REGIONAL COMPARISONS 2014

Public Health

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Regional Comparisons 2014
Public Health

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Preface

The Swedish Government has commissioned the National Board of Health and Welfare, in conjunction with the Public Health Agency of Sweden and the Swedish Association of Local Authorities and Regions (SALAR), to develop and publish regional comparisons in the field of public health. The first report was published in 2009 and this is the second report in this field. The report presents a number of new indicators in addition to those presented in 2009. The measurement and comparison periods have been chosen in order to make it possible to monitor what has happened since the report of 2009.

The aim of this report is to contribute to improving public health by stimulating systematic improvement efforts in various organisations at the regional and local level. Together with its members, SALAR has undertaken a development process that will make work in the next stage easier once this report has been published. The work has led to an online toolbox that will be of assistance in the forthcoming analytical and improvement process.

This commission has been executed by a project group consisting of Marianne Aggestam, Petra Sundlöf and Martin Lindblom from the National Board of Health and Welfare, Elisabeth Skoog Garås from SALAR and Marlene Makenzius from the Public Health Agency of Sweden. The steering group was made up of Mona Heurgren from the National Board of Health and Welfare, Ulrika Johansson from SALAR and Saman Rashid from the Public Health Agency of Sweden.

The project group has received valuable feedback from the following experts throughout the process: Per-Olof Östergren, Professor of Social Epidemiology, Lund University; Bo Burström, Professor of Social Medicine, Karolinska Institutet; Margareta Kristensson, Professor in Social and Preventive Medicine, Linköping University and a Scientific Advisor to the National Board of Health and Welfare; Juan Merlo, Professor of Social Epidemiology, Lund University. In addition, several specialists from each of the organisations have provided valuable input.

We would specifically like to thank all the representatives from county councils and municipalities who participated in the work to produce a new regional comparison of public health for 2014.

Lars-Erik Holm
Director General
National Board of Health and Welfare

Håkan Sörman
Director General
Swedish Association of Local Authorities and Regions

Johan Carlson
Director General
Public Health Agency of Sweden

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■ New indicator
● Altered indicator

Summary

This report follows up on the indicators presented in *Regional Comparisons 2009 Public Health*. The report contains an indicator-based comparison of public health and reflects different perspectives on public health in the form of comparisons of the differences in outcomes between municipalities and between county councils.

The results indicate that there are both similarities and major differences between municipalities and between county councils in terms of social conditions, living conditions, lifestyle habits and health. The intention is that this report will be used as a basis for continuous analyses and systematic improvement by a range of regional and local public health bodies. Regional comparisons are descriptive in nature and contain no analysis or assessment of the possible causes of differences in outcomes.

Over half of the indicators display an improved result at the national level compared with 2009. This year's report also contains a range of new indicators concerning social and living conditions for which the outcomes have not developed so favourably. A higher educational level often entails fewer health risks at work, less financial vulnerability and more influence over one's own situation. A high educational level increases the chances of finding work and of feeling a sense of social solidarity and participation in society. Health inequalities are often the result of worse social and living conditions.

Some results in brief:

- The average life expectancy in Sweden continues to increase, for reasons such as the morbidity and mortality from cardiovascular diseases having reduced markedly. However, there are relatively large variations within the country. In addition, the increase in average life expectancy has not been as large for all groups. Women who only have pre-upper-secondary education have shown the least improvement.
- In the majority of county councils and municipalities, there is a considerable proportion of individuals who feel that their health is good, as in previous measurements, but there are clear differences between groups with different gender or educational backgrounds.
- The proportion with impaired mental well-being was increasing previously, but this increase appears to have abated in several county councils and municipalities. However, a higher proportion of women than men still report impaired mental well-being and the proportion of younger people with impaired mental well-being has increased in the period 2007–2014.
- The prescription of soporifics and sedatives varies markedly between different county councils and between municipalities. It is especially high among women with a low educational level.
- There are large variations around the country in the proportion of pupils who attain the qualifications necessary for upper-secondary school and in the proportion of pupils who complete their upper-secondary education within four years.
- Long-term unemployment, measured as the proportion of the total population, has increased in almost all municipalities when compared with 2009 and varies greatly between different municipalities.
- Individuals' perceptions of a safe and secure environment have a decisive impact on their well-being. In the majority of counties and municipalities, the proportion who avoided going out alone because they were afraid of being assaulted, robbed or otherwise molested decreased. Considerably higher numbers of women than men avoided going out alone.
- The population's lifestyle and living habits vary between municipalities, between county councils and between groups with a low or high educational level. Lifestyle and living habits have improved in several areas, which can also be deduced from the reduction in the incidence of myocardial infarction and lung cancer. Nevertheless, the incidence of obesity has increased in the majority of county councils and municipalities.

In summary, the following results can be reported with respect to the population's lifestyle and living habits:

- Physical activity has not changed appreciably over the course of the two measurement periods. The results from barely half of the county councils show a small improvement.
- Daily smoking has decreased in the majority of county councils and municipalities, but is still more common among women, particularly those with a low educational level.
- Risky use of alcohol has decreased in the majority of county councils, but with large regional and local variations. There is a clearer downward trend among young men, while the development for younger women has not been so positive.
- For patients in primary care who report that they discussed their lifestyle and living habits during a doctor's appointment, the outcome is unchanged or somewhat worse than that of the previous measurement period, except for a number of county councils which show a positive development.
- In the field of sexual and reproductive health, it appears that the development of chlamydia is unchanged between the measurement periods. The number of abortions is decreasing among teenagers, which is a positive trend, but there are large variations between county councils with respect to both abortions and chlamydia.

The comparisons in the report take into account differences between men and women and between groups with a low, medium or high educational level. In the majority of cases, the situation is worse for those with a low educational level. This is especially true for women with a low educational level, who often have the least favourable development over time in terms of health.

Introduction

This regional comparison was written primarily for politicians, officials and accountable managers on national, regional and local levels in Sweden. The report is directed towards organizations and authorities responsible for improving health of the population. Due to this, some of the wording and terminology may, in an international context, be a bit vague even though some clarifications have been inserted in this translation from Swedish to English.

Regional comparisons for public health were reported for the first time in 2009. This is the report for 2014, published by the National Board of Health and Welfare in conjunction with the Swedish Association of Local Authorities and Regions (SALAR) and the Public Health Agency of Sweden. The starting point for this work has been the experience gained from 2009, something which is also expressed in the government commission. Consequently, the majority of indicators reported in 2009 have also been followed up in this comparison. At the same time the scope of this report has been expanded to encompass more indicators than in the previous report. Those added include a range of indicators concerning people's social and living conditions.

The overall goal is for these regional comparisons of public health to function as an aid to the responsible principals and providers within the welfare sector in their efforts to promote good public health. In some of these areas there are also guidelines or other evidence-based reports that should form the basis for local improvement efforts and discussions. The National Board of Health and Welfare, SALAR and the Public Health Agency of Sweden have arranged seminars and regional discussions and have participated in network and reference group meetings with representatives of municipalities and county councils in order to discuss areas that are of importance to public health in Sweden, as well as proposals concerning indicators to include in the report.

AIM

Regional comparisons for public health have to:

- contribute to openness and improved transparency in publicly funded organisations and authorities responsible for improving the health of the population
- function as a basis for development, improvement, monitoring, analysis and learning in these organisations
- initiate local, regional and national analyses and discussions concerning the quality and efficiency of these services delivered by these organisations
- serve as a basis for management and governance.

LIMITATIONS

It is important to emphasise that the indicators reported here do not provide a complete picture of the field of public health. The ambition has been to identify important areas that have yet to be sufficiently highlighted. At the same time, there is a lack of available data, which often limits the chances of making comprehensive comparisons. County councils and municipalities often have access to a considerably larger number of additional statistics that are not available or comparable at the national level. However, these local and regional data contribute to the continuous analysis of the indicators in this report.

THE REPORT'S OUTLINE AND APPENDICES

The first part contains background information with an introduction, the aim of the commission and a discussion of the method. In addition, there is a description of public health and its context in relation to this report, the role and responsibilities of the municipalities and county councils in the field of public health, public health policy and the factors determining health.

The second part of the report contains the results of the indicators presented in this report. This part is divided into three chapters: health in the population, social and living conditions and lifestyle and living habits. Each of these areas is described in more detail in the following chapter on public health. Appendix 1 at the end of this report describes how data from the national public health survey and the regional public health surveys in Värmland and Skåne have been processed.

The report's table of contents indicates which indicators have been altered or are new since *Regional Comparisons 2009 Public Health*.

The results in this report have been presented in a structure that divides them into the following areas: health in

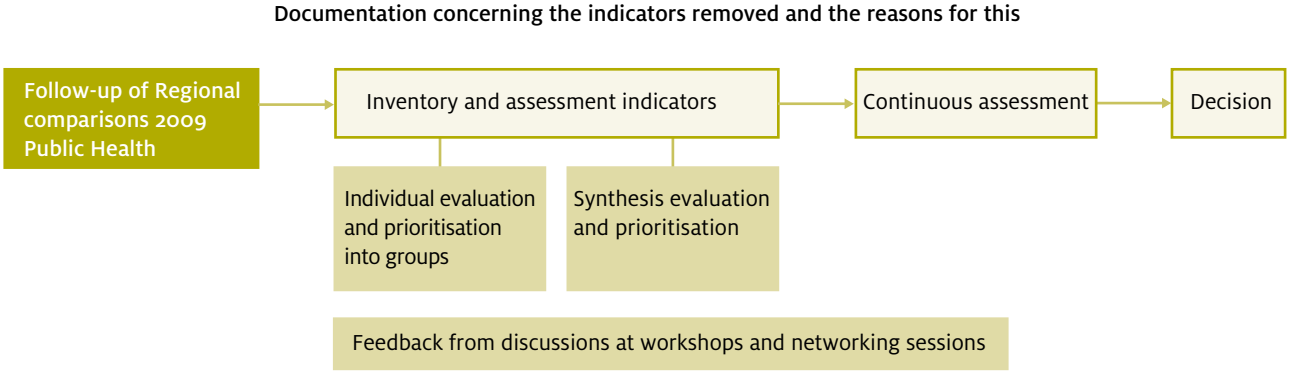
the population, social and living conditions and lifestyle habits. Indicators that in one way or another reflect health status, how long we live, how we feel and how health is distributed among different groups in the population are collected in the section health in the population. Social conditions and living conditions are found in the subsequent section. Social conditions encompass aspects that relate to the social system in which the individual lives. Living conditions are affected by social conditions and describe the prerequisites of the environment in which people live and work, i.e. the individual's specific circumstances that are affected by such things as the residential environment, working environment and psychosocial environment. The social conditions, and to some extend the living conditions, are often outside the individual's immediate control. Lifestyle and living habits, which is covered in the third section of the report, deals with specific human behaviours in everyday activities over which the individual themselves has an influence, for example eating habits, physical activity, tobacco and alcohol use and sleeping and sexual habits. Society can also create good conditions for individuals to make wise choices themselves with respect to their own lifestyle habits. Lifestyle habits are affected by the social conditions and living conditions [1, 2].

REGIONAL COMPARISONS PUBLIC HEALTH

The first report, *Regional Comparisons 2009 Public Health,* contained 21 indicators in the areas social conditions, lifestyle habits and health effects. The aim of the report was to stimulate more detailed discussions and analyses in the work to develop public health initiatives at the local and regional level. Municipalities and county councils share responsibility for public health, which underlines the need for a well-developed partnership. The report would also function as an evidence base ahead of continuous analyses with the aim of achieving good public health. In 2011, SALAR undertook an evaluation directed at the county councils' public health chiefs and contacts for strategic public health efforts in the municipalities. This showed that *Regional Comparisons 2009 Public Health* had been received positively. Many of the contacts made use of specific initiatives to inform the media about the report and half stated that collaboration between municipality and county council functions well. They also valued the fact that, when possible, the reported data was distributed on the basis of educational background. However, the report had not stimulated any more extensive improvement efforts. The evaluation highlighted a desire for an increased focus on health equality, additional indicators based on the areas lifestyle habits and health outcomes, as well as further process indicators. In conjunction with the discussions with representatives from municipalities and county councils, there was a specific desire that this resolve be reflected to the greatest possible extent in the indicators, preferably through reporting in the form of process indicators, in order to identify and monitor what is taking place in these organisations. However, these desires have been difficult to realise as there is a lack of data with national coverage.

Representatives from county councils and municipalities have also participated in the work to produce this new regional comparison of public health for 2014, with networks containing both politicians and civil servants having been involved in discussions in giving the work a firm grounding. One goal was to follow up the report from 2009 with an inventory of possible new indicators in the field of public health at the national, regional and local level. Workshops were used to give representatives from municipalities and county councils the opportunity to evaluate the proposed indicators and choose a number of new indicators through prioritisation discussions. In total, 125

FIGURE 1: An image showing the process involved in the development of new indicators in discussions with representatives from municipalities and county councils:



people from municipalities and county councils have participated in this work and a total of 175 proposed indicators have been dealt with in this process. This report now contains 41 indicators, equating to about twice as many indicators as in 2009.

All parties have strived to ensure that the indicators are relevant to public health and shed light on areas that are important to work on with the aim of improving outcomes in the field of public health. Each of the indicators has to reflect important aspects in the field of public health.

WHAT IS AN INDICATOR?

An indicator is something that can be measured and is used to demonstrate a status or a change in a larger system. Indicators are the tool that is used in the context of follow-up and evaluation at the national level. The National Board of Health and Welfare has established a number of criteria that provide support when adopting and developing indicators and differentiate these from other key figures and background variables [3]. The criteria have also served as a guide in this commission and are as follows:

- The indicator has to state a direction, i.e. that high or low values express high or low quality and/or effectiveness.
- The indicator has to be relevant and highlight an area that it is important to improve and that reflects some dimension of quality and/or effectiveness in the outcome.
- The indicator has to be valid, which means that it measures that which it is intended to highlight and does so in a reliable way in a system that collects data in a similar way year after year.
- The indicator has to be accepted and evidence-based, e.g. based on guidelines, research, legislation, proven experience, consensus or evidence gathered from those it affects (patients or users in other services).
- It has to be possible to influence the indicator so that principals or providers involved in delivering publicly funded services in municipalities or county councils have the ability to influence the indicator's outcomes.
- The indicator has to be measurable and it has to be possible to measure using continuously collected data available nationwide.

It is also beneficial if the indicator meets the following criteria:

- The indicator should have a target level, if possible.
- The indicator should cover the entire country and be possible to break down at different levels. This means an ambition to include all municipalities, county councils and units in a comparison, encompassing public providers, as well as private and non-profit organisations within the scope of publicly funded services.
- It should be possible to base the indicator on datasets that are produced by different stakeholders in the field.

Material, method and procedure

Reports involving regional comparisons contain indicator-based comparisons. This primarily means that data is processed in order to report an outcome in accordance with a defined indicator and through a number of different identified reporting levels. A presentation of comparisons at the national level implies stringent requirements on data quality. All data have to be of a good quality at both the individual level and an overarching level encompassing all of the organisations and services involved. They also have to be well-developed with respect to their content, coverage and interpretability. Terms and concepts that are used when gathering data have to be well-defined and structural and organisational differences have to be taken into account in the production process. In addition, data have to be presented in a statistically correct way in order to protect the integrity of individuals. Regional comparisons are descriptive in nature and the comparisons are commented on so that the reader can more easily interpret the outcome. However, the texts contain no analyses setting out the causes of the differences that are demonstrated and they make no appraisal of the outcome. The next step involves improvement efforts at the regional and local level. This is dependent not only on there being sufficient time for analysis and more detailed study, but often also on having sufficient knowledge about various local circumstances that have affected the outcome. Representatives of those involved in delivering these services are in the best position to interpret and evaluate their own outcomes.

Each indicator is presented along with an indicator text and an explanation of why the area is important to public health and why the indicator is included in this report. Following that, the data for the indicator are presented in diagrams.

The results are not to be seen as a comprehensive rating of how good public health is in municipalities or county councils. Instead, the intention is to provide a view of the present situation based on a number of indicators, the data for which is sufficiently comprehensive to facilitate nationwide comparisons based on results at the regional and local level. The indicators have also been identified on the basis of public health policy target areas. When looked at on the basis of a life-long perspective, there is an excess of indicators that focus on the adult population rather than children or the elderly. The reason for this is that such data are more readily available at the local and regional level.

The main difference from the report of 2009 is that there are now more indicators that are concerned to a greater extent with people's social and living conditions.

WHAT DO THE COMPARISONS SHOW?

Public health is affected by a range of factors. The content and focus of services are governed by the county councils' and municipalities' various goals, priorities and allocation of resources; something which also affects public health outcomes. On top of these, there are other factors with a considerable impact on public health that municipalities and county councils have very little opportunity to influence. These include the structure of the regional and local population and socioeconomic circumstances in the form of the population's educational level and income; factors that are strongly linked to lifestyle habits and health. These conditions differ to varying degrees in different county councils and municipalities. Other important factors are the population density, the structure of the labour market and the housing market. In other words, different county councils and municipalities have differing prerequisites with respect to encouraging good public health. A number of background variables are also presented in this report in order to make it easier to interpret and give a greater understanding of the differences illustrated in the comparisons. The background variables reported relate to the structure of the population (size of the population, gender distribution, average age, proportion born abroad) and socioeconomic factors (proportion in paid work, median income, proportion with post-secondary education, financial vulnerability among children and age). These variables reflect a variety of conditions that may have some impact on why public health outcomes vary between different county councils and/or municipalities.

However, when comparing municipalities or county councils, it is important to remember that socioeconomic circumstances, primarily, vary more within, for example, a single county council than they do between county councils. For example, it is not uncommon for there to be

large differences in terms of average income and educational levels between areas encompassing major cities and those in the countryside, something which is not evident in the county council comparisons in this report. In the same way, two municipalities in the same county council can have completely disparate socioeconomic conditions, something that applies not least to municipalities in major city regions.

When possible, the results section contains a presentation of the indicators based on inhabitants' educational background. Depending on the quality, data is presented at the national level over a long period of time. When the information is available, trends for other groups in the population are also described. Further analyses at the local and regional level can then be performed on the basis of knowledge of the circumstances in the municipality or county council in question.

When making comparisons, it is also important to take into account the time between intervention and outcome, i.e. to be aware that the desired effects are usually only achieved in the long-term.

Finally, it is also advisable to bear in mind that the type of comparison used within the scope of regional comparisons – differences in average values between municipalities and/or county councils – is not entirely sufficient to allow a more detailed interpretation and assessment of the size of the differences indicated. Nor is it possible to draw any conclusions concerning whether the municipality or county council has any considerable impact on individuals' health on the basis of these data. Such an assessment requires further studies in the form of multi-level analyses that also take into account individual variation. However, this type of analysis is not within the scope of the work on regional comparisons.

PRESENTATION OF THE DATA

In projects of this type, it is always desirable to present data that are as up-to-date as possible. It is also advantageous if an indicator is designed so that the effect of improvement is visible in the short-term, e.g. annual follow-ups.

Indicators and data presenting outcomes are classified on the basis of indicator value, i.e. based on the desirable direction. This normally means that a placement at the top of the diagram represents a better outcome then a placement lower down. This classification is also undertaken in those cases in which the data is of a lower quality, the differences are small and there is greater random variation. For the majority of indicators, it is the case that the organisations and authorities involved have the opportunity to influence the outcome, but not entirely. There are many factors to take into account and the variations are often due to differences in local and regional conditions.

Longer periods of time should be used for those indicators for which there is only a small amount of data. This is because the statistical uncertainty would be too great otherwise and there is a risk of the annual results jumping up and down randomly. Consequently, a balance needs to be struck between topicality and statistical certainty. To the extent possible, taking into account the availability of data, the outcomes for indicators are presented in the report in accordance with the following:

- comparisons of municipalities or county councils are classified by value
- the nationwide development over time
- educational level
- distributed by age (in specific cases).

In general, data distributed by gender are presented for county councils, national trends and educational level.

CONFIDENCE INTERVALS

A confidence interval is an interval that, with a predetermined level of certainty, encompasses the "true" value of, for example, a proportion or an average. This is often used in order to estimate the uncertainty of an estimated value in the case of random samples. The upper and lower limits for the interval within which there is a 95 per cent certainty that the "true" value lies, are normally stated. For example, this applies to the indicators based on sample surveys such as "Health on Equal Terms" (HLV) and "National Patient Survey" (NPE). The majority of diagrams show the 95-per cent confidence interval with a line at the bars or dots that show the value. The confidence interval states the statistical uncertainty for an individual value and when there are few observations there is an increased scope for random chance so the confidence interval increases

Several of the comparisons in this report are, however, based on a random sample, rather than on the total number of observations within a period of time. For example, this applies to diagrams based on the National Board of Health and Welfare's health data register. In the case of quality measurements and in conjunction with comparisons, it is still the convention to state the statistical uncertainty as the outcome must be regarded as one of several possible outcomes of a process that involves a degree of random chance. It is then that the confidence interval describes the uncertainty because of this variation. The importance of illustrating and taking into account the random variation is described in the report *Ännu bättre vård – vad kan vi lära från variationen i öppna jämförelser* [Even Better Care – What Can We Learn From the Variation in Regional Comparisons] [4]. Please note that the confidence interval does not reflect any other uncertainty such as that caused by insufficient registration or the fact that many young people did not respond to a survey.

Municipal reporting

Data at the municipal level is presented classified by outcome in what are known as forest plot diagrams, i.e. as dots with a confidence interval, with a reference line for the country. In cases where there is a comparison period, the value for this is indicated with a grey dot.

Municipal diagrams usually show data that is not distributed by gender as there is too little information in many cases. However, the appendix contains indicator data distributed by gender for municipalities for which there are sufficient data.

County and county council reporting

The report uses the terms county, county council and region. The texts describe the services or organisations concerned and for which the indicator is specifically intended. Some indicators are intended more for specific principals and/or the services they are involved in, but most concern more than one principal operating in the same geographical area. With respect to data at the county council level, the diagrams are structured as bar charts, classified by value and with one diagram for women and one for men, provided that the data are distributed by gender. Confidence intervals and previous comparison periods are shown in grey. A value for the national average is stated in another colour than that of the bars for the county council.

Public health

The World Health Organization's (WHO) definition states that health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity [5]. Health encompasses four positive values: a long life, healthy life, rich life and equitable life. The definition emphasises that good health is to be regarded as a resource for society and its individuals, not a goal in itself [6].
Public health, as opposed to the individual's health, is a collective term for the health of the entire population. It takes into account both the level and the distribution of health. Good public health should thus involve health being as good as possible at the same time as it is as equally distributed among different groups in society [7].

Good and equally distributed public health is also central to sustainable development as it is a result of a society's social, economic and environmental development, and a satisfactory distribution is also important for the future development of society [19].

Public health is affected by many different factors and encompasses a range of different stakeholders in society; therefore, it is important to work in a way that crosses sectoral boundaries. Work involving public health is also usually conducted long-term as many circumstances interact and individuals have varying prerequisites. The responsibility rests on both the public and the private sector, but voluntary organisations, not forgetting individuals themselves, also have many opportunities to assist and contribute to social development that promotes health [9, 10].

In autumn 2008, the WHO published the report *Closing the gap in a generation*. This report maintains that the unequal distribution of health is not a natural phenomenon, instead it can be regarded as "the result of a toxic combination of poor social policies and programmes, unfair economic arrangements, and bad politics" [11].

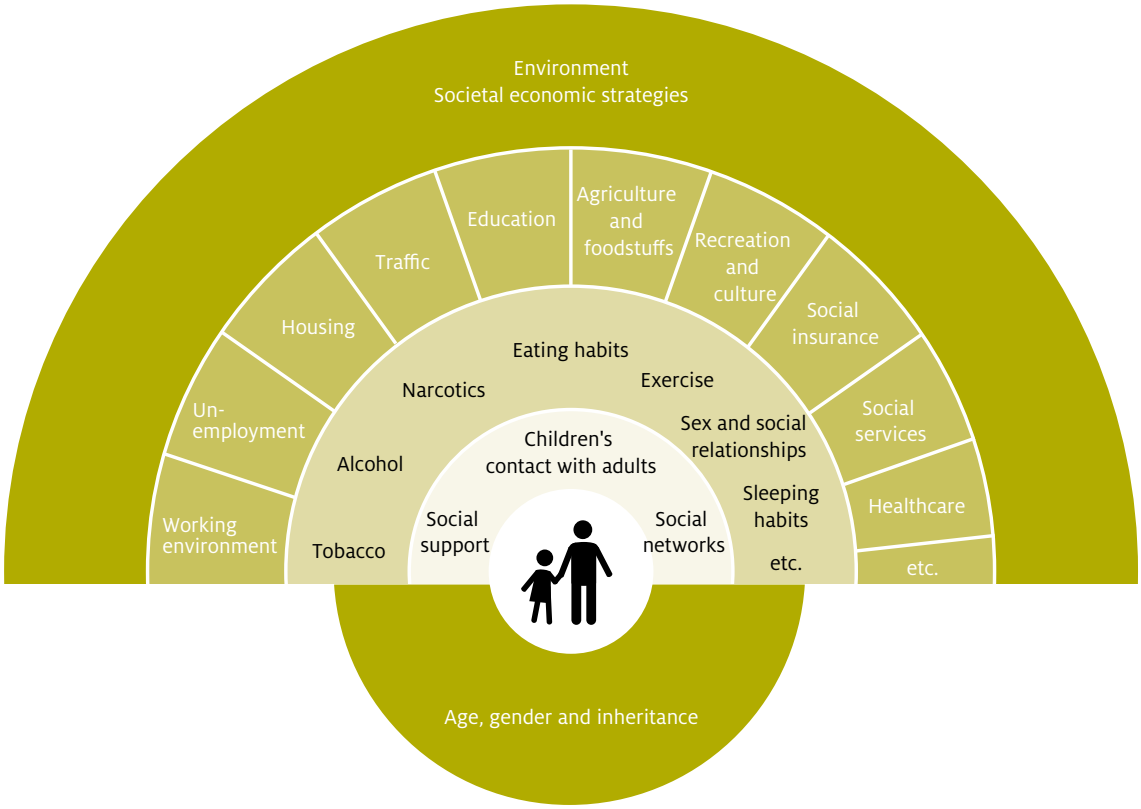
There is in all societies some form of social stratification, that is to say an unequal distribution of influence, resources and access to goods and services. The social position entails that the distribution of determinants varies and results in different advantages and disadvantages that also have an impact on our chances of enjoying good health. A low educational level, low income and weak links to the labour market often go along with poorer health and quality of life, which in turn have an impact on people's opportunities and capabilities in life [11–17].
The work to make health equitable is set out in goals at various societal levels, in both a national and an international perspective. There is also a large number of important external factors contributing to the health of the population, for example how the economy and the labour market are developing, as health is affected by social and living conditions. In turn, health has an impact on opportunities to succeed in school, to access further education, to enter the labour market and to develop social relationships. The challenge is to create the conditions in which everyone can enjoy a long life with good health, regardless of their socioeconomic circumstances [18].

For some time now, the development of health and welfare has been monitored in a large number of municipalities using annual welfare reports. At the national level, it is often reported that inhabitants are feeling better and becoming healthier, at the same time as the differences between groups with different social and living conditions are increasing. This has led to four major development projects for improving public health in Malmö, Region Västra Götaland and Östergötland, as well as in a further twenty municipalities and county councils through SALAR's collaboration with "Together Towards Social Sustainability". Efforts at the local and regional level build on the WHO report Closing the gap in a generation, which illustrates the link between the factors in society that cause ill-health and the unequal distribution of health in the population, the social determinants of health [19].

WHAT DETERMINES HEALTH?

The term determinant has come to be used in the discussion of public health strategy to denote "factors that have an impact on public health". There are many factors that interact at many different levels in society, for example where and how we live, which environment we live in, childhood and upbringing, our education and our work. Determinants can both increase and decrease the risk of ill-health [2].

FIGURE 2. Health determinants, according to Dahlgren and Whitehead, 1991, modified by the Public Health Agency of Sweden [2].



The majority of factors can be influenced, not least by political decisions in the fields of employment and education policy, while others deal with changes to lifestyle and living habits relating to such aspects as smoking and exercise. Although the individual's own choices have a great importance for their health, factors at the societal and structural level can create favourable conditions and supportive environments that facilitate good choices. Factors such as inheritance, gender and age also have an impact on public health, but it is rarely possible to influence these.

HEALTH EQUALITY

In 1987, the National Board of Health and Welfare published its first public health report, which demonstrated that there were large social differences in health. Twenty-seven years have passed since this and on the whole, the population of Sweden has become healthier, but the large social differences in health remain, regardless of age and gender. According to the latest public health report, they have also increased in certain respects [20]. There are currently large differences in lifespan between those with different educational levels and between genders. Social differences in health can also be found within countries and between countries, for example between the old EU countries and the new ones in Eastern and Central Europe. According to the report mentioned previously, *Closing the gap in a generation,* it is vital that action is taken to reduce health inequality when the causes are known and can be influenced and this can be done using reasonable interventions. The WHO's independent commission on social determinants of health, known as the Marmot Commission, concludes that "inequities in health, avoidable health inequalities, arise because of the circumstances in which people grow, live, work, and age, and the systems put in place to deal with illness". The commission submitted three recommendations for reducing health inequities [8, 21]:

- improve daily living conditions
- tackle the unequal distribution of power, money and resources
- measure and understand the problem and assess the impact of action.

This and other commissions within the WHO on social determinants of health have guided the four regional and local development projects in Sweden; the Malmö Commission, Region Västra Götaland's "Together Towards Social Sustainability", Östergötland's commission and SALAR's work. "Together Towards Social Sustainability – reduce differences in health" [19].

This report focuses on presenting comparisons between municipalities and between county councils. The ambition is to report on both the level and the distribu-

tion of health. Income, occupational affiliation and educational level are common variables used to measure equality, as is country of birth. The report presents data based on educational level, when possible. This means that data are presented on the basis of the three educational levels pre-upper-secondary (in most cases, compulsory school), upper-secondary and post-secondary education. Data concerning education has been gathered from Statistics Sweden's education registry for the population aged 25–74 years. Education has also been used in regional comparisons of healthcare in order to reflect equality. Hopefully, measures that more fully reflect the individual's social position will be developed in future.

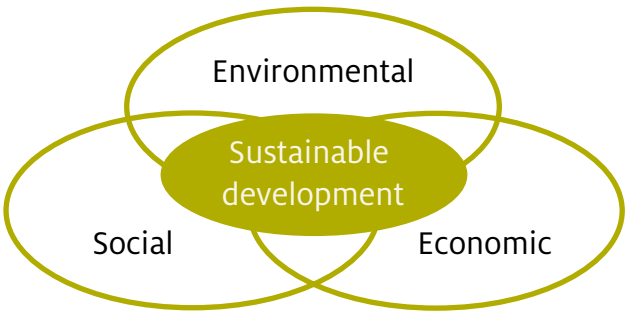
The importance of reducing differences in health is illustrated in a report from the European Commission in which the economic consequences of health inequality are estimated at close to 10 per cent of GDP [17].

PUBLIC HEALTH AND SUSTAINABLE DEVELOPMENT

Sustainable development is a term associated with the concept of public health. The term was used by the Brundtland Commission and is defined as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [22, 23].

At the societal level, the term sustainable development encompasses a range of aspects in three different areas: economic, social and environmental.

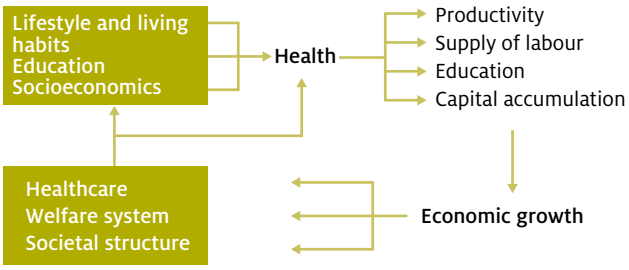
FIGURE 3: The term sustainable development and its aspects



The economic aspect encompasses factors linked to economic resources, growth and development. The social aspect includes people's needs, development and social resources, while the factors in the environmental aspect involve external environmental conditions such as water, air, natural resources and people's interaction with these. The three aspects are interdependent and none is superior to the others or can be regarded as an independent system. An unsustainable development in any of the aspects has an impact on the others. For example, overconsumption of natural resources (the environmental aspect) will require major changes to the financial system (the economic aspect), which in turn has an impact on the distribution of resources (the social aspect) [19].

Economic growth models are increasingly focussing on health as a variable that has a major impact on human capital. Good public health contributes to sustainable development and economic growth [22, 23].

FIGURE 4: The importance of health to economic growth. Source: *Hälsoekonomi och folkhälsoarbete [Health Economics and Public Health Initiatives]*



There is a strong connection between ill-health and a weak local economy, and societies with high rates of ill-health and absence from work due to illness have difficulty achieving satisfactory economic development without combating ill-health. Average life expectancy can be regarded as an essential measure of how successful welfare states are in creating the prerequisites for improved living conditions [24, 25].

STRATEGIC PUBLIC HEALTH EFFORTS AT THE REGIONAL AND LOCAL LEVEL

The Swedish Government sets out in Bill 2007/08:110 [26] that certain health promotion interventions require collaboration encompassing all sectors with clear division of responsibility and goals. This bill also states that the municipalities have a direct responsibility for public health. The county councils are responsible for duties that are common to large geographical areas and often require substantial financial resources. Regional development efforts become increasingly important as the regions gain greater importance in the work on sustainable development, where good public health also stimulates good growth.

An evaluation by the Swedish Agency for Public Management from 2013 showed that the majority of the country's municipalities and county councils believed that the national public health goal guided their public health efforts [27]. Having a specific public health policy or plan does not guarantee that public health initiatives will be satisfactory, even though such a policy can provide support along the way in the work itself. Public health initiatives can also be included in other comprehensive strategic documents in municipalities and county councils.

The Public Health Agency of Sweden monitored how municipalities and county councils had organised their public health initiatives. In the majority of county councils, public health was included in comprehensive planning documents and around half of the county councils also had a specific public health policy or strategy. Among the municipalities, it was common for public health to be included in goal documents and half had a public health policy, strategy or action plan.

The county councils are responsible for healthcare, which is an arena involving a great deal of contact with citizens and patients. Thanks to this, it has been possible to build up a wide-ranging expertise and knowledge of public health problems. The Health and Medical Services Act states that the goal of the healthcare system is good health on equal terms for the entire population. There also has to be an effort to prevent ill-health and to ensure that "those who turn to the healthcare system must, when appropriate, be provided with information about methods of preventing disease or injury" [28].

