

## Tromsø



**The public health profile is a contribution to the municipality's efforts to gain an overview over the health status of the population and the factors that influence this, as required by the Public Health Act. The statistics are from the last available time period, October 2012, and are based on the municipal boundaries as of January 1st 2013.**

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### Some features of municipal public health

The topics were selected to provide opportunities for health promotion and prevention. The indicators take into account the municipality's age and gender composition, but all statistics must also be interpreted with local conditions in mind.

#### About the population

- Life expectancy for women is not clearly different from what is expected in the country as a whole.
- The proportion of over-80s is lower than in the country as a whole.
- The proportion of single - person households is higher than the proportion in the country.

#### Living conditions

- The proportion with high school or higher education is higher than the country level.
- The proportion of people in low-income households is lower than in the country as a whole.
- The proportion of disability pensioners under the age of 45 is lower than the national level.
- The proportion of children with single parents is higher than in the country as a whole.

#### Environment

- The proportion of people supplied by waterworks with 12 analysed samples and with satisfactory E. coli results appears to be higher than the national level. This concerns the part of the population connected to waterworks where reporting is required.
- The proportion of the population who are injured in accidents is lower than in the country as a whole, based on hospital admissions.

#### Schools

- The proportion of 10th graders who enjoy school is lower than in the country as a whole.
- The proportion of 5th graders at the lowest level of reading proficiency is lower than in the country as a whole.
- The rate of high school dropouts is higher than in the country as a whole.

#### Lifestyle

- Smoking seems to be a bigger problem than in the country as a whole, based on the proportion of pregnant women who smoke at first prenatal check-up. We have no figures for the rest of the population.
- Obesity seems to be a bigger problem than in the country as a whole, based on the proportion of men with BMI > 25 kg / m<sup>2</sup> at the military assessment.

#### Health and disease

- The proportion of the population with psychiatric symptoms and disorders is lower than in the population as a whole, based on data from general practitioners and emergency departments.
- The proportion of cardiovascular disease is not clearly different from the country level, based on hospital admissions.
- The proportion of people with type 2 diabetes appears to be lower than the country level, based on data from general practitioners and emergency departments.
- Musculoskeletal ailments and diseases appear to be more prevalent than in the country as a whole, based on data from general practitioners and emergency departments.

# Disease patterns reflect lifestyle, environment and living conditions

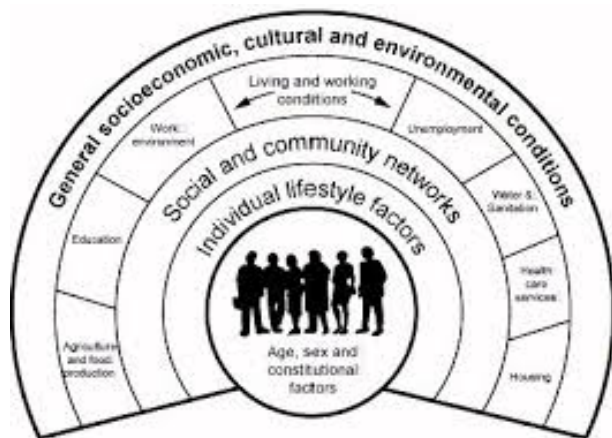
Many municipalities ask for statistics about diet, physical activity and other lifestyle habits. In many cases it is necessary to use disease patterns and other indirect measures in the public health profiles to obtain information about the lifestyle of the population.

At present, there are no national registries with reliable data on lifestyle so the public health profiles mostly feature statistics related to health targets, such as disease and causes of death. These statistics can still be useful for assessing the living habits of the population.

Several chronic diseases are largely a result of the living habits over time. We can indirectly obtain information about lifestyle in the municipality by “reading” patterns of disease. Lifestyle refers to diet, physical activity, smoking and other health-related behaviours. Lifestyle is not only the result of personal choice. The choices individuals make are also the result of environmental and living conditions, and disease patterns may therefore provide an indication of conditions in the municipality.

Figure 1 shows the factors that affect health. These range from personal characteristics such as age and gender, to social conditions such as culture, employment, housing and local environment, education and social networks.

