

	Indicator	Siauliai	EURO-URHIS 2 range (percentiles)			EURO-URHIS 2 mean	N
			0%	50%	100%		
Health Status	1. (Very) good self-perceived health	37%				64%	16
	2. Psychological problems	35%				23%	16
	3. Depression/anxiety	12%				9%	16
	4. Cardiovascular disease (age 65+)	37%				18%	16
	5. Cancer	1%				2%	16
	6. Asthma or bronchitis	9%				7%	16
	7. Long-standing illness with restrictions	38%				28%	16
	8. Low back pain	64%				45%	16
Lifestyle Factors	9. Regular consumption of fruit/vegetables	45%				53%	16
	10. Regular breakfast	76%				78%	16
	11. Being physically active ≥ twice a week	29%				46%	16
	12. Overweight and obesity	56%				50%	16
	13. Daily smoking	20%				18%	16
	14. Passive smoking by non-smokers	12%				13%	16
	15. Binge drinking	20%				17%	16
	16. Cannabis last year (age 19-64)	2%				5%	16
Environment	17. Green areas suitable for recreational activities	82%				84%	16
	18. Belonging to immediate neighbourhood	55%				54%	16
	19. Social cohesion in neighbourhood	41%				52%	16
	20. Exposure to severe noise	13%				14%	16
	21. Damp spots or mould at home	30%				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 (any kind of malignant) cancer during the past year; **6.** % of adults who were diagnosed with or treated for bronchial asthma or 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  $\geq 25$  kg/m<sup>2</sup>; **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 Siauliai who perceive their health to be good or very good (37%) is lower than the average in the other urban areas in EURO-URHIS 2. The percentage of adults who reported psychological problems in Siauliai (35%) is significantly higher than in other urban areas in EURO-URHIS 2. Depression and anxiety, cardiovascular disease in the elderly, asthma and bronchitis, long-standing illness with restrictions, and low back pain were significantly more often reported in Siauliai. Cancer, on the contrary, is less prevalent.

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 (20%) does not differ from other EURO-URHIS 2 cities. The proportion of adults who regularly drink more than six units of alcohol (20%) is significantly higher in Siauliai compared to the overall EURO-URHIS 2 mean. A significantly lower proportion of people in Siauliai 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 Siauliai, 56% of the adults are overweight or obese, which is higher 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 Siauliai physically active more than twice a week (29%) is lower than the total EURO-URHIS 2 proportion. Adults in Siauliai less frequently eat fruit and vegetables.

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 Siauliai, 82% perceived their green spaces to be suitable for recreational activities, which is comparable to the other cities. The percentage of adults who perceived their neighbourhood to be socially cohesive was 41%, which is significantly lower than the overall EURO-URHIS 2 average.

Indicator			Age		Gender		Education level	
		Total Population	19 - 64	65 +	Male	Female	Secondary level or lower	Higher level
Health Status	1. (Very) good self-perceived health	37%	43%*	9%*	42%*	33%*	28%*	50%*
	2. Psychological problems	35%	33%*	45%*	30%*	39%*	37%	31%
	3. Long-standing illness with restrictions	38%	32%*	67%*	36%	39%	43%*	30%*
Lifestyle Factors	4. Overweight and obesity	56%	52%*	76%*	61%*	51%*	55%	56%
	5. Daily smoking	20%	23%*	5%*	32%*	11%*	23%	16%
	6. Binge drinking	20%	23%*	6%*	23%	18%	21%	19%
	7. Regular consumption of fruit/vegetables	45%	45%	47%	41%	48%	41%*	51%*
	8. Being physically active $\geq$ twice a week	29%	28%	33%	33%	26%	28%	30%
	9. Social cohesion in neighbourhood	41%	40%	48%	43%	39%	40%	43%

**Table 5. Health and health determinants by demographic groups in Siauliai**

Source. Adult survey.

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

\* Statistically significant difference between subgroups at the 5% level.