A healthcare system that promotes health aims to improve the population's health, as well as the individual's health and health-related quality of life [29]. This involves a broad view of healthcare and not one that simply focuses on the treatment of disease. Sweden's 290 municipalities are responsible for a large proportion of the community services provided in the places we live. The municipality has a statutory responsibility for certain services such as childcare and preschool activities, schools, care of the elderly, social services, planning and building matters, water and sewerage and waste management [9, 10, 30]. The municipality can decide itself whether it wishes to provide other services such as housing, energy, recreational activities, cultural activities and services for the enterprise sector.

The county administrative board is the Government's representative in the 21 counties and has to ensure that the county achieves the goals set by the Riksdag and the Government, while taking into account circumstances in the county. With respect to the health promotion and disease prevention initiatives employed by the county councils, the aim, in the case of disease prevention, is to reduce risk factors, while health promotion aims is to improve access to factors that are protective and promote wellness [29].

It can be beneficial to expand and adapt these terms to suit other activities in addition to healthcare as the work of many principals in the welfare sector involves public health. This then involves working with initiatives and interventions that aim to prevent the emergence of or affect the course of diseases, injuries or physical, mental or social problems.

In terms of municipal activities, this can equate to health promotion or disease prevention interventions that ensure, for example, more children and young people complete their compulsory schooling with basic qualifications and the admission requirements for further studies, there are more opportunities for physical activity in schools, open preschools and family centres are available or various forms of parental support are offered.

NATIONAL PUBLIC HEALTH POLICY PERSPECTIVE

In autumn 2000, the National Committee for Public Health submitted its final report *Hälsa på lika villkor nationella mål för folkhälsan.* [Health on equal terms-national public health goals] [31] to the Government. In spring 2003, the Riksdag adopted an overall national goal and eleven target areas for public health efforts as a whole [32].

The overall goal of Sweden's public health policy is to create the societal conditions for good health on equal terms for the entire population. This means that the unequal distribution of health between and within different groups is regarded as a key problem. The bill [32] stresses the need for coordinated public health reporting that makes it possible to monitor the policy by analysing and assessing the effects of the initiatives in the eleven objective domains. The benefit of using determinants as a basis is that the goals are brought within the reach of political decisions and can thus be influenced by various societal initiatives [18, 33].

In spring 2008, the Government chose to clarify the objective domains in the bill *En förnyad folhälsopolitik* [A renewed public health policy] [26]. The intent was to make it clear that the objective domains are not to be perceived as goals in themselves, but the overall structure of the goals was preserved. In 2012, a communication arrived clarifying that the individual is to have more support in managing their own health through an effective collaboration between public, private and civil society stakeholders. This clarification of the policy rests on five important foundations:

- start – good conditions in which children and young people grow up
- support – that makes healthy choices easier
- protection – effective and secure protection against threats to health
- collaboration – collective responsibility for good health
- strong evidence-based governance – spread knowledge about methods that work

The overall public health goal involves the conditions for health and the distribution of health. The objective domains build on the determinants of health are based on the eleven overall objective domains for public health adopted by the Riksdag in 2003 [32].

THE NATIONAL PUBLIC HEALTH GOAL:
Creating the societal conditions for good health on equal terms for the entire population.

The eleven national objective domains for Sweden's public health policy are:

1. participation and influence in society
2. economic and social prerequisites
3. secure and favourable conditions during childhood and adolescence
4. health in working life
5. environments and products
6. health-promoting health services
7. protection against communicable diseases
8. sexuality and reproductive health
9. physical activity
10. eating habits and food
11. tobacco, alcohol, illicit drugs , doping and gambling.

The public health policy is trans-sectoral and concerns several policy areas, for example education, integration, gender equality, employment, ageing and family [35]. Consequently, public health efforts need to have many points of contact with other policy areas. In 2013, the Public Health Agency of Sweden [28] conducted a follow-up of public health policy at the regional and local level and the results indicated that public health policy was facilitated by systematic public health efforts by the majority of the municipalities, county councils and regions that responded. Public health policy is used as a tool for prioritising initiatives, often in collaboration with other public health stakeholders. However, the overall goal and the eleven objective domains are more frequently used in the planning of public health initiatives than when following them up, making it difficult to follow up efforts in a systematic way. There is a desire at the local and regional level for clearer interim goals for public health efforts and further development of the monitoring system [28, 36].

The Swedish Agency for Public Management's evaluation of the monitoring system for the national public health policy concluded that it contained deficiencies. These included a lack of interim goals for the national public health policy, that there were far too many monitoring indicators and that this made it harder to assess whether the national public health goal is achievable [27].

INTERNATIONAL PUBLIC HEALTH POLICY PERSPECTIVE

The health problems that rich and poor countries have are becoming increasingly similar and they have to be solved. The WHO appointed the Commission on Social Determinants of Health in 2005 [17], charged with investigating opportunities to achieve health equality and act to ensure global mobilisation. While this work took place several countries and bodies have joined the Commission as partners, Sweden among them. The Commission encourages the WHO and all governments to initiate global interventions that have an impact on the social determinants of health, with the aim of achieving health equality.

Many countries have national public health goals and public health policy strategies. As time has gone by, there has been a transition from traditional public health policy to what is known as "The New Public Health" [28]. Swedish public health policy is one example of this and places a great deal of focus on the social environment's importance for public health. The Swedish model is a breakthrough for this new way of thinking and is sometime called the third wave of a public health revolution [37]. This development involved the focus being moved from the individual's health resources and prerequisites to issues concerning access to healthcare, the environment, political governance and social and economic development [38].

Internationally, various different indicators and definitions are used to measure and monitor public health within and between countries over time. It is therefore difficult to compare statistics from different countries. The quality of international statistics varies with countries' opportunities to report in accordance with the definitions and with how the statistical terms are interpreted. Variations can also be down to the organisations asking for differing content for the same activity. The EU, the OECD and the WHO are working to improve the quality of the statistics by harmonising definitions and the collection of statistics in several areas [39].

The WHO's latest review of health differences in Europe indicates that there is still much to do, even in Sweden. We have dropped behind in a number of structural underlying factors for health and are now lagging behind from a Nordic perspective when it comes to relative economic vulnerability among children, youth unemployment, unemployment among those born abroad and obesity, for example. Sweden also has the largest differences among individuals with different educational levels among the Nordic countries [21].

The health of the population

In recent decades, the health of the population has improved substantially. Together with improved lifestyle habits, the reduction in mortality from a number of causes of death has contributed to average life expectancy having increased. At the same time, it is clear that there has been a deterioration in the health trend with respect to the population's mental health. The social differences in health have also remained unchanged.

OVERALL HEALTH STATUS

The health trend in the population has a fundamental importance to overall societal development and also has an impact on the need for healthcare. Average life expectancy and self-assessed general health are two measures that are often used to describe health in general terms and they also paint a picture of the health trend.

Dental health and the incidence of obesity in the population are examples of other indicators that provide some insight into the general state of health, not least due to their strong link to lifestyle and living habits (eating habits and physical activity) and utilisation of healthcare.

1. LIFE EXPECTANCY

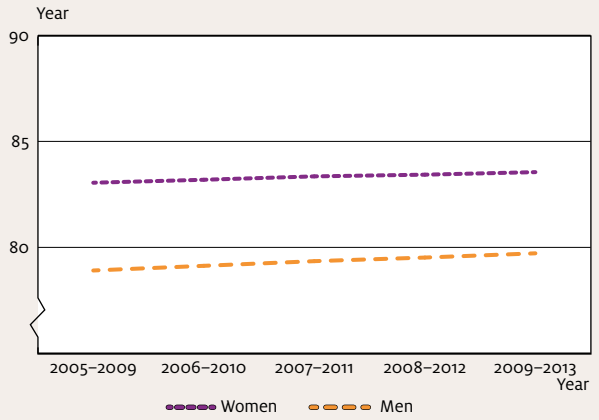
Average life expectancy is a general measure that is often used to describe health. It can be regarded as an important measure of how successful welfare states are in creating the prerequisites for improved social and living conditions and health. This also reflects how the healthcare system is able to contribute to increase life expectancy for the population through disease prevention and treatment.

International comparisons of average life expectancy show that Sweden is among the best in the world. Swedish men live almost the longest of all men – only those in Iceland, Switzerland, Japan and Australia live longer [40]. Swedish women also live a long time, but, in addition to the countries above, there are a few countries in Southern Europe that have a higher average life expectancy.

Average life expectancy in Sweden is still continuing to increase slowly. In recent decades, it is the reduced mortality from cardiovascular diseases (primarily myocardial infarction and stroke) that has made the greatest contribution to this increase. Improved lifestyle habits (less smoking and lower cholesterol and blood pressure) and improved treatment methods result in fewer people becoming ill and dying [20, 41]. The increased educational level of the population as a whole has probably also made an important contribution to the increased average life expectancy.

Average life expectancy is reported as the estimated remaining average life expectancy at birth by gender in the period 2009–2013 for people born in Sweden. The estimates are based on the risks of death for each year of age.

FIGURE 1.1 – SWEDEN: Average life expectancy at birth.

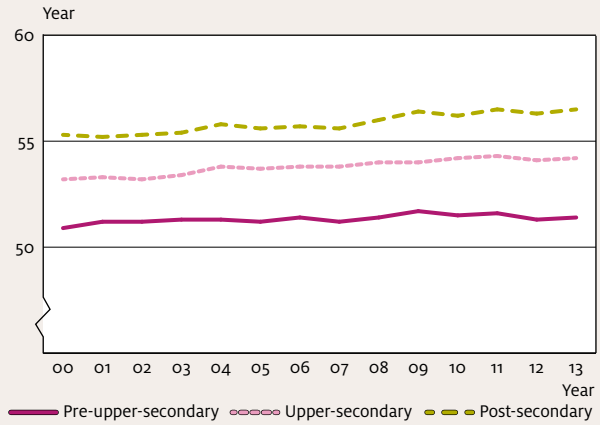


Source: Population Statistics, Statistics Sweden.

For people born 2009–2013, the remaining average life expectancy is estimated at 83.6 for women and 79.7 for men. However, there are differences within the country. The differences in average life expectancy between county councils are a maximum of about two years for both women and men.

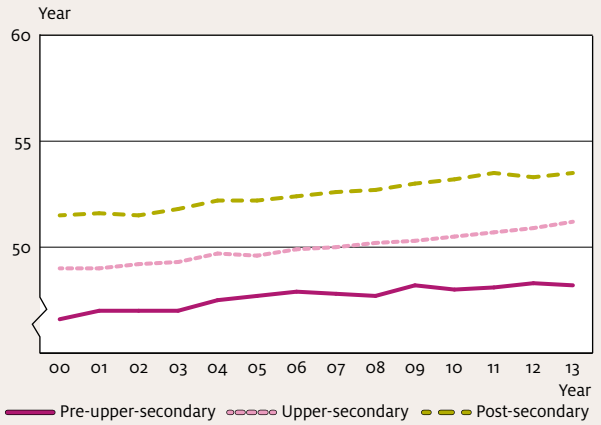
There are also large differences in remaining average life expectancy between individuals with different educational levels. In the period 2000–2013, the remaining average life expectancy has increased for all educational groups. However, the increase has not been as large for all groups. Men with upper-secondary education have seen the most favourable development, with the remaining average life expectancy at 30 years of age, increasing from 49.0 to 51.2 years. It has increased least for women with only pre-upper-secondary education, from 50.9 to 51.4 years. The dif-

FIGURE 1.2 – EDUCATION. SWEDEN. WOMEN: Average life expectancy at 30 years old.



Source: Population Statistics, Statistics Sweden.

FIGURE 1.3 – EDUCATION. SWEDEN. MEN: Average life expectancy at 30 years old.



Source: Population Statistics, Statistics Sweden.

ferences in life expectancy between individuals with low and high levels of education are, in total, five years.

Factors that have an impact on average life expectancy are found at the overarching societal level, in the form of general prerequisites for a good life – as well as at the individual level in the form of individual lifestyle choices.

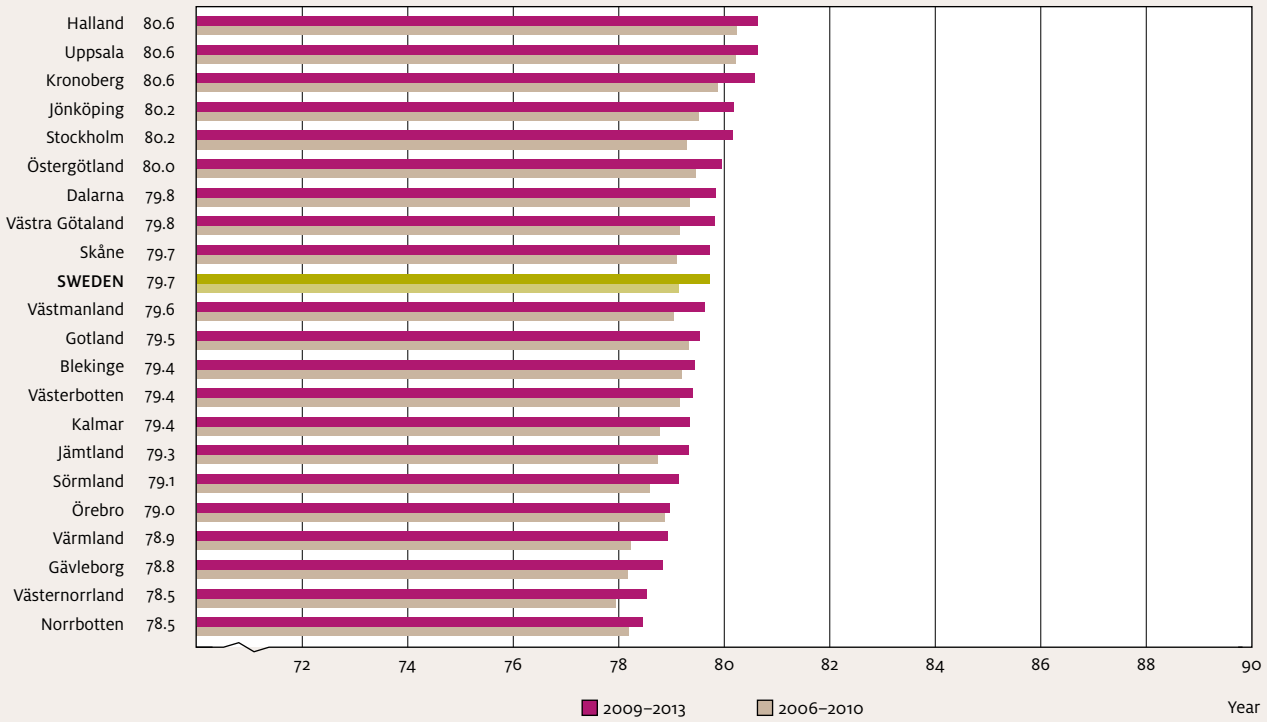
Many actors have the opportunity to influence average life expectancy and they are found at many different levels in society. The interventions encompass everything from legislation to more individually focused measures such as information campaigns and help with smoking cessation.

The county councils are responsible for ensuring that good healthcare is provided on equal terms and for preventative efforts such as supporting the individual in their choices with respect to diet and exercise habits, for example. The municipalities' role covers pretty much all areas of social policy. For example they are actively involved in urban and regional planning and housing policy in order to create the prerequisites for health-promoting housing and local environments, in employment policy through employment initiatives, and in educational initiatives that promote a good school environment.

FIGURE 1.4 – REGIONS, WOMEN: Average life expectancy at birth, 2009–2013.

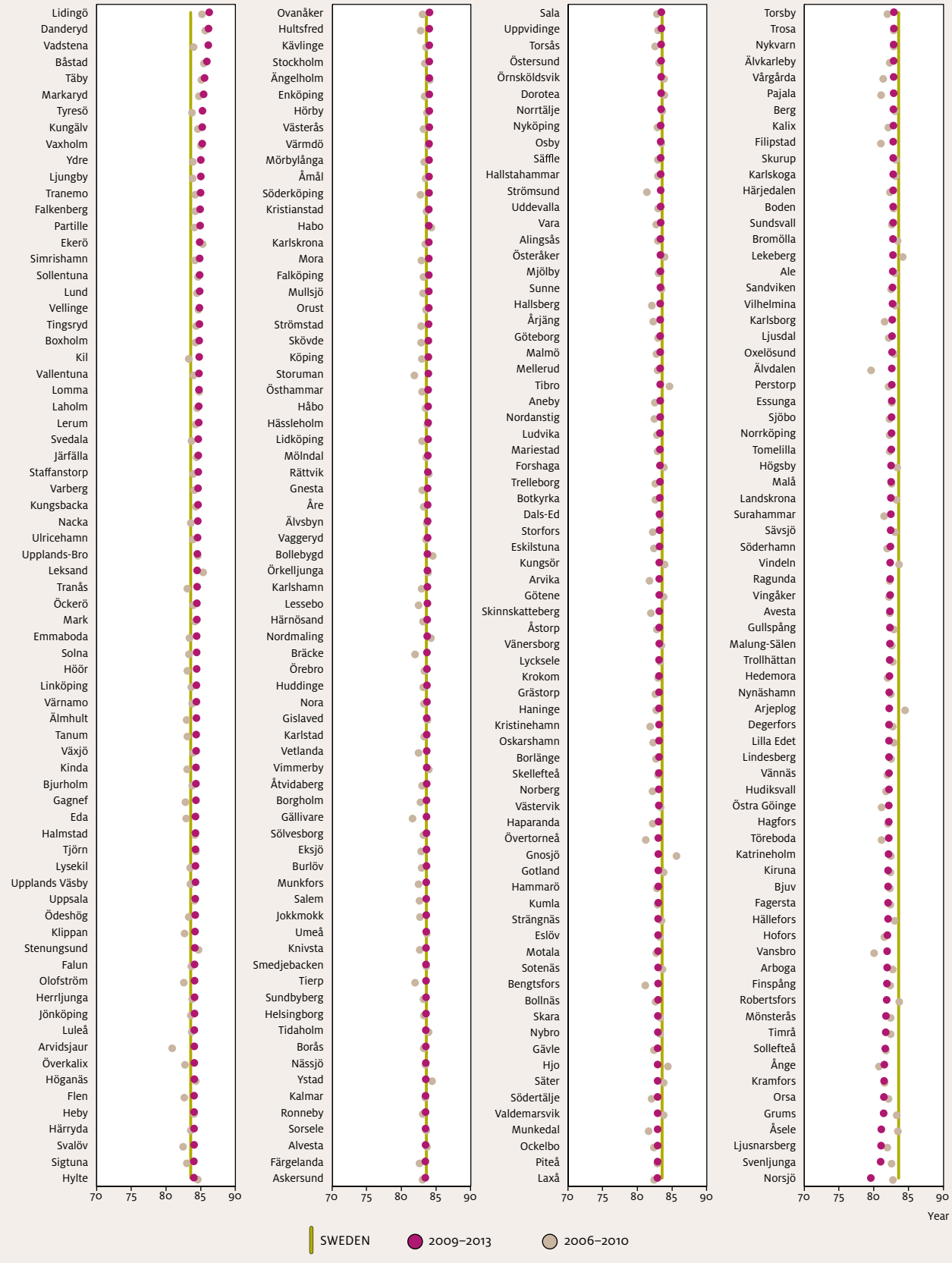
Source: Population Statistics, Statistics Sweden.

FIGURE 1.5 – REGIONS, MEN: Average life expectancy at birth, 2009–2013.



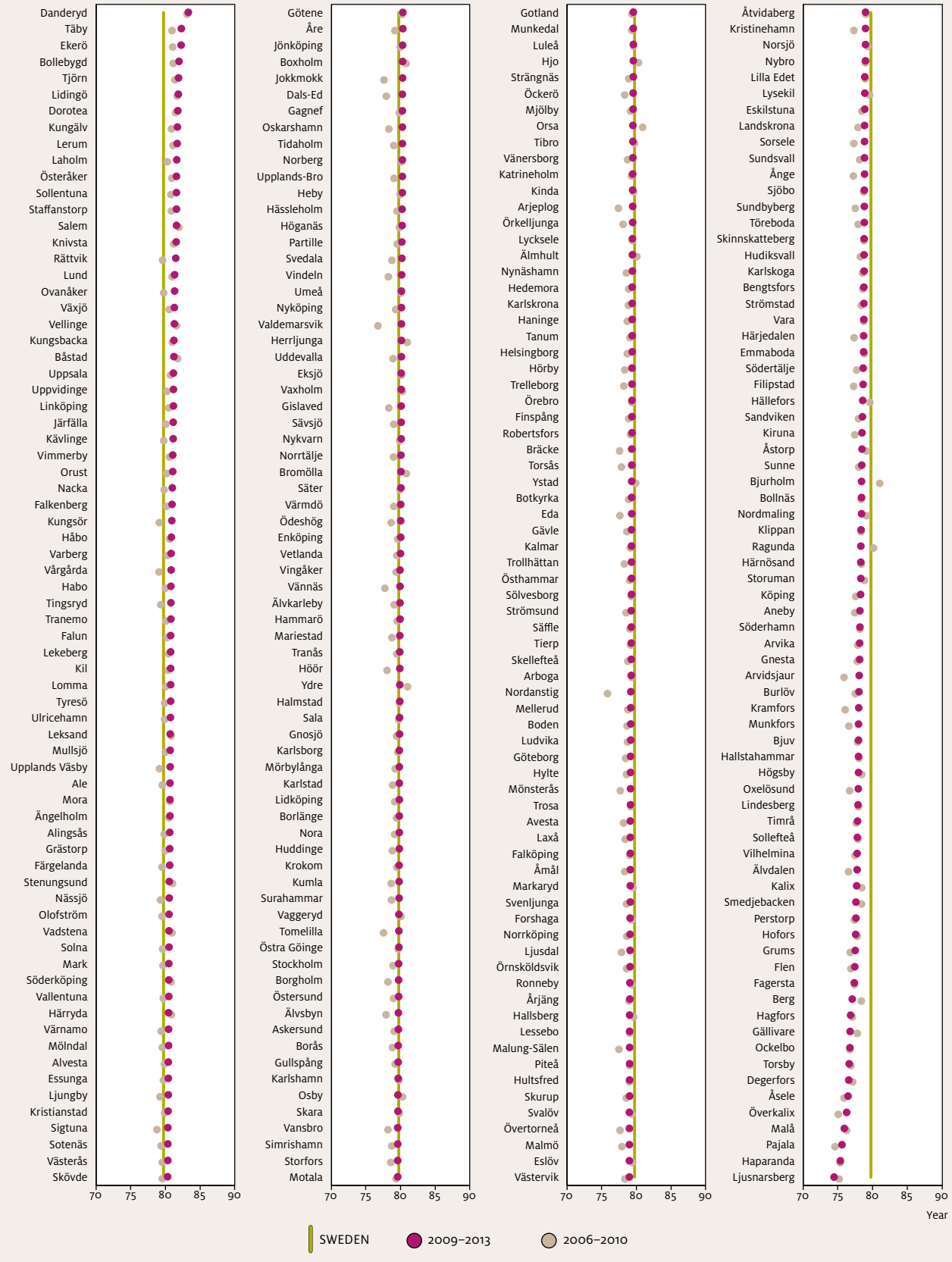
Source: Population Statistics, Statistics Sweden.

FIGURE 1.6 – MUNICIPALITIES, WOMEN: Average life expectancy at birth, 2009–2013.



Source: Population Statistics, Statistics Sweden.

FIGURE 1.7 – MUNICIPALITIES, MEN: Average life expectancy at birth, 2009–2013.



Source: Population Statistics, Statistics Sweden.

2. SELF-ASSESSED GENERAL HEALTH

Health is not equally distributed throughout the population. Consequently, self-reported health is an important way of identifying people with chronic illnesses and/or disabilities, and of identifying healthcare requirements [41]. The population's self-assessed health has been monitored since 1980 using surveys of living conditions – Living Conditions Surveys (ULF/SILC) – from Statistics Sweden (SCB).

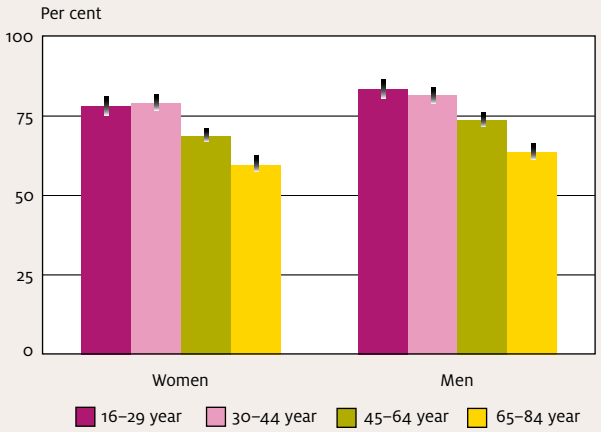
The surveys show that self-assessed health has deteriorated among women with a low educational level. Similar patterns are also visible in the national public health survey [12], which is the source of the data we have chosen to present in this report.

The prerequisites for living environments that promote health are shaped primarily by regional and local stakeholders such as county administrative boards, county councils and regions, municipalities and non-profit organisations, not least for people with disabilities [42]. In terms of the working environment, employers have an important role in shaping working environments that promote health in dialogue with employees' representatives [43].

Self-assessed general health is measured on a five-degree scale that is universally recognised within the EU [43, 44]. This report presents the proportion of people who responded "very good" or "good" to the question "How do you assess your general health?".

The results indicate a slight positive trend in several counties and municipalities since the beginning of the measurement period in 2007 and up until 2014. Men assess their health to be better than is the case for women, a higher proportion of individuals with a high educational level state that their health is good, and younger people state that their health is good more often than older people.

FIGURE 2.2 – AGE GROUPS, SWEDEN: Individuals who stated that their general health condition is good or very good, 2014.

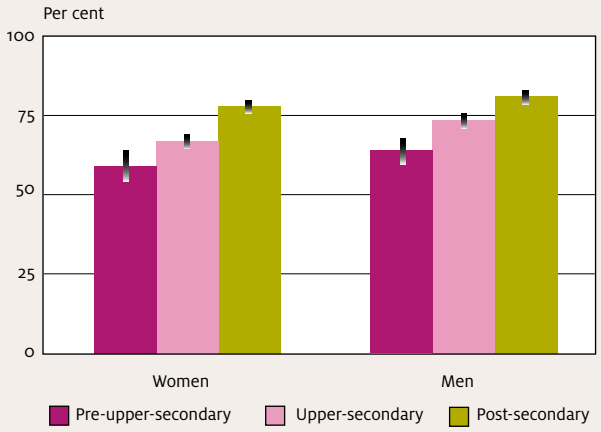


Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 2.1 – SWEDEN: Individuals who stated that their general health condition is good or very good, 16–84 years old.

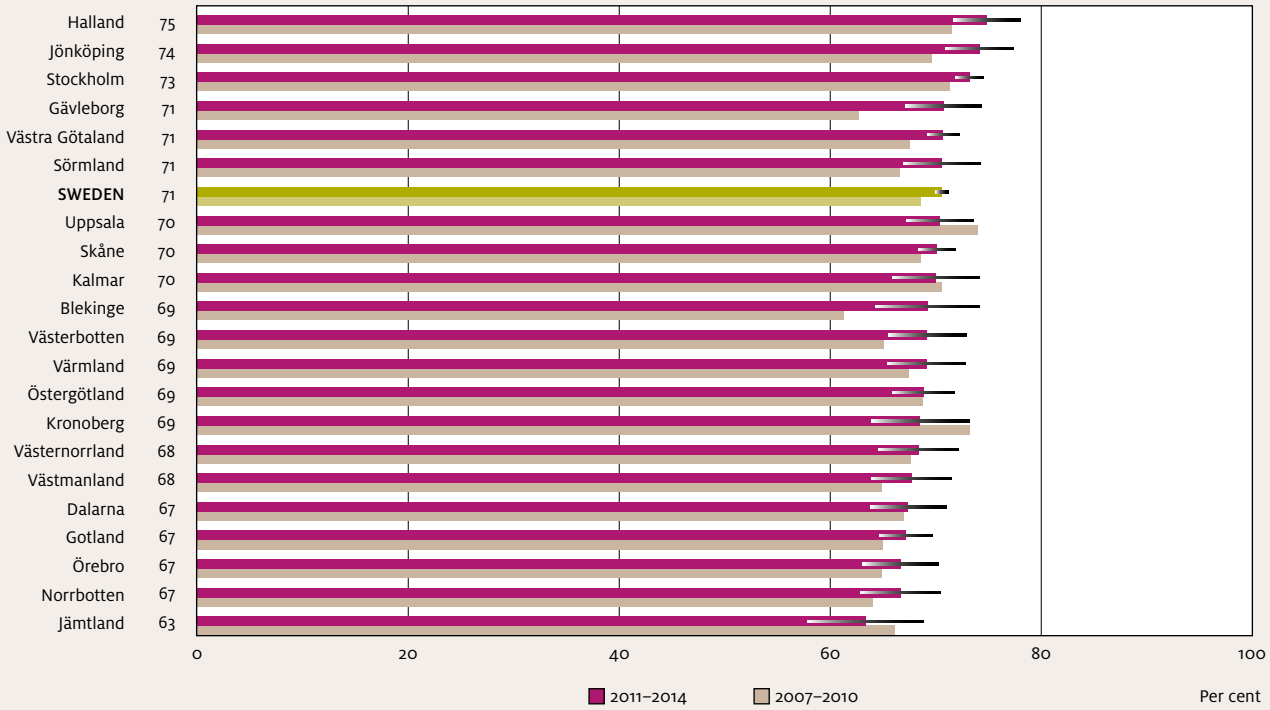
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 2.3 – EDUCATION, SWEDEN: Individuals who stated that their general health condition is good or very good, 35–74 years old, 2014.



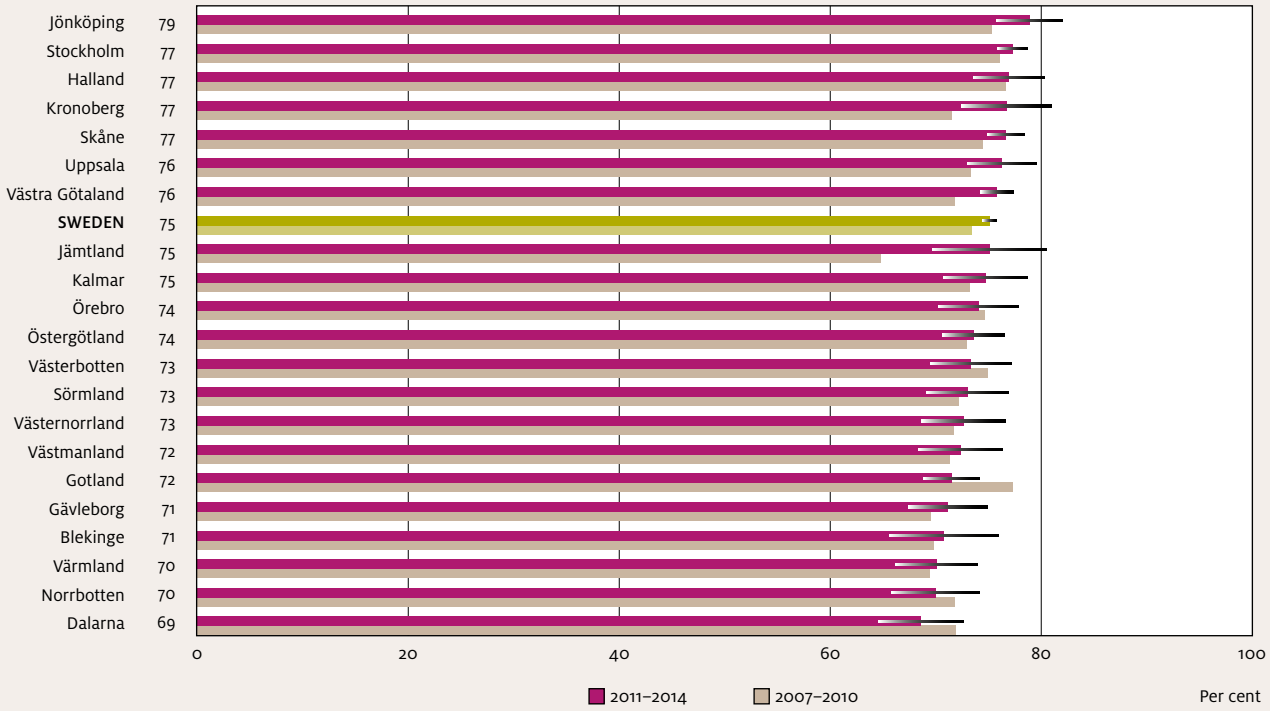
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 2.4 – REGIONS, WOMEN: Individuals who stated that their general health condition is good or very good, 16–84 years old, 2011–2014.



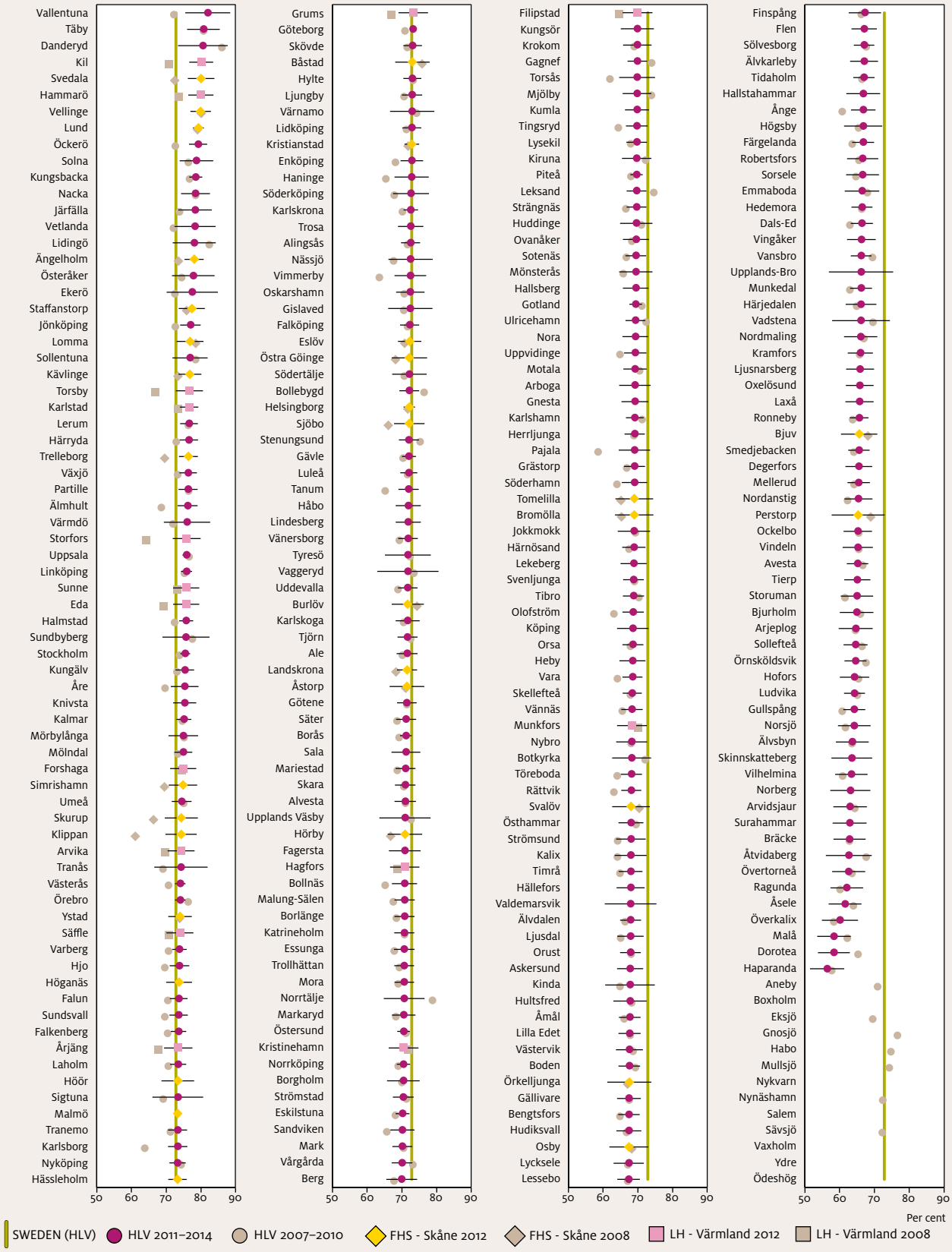
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 2.5 – REGIONS, MEN: Individuals who stated that their general health condition is good or very good, 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 2.6 – MUNICIPALITIES: Individuals who stated that their general health condition is good or very good (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old. Värmland (LH), 18+ years old.