Figure 1. Factors influencing health (after Dahlgren and Whitehead (1))



The underlying factors may either promote health or increase the risk of disease. Lack of social support is a factor that increases the risk of both mental and physical health problems. Conversely, social support promotes health and well-being, because the support of friends, schoolmates, colleagues and family acts as a “buffer” against various stresses.

Education is an example of a factor that has an impact on health throughout adulthood.

## Significant health disparities

Studies show that lifestyle often follows education and income levels. This means that groups with longer education and higher income have, on average, more favourable lifestyles and better health than groups with shorter education and lower income.

Reducing social inequalities in health is an important objective of public health. Efforts to improve living conditions, such as work and

education, can help to promote health and reduce social inequalities. Preventing children from dropping out of high school will promote health because it provides greater opportunities for work and active participation in society. Mastery and well-being in primary school lays a good foundation for completion of high school.

## One initiative, multiple gains

The municipality’s efforts against one risk factor may reduce the incidence of several diseases. For example, measures to combat smoking reduce the incidence of diseases such as cardiovascular disease, chronic obstructive pulmonary disease (COPD) and cancer. Likewise, efforts to promote physical activity affect the incidence of health problems such as obesity, cardiovascular disease and type 2 diabetes. In addition, physical activity improves well-being and physical and mental health.

Preventive measures may be directed towards high-risk groups or the total population. Initiatives towards groups with particularly high risks may be effective, but measures directed at the entire population may provide greater overall gains. This is because population-oriented measures reach a large number of people with intermediate risk, and because more cases of disease occur in this group than in the high-risk group. Although the individual risk is much higher in the high-risk group, more cases of illness occur in the group with moderate risk, because this group is larger.

There is no conflict between population-related measures and measures directed towards high-risk groups as, they can complement each other. For example, reducing salt in processed foods lowers blood pressure a little in everyone, and thus lowers the risk of cardiovascular disease in the general population. Health services will continue to treat individuals with hypertension to reduce their risk.

Population-oriented measures aim at “small changes among many,” so that the entire population moves towards a lower risk.

## Short term and long term health gains

It may take many years before current prevention efforts provide results. However, some results may also come quickly. For example, physical activity is important for wellbeing and mental health, and smoking cessation reduces the risk of heart attack already in the first year of not smoking. Another example is injury prevention, which can quickly be demonstrated by reduced injury incidence.

Through the design of the physical environment the municipality can encourage physical activity and social interaction between people. Planning the physical environment in terms of health promotion can contribute to better physical and mental health. Meeting places in the community may have an impact on mental health, while it is easier to be physically active if the neighbourhood is safe and inviting.

## Smoking and smokeless tobacco

The proportion of smokers in the Norwegian population has declined, but still 17 per cent smoke daily. Smoking is the habit that has the greatest negative impact on public health. Prevalence of smoking-related diseases such as COPD, lung cancer and cardiovascular disease can provide information on people’s smoking habits over time. Statistics on these smoking-related diseases can be found in the public health barometer.

There are great social differences in smoking behaviour. Figure 2 shows daily smoking in different educational groups, with data provided by the nationwide Survey of Living Conditions in 2008 (SSB).

There is a higher proportion of smokers in groups with shorter education than in groups with longer education. These differences explain a large part of the social inequalities in morbidity and mortality.

Many of the people using tobacco as adults became addicted at a young age. It is therefore vital to prevent tobacco use among adolescents - both smoking and smokeless tobacco use. Smokeless tobacco is as addictive as cigarettes and contains harmful and carcinogenic substances and the number of users is increasing. Initiatives in middle school may be particularly effective, and should be followed with measures in high school. Enforcement of the age limit for tobacco purchases and the establishment of smoke-free areas are appropriate measures.

### Physical activity and diet

Physical activity and a balanced diet promote health and protect against a variety of diseases throughout life.

Several of the indicators under health and disease in the public health barometer can provide information about the population's diet and physical activity. These include indicators of obesity, high blood pressure and cholesterol, cardiovascular disease, cancer and type 2 diabetes. Regular physical activity can also improve mental health.