## Health and Health Determinants by Demographic Groups

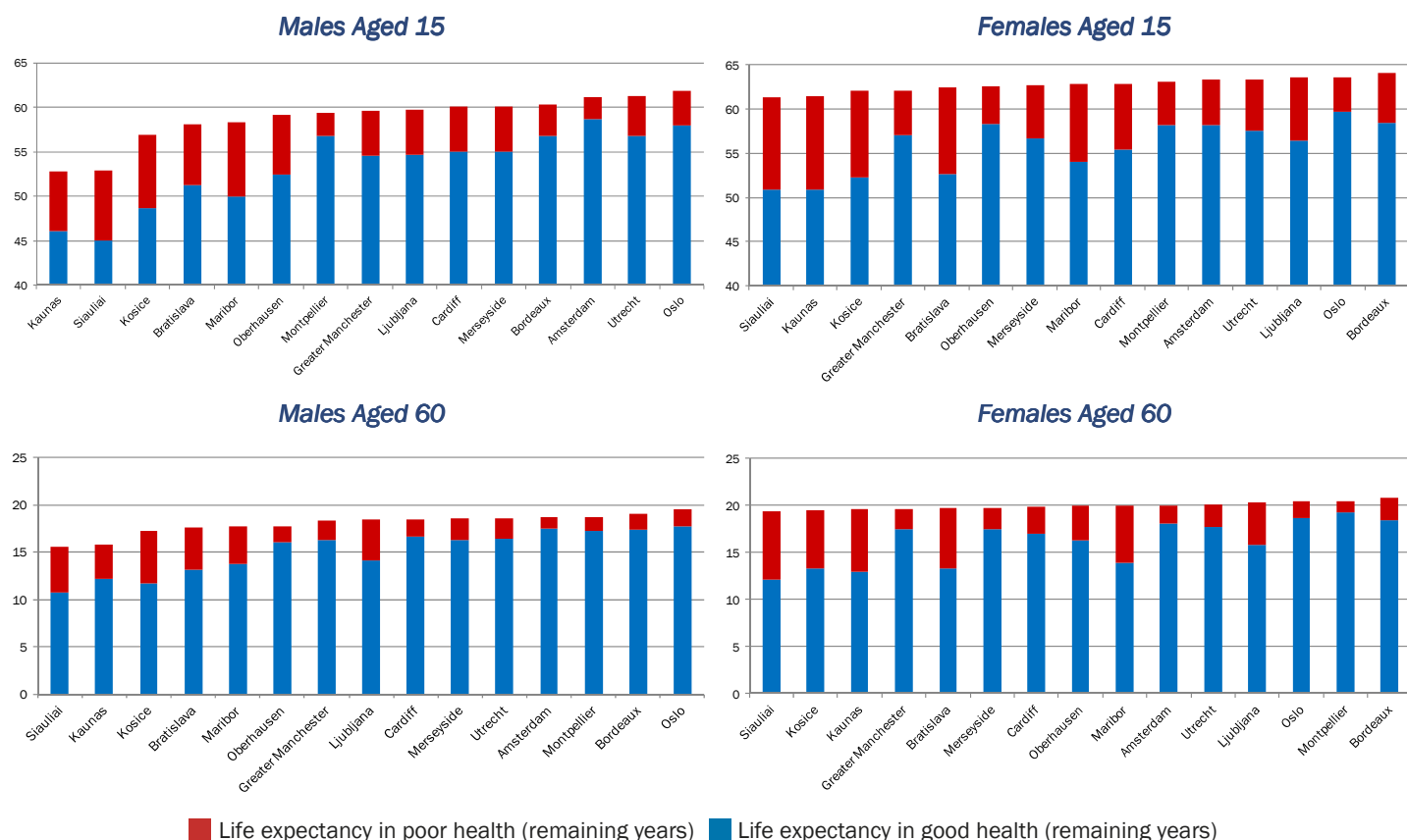
Health and health determinants can vary considerably as according to age, gender, and education. Table 5 subdivides a selection of important health indicators in Siauliai by subgroup: respondents aged 19-64 and 65+ years, males and females, and adults who achieved secondary level education or lower and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

Respondents aged 19-64 years in Siauliai more often perceived their health to be good or very good, less frequently experienced psychological problems, and were less often restricted by a long-standing illness, than is the case for older respondents. Younger respondents had a lower tendency to be overweight or obese, were more likely to be daily smokers, and more commonly drank six or more portions of alcohol on one occasion. Fruit and vegetable consumption, physical activity, and perceived social neighbourhood cohesion did not differ by age.

Men and women in Siauliai did not differ in the occurrence of restrictions due to long-standing illness. Neither did the percentage of binge drinking, fruit and vegetable consumption, physical activity, and perceived social neighbourhood cohesion differ between sexes. Men in Siauliai more often perceived their health to be good or very good, less frequently experienced psychological problems, had a greater tendency to be overweight or obese, and were more likely to be daily smokers compared to women.

Adults in Siauliai who attained secondary level education or lower less often perceived their health to be good or very good and were more often restricted by a long-standing illness than adults with higher level education. Lower educated respondents less frequently ate fruit and vegetables. The occurrence of psychological problems, the proportion of overweight or obesity, daily smoking, binge drinking, physical activity, and perceived social neighbourhood cohesion did not differ by education 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](http://www.urhis.eu).

Male life expectancy in Siauliai at age 15 was 53.0 years. This was 8.8 years less than the highest in the sample (Oslo, 61.8 years), and 0.2 years more than the lowest (Kaunas, 52.8 years). At this age, males were estimated to spend 45.1 years in

good perceived health. This represents the shortest HLE within the sample, 13.6 years less than the longest HLE (Amsterdam, 58.7 years).

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

Female life expectancy in Siauliai at age 15 was 61.4 years. This was 2.7 years less than the highest in the sample (Bordeaux, 64.1 years), and the lowest in the sample. At this age, females were estimated to spend 50.9 years in good perceived health. With Kaunas, this represents the shortest HLE within the sample, 8.8 years less than the longest HLE (Oslo, 59.7 years).

Female life expectancy in Siauliai at age 60 was 19.3 years. This was 1.6 years less than the highest in the sample (Bordeaux, 20.9 years), and the lowest in the sample. At this age, females were estimated to spend 12.1 years in good perceived health. This is 7.2 years less than the longest HLE (Montpellier, 19.3 years), and is the shortest overall.





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 Siauliai:

Professor Skirmante Sauliune  
Department of Health Management  
Lithuanian University of Health Sciences

smante@centras.lt  
+370 (8)37 396054

### EURO-URHIS 2

European Urban Health Indicators System Part 2  
*Urban Health Monitoring and Analysis System to Inform Policy*



*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*

© EURO-URHIS 2, August 2012

Municipal Health Service Utrecht, The Netherlands

Design by Nicola Dale