Values with less than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne; Liv och Hälsa (LH) [Life and Health], County Council of Värmland.

3. OBESITY

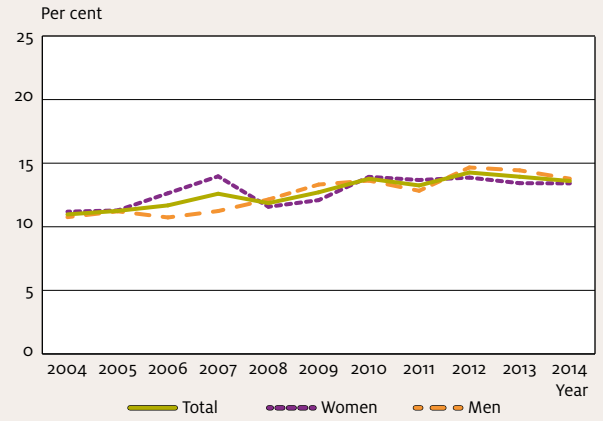
Obesity and overweight are the cause of a range of health problems with an increased risk of cardiovascular diseases, type 2 diabetes, stroke, musculoskeletal diseases and certain forms of cancer such as bowel cancer. Obesity develops through a combination of lifestyle habits, environmental factors and inheritance. Our eating habits and our level of physical activity are central, with an important cause of overweight being the consumption of a large amount of energy-dense foodstuffs and sweetened drinks in relation to the amount of energy used [45].

Body mass index (BMI) expresses a relationship between height and weight. A high BMI constitutes a risk factor for several diseases. A BMI of 30 or more is classed as obesity. Obesity is among the five most important risk factors in the world for the loss of healthy life years, according to the WHO [45, 46].

In Sweden, the proportion of adults with obesity has doubled since 1980 and close to half of all Swedish people are now overweight or obese. In 2013, the proportion whose weight was normal (BMI 18.5–24.9) was greater among women than among men. Overweight (BMI 25–29.9) is more common among men than among women. Obesity (BMI 30 or more) increased in the period 2004–2013 [47].

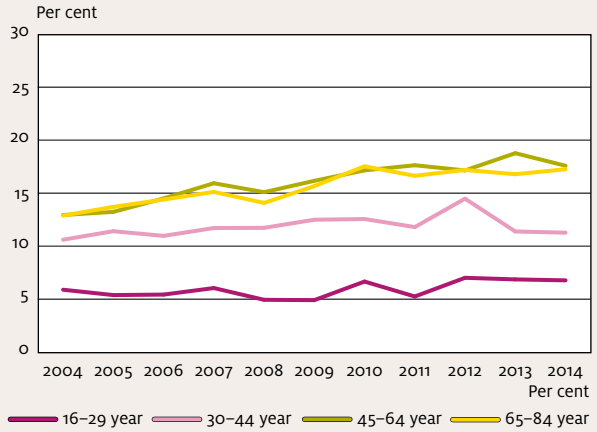
Obesity among the adult population is used as a results indicator in this report. However, it is also essential to monitor the development of overweight among children and adolescents. According to SBU, established obesity is difficult to treat and they thus argue that "more effective preventative measures are particularly vital". SBU points to initiatives in schools and advice for adults [48]. Providing information and the prerequisites for good dietary habits and encouraging physical activity are vital roles for municipalities and county councils. This applies, not least, to environments used by children, adolescents and the elderly. Preschools, schools and care facilities thus have an important role in preventative efforts. In addition, maternal and paediatric health services have a particularly vital role to play with respect to providing information about the importance of good diet at an early stage of the child's life.

FIGURE 3.1 – SWEDEN: Individuals estimated to have a BMI (Body Mass Index) of 30 or higher based on self-reported data, 16–84 years old.



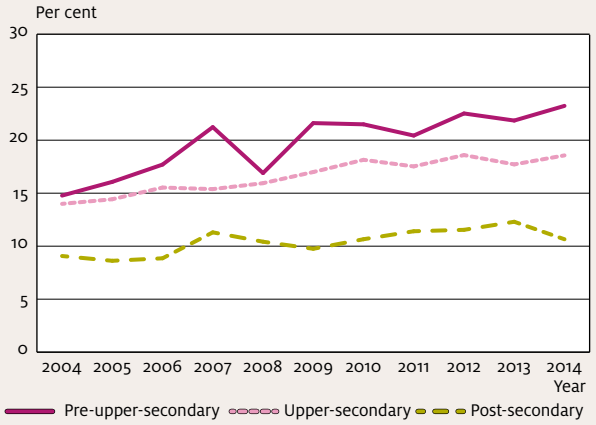
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 3.2 - AGE GROUPS, SWEDEN: Individuals estimated to have a BMI (Body Mass Index) of 30 or higher based on self-reported data.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 3.3 – EDUCATION: SWEDEN: Individuals estimated to have a BMI (Body Mass Index) of 30 or higher based on self-reported data, 35–74 years old.

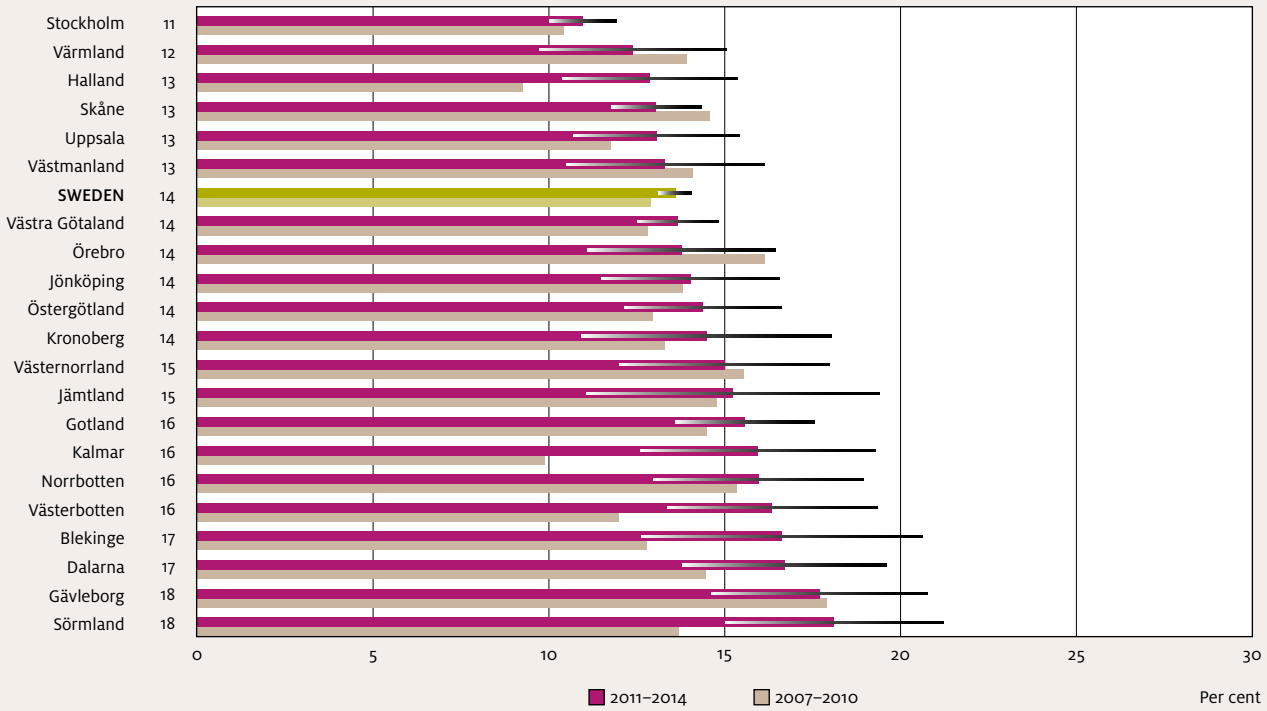


Source: Health on Equal Terms, Public Health Agency of Sweden. Register of Education (UREG), Statistics Sweden.

There are national guidelines describing how the healthcare system should conduct prevention at the individual level and offer assistance to patients who have unhealthy eating habits or undertake insufficient physical activity [48]. In cases of severe obesity, often in combination with other diseases, surgical treatment has been shown to be effective and has become increasingly common. SBU states that the BMI limit of 40 is appropriate, or 35 in the event of comorbidity. About 8 000 operations are currently conducted each year, which is ten times greater than at the beginning of the 2000s. However, the quality register the Scandinavian Obesity Surgery Registry (SOReg) assesses that the likelihood of having the operation varies between county councils [49].

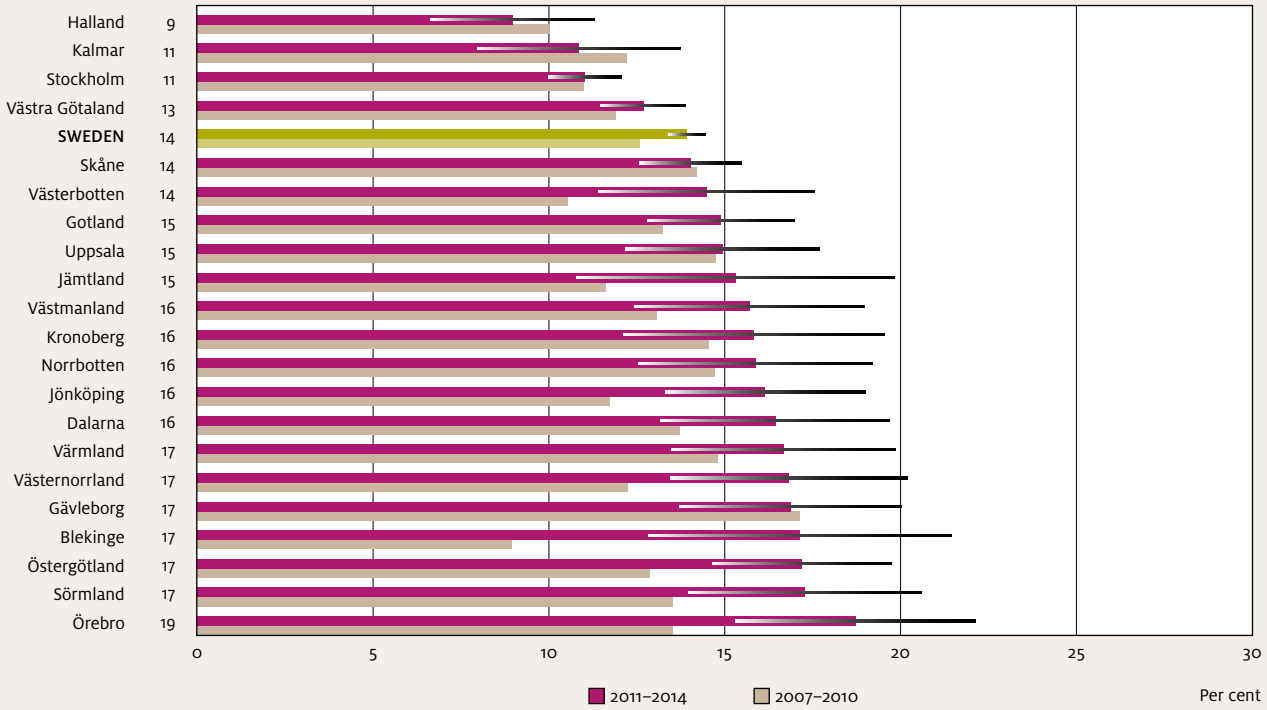
The results show that the proportion of people with obesity has increased in the majority of counties and municipalities and that there is a clear difference between older and younger people. The largest increase has been seen among people aged 45–64. Obesity is more common among both women and men with a low educational level, compared with those with a high educational level. For women, obesity is twice as common among those who only have compulsory schooling as it is among those with post-secondary education.

FIGURE 3.4 – REGIONS, WOMEN: Individuals estimated to have a BMI (Body Mass Index) of 30 or higher based on self-reported data, 16–84 years old, 2011–2014.



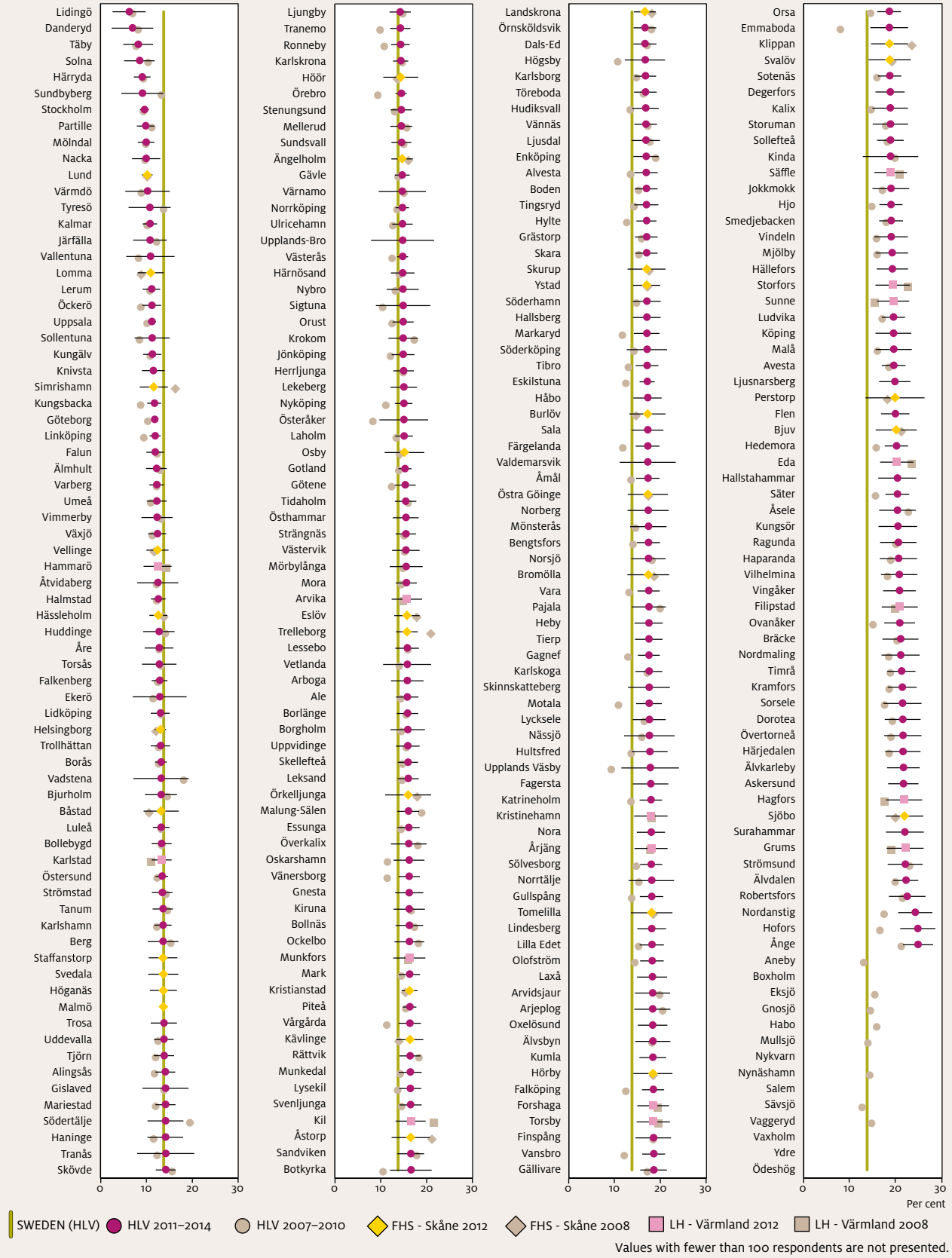
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 3.5 – REGIONS, MEN: Individuals estimated to have a BMI (Body Mass Index) of 30 or higher based on self-reported data, 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 3.6 – MUNICIPALITIES: Individuals estimated to have a BMI (Body Mass Index) of 30 or higher based on self-reported data (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old. Värmland (LH), 18+ years old.



Values with fewer than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne; Liv och Hälsa (LH) [Life and Health], County Council of Värmland.

4. DENTAL HEALTH

Dental health is an important part of individuals' quality of life and well-being. The quality of the teeth can be said to have a double connection with dietary habits as the diet affects dental health and the quality of the teeth affects dietary intake. The public health policy area "Good eating habits", highlights the importance of good dental health for the ability to consume food. There are also diseases that are suspected to have a direct association with dental health, for example cardiovascular diseases, respiratory tract diseases, cancers and diabetes. Studies have also shown that periodontitis in pregnant women can increase the risk of the child having a low birth weight [50]. Good dental health also has an impact on nutritional intake. This is of particular importance among the elderly as a good diet is an important factor to maintaining health into old age. Social life and quality of life are also affected by dental health.

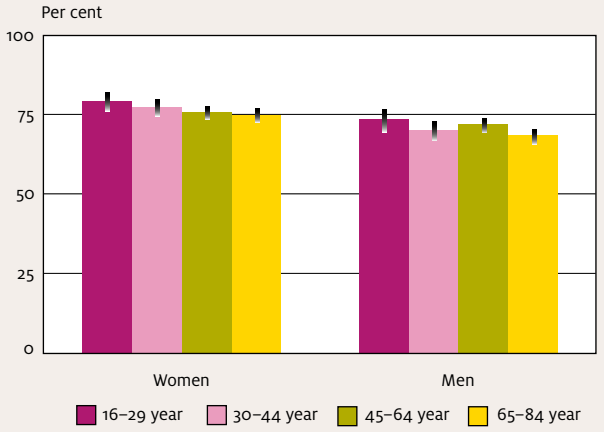
Despite the dental health of the population as a whole having improved, there are still large socioeconomic differences. In the national public health survey, blue-collar workers stated that they had worse dental health than white-collar workers and they more frequently refrain from seeking dental care, in spite of its necessity, than white-collar workers in the same situation [12].

Dental health is normally a good indicator of children and adolescents' general health as dental health is strongly associated with lifestyle, utilisation of care, economic circumstances and knowledge about what is required to maintain good health. The county councils are responsible for preventative initiatives targeting good oral and dental health, not least with respect to children and adolescents given the fact that about 84 per cent of all children and adolescents up to 18 years of age are patients of the Swedish Public Dental Service [51]. Maternal and paediatric health services also present good opportunities to discuss the importance of good oral and dental health. Creating good conditions for dental health, for example good diet, is particularly important in schools and care facilities.

This report contains information for adults, but in order to facilitate preventative efforts and in the case of improvements, it is important to monitor information about children and adolescents. Such data, for example the proportion of children without tooth decay, are often available at the local and regional level.

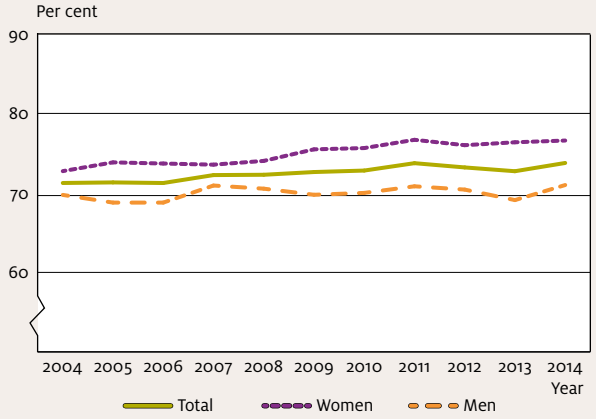
The results indicate that the proportion of women with good dental health has increased in the majority of counties. The picture for men has not developed as positively. Individuals aged 16–29 state to a somewhat greater extent that they have good dental health than the elderly, and the

FIGURE 4.2 – AGE GROUPS, SWEDEN: Individuals who stated that they consider their dental health to be fairly good or very good, 16–84 years old, 2014.



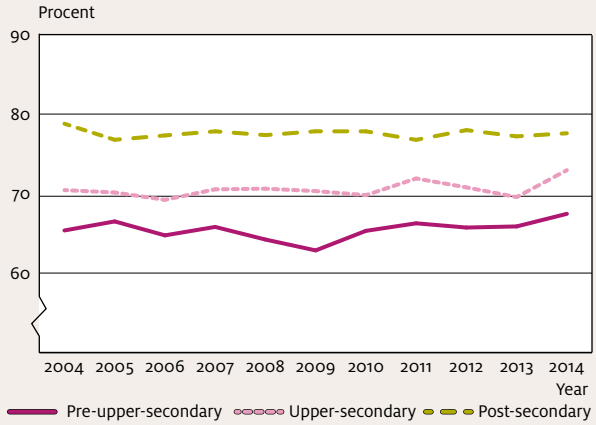
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 4.1 – SWEDEN: Individuals who stated that they consider their dental health to be fairly good or very good, 16–84 years old.



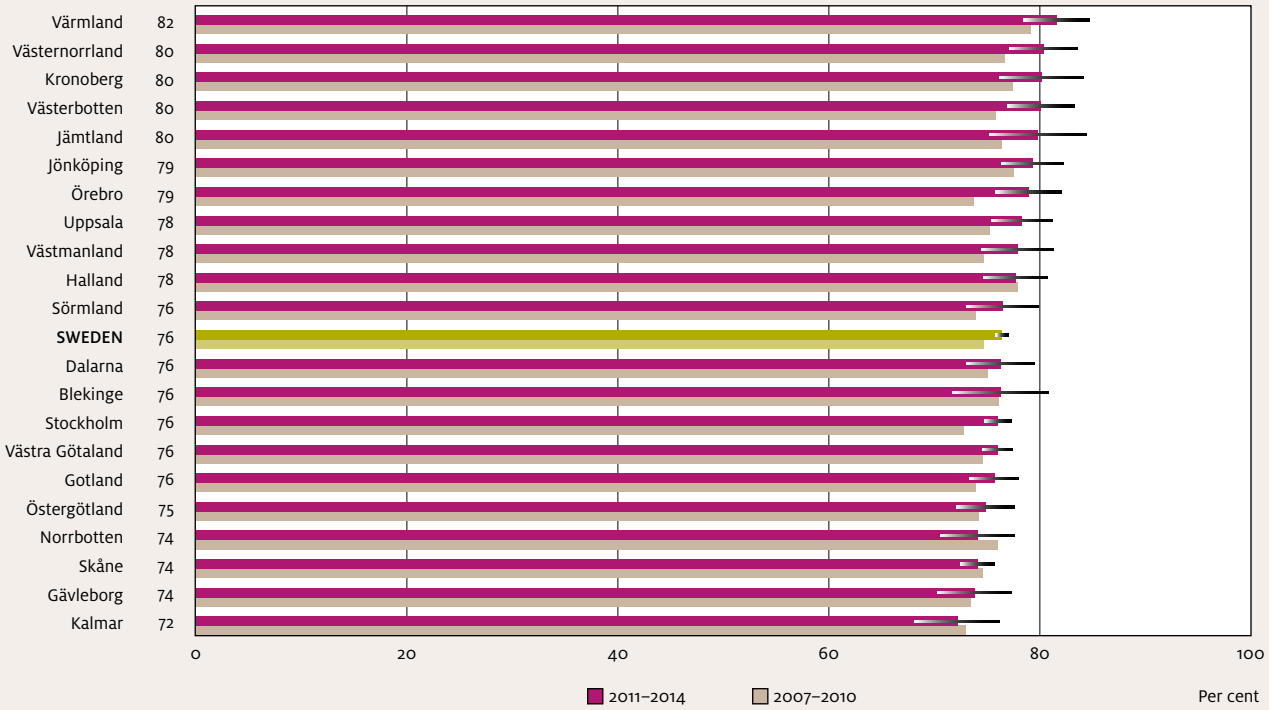
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 4.3 – EDUCATION: SWEDEN: Individuals who stated that they consider their dental health to be fairly good or very good, 35–74 years old.



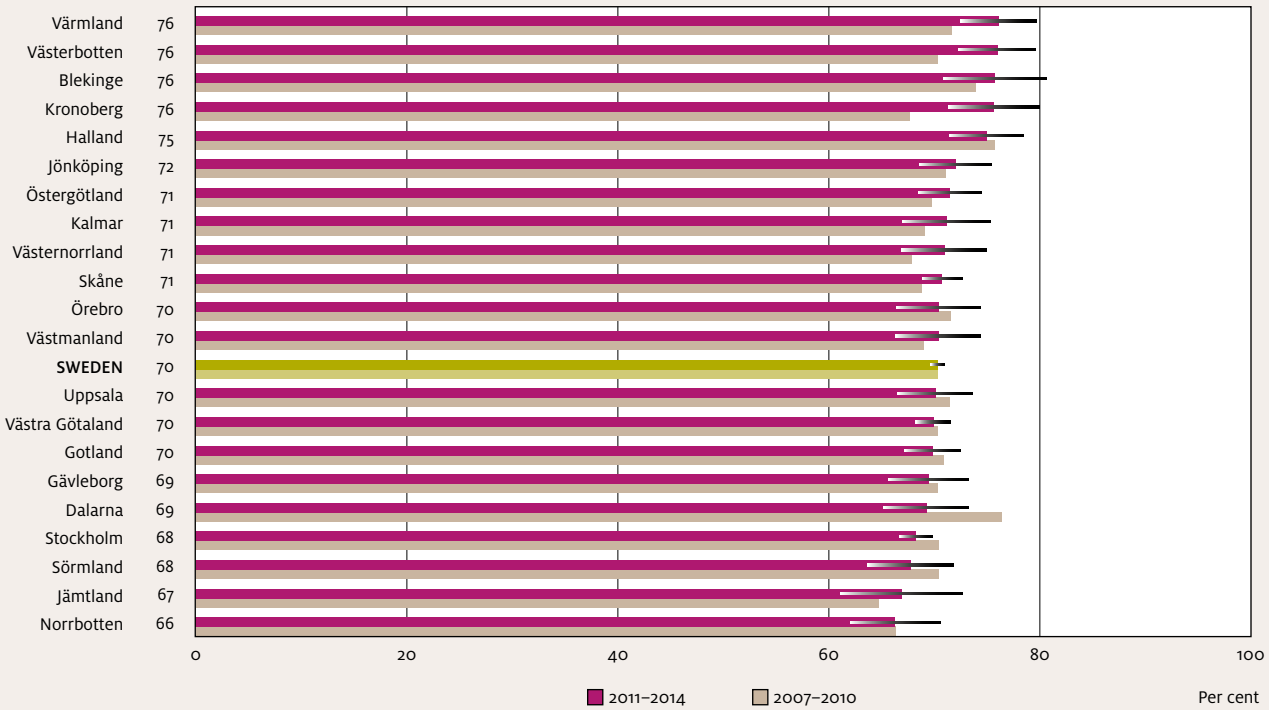
Source: Health on Equal Terms, Public Health Agency of Sweden. Register of Education (UREG), Statistics Sweden.

FIGURE 4.4 – REGIONS, WOMEN: Individuals who stated that they consider their dental health to be fairly good or very good, 16–84 years old, 2011–2014.



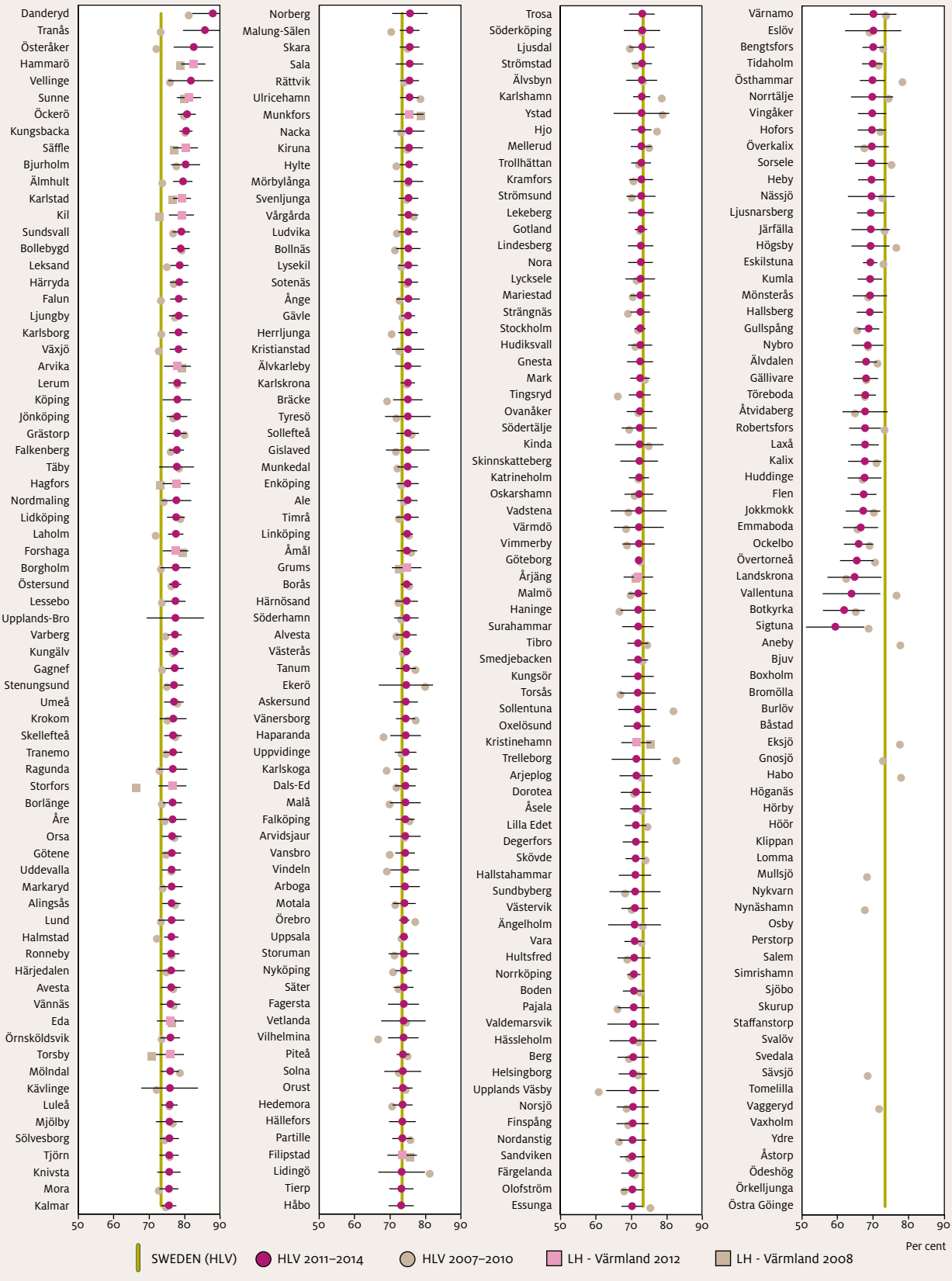
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 4.5 – REGIONS, MEN: Individuals who stated that they consider their dental health to be fairly good or very good, 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 4.6 – MUNICIPALITIES: Individuals who stated that they consider their dental health to be fairly good or very good (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Värmland (LH), 18+ years old.



Values with fewer than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Liv och Hälsa (LH) [Life and Health], County Council of Värmland.

responses indicate that women have better dental health than men. A higher educational level has a clear association with good dental health.

INCIDENCE OF DISEASE

The burden of disease is a comprehensive measure used to describe and monitor the incidence and severity of diseases and to describe changes to public health. Incidence reporting applies to the major public health diseases such as cancer, cardiovascular diseases and stroke. However, back pain, Alzheimer's and injuries caused by falls are also morbidities that have a high incidence [52]. As previously mentioned, there are a number of risk factors for the burden of disease for example smoking, risky alcohol consumption, air pollution, unhealthy eating habits and sedentary leisure time [52]. In addition, there are risk factors connected to social and living conditions that also have an impact on the burden of disease. The incidence of myocardial infarction and lung cancer are presented in this report. Despite the incidence of cardiovascular diseases having continued to decrease, it is these diseases that are responsible for the greatest burden of disease in Sweden. In addition, their incidence is higher among people with low educational levels and the report *Folkhälsan i Sverige – Årsrapport 2014* [Public Health in Sweden – Annual Report 2014] sets out that the risk of myocardial infarction has also increased somewhat since 1994 among women with pre-upper-secondary education [12].

The incidence of cancer has increased at the same time as mortality from cancer has decreased, which is seen in the increase in the relative five and ten-year survival rates. This can be explained by improved screening, diagnosis and treatment [53]. At the same time, women with only pre-upper-secondary education have a higher risk of both contracting cancer and dying from it, compared with those who have a high educational level. For men, there are fewer diagnoses among those with a low educational level, despite the mortality being higher in this group [53].