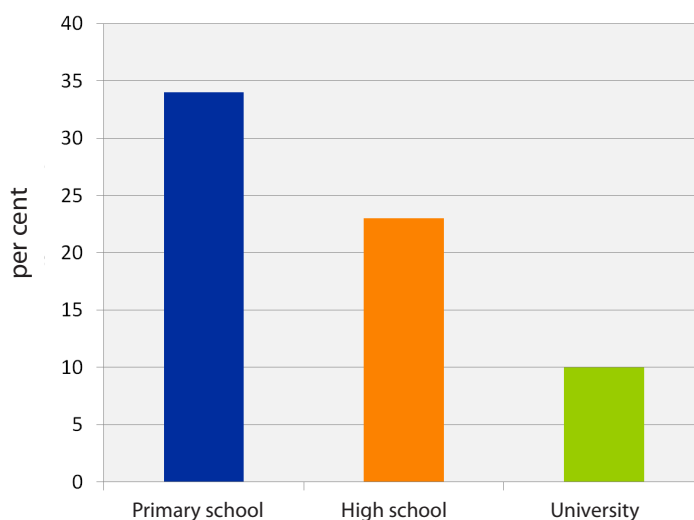
Figure 3 shows the proportion of the population who achieve the recommended minimum level of activity in different age groups, as measured by activity monitors. Numbers in the figure are derived from population surveys of activity in the population conducted by the Norwegian Directorate of Health in 2008-2011 (2.3). Adults and the elderly are recommended to be physically active for at least 30 minutes daily, while children and adolescents are recommended at least 60 minutes of daily physical activity. The figure shows that there is considerable variation between the different age groups in terms of the extent to which they achieve their recommended levels of activity.

Overweight and obesity are major health problems in most countries, including Norway. Figure 4 shows the prevalence of overweight including obesity in men, measured at military inscription, shown as an average for the period 2003-2009. When the basis for data is small, municipal values may not be displayed.

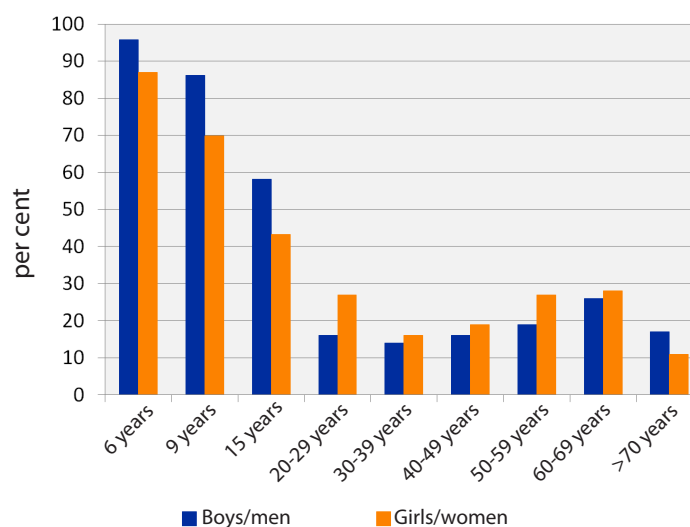
Habits related to diet and physical activity are set early in life. The development of overweight and obesity can be delayed by directing measures towards children and their physical and social environment. The municipality, as the owner of schools and kindergartens, has a unique opportunity to encourage children to have positive experiences of healthy eating and physical activity. Public health clinics are another arena in which the municipality can make a difference through contact with children and their families.

References: 1. Dahlgren G, Whitehead M. Policies and Strategies to Promote Social Equity in Health. Stockholm 1991. 2. Fysisk aktivitet blant voksne og eldre i Norge. Resultater fra en kartlegging i 2008-2009. Oslo: Hdir; 2009. 3. Fysisk aktivitet blant 6-, 9- og 15-åringer i Norge. Resultater fra en kartlegging i 2011. Oslo: Hdir; 2012.

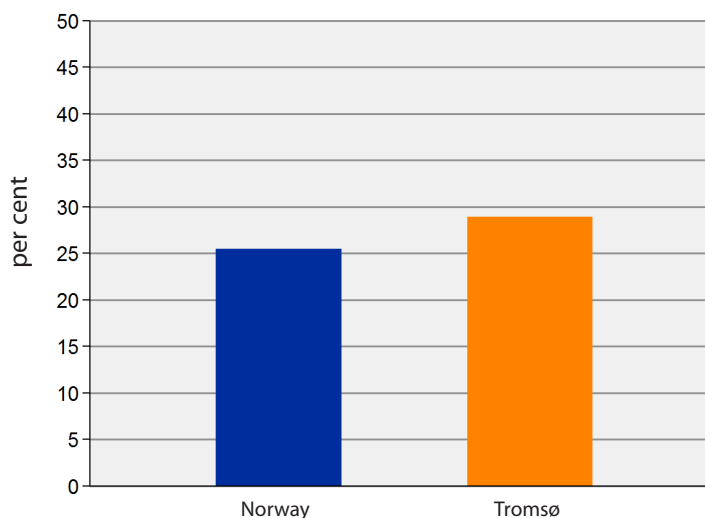
**Figure 2:** Daily smokers by educational background (country figures)