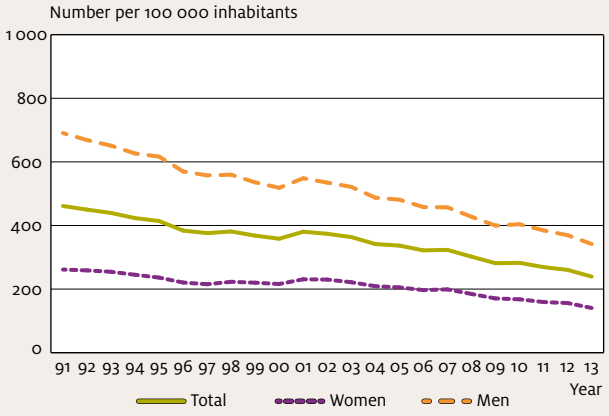
5. MYOCARDIAL INFARCTION

In spite of the mortality having decreased in recent years, cardiovascular diseases still constitute a public health problem in our country. According to the national cardiac care guidelines from 2011, acute coronary artery disease is one of the most common causes of hospital admission and death in Sweden [54].

The mortality rate following an infarct has been decreasing for a long time and continues to decline in Sweden; nevertheless, infarction continues to be one of the commonest causes of death among those who are 85 or older, followed by cancer [12].

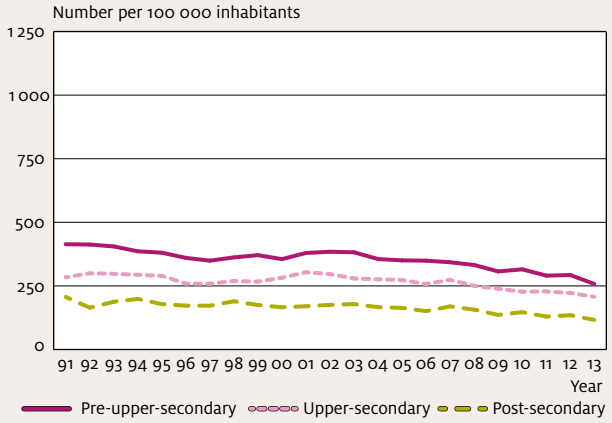
The incidence of myocardial infarction can be reduced further, for example through lifestyle changes with respect to smoking, alcohol, food and physical activity. Healthy lifestyle habits have major impact on the number of individuals suffering from myocardial infarction. Prevention carried out by various organisations is very important, but this is also about providing good social and living conditions in society that are able to make a contribution to the situation developing favourably. Both municipalities and county councils are important stakeholders.

FIGURE 5.1 – SWEDEN: Incidence rate of myocardial infarction per 100 000 inhabitants 20–79 years old. Age-standardised.



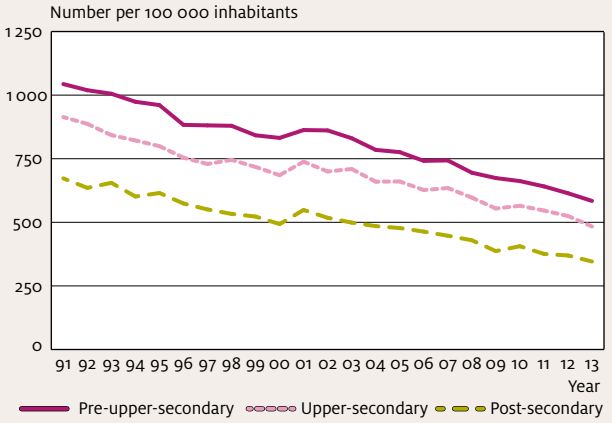
Source: The National Patient Register and the Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 5.2 – EDUCATION: SWEDEN, WOMEN: Incidence rate of myocardial infarction per 100 000 inhabitants 35–79 years old. Age-standardised.



Source: The National Patient Register and the Swedish Cause of Death Register, the National Board of Health and Welfare. Register of Education (UREG), Statistics Sweden.

FIGURE 5.3 – EDUCATION: SWEDEN, MEN: Incidence rate of myocardial infarction per 100 000 inhabitants 35–79 years old. Age-standardised.

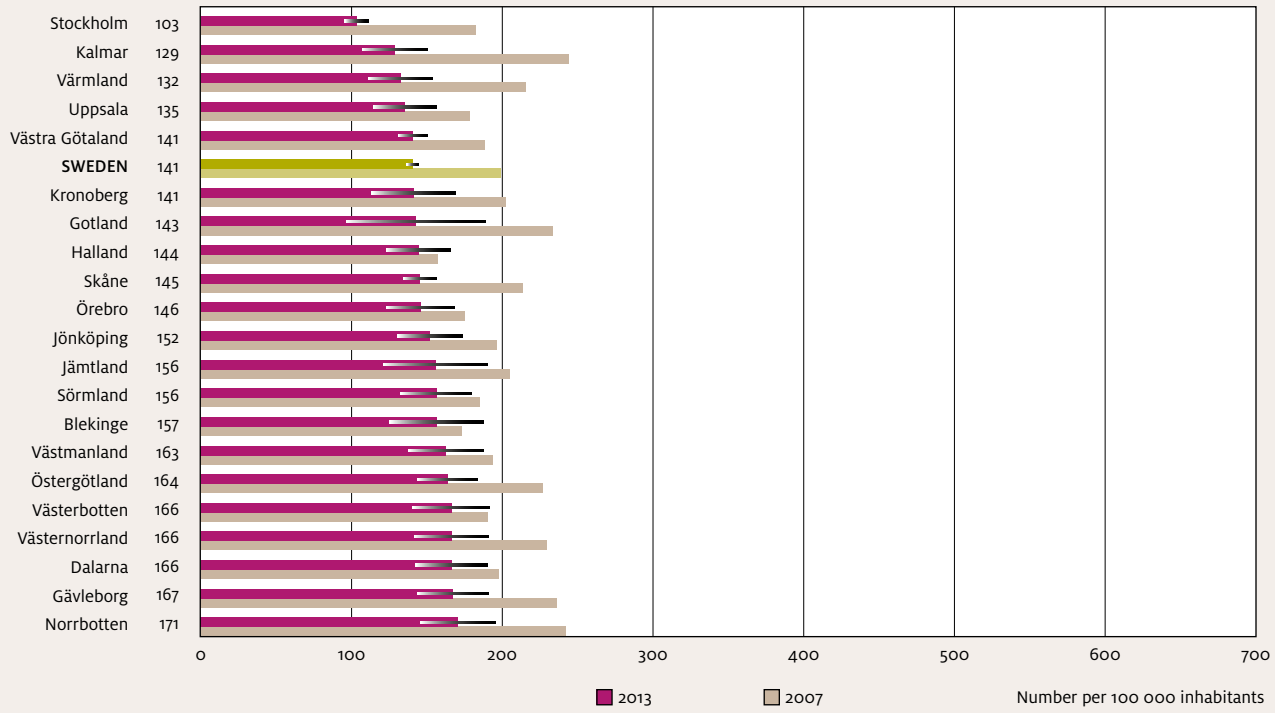


Source: The National Patient Register and the Swedish Cause of Death Register, the National Board of Health and Welfare. Register of Education (UREG), Statistics Sweden.

Municipalities can promote healthy lifestyle habits when they come into contact with various target groups in preschools, schools, cultural and leisure activities and social services, but the principal can also do much as an employer. County council services can work actively during patient encounters to promote health and prevent disease [55].

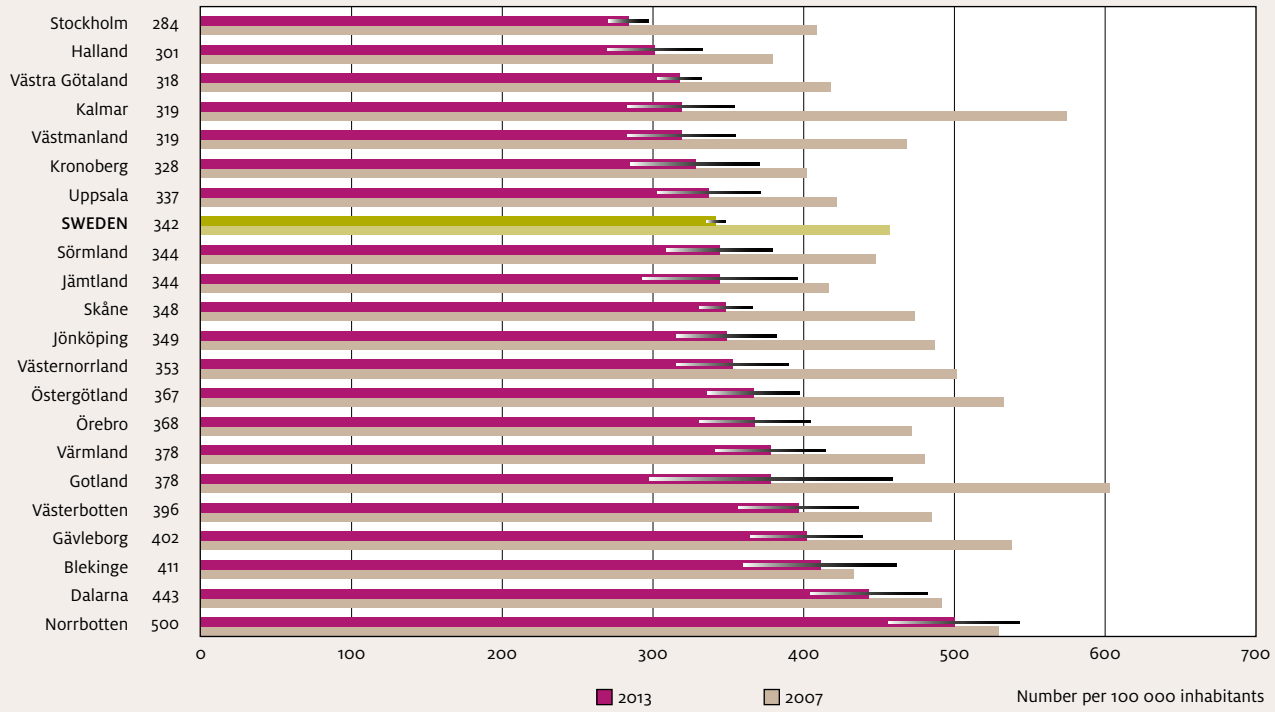
In 2013, 239 people aged 20–79 per 100 000 inhabitants suffered from myocardial infarctions in Sweden and this incidence has almost halved since the beginning of the 1990s. The incidence among women is lower than among men. However, the reduction in incidence among women has been less strong than the change seen among men. There are also big differences here between groups with differing educational backgrounds, with the differences between men with pre-upper-secondary education and post-secondary education being greatest. The outcome also indicates that the incidence varies between county councils by up to 200 cases per 100 000 inhabitants.

FIGURE 5.4 – REGIONS, WOMEN: Incidence rate of myocardial infarction per 100 000 inhabitants 20–79 years old, age-standardised, 2013.



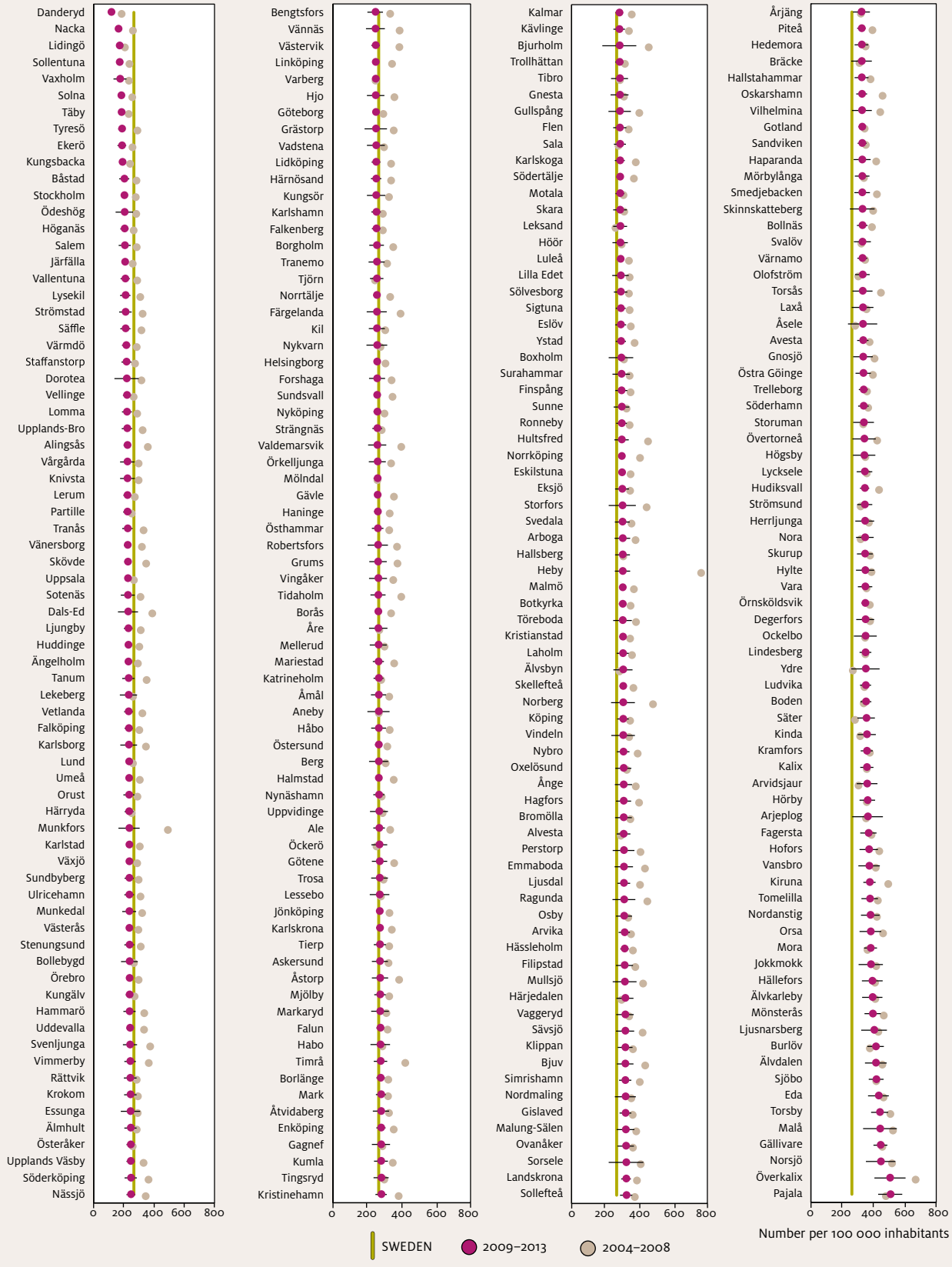
Source: The National Patient Register and the Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 5.5 – REGIONS, MEN: Incidence rate of myocardial infarction per 100 000 inhabitants 20–79 years old, age-standardised, 2013.



Source: The National Patient Register and the Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 5.6 – MUNICIPALITIES: Incidence rate of myocardial infarction per 100 000 inhabitants 20–79 years old, age-standardised, 2009–2013.



Source: The National Patient Register and the Swedish Cause of Death Register, the National Board of Health and Welfare.

6. LUNG CANCER

Lung cancer is the fifth most common form of cancer in Sweden and the commonest cause of cancer-related death. It is one of the cancers with the worst prognosis. Tobacco smoking is the primary cause of lung cancer [53].

Women's mortality from lung cancer increased sharply from 1987–2013, but this upward trend looks to have halted [54]. A smaller proportion of lung cancers, between 5 and 10 per cent, are said to be due to hereditary factors. Aside from smoking, there are a number of more general risk factors such as high alcohol consumption, unhealthy eating habits, low levels of physical activity, overweight and passive smoking.

Other risk factors in combination with smoking are contact with asbestos or inhalation of radon, which can be present in residential and workplace environments, and air pollution. Radon is found in ground, air and water, but may also be present in building materials.

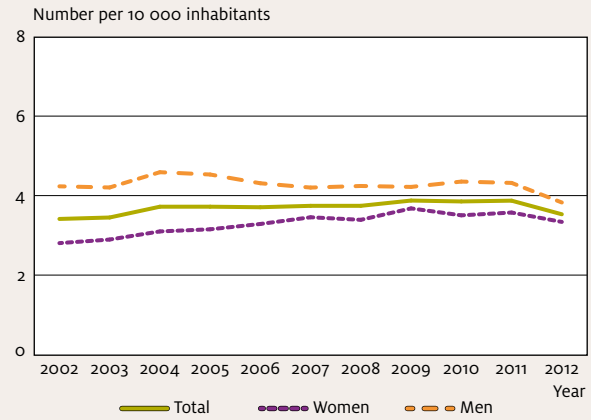
In 2013, 3 652 new cases of lung cancer were diagnosed in Sweden, 1 869 of which were in men and 1 783 in women. Most become ill in their 70s [53].

Children's exposure to various environmental factors differs from that of adults as they are developing faster and eat and drink more in relation to their body weight. The indoor and outdoor environments in which they grow up are largely public spaces such as preschools, schools and cultural and recreational facilities. A number of health effects related to the environment can arise even in the early years of life, while others only manifest later in life [56].

Three indicators for lung cancer are presented in regional healthcare comparisons: survival, incidence of multidisciplinary treatment conferences and time until treatment decision is made. An early diagnosis has an impact on survival, but the disease's incidence is reduced primarily by preventative measures, particularly the prevention of smoking, and in combination with the above-mentioned more general risk factors that municipalities can have an impact on.

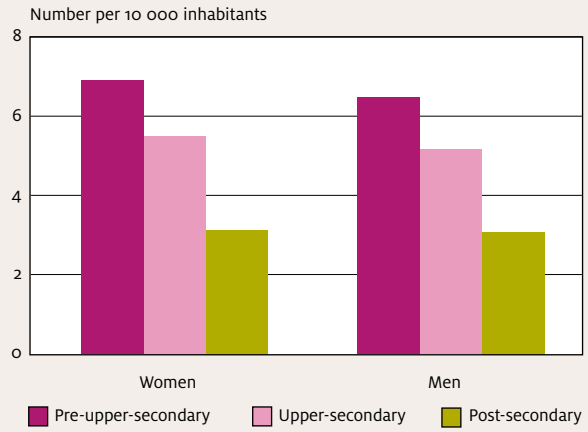
In 2012, 3.53 individuals per 10 000 inhabitants contracted lung cancer. This number is largely unchanged from that at the beginning of the 2000s when viewed as a total, but the incidence among women has increased somewhat over the course of this century. Large differences are visible between inhabitants with different educational backgrounds, with the incidence being higher mainly in women with pre-upper-secondary education. The outcome also indicates that the incidence varies between county councils from 1.4 to 4.7 cases per 10 000 inhabitants. County councils in northern Sweden have seen a more favourable trend with a lower incidence than in central and southern Sweden.

FIGURE 6.1 – SWEDEN: Incidence rate of lung cancer per 10 000 inhabitants. Age-standardised.



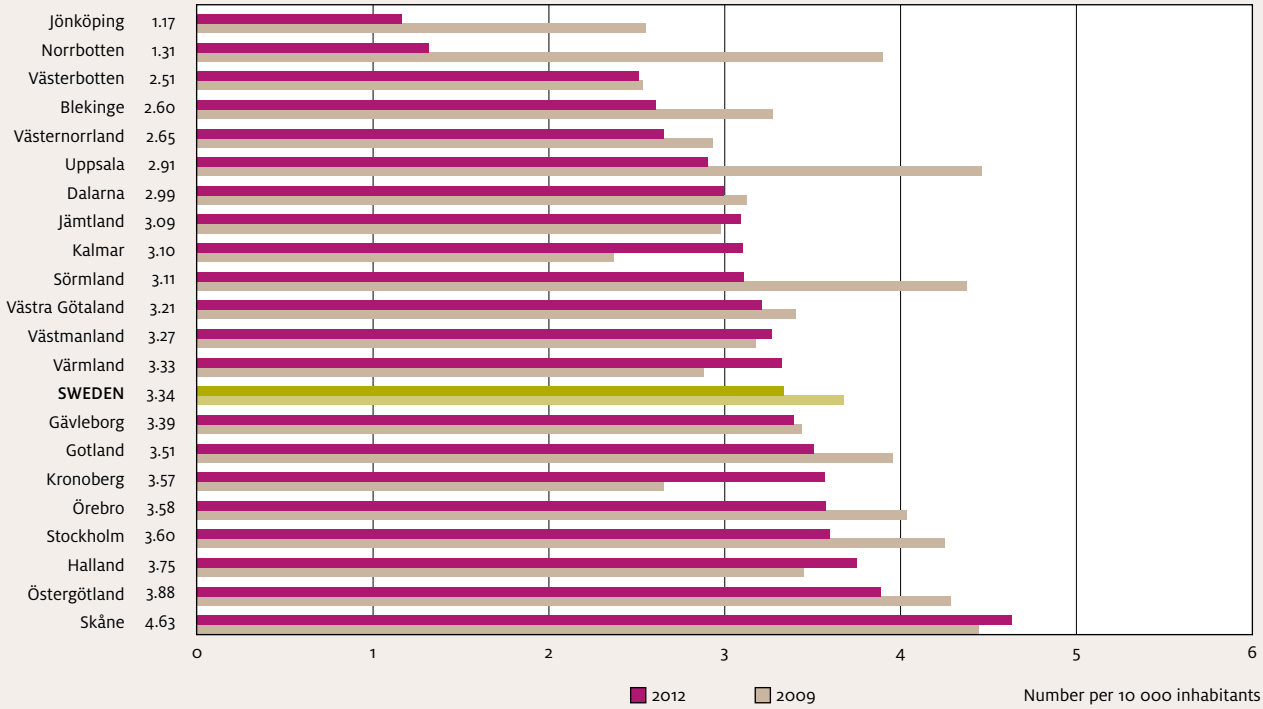
Source: The Swedish Cancer Register, the National Board of Health and Welfare.

FIGUARE 6.2 – EDUCATION: Incidence rate of lung cancer per 10 000 inhabitants 35–74 years old, age-standardised, 2008–2012.



Source: The Swedish Cancer Register, the National Board of Health and Welfare. Register of Education (UREG), Statistics Sweden.

FIGURE 6.3 – REGIONS, WOMEN: Incidence rate of lung cancer per 10 000 inhabitants, age-standardised, 2012.



Source: The Swedish Cancer Register, the National Board of Health and Welfare.

FIGURE 6.4 – REGIONS, MEN: Incidence rate of lung cancer per 10 000 inhabitants, age-standardised, 2012.

Source: The Swedish Cancer Register, the National Board of Health and Welfare.

MORTALITY

Two indicators connected to mortality are presented in this section: policy-related avoidable mortality and avoidable deaths from ischaemic heart disease.

Policy-related avoidable mortality is a systemic indicator that measures mortality in a number of selected diagnosis and causes of death such as lung cancer, oesophageal cancer, cirrhosis of the liver and road traffic accidents. The other indicator measures diagnoses and causes of death for ischaemic heart disease.

It has been suggested that policy-related avoidable mortality is not an optimal indicator in its current form and that it is difficult for the target audience to know what to do with the outcome. In addition, further diagnoses should also be included to broaden the indicator and in order to reflect more preventive work affecting the mortality rates that are policy-related.

The National Board of Health and Welfare is planning a development project that will involve the indicators being reviewed and adapted to reflect mortality, with a greater focus on current disease trends in the population. This indicator is also the subject of discussion in other countries. There may need to be a clearer definition in order to identify premature deaths from causes that reflect initiatives in the field of public health. It would perhaps be better to have several separate indicators instead of overall systemic indicators for mortality.

The account in this report is based on the fact that the indicator has been identified as a monitoring indicator since 2009. In addition, this is complemented by a new indicator, avoidable death from ischaemic heart disease.

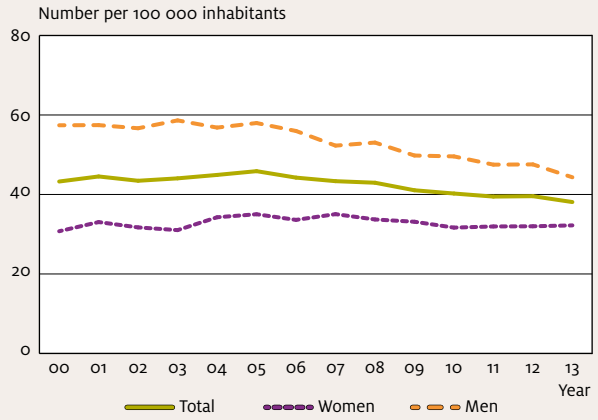
The commonest underlying cause of death is cardiovascular disease, although mortality has reduced since the end of the 1980s. Tumours are the next most common cause of death [54].

7. POLICY-RELATED AVOIDABLE MORTALITY

Med Health policy interventions are considered here to be interventions that aim to reduce harmful alcohol consumption, smoking and road traffic accidents with a deadly outcome. In Sweden, mortality in road traffic accidents has decreased since the end of the 1980s [54]. In terms of harmful alcohol consumption, this can be related to more than 60 different conditions including cardiovascular disease, liver damage, cancer and mental ill-health [58, 59].

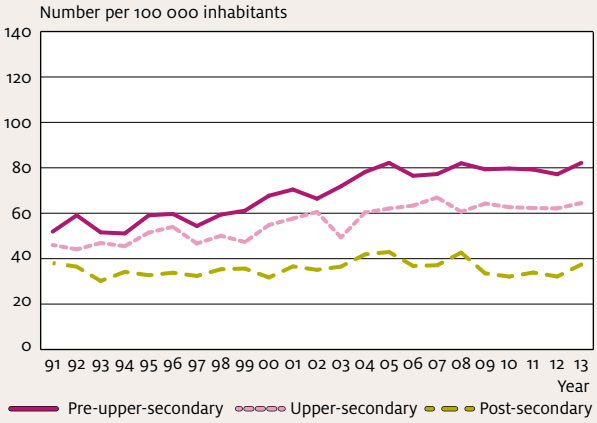
Policy-related avoidable mortality continues to decline. The indicator was previously limited to individuals aged 1–74, but has now been expanded to cover the ages 1–79 because of the increased average life expectancy since 2009 [12].

FIGURE 7.1 – SWEDEN: Policy-related avoidable mortality per 100 000 inhabitants, 1–79 years old. Age-standardised.



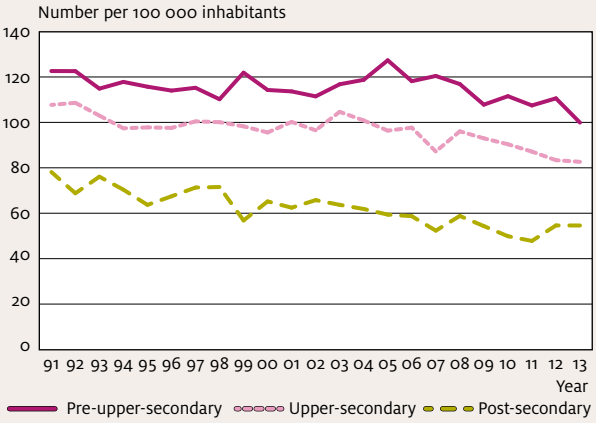
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 7.2 – EDUCATION: SWEDEN, WOMEN: Policy-related avoidable mortality per 100 000 inhabitants, 35–79 years old. Age-standardised.



Source: The Swedish Cause of Death Register, the National Board of Health and Welfare. Register of Education (UREG), Statistics Sweden.

FIGURE 7.3 – EDUCATION: SWEDEN, MEN: Policy-related avoidable mortality per 100 000 inhabitants, 35–79 years old. Age-standardised.



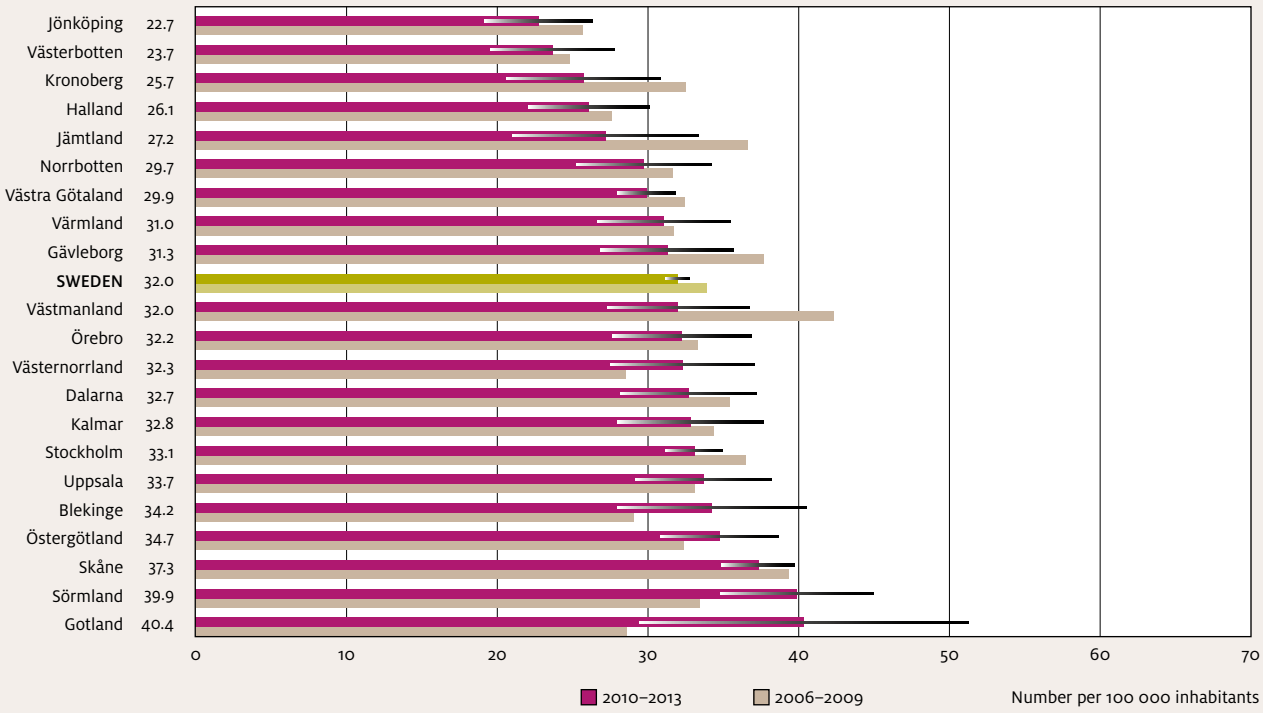
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare. Register of Education (UREG), Statistics Sweden.

Policy-related avoidable mortality has decreased slowly over the course of this century, with women having a lower mortality rate than men. In addition, there are differences between individuals who have different educational backgrounds, with mainly men who have only pre-upper-secondary education having a higher mortality.

There is also a clear upward trend in mortality among women with a low educational level. There is considerable variation between county councils in the figures for both women and men, although the mortality rate is lower for women. Examples of county council organisations that work with interventions that can have an impact on the outcome are addiction clinics and primary care services that undertake preventative work involving alcohol and tobacco.

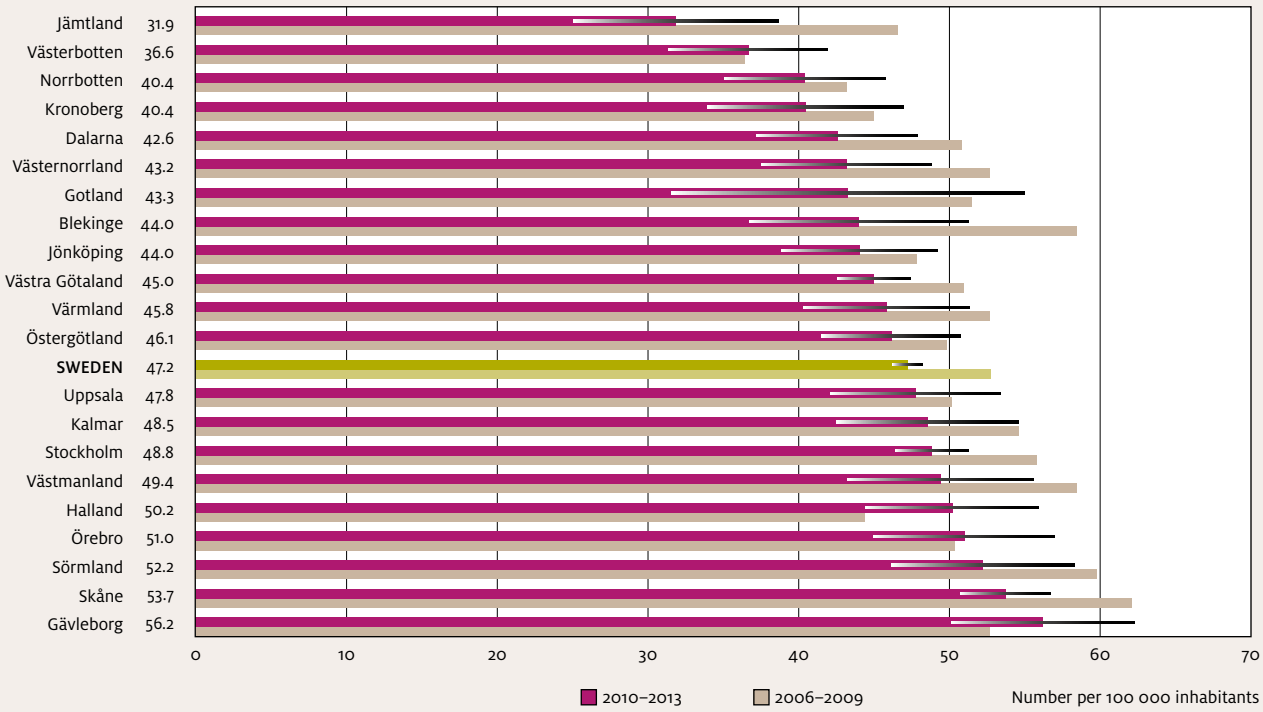
Examples of organisations within the municipalities are planning departments whose work involves traffic safety on roads, footpaths and cycle paths in collaboration with central government and the Swedish Transport Administration. General outreach units from social services and units working with addiction from substance also work with prevention in order to reach certain vulnerable groups that are at a greater risk of being affected by mortality linked to these diagnoses.

FIGURE 7.4 – REGIONS, WOMEN: Policy-related avoidable mortality per 100 000 inhabitants, 1–79 years old, age-standardised, 2010–2013.



Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 7.5 – REGIONS, MEN: Policy-related avoidable mortality per 100 000 inhabitants, 1–79 years old, age-standardised, 2010–2013.