**Figure 3:** Proportion who achieve recommended levels of physical activity (country figures)



**Figure 4:** Overweight including obesity among men, measured at military assessment



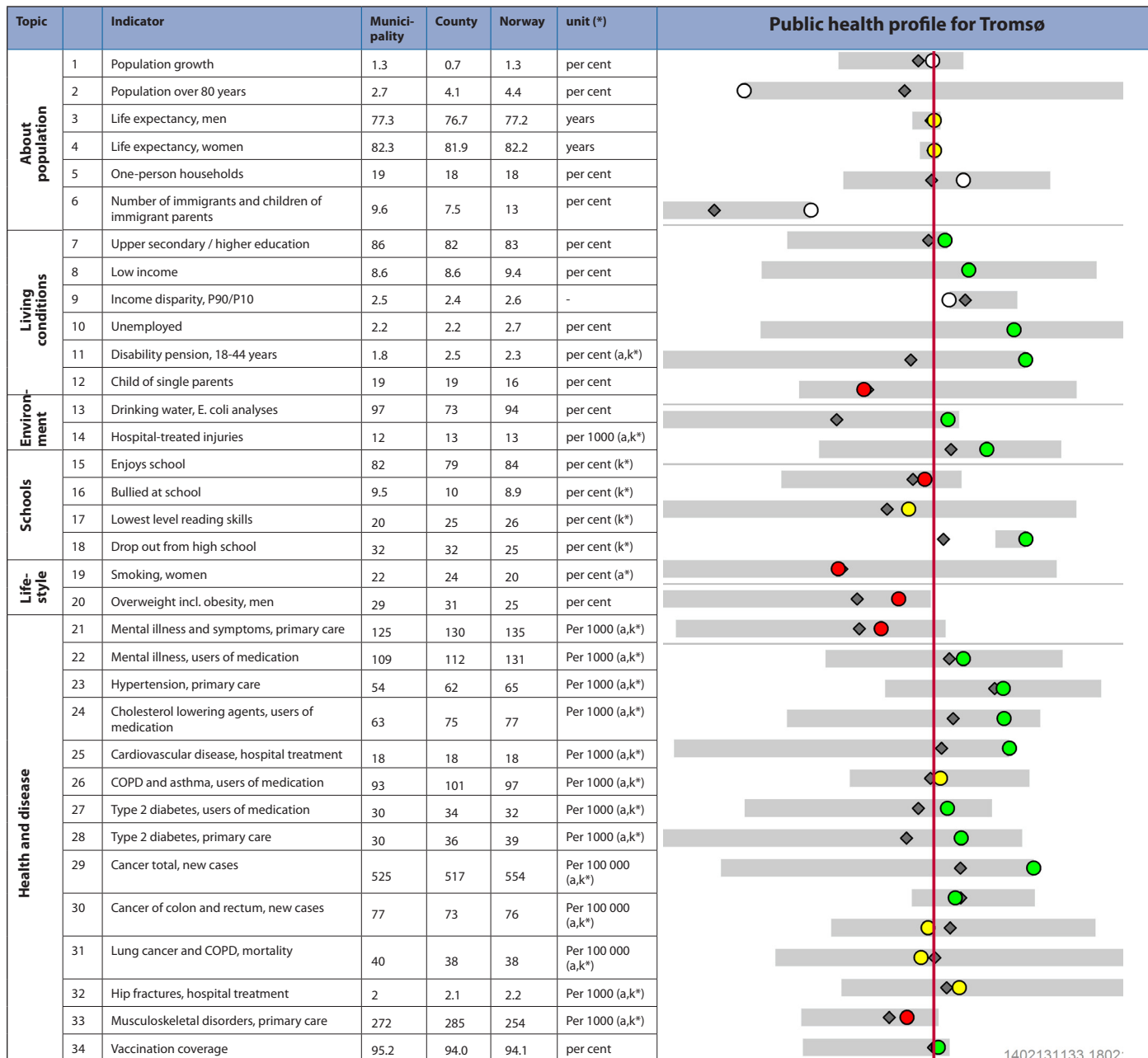
# Public health barometers for your municipality

The table below compares some key figures on a municipal and county level with national figures. Municipalities and counties may have an age and gender composition that differs from the national average. This may affect the statistics and is taken into account in the figure and number columns. Statistics without age and gender standardisation are available in the Municipal Health data bank, khs.fhi.no. The differences between the municipality and the country are tested for statistical significance, see www.fhi.no/folkehelseprofil

- Green value - can state with a high degree of certainty that the municipality is in a better position than the country as a whole
- Red value - can state with a high degree of certainty that the municipality is in a worse position than the country as a whole
- Yellow value - not possible to state for certain how the municipality compares to the country as a whole
- Not tested for statistical significance
- ◆ The value for the county (not tested for statistical significance)
- ▬ The value for the country as a whole
- ▬ The variation between the municipalities in the county

**Semicircles:** Municipal values that are more than double or half the country value are shown as a semicircle on the perimeter of the field.

A «green» value means that the municipality is better placed than the country as a whole. However, the indicator may still be a major health challenge for the municipality, as the country level may not necessarily represent a desired level. For a more comprehensive list of municipal developments, you can create charts in the Municipal Health Data Bank.



## Explanation (numbers indicate line in the table above):

\* = standardised values, a = age standardised and k = standardised by gender

1. 2011. 2. 2012. 3/4. 1997-2011, calculated based on age-specific mortality, 15 year average. 5. 2011, in per cent of the population. 6. 2012. 7. 2011, highest level of education (of all with stated education). 8. 2010, persons living in households with income below 60 % of national median. 9. 2010, the ratio between the income of a person who is in the 90th percentile and one who is in the 10th percentile. 10. 2011, of persons in the labour force. 11. 2008-2010. 12. 2009-2011, 0-17 years, of all children for whom child benefit is paid. 13. 2011, proportion of persons connected to water utilities with satisfactory analytical results regarding E. coli, as a percentage of population connected to water utilities requiring reports. At least 12 samples must be analysed. For more data, see khs.fhi.no. 14. 2009-2011. 15. 2008-2012. 16. 2008-2012. 17. 2010-2011. 18. 2009-2011. 19. 2002-2011, women at first prenatal check. 20. 2003-2009, BMI over 25 kg/m<sup>2</sup>, men at military assessment interview. 21. 2010-2011, 0-74 years, users of primary care physician and emergency services. 22. 2009-2011, 0-74 years, medicines to treat psychiatric disorders, including hypnotics. 23. 2010-2011, 0-74 years, users of primary care physician and emergency services. 24. 2009-2011, 0-74 år. 25. 2009-2011. 26. 2009-2011, 45-74 years. 27. 2009-2011, 30-74 years, users of blood glucose lowering drugs, excl insulins. 28. 2010-2011, 30-74 years, non-insulin dependent diabetes, users of primary care physician and emergency services. 29. 2001-2010. 30. 2001-2010. 31. 2002-2011, 0-74 years. 32. 2009-2011. 33. 2010-2011, 0-74 years, musculoskeletal complaints and illnesses (excl fractures and injuries), users of primary care physician and emergency services. 34. 2007-2011, vaccine against measles, mumps and rubella. Missing numbers are mainly due to privacy considerations, and are often in a small municipality with a high vaccination coverage.

**Data Sources:** Data sources: Statistics Norway, Cause of Death Registry, Norwegian Labour and Welfare Administration, Norwegian Directorate for Education and Training, The Norwegian Water Works Registry, Norwegian Patient Registry, Medical Birth Registry of Norway, primary care physician and emergency services (KUHR database, owned by the Directorate of Health), Cancer Registry of Norway, Norwegian Immunisation Registry (SYSVAK), and the Norwegian Prescription Database. For more information about the indicators, see www.fhi.no/folkehelseprofil

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