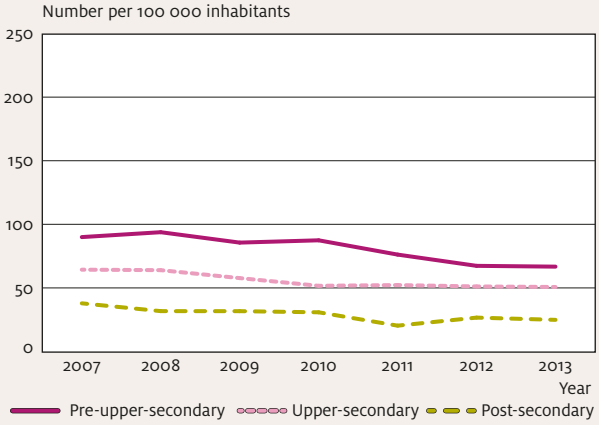
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

8. AVOIDABLE DEATHS FROM ISCHAEMIC HEART DISEASE

This indicator shows mortality from ischaemic heart disease as a complement to the previous indicator. This includes mortality from cardiac diagnoses. Ischaemic heart disease is caused by impaired oxygen supply to the heart and acute myocardial infarction is the predominant cause of death in this category. Mortality varies strongly at different ages and the risk doubles between the ages of 60 and 70 years [60].

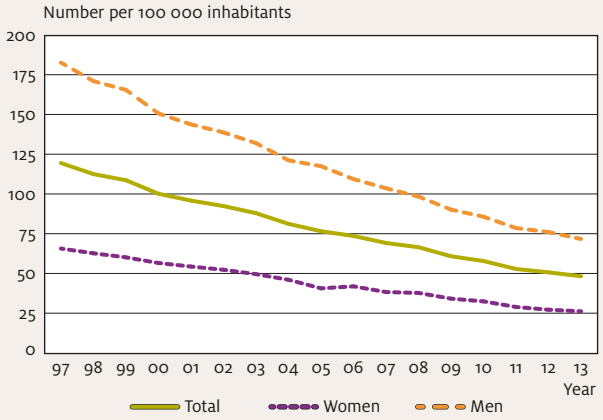
There is considerable variation between county councils in the figures for both women and men, although the mortality rate is considerably lower for women. The trend diagram shows that mortality from ischaemic heart disease has decreased sharply for both sexes over the years, but the mortality is still considerable and this is the commonest underlying cause of death. This development shows that a considerable proportion of deaths can be avoided, either through medical interventions or lifestyle changes. There are differences between different educational groups, although mortality has decreased in recent decades, regardless of educational level.

FIGURE 8.2 – EDUCATION: SWEDEN, WOMEN: Avoidable deaths from ischaemic heart disease per 100 000 inhabitants 35–79 years old. Age-standardised.



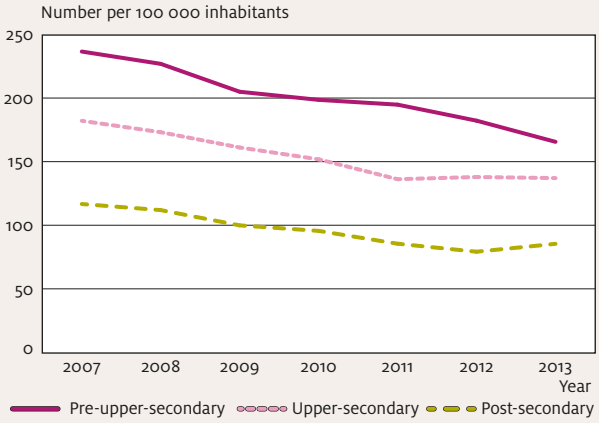
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 8.1 – SWEDEN: Avoidable deaths from ischaemic heart disease per 100 000 inhabitants age 1–79, 2010–2011. Age-standardised.



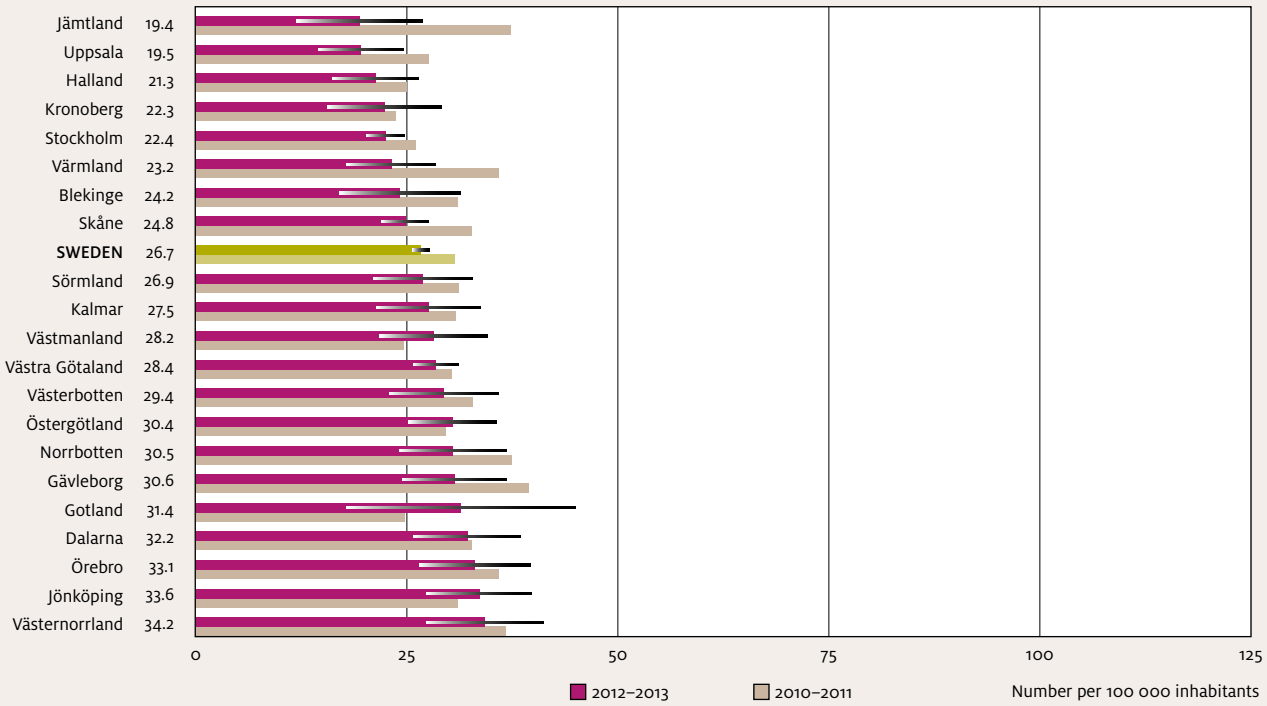
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 8.3 – EDUCATION: SWEDEN, MEN: Avoidable deaths from ischaemic heart disease per 100 000 inhabitants 35–79 years old. Age-standardised.



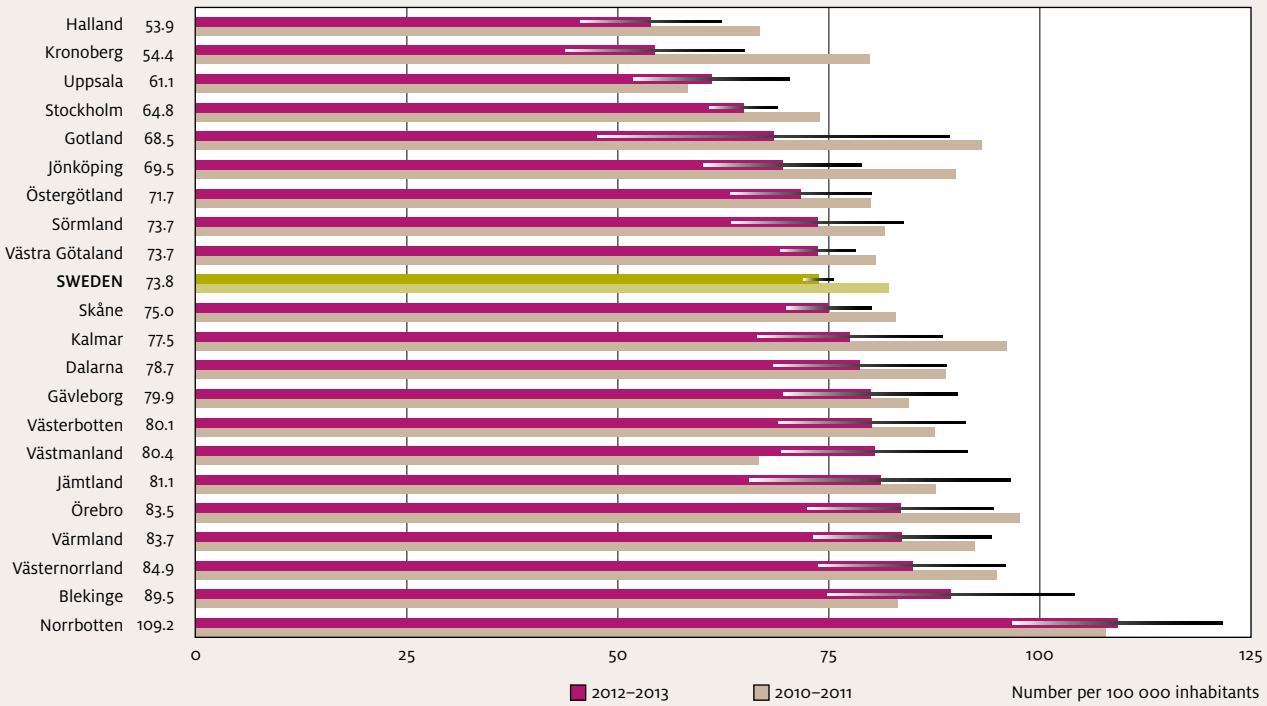
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 8.4 – REGIONS, WOMEN: Avoidable deaths from ischaemic heart disease per 100 000 inhabitants 1–79 years old, 2012–2013. Age-standardised.



Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 8.5 – REGIONS, MEN: Avoidable deaths from ischaemic heart disease per 100 000 inhabitants 1–79 years old, 2012–2013. Age-standardised.



Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

MENTAL ILL-HEALTH

Mental ill-health is a general term encompassing a range of different aspect of mental problems. This applies to everything from self-reported problems such as fatigue, worry and anxiety, to depression and other manifest mental illnesses such as schizophrenia. There is also a great deal of suffering among the close relatives and friends of those with mental ill-health [42].

9. IMPAIRED MENTAL WELL-BEING

Den Mental ill-health in the population is often measured using surveys and interview studies. Impaired mental well-being is an extensive public health problem and many different studies show sharp increases in the 1990s among adolescents.

This increase now appears to have halted, but there is still a high incidence of this problem, particularly among young women [12, 61]. Similarly, the proportion of adolescents who seek psychiatric care for anxiety and depression has increased since the 1990s, primarily among young mothers with a low educational level [61].

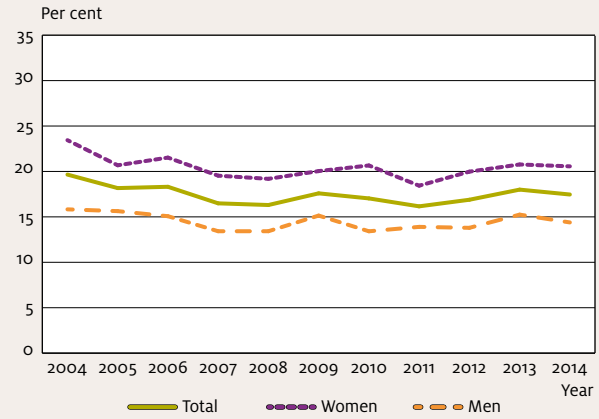
Psychiatric diagnoses constitute the second largest group of diagnoses for which people are certified sick and receiving compensation from the Swedish Social Insurance Agency, and the largest among women [62].

Mental well-being is affected by a range of different factors such as the individual's ability to deal with stress, unemployment, financial vulnerability, social isolation or capacity to maintain a good lifestyle. This involves a secure environment in which to grow up with the opportunity to have a good schooling and to subsequently find work and participate in society.

Municipalities and county councils have a specific responsibility for their inhabitants' mental health, not simply in terms of their services involving contact with inhabitants, but also in their capacity as employers with respect of the workplace climate and work-related stress. Other relevant factors are access to green spaces, noise, traffic planning and communications.

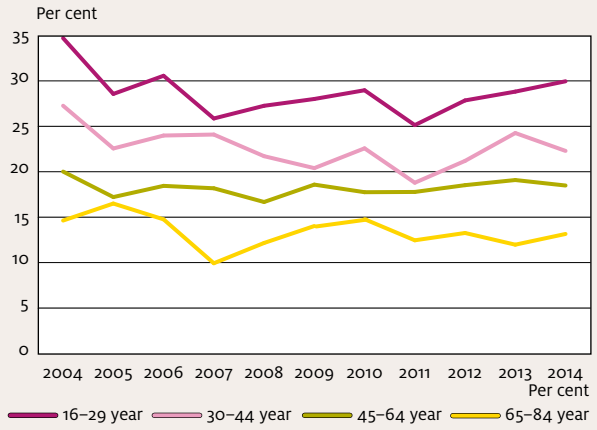
Several initiatives targeting adolescent mental health are being implemented by county councils, but at the same time, the National Board of Health and Welfare assesses that there are deficiencies in this area in terms of first-line medical care. Roles need to be clearly defined, setting out how primary care services, paediatric and adolescent psychiatric services, school health services, guidance centres for young people and paediatric health services are to work with mental health. The National Board of Health and Welfare also identifies deficiencies in the information given to young people about where they can turn for help and support [61].

FIGURE 9.1 – SWEDEN: Individuals who estimated to have a weakened general mental health based on the General Health Questionnaire GHQ12, 16–84 years old.



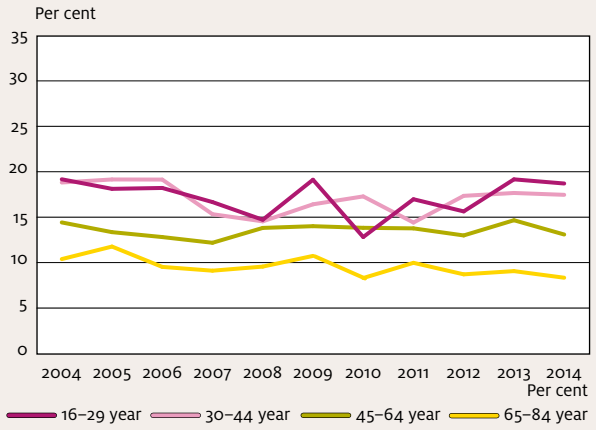
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 9.2 - AGE GROUPS, SWEDEN, WOMEN: Individuals who estimated to have a weakened general mental health based on the General Health Questionnaire GHQ12.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 9.3 - AGE GROUPS, SWEDEN, MEN: Individuals who estimated to have a weakened general mental health based on the General Health Questionnaire GHQ12.

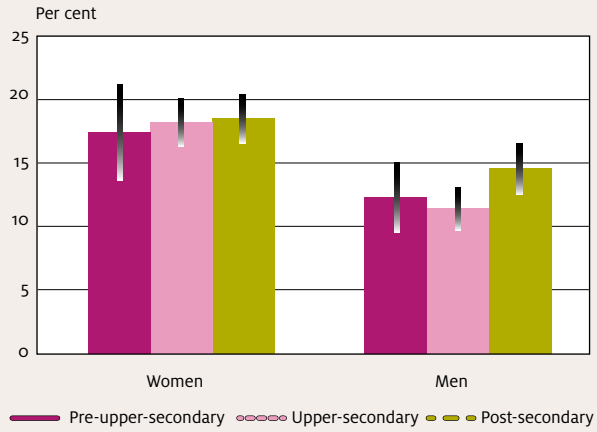


Source: Health on Equal Terms, Public Health Agency of Sweden.

This indicator is measured using twelve questions based on the Global Health Questionnaire (GHQ12), which is designed to measure mental ill-health.

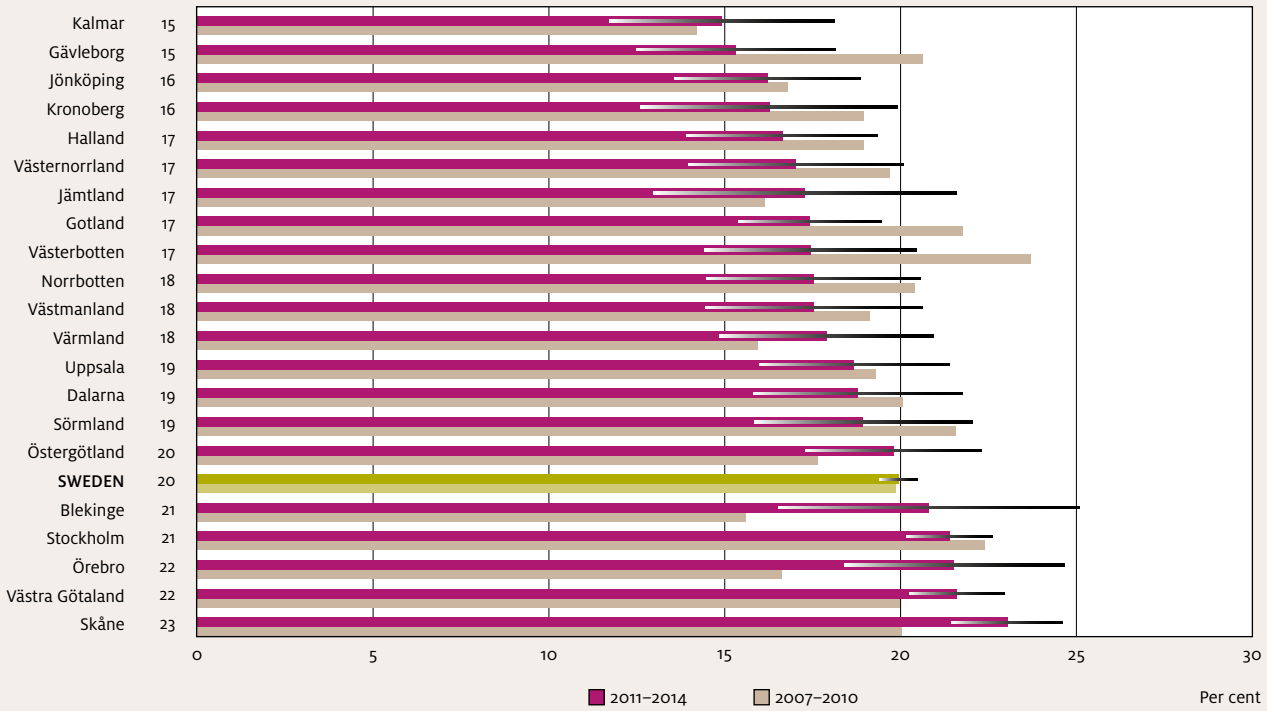
The proportion of people with self-reported impaired mental well-being has previously been increasing in the majority of county councils and municipalities, but has remained largely unchanged in the period from 2007 to 2014. It is still the case that a larger proportion of women than men state that they have impaired mental well-being. There is also a clear pattern between the age groups; younger people are more likely to state they have impaired mental well-being and the proportion has increased among younger people in the period from 2007 to 2014. The association with education is not as distinct as that of many other indicators, and individuals with post-secondary education are more likely to have impaired mental well-being than those with a lower educational level.

FIGURE 9.4 – EDUCATION: Individuals who estimated to have a weakened general mental health based on the General Health Questionnaire GHQ12, 35–74 years old, 2014.



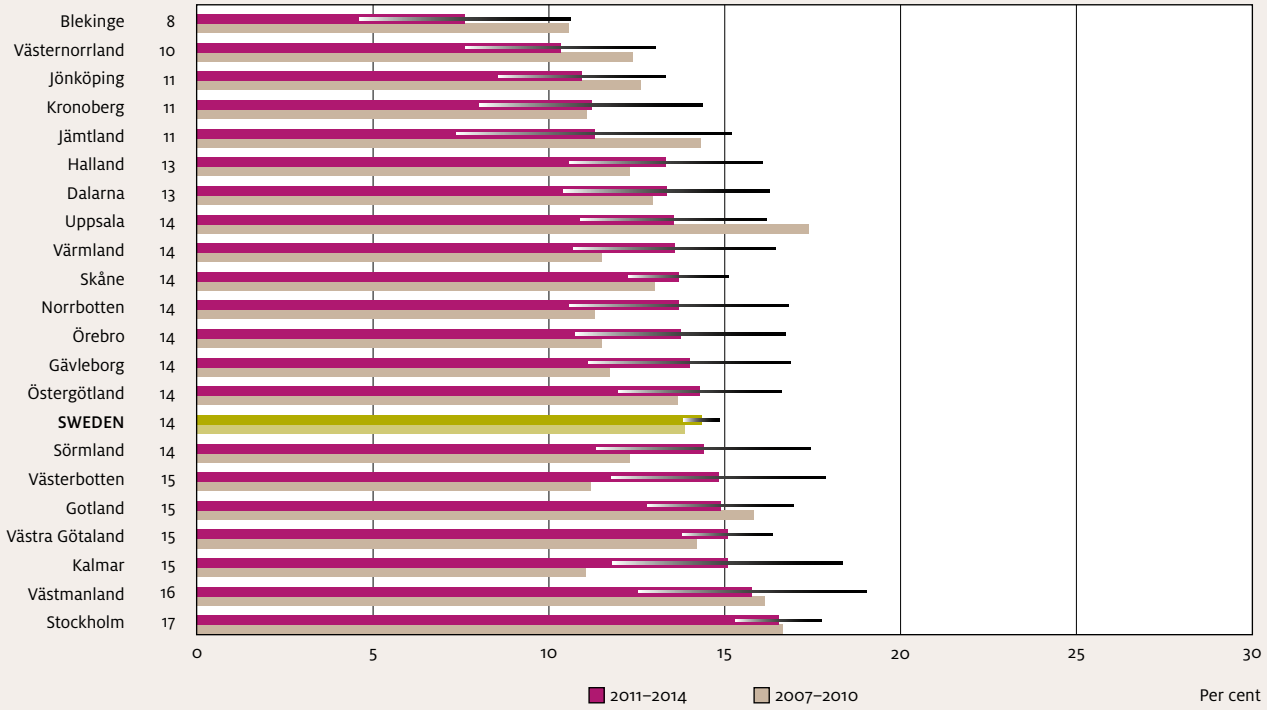
Source: Health on Equal Terms, Public Health Agency of Sweden.
Register of Education (UREG), Statistics Sweden.

FIGURE 9.5 – REGIONS, WOMEN: Individuals who estimated to have a weakened general mental health based on the General Health Questionnaire GHQ12, 35–74 years old, 2011–2014.



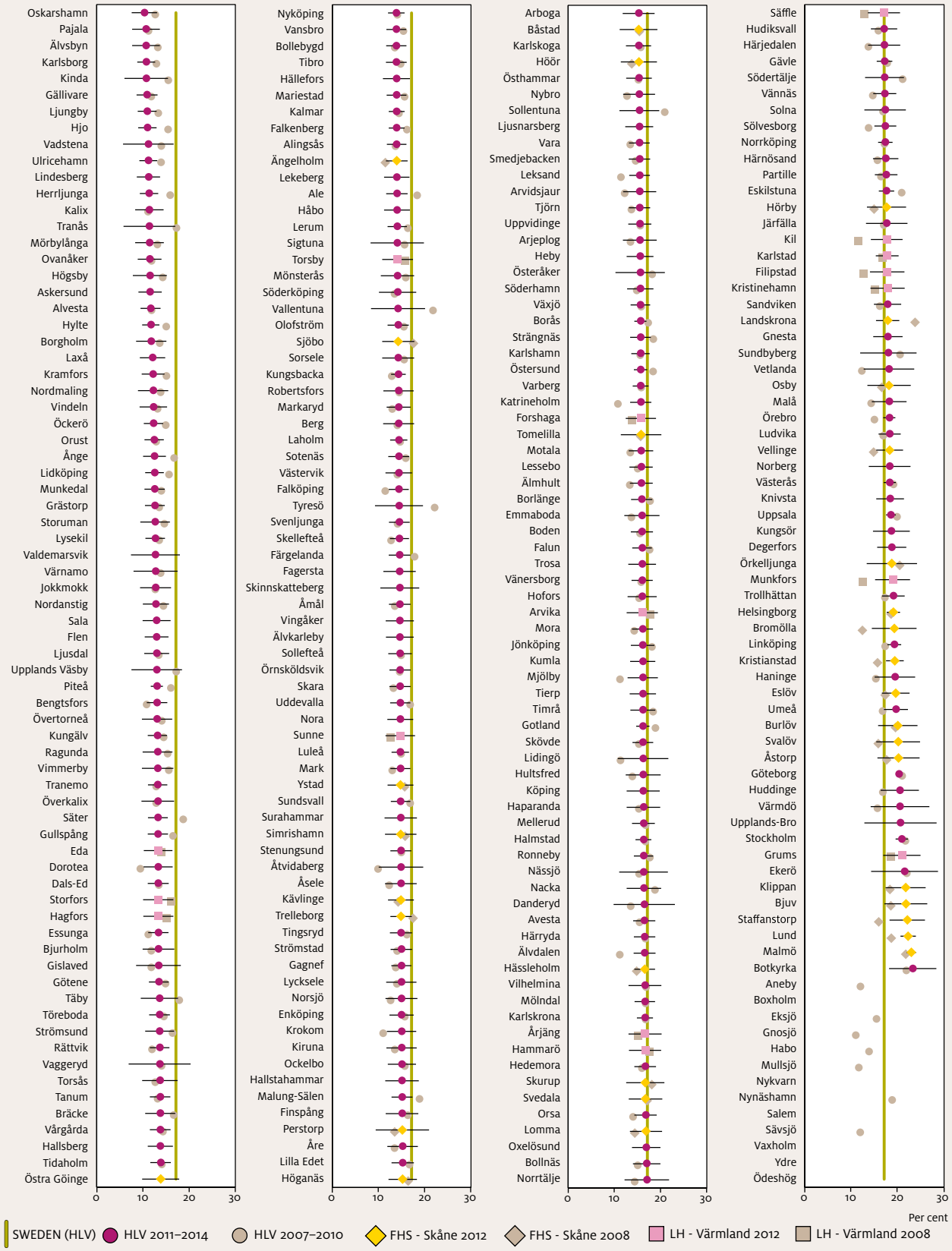
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 9.6 – REGIONS, MEN: Individuals who estimated to have a weakened general mental health based on the General Health Questionnaire GHQ12, 35–74 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 9.7 – MUNICIPALITIES: Individuals who estimated to have a weakened general mental health based on the General Health Questionnaire GHQ12 (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old. Värmland (LH), 18+ years old.



Values with less than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne; Liv och Hälsa (LH) [Life and Health], County Council of Värmland.

10. REGULAR TREATMENT WITH SOPORIFICS OR SEDATIVES

Several studies conclude that mental ill-health is common among the population; these include the national public health survey, mentioned in the previous section, and Statistics Sweden's living conditions surveys. Sleep problems and problems with angst, worry and anxiety have increased in recent decades, primarily among young people. A higher proportion of women in these surveys state that they suffer from one or more of the problems named above. Women aged 16–24 are affected particularly often and more frequently report problems with angst, worry or anxiety than women in other age groups [12].

Psychoactive medications are commonly used to treat mental ill-health and are used in both out-patient and in-patient care. The approved medications for short-term treatment of pathological anxiety and temporary sleep disturbances are benzodiazepines and related medications. They are also used to treat milder forms of worry and anxiety.

Psychoactive medications for adults are normally prescribed by general practitioners and psychiatrists and sometimes by physicians specialising in internal medicine. However, benzodiazepines have the potential to cause side-effects, particularly when consumed in large quantities and over long periods of time. They are also classed as narcotics and their use can induce dependence and result in problems relating to their abuse. Consequently, it is important that these medications are not prescribed for long periods [63].

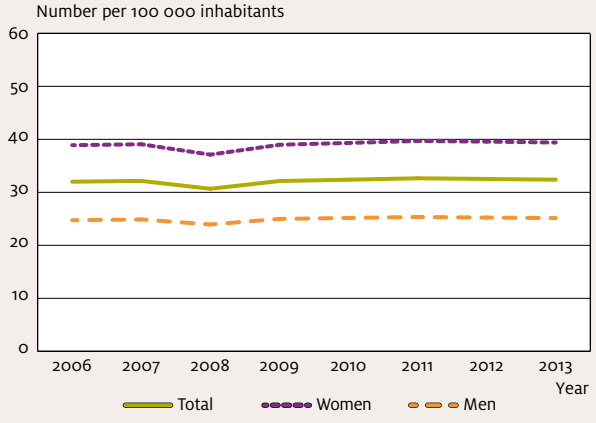
The indicator shows the number of regular users of benzodiazepines and related medications among those aged 20–79 per 1 000 inhabitants. A regular user is regarded as an individual who consumes an average of at least one half of the defined daily dose (DDD) per day over the course of one year. In this context it should be noted that there is currently no set recommended level for what this consumption should look like.

The results show that there are clear differences in terms of the regular use of soporifics and sedatives, both between women and men and between individuals with different educational levels. Women are more likely to consume these medications than men and the proportion of regular users is higher among individuals with lower educational levels than those with higher educational levels.

The regular use of soporifics and sedatives was relatively constant in Sweden in the period 2009–2013. The result also indicates that the level of regular use varied substantially between county councils and municipalities. At the county council level, the number of regular users aged 20–79 per 1 000 inhabitants varied from 22 to 37. No major changes are demonstrated in relation to the period used for comparison, 2009. The relatively large differences between county councils may be explained by factors such as mental ill-health being unequally distributed between county councils and the existence of differences within the country in terms of the practice of prescribing these medications (further information in the separate info. box).

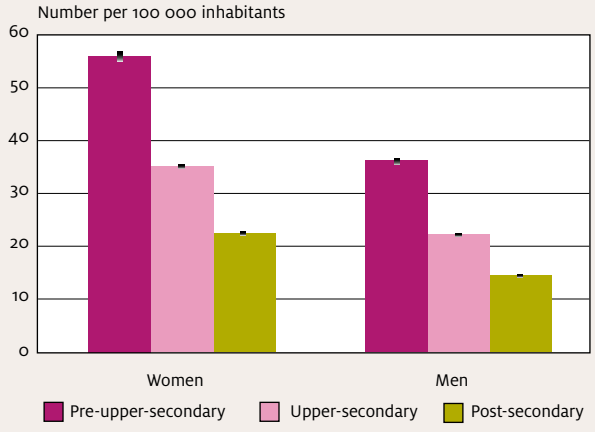
It is important to continue monitoring variations between county councils with respect to the regular used of soporifics and sedatives.

FIGURE 10.1 – SWEDEN: Individuals regularly using (≥0.5 DDD/day) benzodiazepines per 1 000 inhabitants, 20–79 years old. Age-standardised.



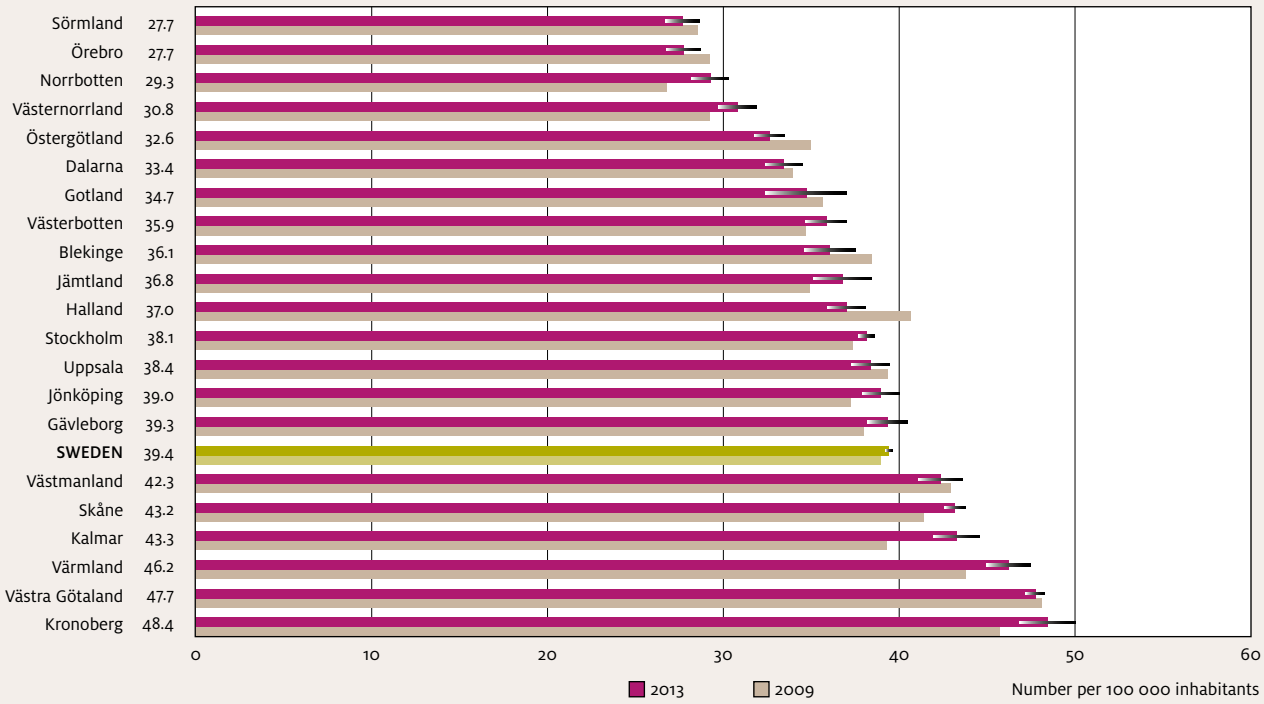
Source: The Swedish Prescribed Drug Register, the National Board of Health and Welfare.

FIGURE 10.2 – EDUCATION, SWEDEN: Individuals regularly using (≥0.5 DDD/day) benzodiazepines per 1 000 inhabitants, 30–64 years old, 2013. Age-standardised.



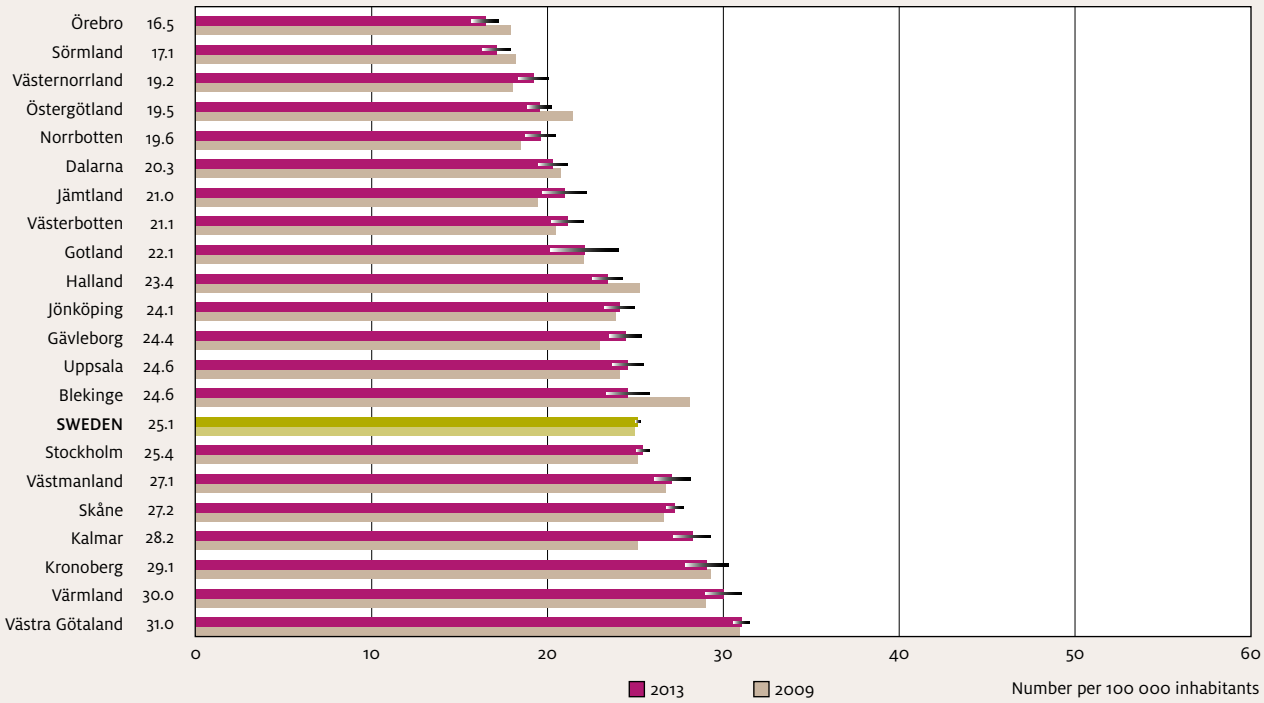
Source: The Swedish Prescribed Drug Register, the National Board of Health and Welfare. Register of Education (UREG), Statistics Sweden.

FIGURE 10.3 – REGIONS, WOMEN: Individuals regularly using (≥0.5 DDD/day) benzodiazepines per 1 000 inhabitants, 20–79 years old, 2013. Age-standardised.



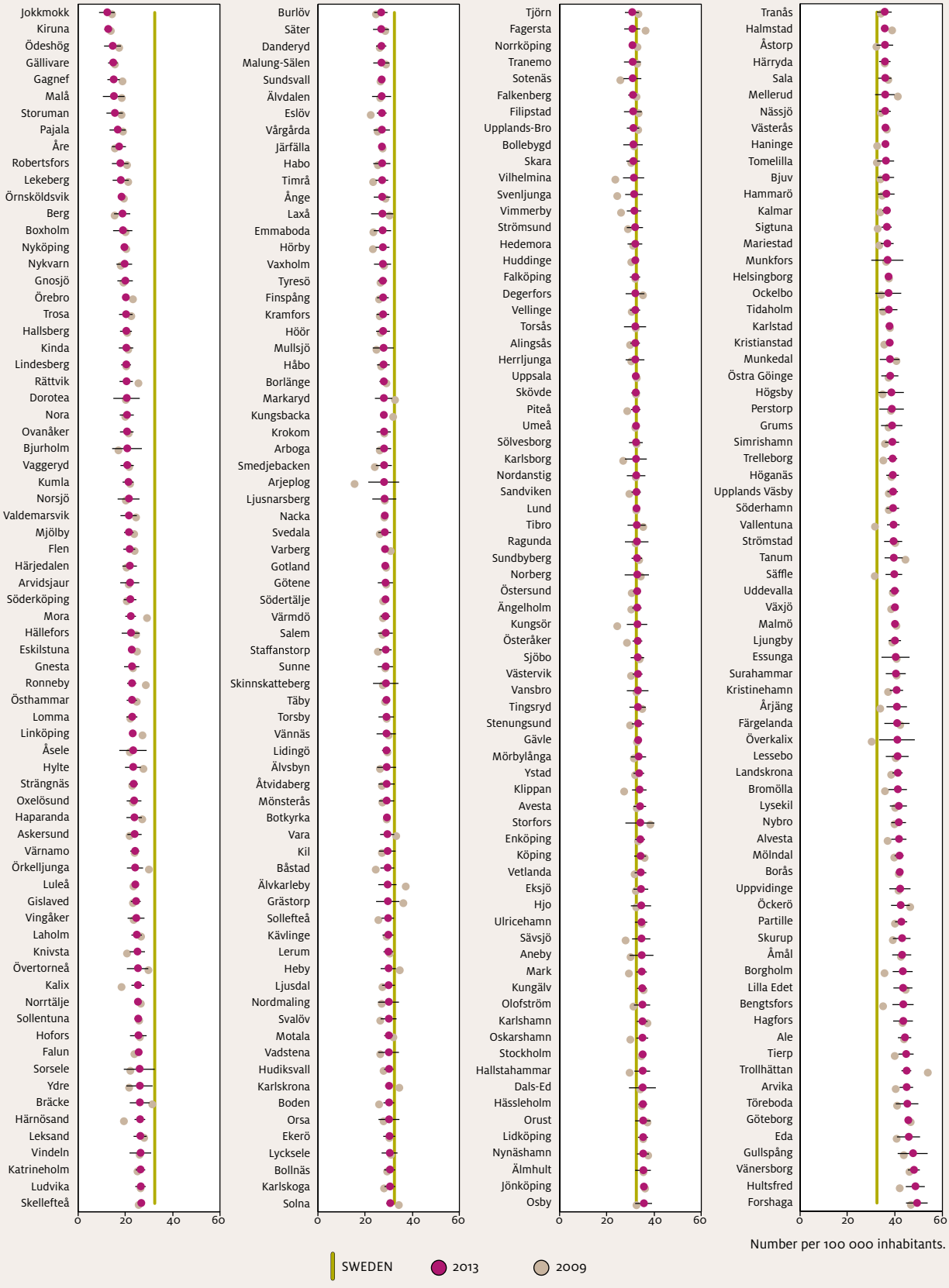
Source: The Swedish Prescribed Drug Register, the National Board of Health and Welfare.

FIGURE 10.4 – REGIONS, MEN: Individuals regularly using (≥0.5 DDD/day) benzodiazepines per 1 000 inhabitants, 20–79 years old, 2013. Age-standardised.



Source: The Swedish Prescribed Drug Register, the National Board of Health and Welfare.

FIGURE 10.5 – MUNICIPALITIES: Individuals regularly using (≥0.5 DDD/day) benzodiazepines per 1 000 inhabitants, 20–79 years old, 2013. Age-standardised.



Source: The Swedish Prescribed Drug Register, the National Board of Health and Welfare.

THE USE OF SOPORIFICS AND SEDATIVES TENDS TO VARY IN LINE WITH THE INCIDENCE OF MENTAL ILL-HEALTH

In 2014, the National Board of Health and Welfare carried out a minor analysis within the scope of the commission Regional Comparisons Healthcare concerning the use of soporifics and sedatives that focused on geographic differences. The background to this analysis was the previous year's county council comparisons, which showed that there were very large differences between county councils in terms of the regular prescription of such medications, e.g. *Regional Comparisons 2013 Healthcare*.

The aim of this analysis was to chart whether, and in which case to what extent, there is covariance between different background factors – linked to both healthcare and the populations living conditions and health – and the use of soporifics and sedatives. The term covariance refers to a situation in which there is a correlation between the variables studied in that high values for one variable – in this case the regular used of soporifics and sedatives – appear together with high values in another variable and vice versa, i.e. low values in one variable appear together with low values in the other. This study specifically looked at those county councils that had the highest and the lowest values, respectively, for the indicator "Regular treatment with soporifics and sedatives". The county councils in question were Västra Götaland and Kronoberg (high values) and Södermanland and Örebro (low values).

The National Board of Health and Welfare used official statistics and published reports and compared a number of factors at the county council level, among them a range of healthcare-related factors such as the organisation of the healthcare system, specialist expertise and the cost of specialist dental care.

A number of lifestyle-related factors, e.g. alcohol consumption, tobacco use and physical activity, were also studied at the county council level on the basis of self-reported data from the national public health survey from 2013. Other factors reviewed and compared between the county councils and in relation to the indicators covered the regional socioeconomic structure (the average income and educational level of the population) and the structure of the labour market (labour market focus, unemployment levels, etc.).

The review of the healthcare-related factors care consumption, differences in organisation of the healthcare system and specialist expertise showed there were no major differences between the county councils that had high proportions of regular users of soporifics/sedatives and those with low proportions. Nor were there any major differences in the cost of specialist psychiatric care.

There were, however, some signs of covariance with regard to the regular use of soporifics and sedatives and the incidence of psychiatric symptoms in the population. County councils with high regular use of soporifics and sedatives also had the highest number of current cases of mental illnesses and behavioural disorders. Västra Götaland also had the highest proportions of current cases of affective disorders and neurotic, stress-related and somatoform disorders in the country, at the same time as Södermanland had among the lowest proportions. Kronoberg also had relatively low proportions of current cases within this disease category. The Swedish Social Insurance Agency's report states: It can thus be concluded from the figures for absence from work due to psychiatric diagnoses from 2014 that the risk of becoming ill with a psychiatric diagnosis is highest in Västra Götaland.

However, the review of the lifestyle-related factors showed that there were no major differences between the county councils in question. Nor were there any differences in the regional socioeconomic structures or the labour market that could be linked to the recorded differences in the indicator "Regular treatment with soporifics or sedatives".

Accordingly, the results from the analysis indicate that there is some covariance between the use of soporifics/sedatives and the incidence of mental ill-health in the population. To some extent the indicator probably also reflects different treatment traditions within the healthcare system in different parts of the country, in that there are differences between county councils in terms of standard practice with respect to the prescription of these medications.

11. SUICIDE AND DEATHS INVOLVING UNCERTAIN INTENT

According to the NASP – the National Centre for Suicide Research and Prevention of Mental Ill-Health – suicide can be regarded as a public health problem.

The suicide rate has been slowly declining for several decades, but this trend has come to a halt for the past two years [54].

It is important that people contemplating suicide are discovered in time. Organisations, families and close friends can play a vital role by being aware of these conditions.

This also applies to society as a whole and to several levels of care within the healthcare system. Municipalities and county councils come into contact with individuals through health and social services and schools, which allows them to take action to prevent suicide by identifying those at risk.

The care guide (e.g. Vårdguiden is a care guide on the webb for patients) refers people contemplating suicide to primary care centres, psychiatric clinics, guidance centres for young people, paediatric and adolescent psychiatric services, the church, school health services, student health and national helplines. In addition, there are a range of associations that work to prevent mental ill-health and suicide in society and offer the opportunity to make contact with people in a similar situation, as well as other close friends or relatives who have been affected.

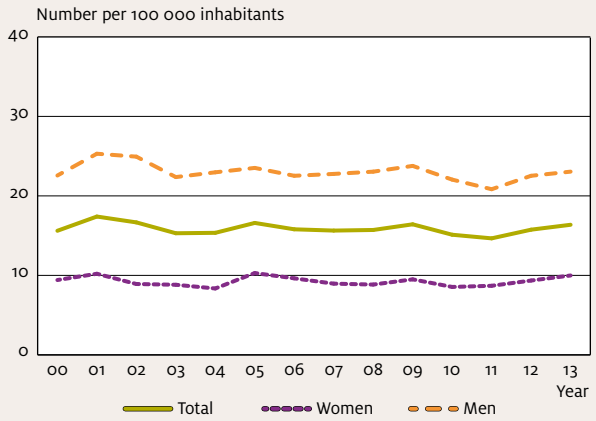
The National Board of Health and Welfare recommends that the healthcare system put in place structured suicide risk assessments, i.e. assessments that take place in a similar way and in accordance with a defined structure. This risk assessment should take place in conjunction with the diagnosis and then at regular intervals while there is a risk of suicide. The healthcare system is also obliged, pursuant to the statutory reporting obligation in Sweden, to report any suicides that have taken place within four weeks of when the victim last made contact with the healthcare system.

The indicator shows the number of suicides and deaths involving uncertain intent in the period 2011–2013. The outcome has not changed appreciably over time. When looked at with respect to educational background, the same trend as in many other indicators can be seen, namely that people with a low educational level have a higher suicide rate and this is particularly prominent among men with a low educational level.

INJURIES

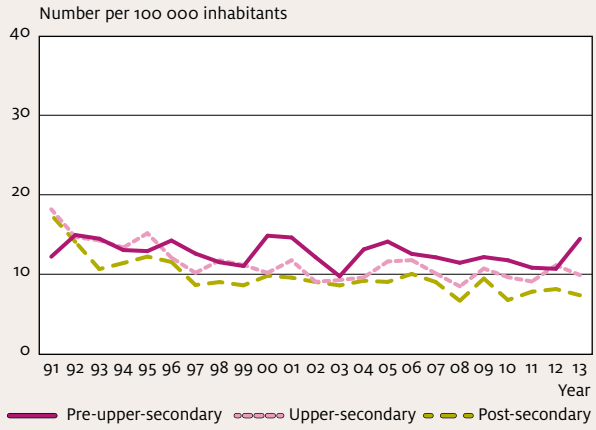
The number of deaths resulting from injuries has increased in Sweden since the end of the 1990s, having previously been declining for a couple of decades.

FIGURE 11.1 – SWEDEN: Suicides and deaths with undetermined intent per 100 000 inhabitants. Age-standardised.



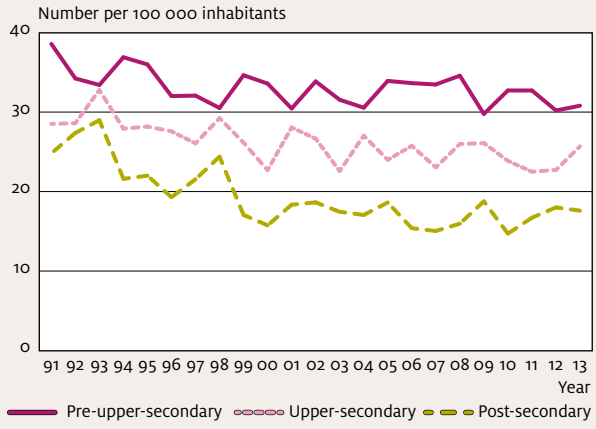
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 11.2 – EDUCATION: SWEDEN, WOMEN: Suicides and deaths with undetermined intent per 100 000 inhabitants, 35–79 years old. Age-standardised.



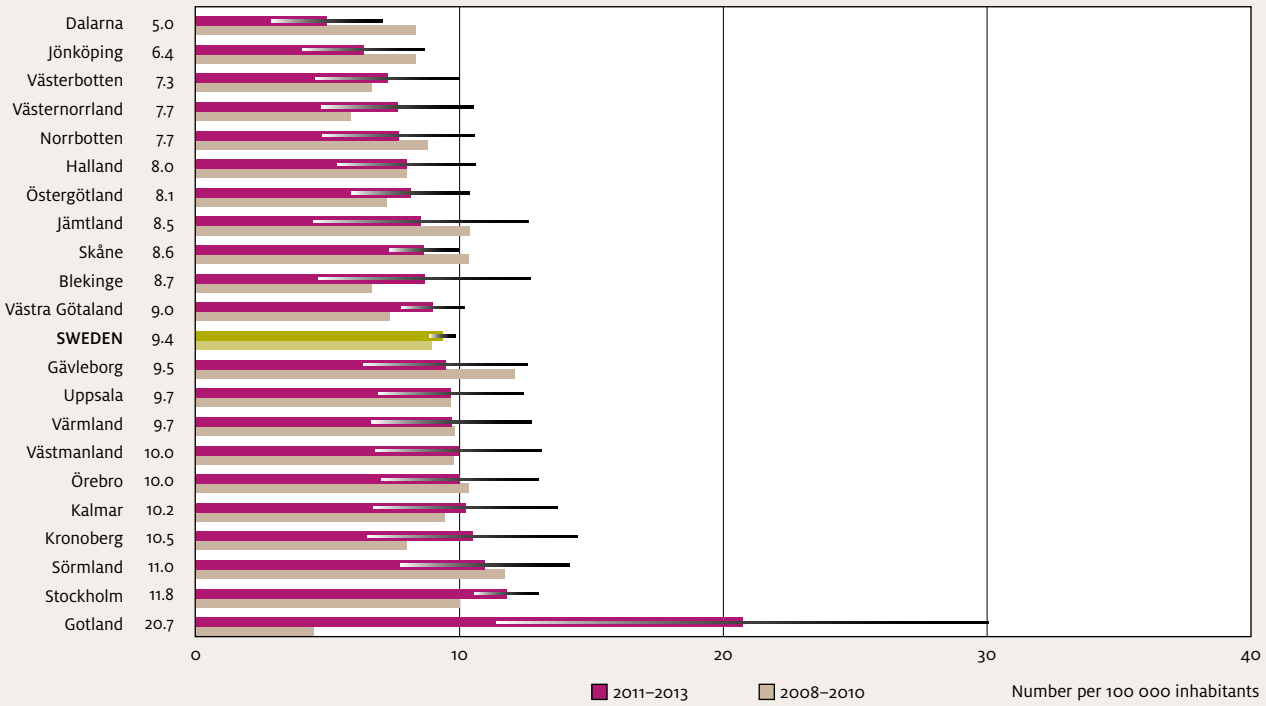
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare. Register of Education (UREG), Statistics Sweden.

FIGURE 11.3 – EDUCATION: SWEDEN, MEN: Suicides and deaths with undetermined intent per 100 000 inhabitants, 35–79 years old. Age-standardised.



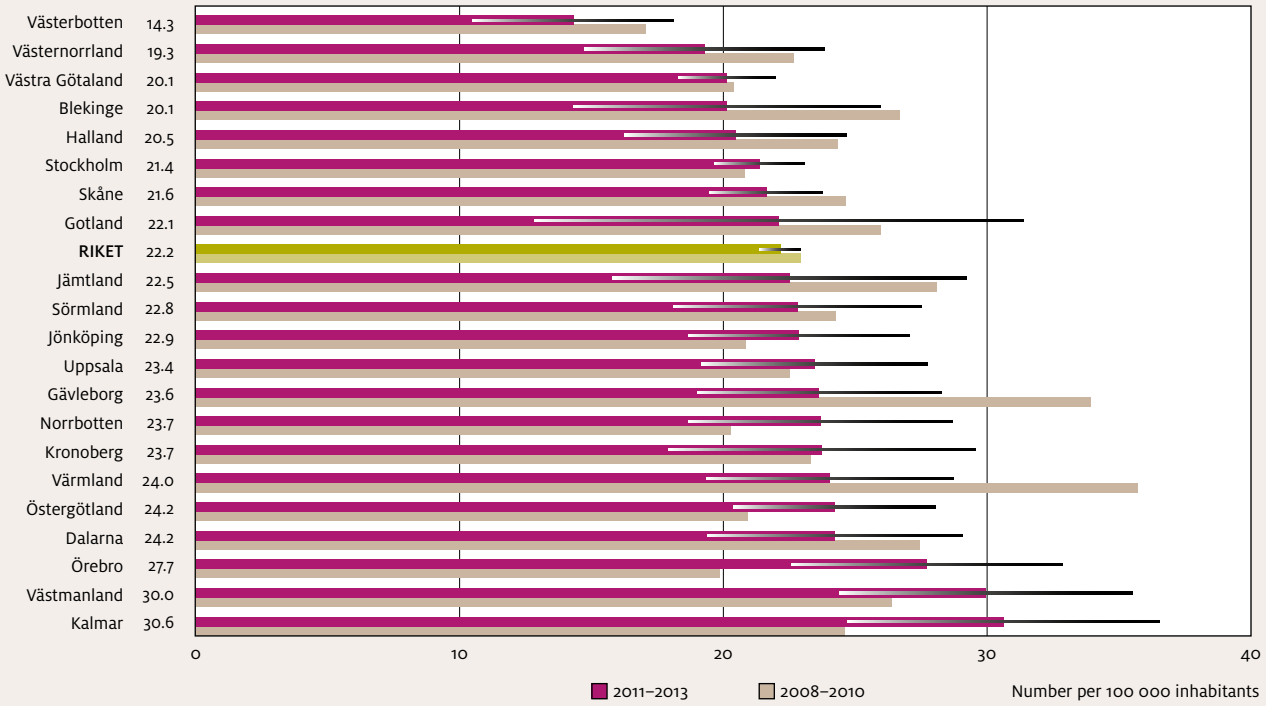
Source: The Swedish Cause of Death Register, the National Board of Health and Welfare. Register of Education (UREG), Statistics Sweden.

FIGURE 11.4 – REGIONS, WOMEN: Suicides and deaths with undetermined intent per 100 000 inhabitants, 2011–2013. Age-standardised.



Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

FIGURE 11.5 – REGIONS, MEN: Suicides and deaths with undetermined intent per 100 000 inhabitants, 2011–2013. Age-standardised.



Source: The Swedish Cause of Death Register, the National Board of Health and Welfare.

INJURIES

Children, adolescents and the elderly run the greatest risk of suffering an accident and being injured. Falls are the most common cause of injuries among both the young and the old, followed by road traffic accidents. While men dominate the statistics in terms of injuries occurring prior to the age of retirement, women are overrepresented among those injured later in life.

Injuries are one of the leading causes of permanent disability and lost life years for the individual and also cost society a great deal.

12. INJURIES AMONG CHILDREN

The number of deaths among children caused by injuries has been decreasing markedly in Sweden for many years. This is largely due to a long-established tradition of accident prevention and trans-sectoral initiatives for the creation of safe environments for children. In spite of this, many children are still injured and injuries caused by accidents are still the most common cause of death among children aged 0–15 years. Children are particularly vulnerable to injuries. Because they are developing, there is a risk of suffering further injuries, at the same time as the injuries they suffer can have serious consequences [64, 65].

The incidence and cause of injuries both vary with the child's gender and age. Boys are considerably more likely to be injured than girls. At earlier ages, this is explained by factors such as boys' bodily functions developing at a later stage and, in the case of older children, boys take greater risks than girls [64]. In Sweden, as in other European countries, falls, together with traffic-related accidents, are behind a considerable proportion of injuries that occur in childhood. Younger children primarily suffer from injuries in conjunction with falls, while both falls and traffic-related accidents are behind a large proportion of injuries among older children [64–66].

Both international and Swedish research shows that children who live in less favourable socioeconomic circumstances run a greater risk of being injured as a result of accidents [66–69]. For example, there is an increased risk of road traffic accidents and accidents relating to violence. The differences between children from different socioeconomic groups also tend to become greater the older the children become [20, 70],

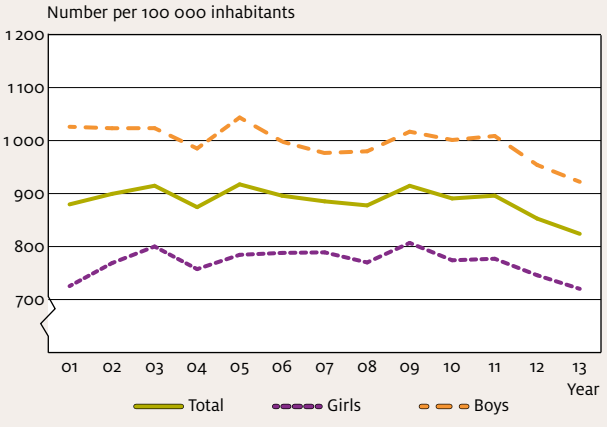
The indicator shows the number of children per 100 000 aged 0–6 years who are admitted to hospital as a result of injuries in 2013. The data comes from the National Board of Health and Welfare's register of patients admitted to hospital and takes into account injuries and cases of poisoning in accordance with the codes for extraneous causes.

In 2013, the number of injuries amounted to an average of 824 per 100 000 children. However, there are major differences at the county council level, with the number of injuries varying between 481 and 1693 per 100 000 children. Nonetheless, some consideration should be given to the fact that admission practices can vary between hospitals, which may affect the results. Fewer children were injured in 2013 than in 2009 in the majority of county councils. At the same time, the results show that the number of childhood injuries in Sweden as a whole has remained relatively stable since the beginning of this century. The results also indicate that boys are considerably more likely to be injured than girls.

If the number of injuries and deaths is to be reduced, it is important to continue working to make Sweden safer. The municipalities are responsible for designing safe environments for children with respect to play and traffic, for example. Regular inspections of equipment in play parks for children, together with adopting a safety perspective in the design of all new play parks for children, can contribute to promoting safety for all children. Conducting inventories of accident risks in the road traffic environment, introducing speed limits and speed-reduction measures, ensuring that the municipal road network is regularly maintained and regular snow clearing can be used to increase traffic safety.

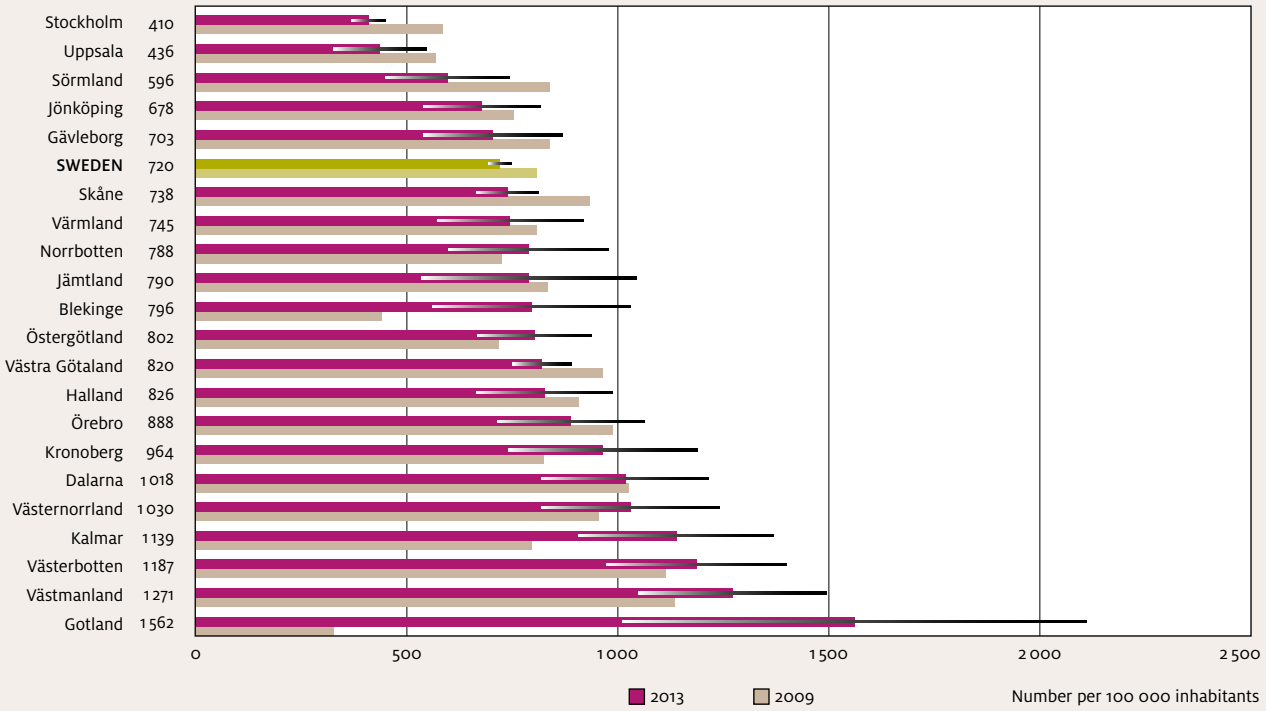
Another important aspect of accident prevention is information and education targeted at both children and their parents. In partnership with other stakeholders, the municipality can actively participate in campaigns to inform the public about traffic safety and, for example, work to increase the use of bicycle helmets. Schools can also make a contribution, for example by providing information and educating pupils about traffic safety in partnership with the police. The county councils also play an important role in these educational efforts through paediatric health services and encounters with children and parents.

FIGURE 12.1 – SWEDEN: Children that have received inpatient care caused by an injury event per 100 000 children aged 0–6 years old.



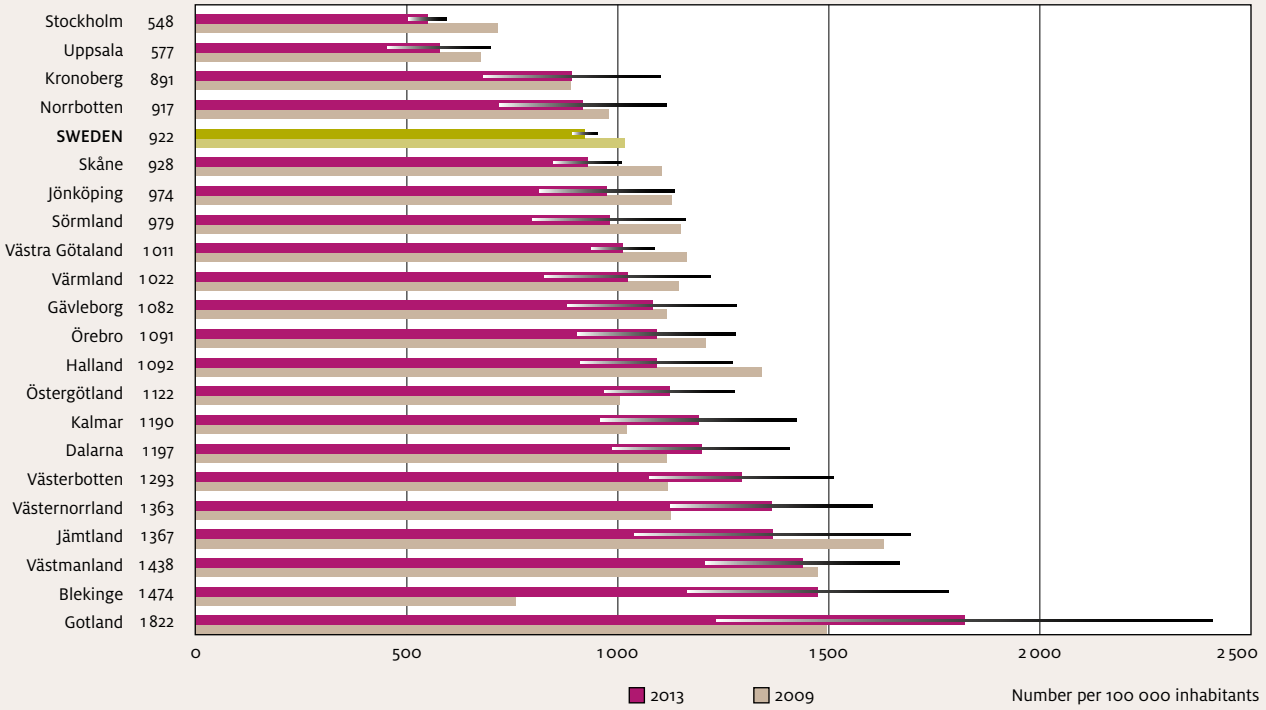
Source: The National Patient Register, the National Board of Health and Welfare.

FIGURE 12.2 – REGIONS, GIRLS: Children that have received inpatient care caused by an injury event per 100 000 children aged 0–6 years old, 2013.



Source: The National Patient Register, the National Board of Health and Welfare.

FIGURE 12.3 – REGIONS, BOYS: Children that have received inpatient care caused by an injury event per 100 000 children aged 0–6 years old, 2013.



Source: The National Patient Register, the National Board of Health and Welfare.

13. FALL-RELATED INJURIES AMONG THE ELDERLY

Falls are a common cause of injury in Sweden and are an extensive public health problem, particularly among the elderly. Two thirds of those who die as a results of fall-related injuries are 65 or older, as are half of all those who receive hospital care as a result [71].

Elderly women are more likely to suffer from injuries than elderly men and research shows that there are also marked differences in the risk of injury relating to socio-economic status, marital status and country of birth [72, 73]. Fall-related injuries can have serious consequences in the form of suffering and reduced quality of life, for example problems with movement, isolation and increased dependence on others. Many falls result in hip fractures that, in addition to resulting in the suffering of those affected, also carry a considerable societal cost.

The number of fall-related injuries among the elderly is increasing steadily in Sweden, something which is associated with factors such as the ageing demographic composition of the welfare state. The elderly are increasingly remaining fit and active and are living longer, at the same time as the proportion that is frail is increasing due to improved healthcare which is able to save many of their lives [74]. From a European perspective, Sweden has not developed as well as many other countries in terms of reducing the number of deaths of elderly people caused by various types of injury, with the exception of traffic-related injuries [75].

Many individual factors related to lifestyle habits and health have an impact on the risk of being injured with advancing age. For example, a number of international and Swedish studies have shown that life-long physical activity leads to a reduced risk of falls [76, 77]. Diet, smoking, alcohol consumption and recreational activities are other important lifestyle-related factors [78, 79]. The risk factors for falls include falls in blood pressure, underlying disease, low bodyweight and the use of medication [71, 80–82].

The indicator shows the average number of hospital admissions resulting from fall-related injuries among individuals aged 65 and older per 100 000 people in this age group in the period 2011–2013. Data have been gathered from the National Board of Health and Welfare's register of patients admitted to hospital. Hospital admissions practices can vary between hospitals, which may have an impact on the results.

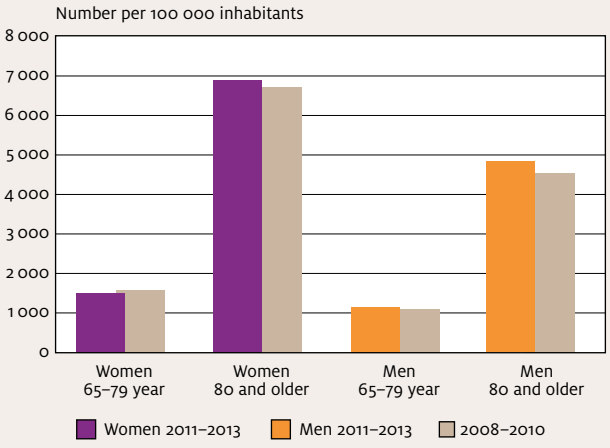
The number of hospital admissions resulting from fall-related injuries among those aged 65 and over in the period 2011–2013 amounted to an average of 2 637 per 100 000 inhabitants' in that age group.

The results show that there are major differences between county councils and between municipalities, including a larger number of hospital admissions as a result of fall-related injuries among the elderly in northern Sweden. The total number of fall-related injuries in the age group 65–79 has decreased somewhat since the previous measurement period, while the number of fall-related injuries has increased in those over 80 years of age. Women are more likely to injure themselves than men, something which applies to both age groups.

A range of interventions have been shown to be effective in terms of protecting individuals from falling and injuring themselves. Some examples of these are initiatives focused on physical activity and balance training for the elderly, adaptations to their surroundings, snow clearance and gritting in winter, good outdoor lighting, treatment for osteoporosis, regular reviews of medication and eye tests.

Several of these are dependent on cooperation between municipality and county council. At the municipal level, it can be valuable to begin reporting falls locally in order to provide an overview of the general pattern or injuries that can subsequently be used to guide the work of drawing up an action plan. It should be possible to follow the statistics over time and comparisons can then be made with the incidence of injuries in other municipalities. This data can then be used to draw up a concrete plan indicating how the municipality will be structuring its preventative efforts. This should concentrate on certain high-risk environments and individuals who are particularly vulnerable, which is an assessment that should be made in conjunction with the healthcare system.

FIGURE 13.1 – AGE GROUPS, SWEDEN: Inpatient cases caused by fall injuries, individuals aged 65 and older, per 100 000 inhabitants, 2011–2013.

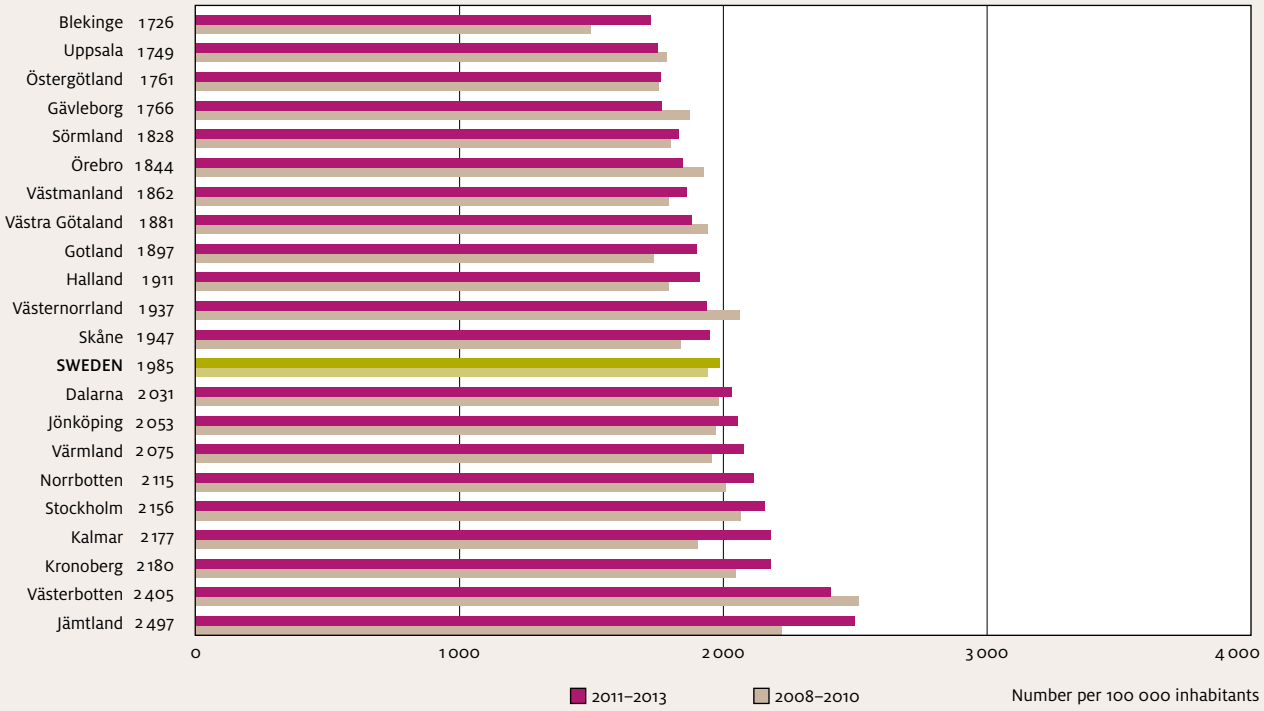


Source: The National Patient Register, the National Board of Health and Welfare.

FIGURE 13.2 – REGIONS, WOMEN: Inpatient cases caused by fall injuries, individuals aged 65 and older, per 100 000 inhabitants, 2011–2013.

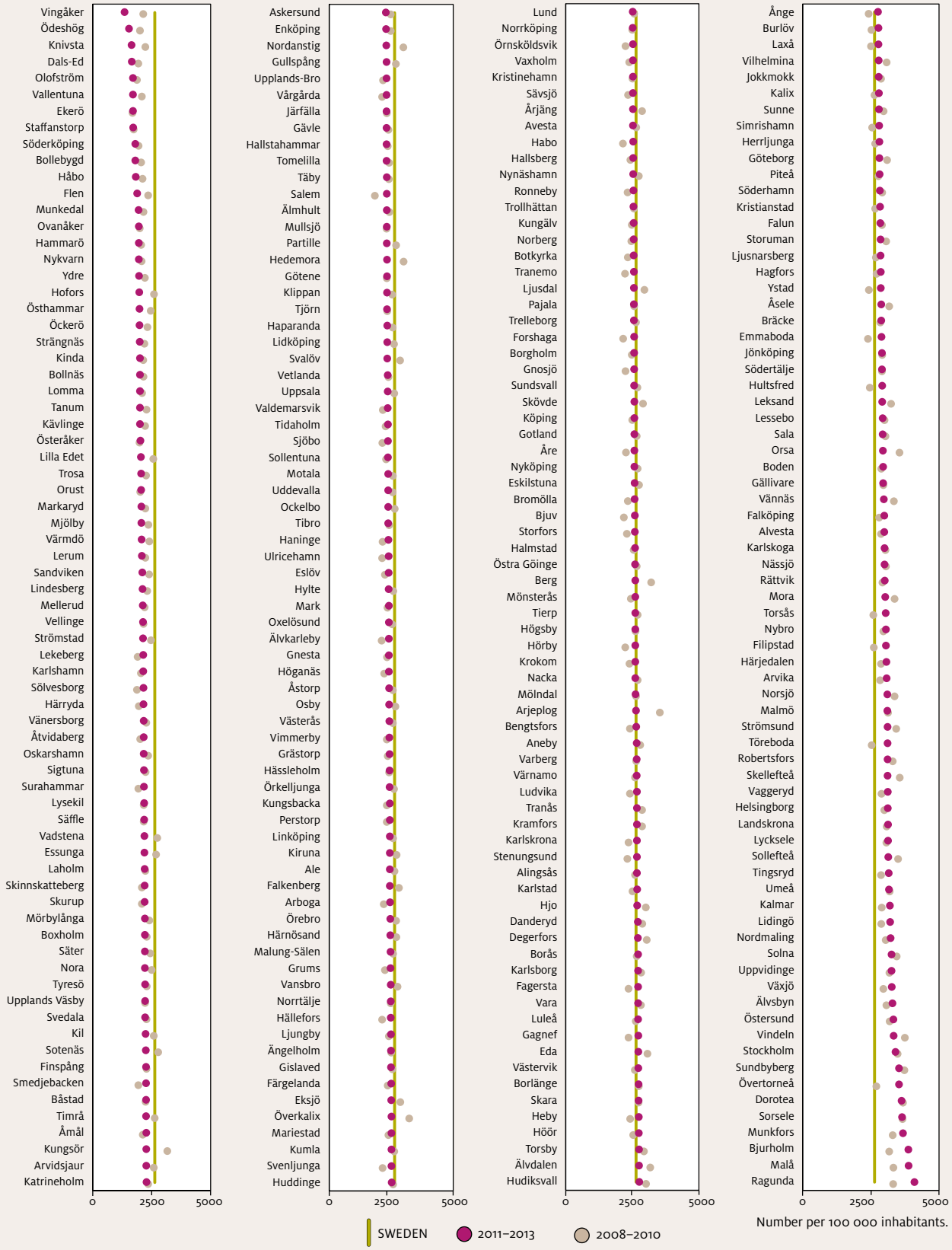
Source: The National Patient Register, the National Board of Health and Welfare.

FIGURE 13.3 – REGIONS, MEN: Inpatient cases caused by fall injuries, individuals aged 65 and older, per 100 000 inhabitants, 2011–2013.



Source: The National Patient Register, the National Board of Health and Welfare.

FIGURE 13.4 – MUNICIPALITIES: Inpatient cases caused by fall injuries, individuals aged 65 and older, per 100 000 inhabitants, 2011–2013.



Source: The National Patient Register, the National Board of Health and Welfare.

Social conditions and living conditions

Social conditions and living conditions are defined as indicator areas in this report and are described in more detail in the introduction. These terms are included in what are defined here as factors that have an impact on health. Social conditions encompass such aspects as affect societal systems in which individuals live, which are often outside of the individual's immediate control, such as legislation and the welfare system. Living conditions describe the circumstances of the environment in which people live and work and that are more centred on the individual such as the residential environment, working environment and psychosocial environment [1, 2, 18]. Living conditions are affected by the social conditions.

THE FIRST YEARS

The first years of life are very important to a person's future health, something that recent research into the brain's development has demonstrated [20]. A good start in life, with nutritious food, good care and stimulation, as well as access to qualified healthcare to some extent forms the basis of, for example, success in school and health and well-being. At the same time, the structural conditions during childhood have a strong impact on children's health. In many ways, the family's social position has a decisive impact on what resources and what stimulation the child is offered during their childhood and on what health risks the child is subject to.

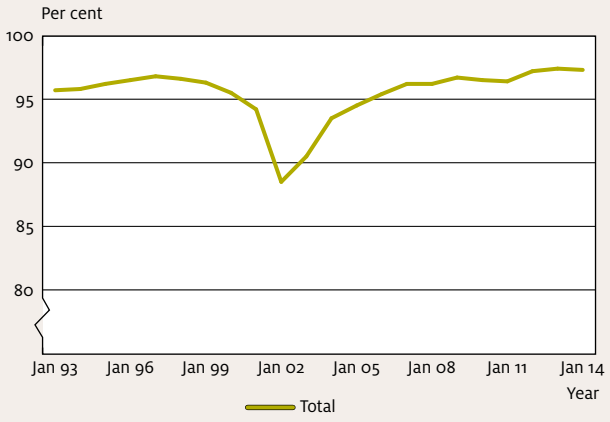
14. VACCINATION OF CHILDREN – MEASLES-MUMPS-RUBELLA (MMR)

All children are offered vaccinations by paediatric health services and in schools in accordance with a programme that provides protection against nine diseases: polio, diphtheria, tetanus, whooping cough, infections caused by Haemophilus influensae type b, serious diseases caused by Streptococcus pneumoniae and measles, mumps and rubella (MMR). Girls are also offered vaccination against human papilloma virus (HPV), which can cause cervical cancer [83].

Measles, mumps and rubella used to be common childhood diseases, caused by three different viruses. Contracting any of these diseases is not normally dangerous, but in some cases they can result in serious complications and even death. The measles virus can be eradicated with a sufficiently high vaccination rate, but the WHO's statistic indicate that 164 000 children died in a measles outbreak in 2008. The majority of these children lived in low-income countries. The Public Health Agency of Sweden reports that the WHO has received data about 34 000 verified cases of measles in Europe in 2011, 8 of whom are reported to have died [84]. Serious side-effects of the MMR vaccine are rare and the benefits at the group level clearly outweigh the risks [85].

The vaccines used in Sweden are effective and the vaccination rate is high, which provides a good level of protection against these diseases. Because these diseases are widespread throughout the world, those who have not been vaccinated run an increased risk of being infected abroad.

FIGURE 14.1 – SWEDEN: Vaccination of children – measles-mumps-rubella (MMR)



Source: Public Health Agency of Sweden.

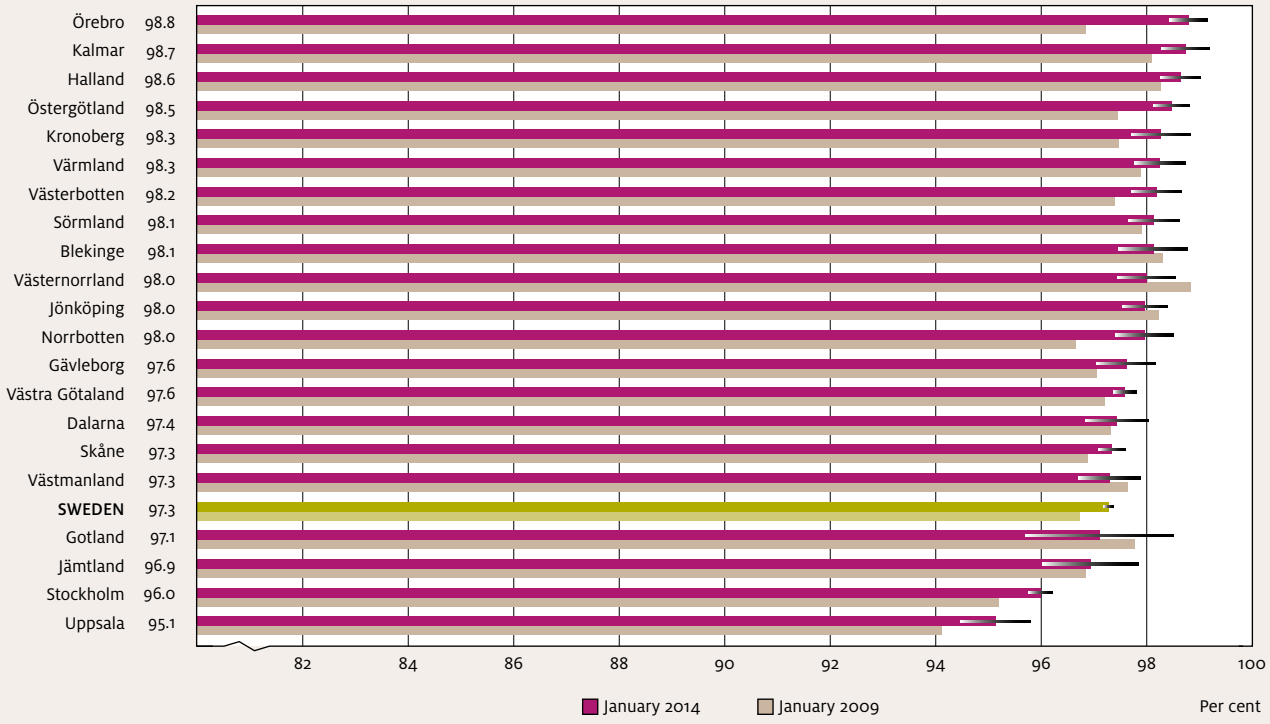
To prevent these diseases regaining a foothold, 95 per cent of the population have to be immune, either through vaccination or as a result of past natural infection. However, there are groups of parents who choose not to allow their children to be vaccinated and the rate of vaccination has decreased to below 90 per cent in some municipalities. Consequently, local outbreaks can occur, especially of measles [83].

The MMR vaccine has been included in the general vaccination programme in Sweden since 1982 and is offered to children at the age of 18 months and 6–8 years [83]. Paediatric health services annually compile data concerning the vaccination status of registered 2-year olds and report these to the Public Health Agency of Sweden.

Data from Örebro and Uppsala are collected from individualised vaccination registers and are thus not completely comparable with others. In these, the vaccination rate is calculated as the proportion of all children on the population register who are vaccinated, not the proportion of all children registered with paediatric primary care centres as in the other county councils.

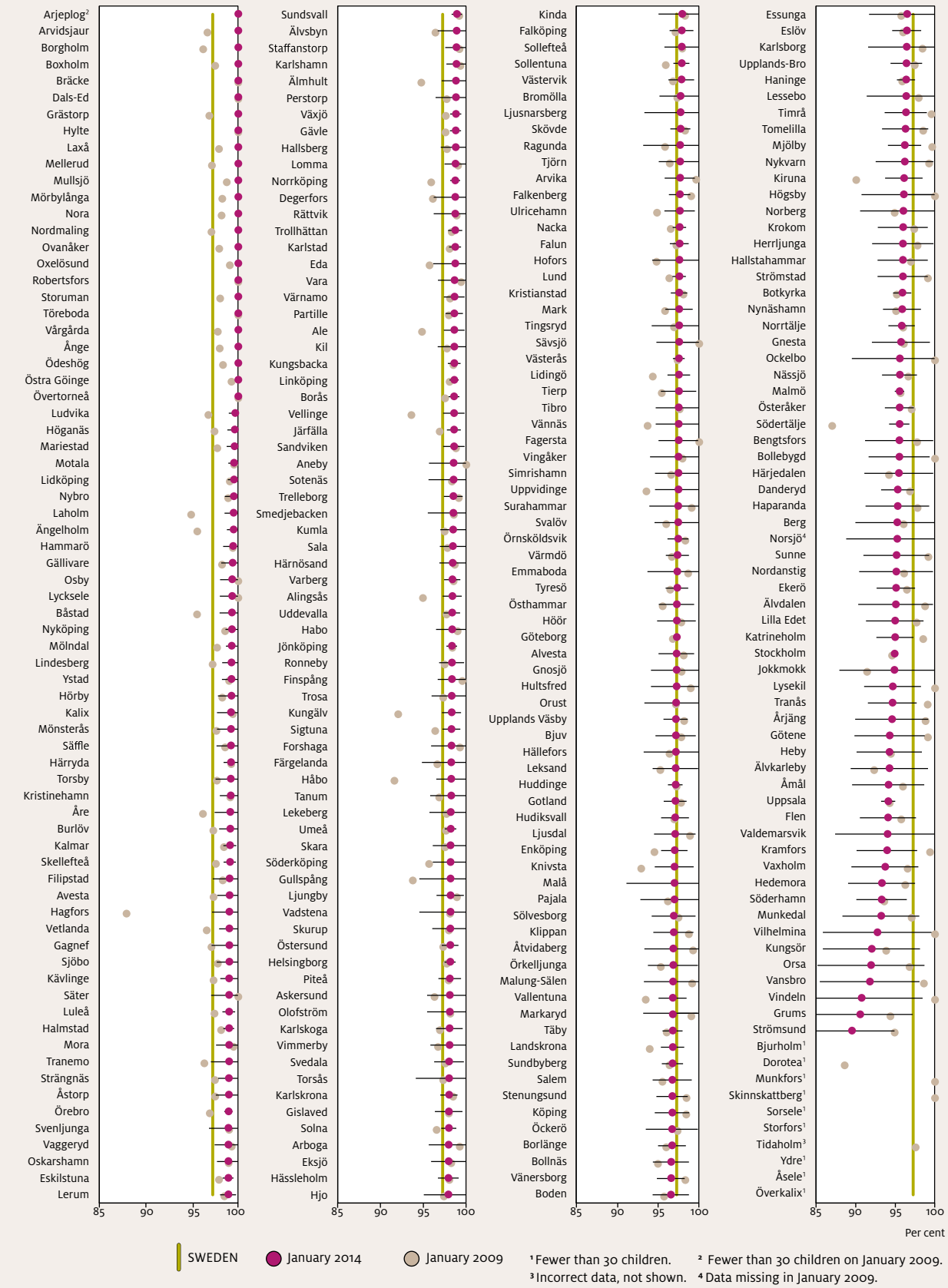
The proportion of children who have received the MMR vaccine has increased in the majority of counties since 2009. In January 2014, 97.4 per cent of all children born in 2011 had been vaccinated. The majority of county councils have a vaccination rate of around 97–98 per cent.

FIGURE 14.2 – REGIONS: Vaccination of children – measles-mumps-rubella (MMR). Vaccination status registered in January 2014 among children born in 2011.



Source: Public Health Agency of Sweden.

FIGURE 14.3 – MUNICIPALITIES: Vaccination of children – measles-mumps-rubella (MMR). Vaccination status registered in January 2014 among children born in 2011.



[1] Fewer than 30 children. [2] Fewer than 30 children on January 2009.
[3] Incorrect data, not shown. [4] Data missing in January 2009.

Source: Public Health Agency of Sweden.

15. CHILDREN'S PARTICIPATION IN PRESCHOOL

Children's learning begins even before they start school. Attending preschool has been shown to be important to learning in several areas. International studies have established that society benefits from children's learning in preschool. Children learn to communicate and interact, learn to understand concepts and can express what they are doing in words. Children in preschool also receive training in maths, language and reading and writing earlier, which provides them with a big advantage over those of the same age who do not attend preschool [86].

Sweden has extensive childcare provision that compares favourably with that of other countries when regarded in terms of accessibility. Other countries in Europe where there is extensive childcare provision and a large proportion of children attend preschools are Denmark, Finland and France. These countries are also among those in the EU where central government subsidises childcare the most [87].

The indicator shows the proportion of children in the ages 1–5 who were enrolled in a preschool on 15 October 2013. The results show that 84 per cent of all 1–5-year olds in Sweden were enrolled in a preschool in 2013, which means that there has never been so many children attending preschool. The proportion of children enrolled has been increasing steadily for some time; three years ago the proportion of 1–5-year olds was 82 per cent and ten years ago it was 75 per cent.

However, there are differences between counties and between municipalities, but the proportion of children enrolled has increased in pretty much all counties. Some explanations for this may be the 525 hours of free preschool per year for 3–5-year olds, the municipalities' obligation to provide places for children of the unemployed and those taking parental leave and an increased interest in preschool and its educational content.

The Swedish Education Act stipulates that all children in Sweden are to be offered preschool from the age of one year and the municipalities are now also obliged to offer places to parents taking parental leave or who are unemployed. The Act also states that municipalities are to offer childcare places within four months of the requirement for a preschool place being registered – what is known as the childcare guarantee. The child must be offered a place as close to their home as possible. Nevertheless, not all municipalities are able to comply with these obligations.

It is important that a parent who wants a place in preschool for their child gets one as soon as possible. If not, there is a risk that the child will miss out on the stimulation and learning development preschool can provide. Furthermore, waiting too long can also have a knock-on effect for the entire family if, for example, a parent has to decline a job offer as a result.

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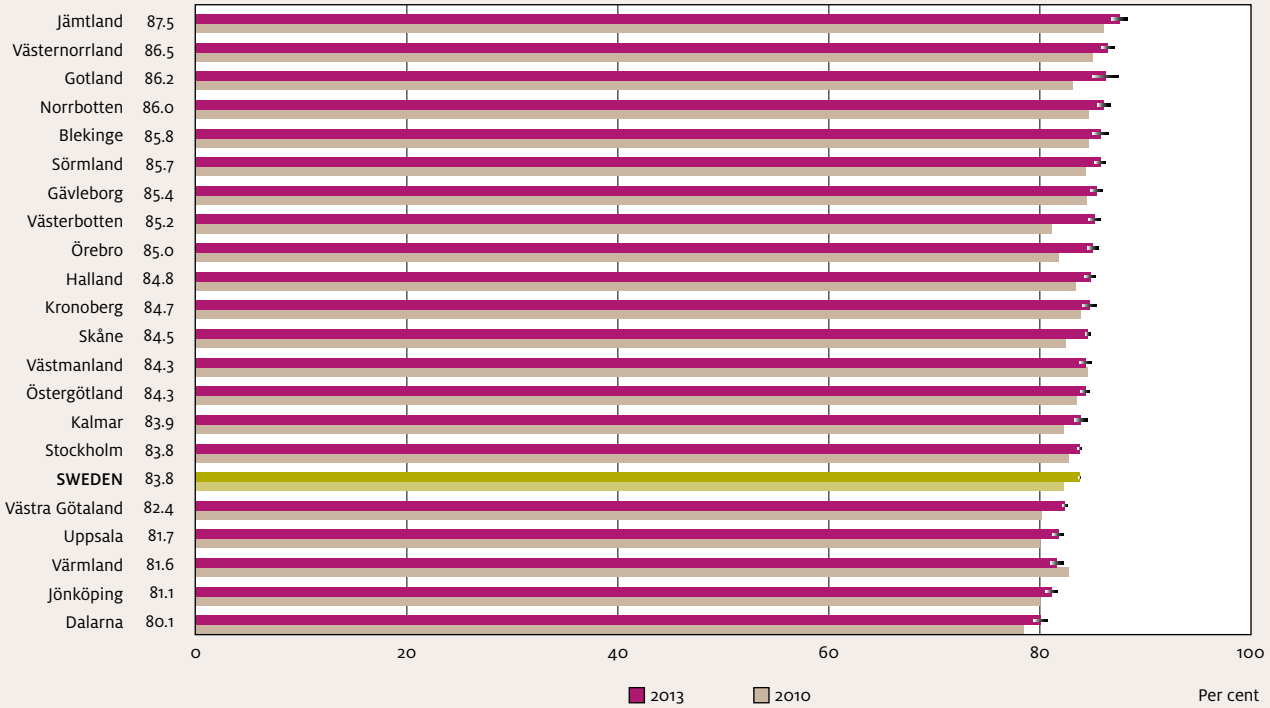
FIGURE 15.1 – SWEDEN: Children enrolled at preschool aged 1–5 years old.

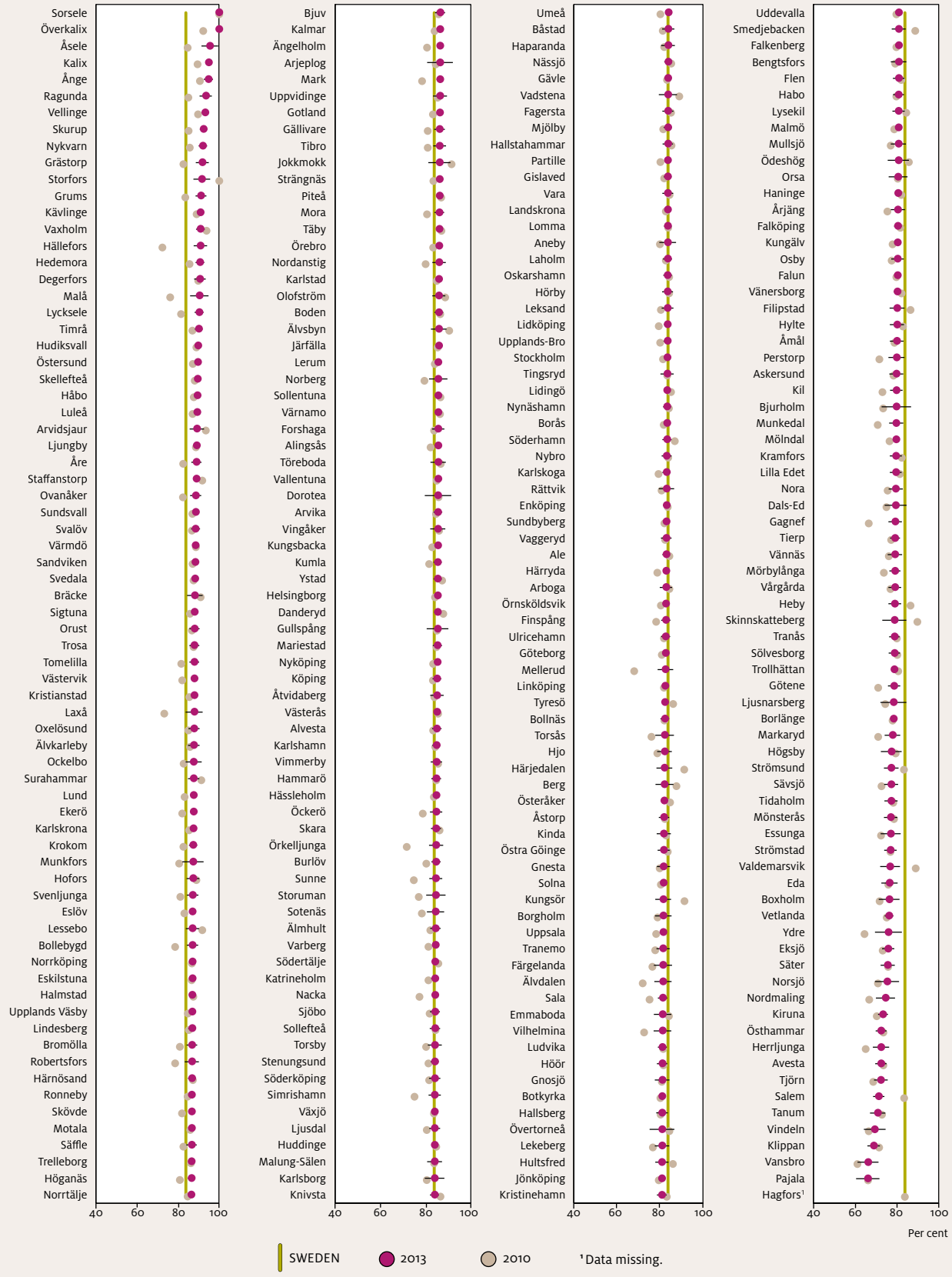
Source: The Swedish National Agency for Education.

FIGURE 15.2 – REGIONS: Children enrolled at preschool aged 1–5 years old, 2013.



Source: The Swedish National Agency for Education.

FIGURE 15.3 – MUNICIPALITIES: Children enrolled at preschool aged 1–5 years old, 2013.



Source: The Swedish National Agency for Education.

16. TEACHERS WITH FORMAL TRAINING IN PRESCHOOLS

Competent staff are the key to a successful preschool and it is important for there to be staff who have undergone university teacher training specialising in children of preschool age. To comply with the curriculum, staff must have a good knowledge of childhood development and learning and the ability to adapt the educational environment to this.

The Education Act stipulates that preschools in Sweden are to have staff who are qualified for the teaching that is to be conducted. In addition to preschool teachers, there have to be other staff such as nursery nurses whose expertise contributes to encouraging the children's development and learning [89, 90]. There are few other countries in Europe that place such requirements on the qualifications of preschool staff. The need for preschool staff with a higher education is not regarded as obvious everywhere, with the work of support staff being regarded in many countries as something that can be carried out by people with vocational skills [91].

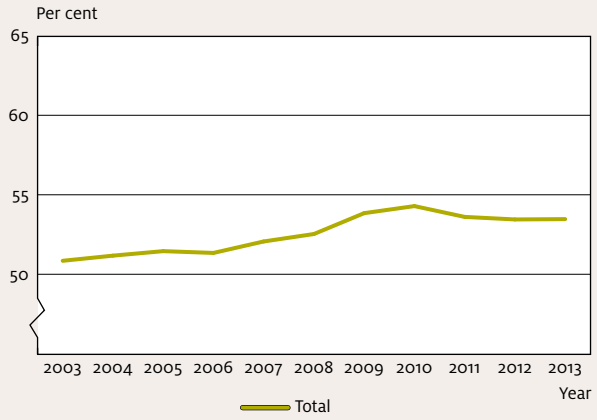
In Sweden, a clear difference is noticeable between municipal and independent preschools in terms of the proportion of staff with teaching qualifications. The proportion of qualified preschool teachers is clearly higher in municipal preschools than in independent preschools – a difference that has become more marked in the past ten years [88].

This measure shows the number of full-time equivalent employees in preschools with preschool teaching qualifications, recreational instructor qualifications or teaching qualifications, divided by the number of full-time equivalent employees in preschools. All employees in preschools who work with children are considered when calculating the number of full-time equivalent employees (excluding cleaning and kitchen staff).

In 2013, an average of 53.3 per cent of employees in preschools had some form of teaching qualification. However, there are large differences between counties, with this proportion varying between 37 and 74 per cent. There are also large differences between municipalities. The proportion of employees in preschools with teaching degrees in Sweden has remained relatively stable for some time, aside from the years 2000–2008, when the proportion was somewhat lower.

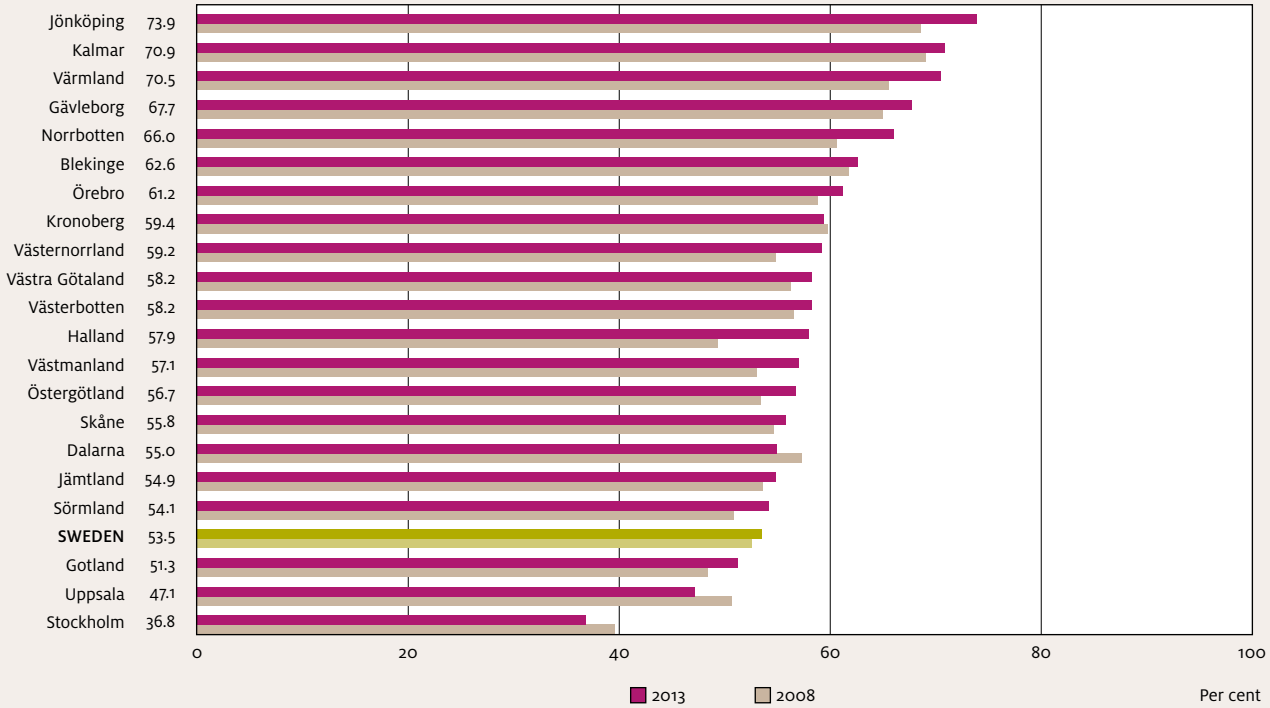
To comply with the curriculum, staff must have a good knowledge of childhood development and learning and the ability to adapt the educational environment to the requirements that exist. Preschools with qualified and experienced staff are well placed to do this. The Education Act stipulates that the principal has to ensure that staff in preschools have the opportunity to take part in in-service training. They have to then chart and analyse the requirements for in-service training on the basis of staff needs and in relation to the role of preschools. Long-term, sustainable quality improvement is dependent on the in-service training being based on both the development requirements in preschools and research and proven experience [90].

FIGURE 16.1 – SWEDEN: Employees within preschools with formal teacher training.



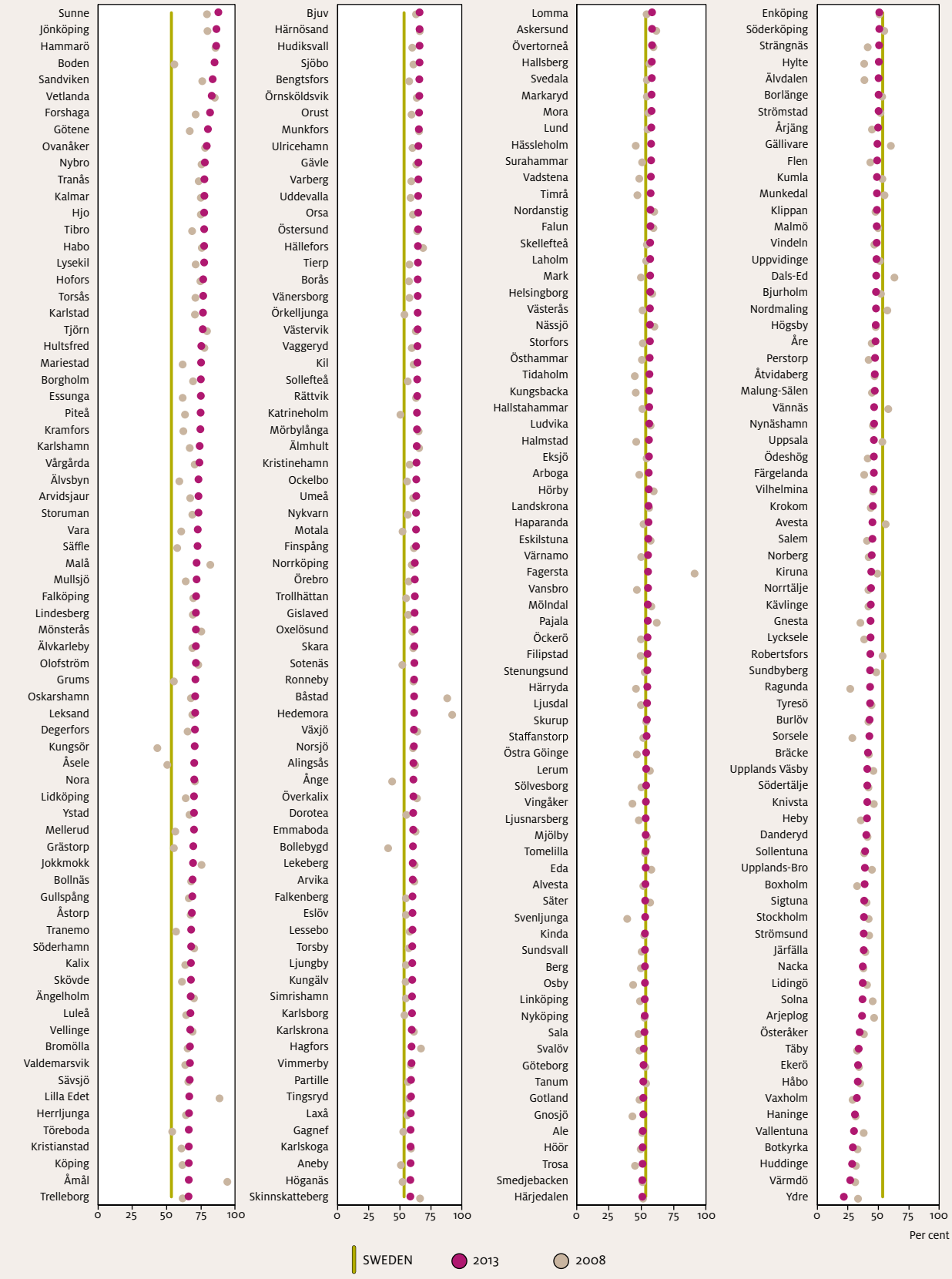
Source: The Swedish National Agency for Education.

DIAGRAM 16.2 – REGIONS: Employees within preschools with formal teacher training, 2013.



Source: The Swedish National Agency for Education.

FIGURE 16.3 – MUNICIPALITIES: Employees within preschools with formal teacher training, 2013.



Source: The Swedish National Agency for Education.

Education, work and self-sufficiency

Education has a very important impact on young people's future opportunities. Completing compulsory school is essential if they are to go on to upper-secondary school, which is now usually a basic requirement for finding work. Education and work are factors that protect against social problems, unemployment and ill-health.

In addition, there is an inverse relationship between education, work and health, in that health has an impact on the chances of being successful in school, of completing further study programmes and finding work. The overall goal of Swedish public health policy is to create the conditions for good health and the challenge is to create this for all, regardless of socioeconomic circumstances. Financial aid and unemployment have been identified as risk factors that can have a detrimental impact on health development and thus also increase the burden of disease.

17. ELIGIBILITY FOR UPPER SECONDARY SCHOOL

Education is one of the most important prerequisites for young people's future opportunities. The earlier someone concludes their education, the worse their future prospects tend to be and adults who have only completed compulsory school have considerably fewer opportunities in the labour market. A higher educational level also reduces an individual's risk of early death, ill-health and psychosocial problems such as criminality, abuse, self-harm and difficulties supporting themselves financially [92].

Education can have an impact on health through several mechanisms such as lower health risk in the workplace, higher incomes and less financial vulnerability and stress. Education can also have an impact on people's way of life and make them better equipped to find and take in information about, for example, health-related behaviour [41]. Accordingly, spending money on schools and children's education can be seen, from a public health perspective, as an investment and is an important aspect of early interventions aimed at preventing ill-health.

There are strong links between socioeconomic background and children's grades in compulsory school, and it is mainly the parents' educational level that has a major importance in terms of the children's results. Not being eligible for upper-secondary school is also more common among the children of non-professionally qualified workers than among the children of more senior professionals [92].

The indicator shows the proportion of pupils eligible for the national vocational programmes at upper-secondary school, which is the lowest level of eligibility. The eligibility requirements are a minimum of a pass in the subjects Swedish or Swedish as a second language, English and mathematics, as well as five other subjects. The data is based on the municipality in which the pupils are registered as residents.

In 2013, 87.6 per cent of the pupils in year 9 were eligible to apply to a vocational programme. This means that about 12 per cent of those pupils who finished compulsory school in spring 2013 had not achieved the eligibility requirements. A higher proportion of girls than boys achieved the eligibility requirements. The results also show that the eligibility rate for upper-secondary school varies between counties and between municipalities. The proportion of pupils who achieve eligibility for upper-secondary school has decreased slowly over the course of large parts of this century [41].

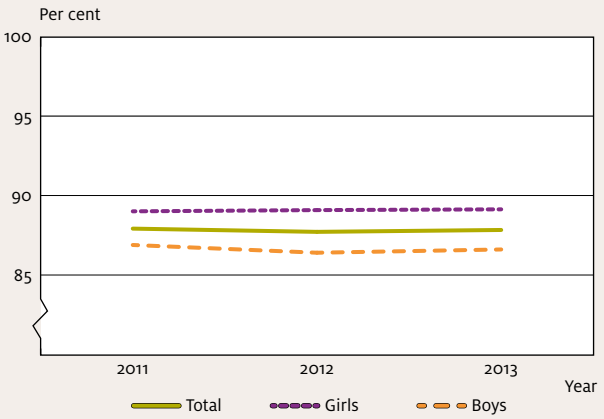
Municipalities are responsible for providing schools, within the framework set out in the Education Act, curricula and other regulations. They determine how schools are to be organised and also have to ensure that schools have the resources, prerequisites and opportunities required.

If the proportion eligible for upper-secondary school is to be increased, it is important that absenteeism in compulsory school is reduced and that pupils who need additional support actually receive it. A wide-ranging collaboration between organisations with clear procedures has been shown to succeed in terms of reducing school absenteeism [93]. Absenteeism is often an indication of psychosocial problems and investigating its causes can result in pupils being given the right support. In some cases

an intervention in school such as a motivational coaching discussion is sufficient, while other pupils may require extensive interventions that involve social services or paediatric and adolescent psychiatric services.

Schools should work to identify and capture those pupils who are performing poorly and are at risk of not achieving the goals at an early stage. Many schools currently offer after-school homework support and some also offer extra teaching in holidays to provide specific support and assistance led by qualified teachers. In this way, pupils with high rates of absenteeism can get the opportunity to catch up. Encouraging school attendance and supporting pupils who are in need of this is both a social and a financial investment for society. The earlier the intervention, the greater the chance of it being successful.

FIGURE 17.1 – SWEDEN: Pupils in grade 9 in compulsory school qualifying for upper secondary school to the national vocational programmes.



Source: The Swedish National Agency for Education, Statistics Sweden.

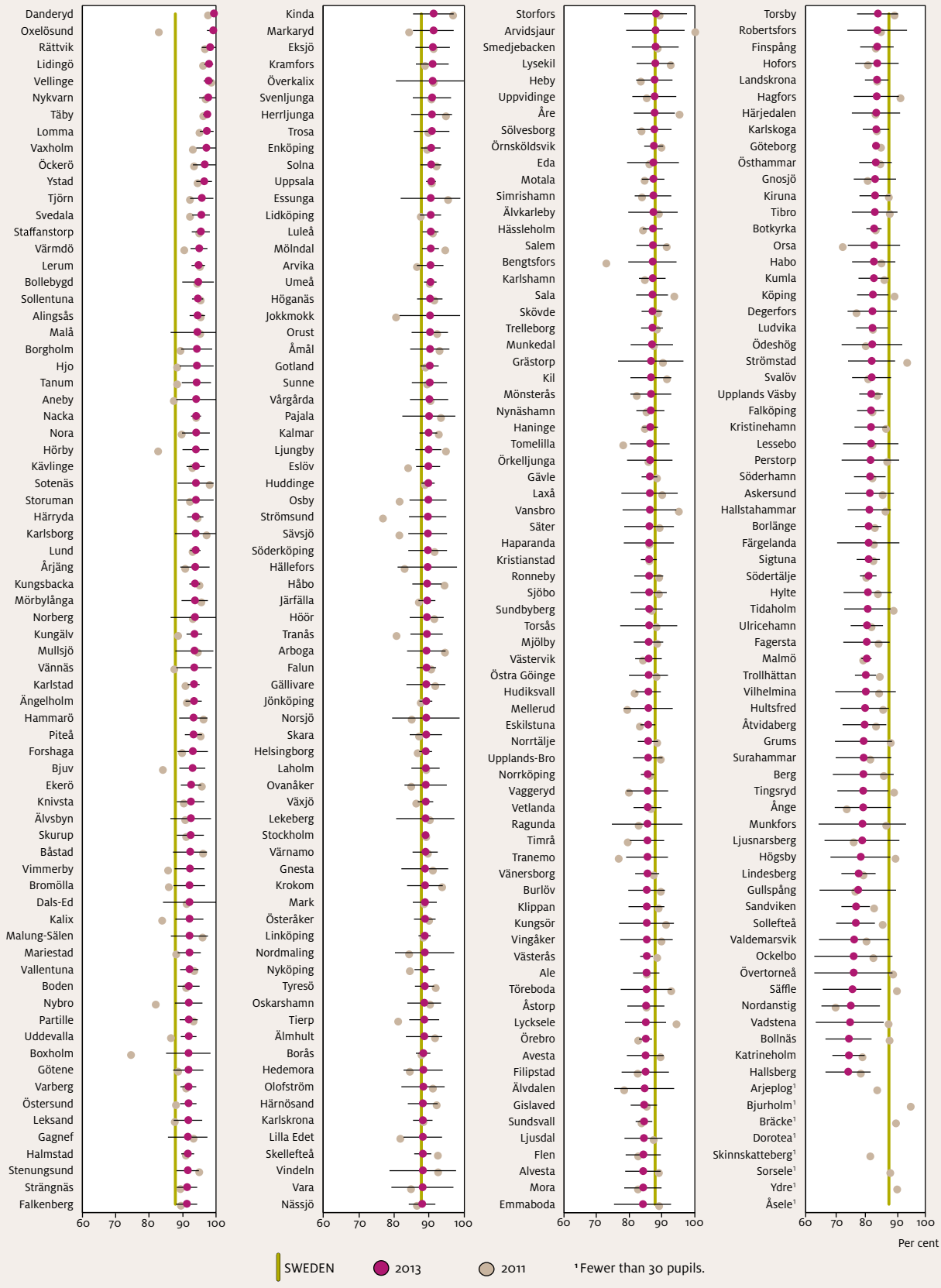
FIGURE 17.2 – REGIONS. GIRLS: Pupils in grade 9 in compulsory school qualifying for upper secondary school to the national vocational programmes, 2013.

Source: The Swedish National Agency for Education, Statistics Sweden.

FIGURE 17.3 – REGIONS. BOYS: Pupils in grade 9 in compulsory school qualifying for upper secondary school to the national vocational programmes, 2013.

Source: The Swedish National Agency for Education, Statistics Sweden.

FIGURE 17.4 – MUNICIPALITIES: Pupils in grade 9 in compulsory school qualifying for upper secondary school to the national vocational programmes, 2013.



Source: The Swedish National Agency for Education, Statistics Sweden.

18. COMPLETED UPPER-SECONDARY EDUCATION

Education is an important factor protecting against social problems and a low educational level increases the risk of, for example, unemployment, financial difficulties, exclusion and mental ill-health. Completed upper-secondary education provides additional options in the form of further studies and better opportunities in the labour market. A lack of education, combined with early unemployment, also increases the risk of long-term difficulties entering the labour market. Given the strong link between educational level and health described in previous sections, with education having been shown to have an impact on health through several mechanisms, there is much to indicate that a lower educational level can lead to worse health.

Swedish upper-secondary education differs from its equivalent in other European countries. Since the upper-secondary school reform at the beginning of the 1990s, all young people in Sweden have had the right to study at upper-secondary school, regardless of their grades in compulsory school. However, those who have not passed mathematics, Swedish and English are referred to one of the upper-secondary school individual introductory programmes. This has led to nearly all young people – over 99 per cent – choosing to study further after compulsory school. At the same time, it has become more common to drop out of education. A pupil's parents' educational level and ethnic background are factors that have been shown to be of great significance to how successful they are in upper-secondary school [94].

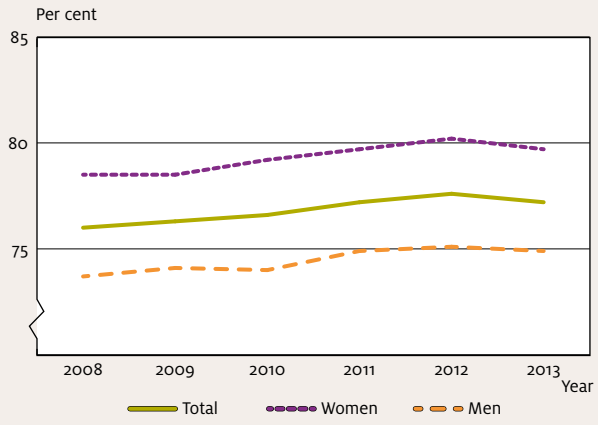
The indicator shows the proportion of pupils registered as resident in the municipality in year 1 of upper-secondary school who have completed a programme within four years. This encompasses the proportion of pupils in year 1 of all upper-secondary school programmes on 15 October 2009 who were not in upper-secondary school the two previous years and who received a leaving certificate from a programme in 2013 or earlier.

In Sweden, an average of just over three quarters of the pupils who begin upper-secondary school completed their upper-secondary school studies within four years, which is a slightly higher proportion than in 2009.

However, there are large variations between different counties and between different municipalities and a higher proportion of women than men who completed their studies within this period.

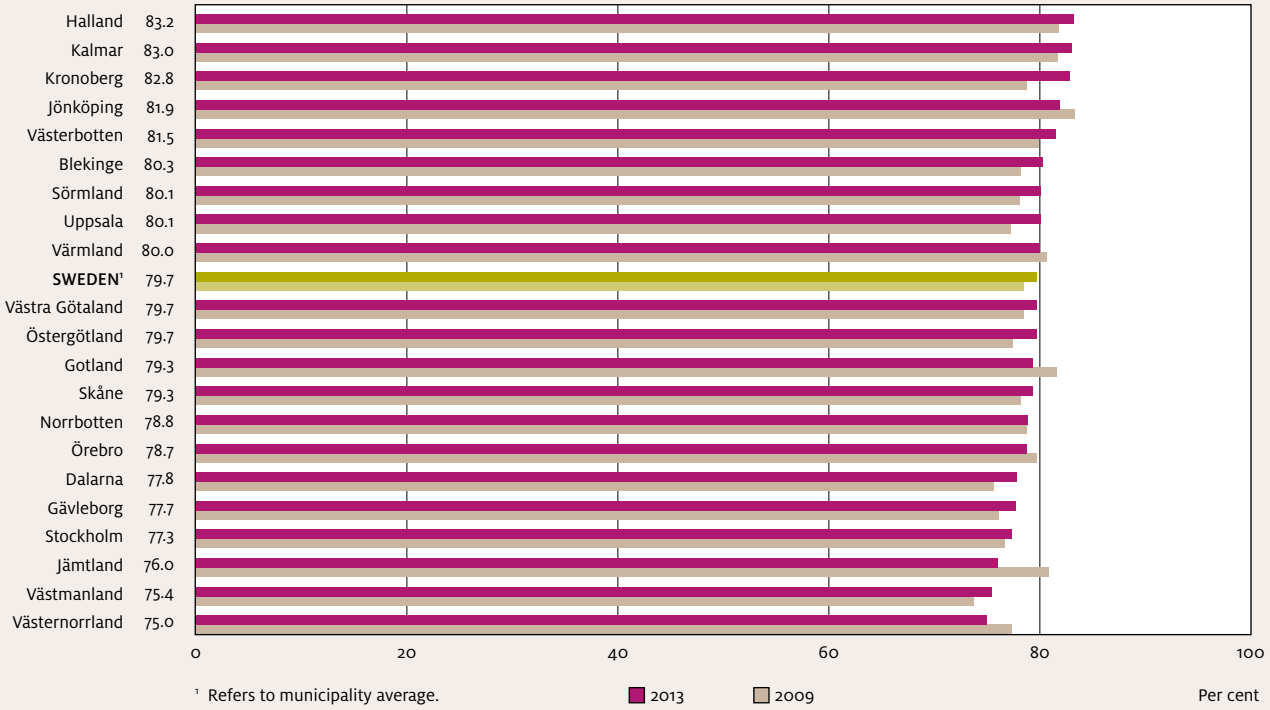
Although upper-secondary school is voluntary, there are strong grounds for the municipalities to assist pupils in completing their upper-secondary education as this has an impact on individuals' chances of finding work, going on to further education and participating in society. Young people aged 16–19 who neither work nor study are covered by the municipalities' information liability. This means that the municipalities must ensure they have information about what young people who are not attending upper-secondary school are doing and offer them appropriate individual interventions. Many use specific employment projects to help young people find jobs. It is a challenge for society to get those young people who are thinking of dropping out of upper-secondary school or who have already done so to go back to school. The project Plug-In, which is a partnership between SALAR, five regions and about 50 municipalities and is partly funded by the EU, has been underway since 2012. The aim is to capture those pupils who are at the most risk of dropping out of upper-secondary school and motivate those young people who have dropped out to return to school and complete their studies. The project runs for several years and has still not been fully evaluated. However, some factors linked to success are a comprehensive focus on the pupil, a reinforced connection to the school and flexibility with respect to organisation and teaching content [95].

FIGURE 18.1 – SWEDEN: Pupils who completed an upper-secondary school programme within 4 years (municipality averages).



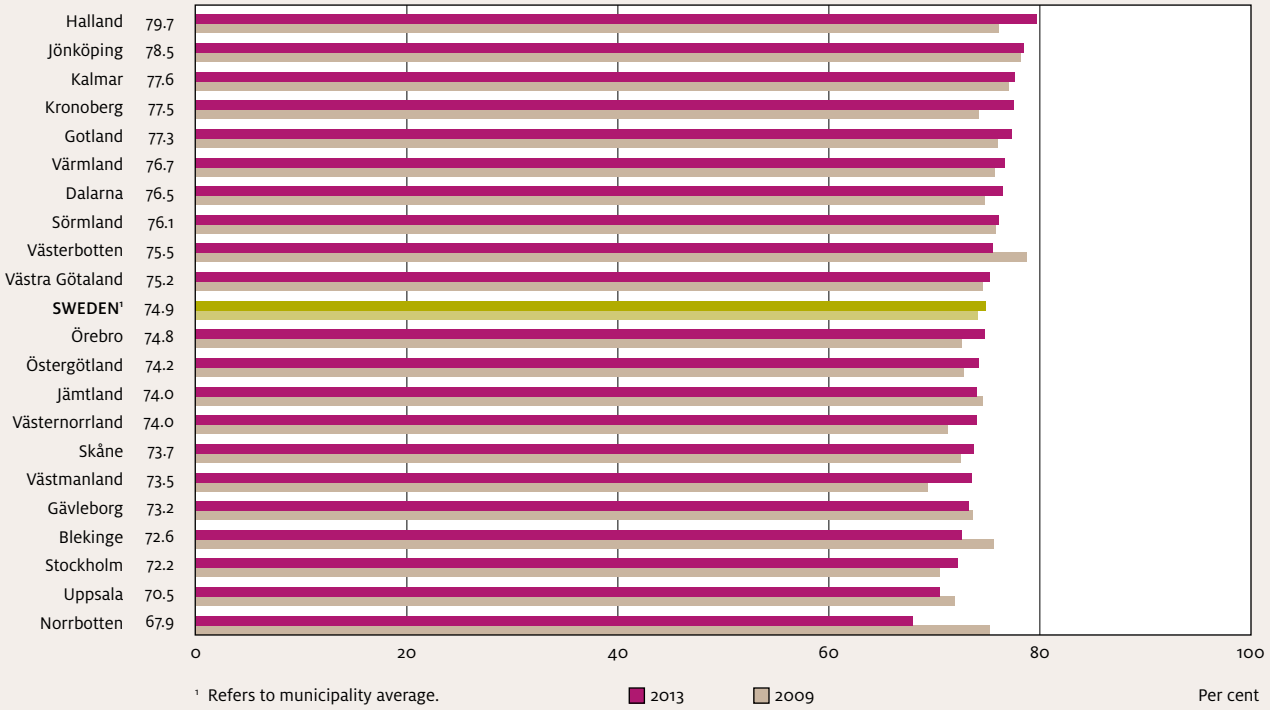
Source: The Swedish National Agency for Education, Statistics Sweden.

FIGURE 18.2 – REGIONS. WOMEN: Pupils who completed an upper-secondary programme within 4 years, 2013.



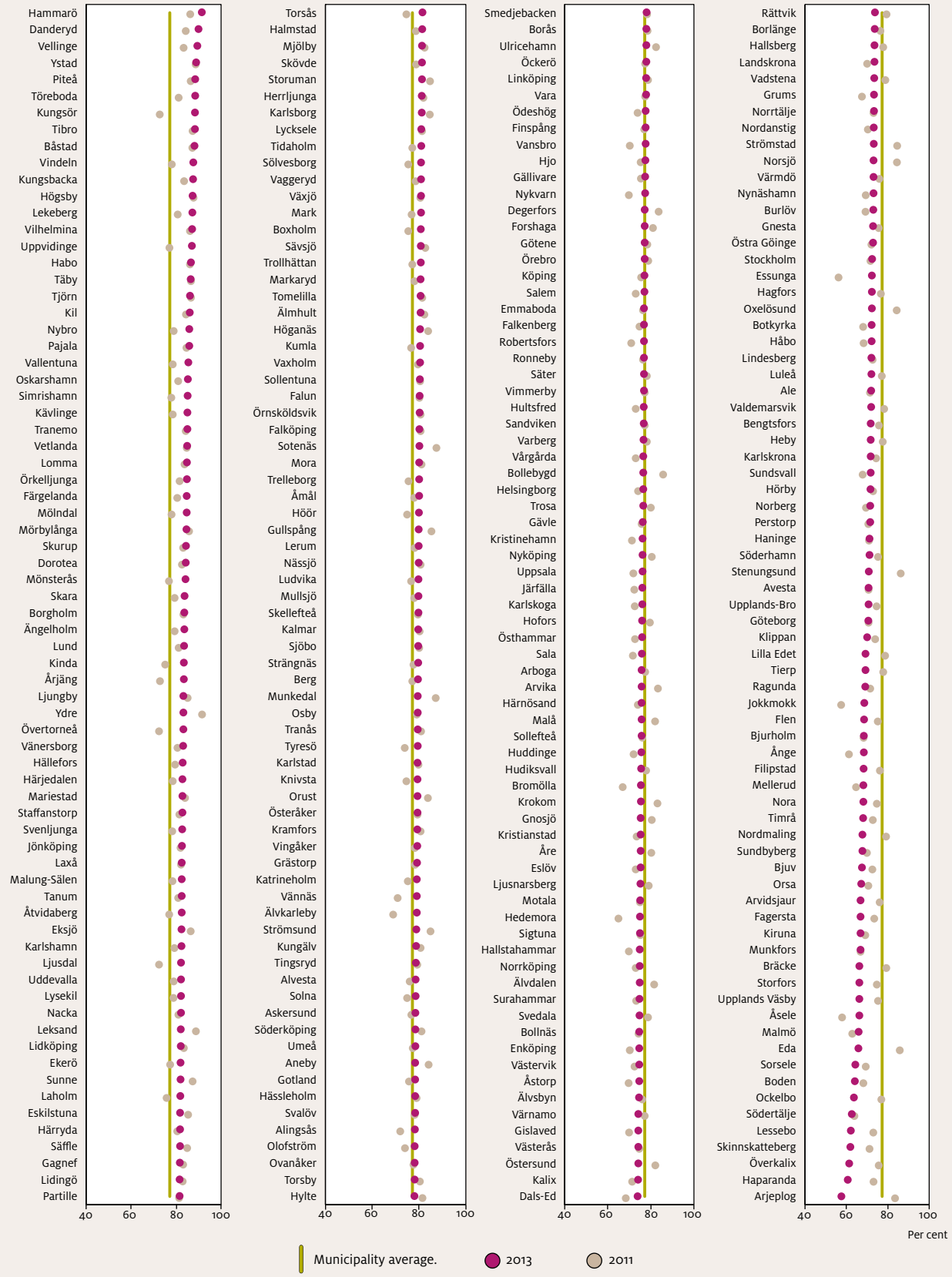
Source: The Swedish National Agency for Education, Statistics Sweden.

FIGURE 18.3 – REGIONS. MEN: Pupils who completed an upper-secondary programme within 4 years, 2013.



Source: The Swedish National Agency for Education, Statistics Sweden.

FIGURE 18.4 – MUNICIPALITIES: Pupils who completed an upper-secondary programme within 4 years, 2013.



Source: The Swedish National Agency for Education, Statistics Sweden.

19. YOUNG PEOPLE WHO NEITHER WORK NOR STUDY

Education and employment are two of the most important factors that protect health by giving people increased opportunities to influence their own lives. Youth unemployment is considerable higher than unemployment among older people and has also increased [12]. In addition, youth unemployment is higher in Sweden than in other countries such as Norway and Denmark [12]. Studies show that the longer a person is out of work, the greater the risk of, for example, social problems and that they are not able to establish themselves in the labour market.

High youth unemployment also has an impact on those who are working as the fear of unemployment increases and, according to the Public Health Agency of Sweden, this is particularly prevalent among young women [12]. The link between unemployment and ill-health is well-known [97], but because young people belong to the healthiest portion of the population, it can be difficult to see any tangible changes in the health of this group [98]. Nevertheless, it is possible to see the consequences for the determinants of health, particularly in terms of lifestyle and living habits such as smoking and alcohol use. In addition, negative consequences manifest as mental problems [98]. With respect to the entire lifespan, there are studies that show early unemployment doesn't just increase the risk of later unemployment, it also increases the risk of health problems and unhealthy lifestyle habits, which can lead to both physical and mental ill-health in the long-term [98]. For example, the National Board for Youth Affairs has implemented a further analysis of the results of the national public health survey and this indicates that it is considerably more common for young unemployed people to be sedentary than those who are working [99].

There have been many changes in recent decades that have affected the young. Among these, the age at which young people establish themselves in the labour market has increased, partly due to increased requirements for education, unemployment is at a higher level overall and the labour market has become more unstable, with young people's jobs often being short-term and temporary [100]. The labour market establishment pattern in Sweden differs from that of many other European countries in that many young people in Sweden have short-term jobs interspersed with short periods of unemployment. With time, however, these jobs can lead to permanent employment. Those young people who do not start upper-secondary school or drop out of it currently have major difficulties finding work [100].

There are several studies that have investigated upper-secondary school drop-out among young people, most of which have a qualitative focus [101, 102]. These studies are often interview-based and have contributed to increasing our understanding of the mechanisms underlying drop-out, but more studies are needed in this area, both qualitative and quantitative [101, 102].

This report studies the incidence of young people aged 16–25 who neither work nor study. The measure used by Theme Group Youth (Mucf) [103], which was previously proposed by the central government commission of inquiry in this area [100], is used here. In order to be included in the group of those who neither work nor study, the individual must, over the course of a complete calendar year:

- not have had an income over the base amount
- not have been in receipt of student aid, been registered on some form of education or training programme or have studied Swedish for immigrants (SFI) for more than 60 hours
- not have commuted for work to Norway or Denmark

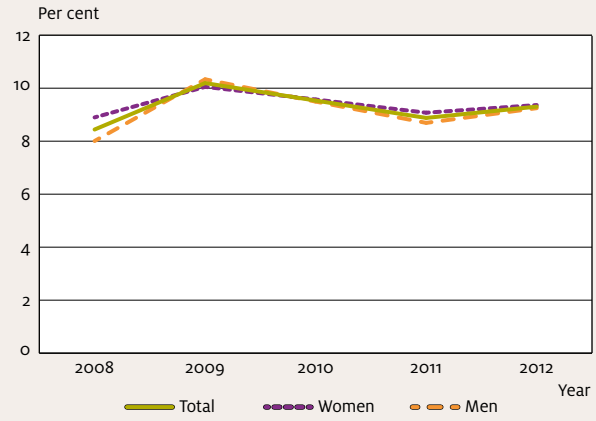
This measure is similar to that used in Europe, called NEET (not in education, employment or training) [103]. When analysing the results, please observe that the group also includes individuals who are, for example, taking sabbaticals or studying abroad [93, 103].

In conjunction with debates concerning the labour market and employment, a large number of different levels of youth unemployment are often presented, which is partly due to the groups of individuals that are included in the statistics (students, short-term jobs, register data, interviews, etc.) and partly due to the group with which this is compared (the entire population, the entire labour force, and the proportion of those who are unemployed). There continues to be a need to develop and complement this data at the national, regional and local level.

The national trend has varied somewhat, with a temporary peak in the recession year 2009. The results for 2012 show that 9.3 per cent of women and men aged 16–25 neither worked nor studied. The results vary between municipalities and there is a difference in 9 percentage points between the highest and the lowest proportions. At the county level, the variation is 4 percentage points, for both women and men.

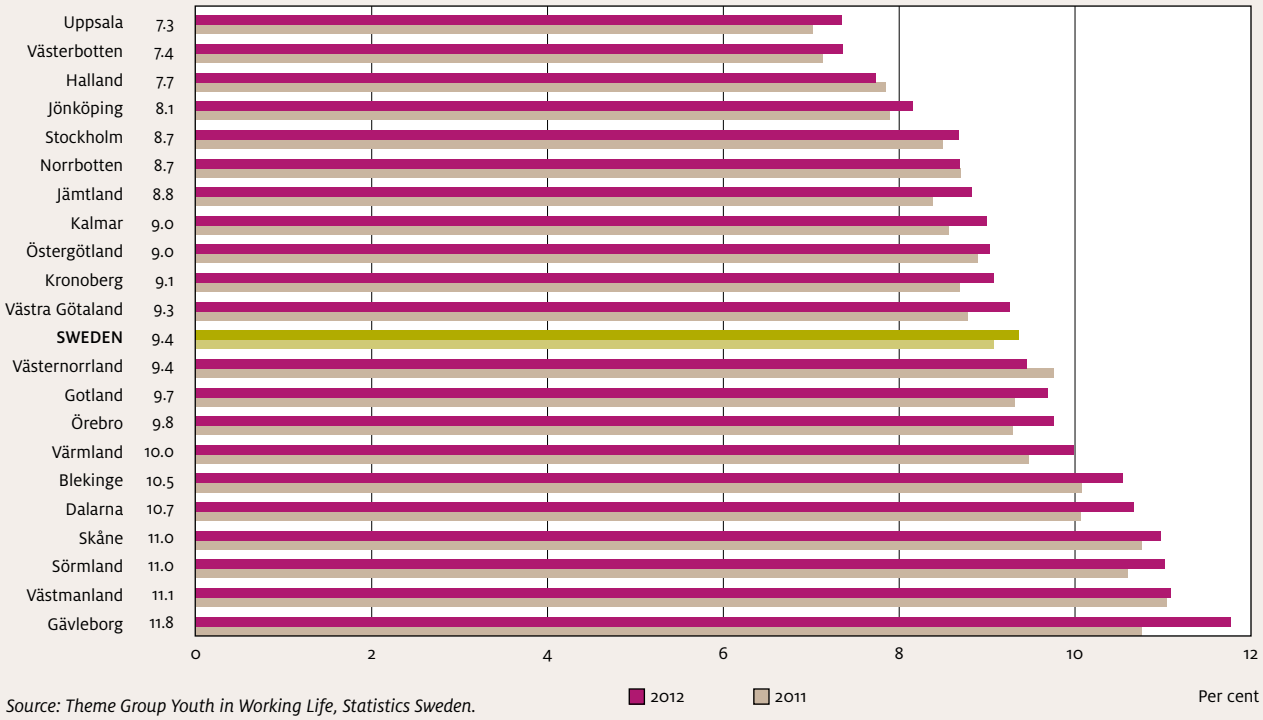
There are several areas for improvements, and these can involve everything from having an working method that encourages everyone to complete compulsory school and upper-secondary school, to providing assistance to those who are not achieving goals or are at risk of dropping out of upper-secondary school. As noted in the previous section, the development project Plug-In is currently underway and its aim is to support pupils who have dropped out or are considering dropping out of upper-secondary school. In addition to such initiatives, there needs to be more local cooperation between the enterprise sector, municipalities and schools. Not least to help the programmes available in school better reflect the needs and circumstances of the labour market. The causal link between unemployment and ill-health goes both ways; accordingly, unemployment can lead to ill-health, just as impaired health reduces the chances of finding a new job. It is therefore important to assist those who are unemployed find a new job as quickly as possible.

FIGURE 19.1 – SWEDEN: Individuals (16–25 years old) who neither work nor study during a full calendar year.



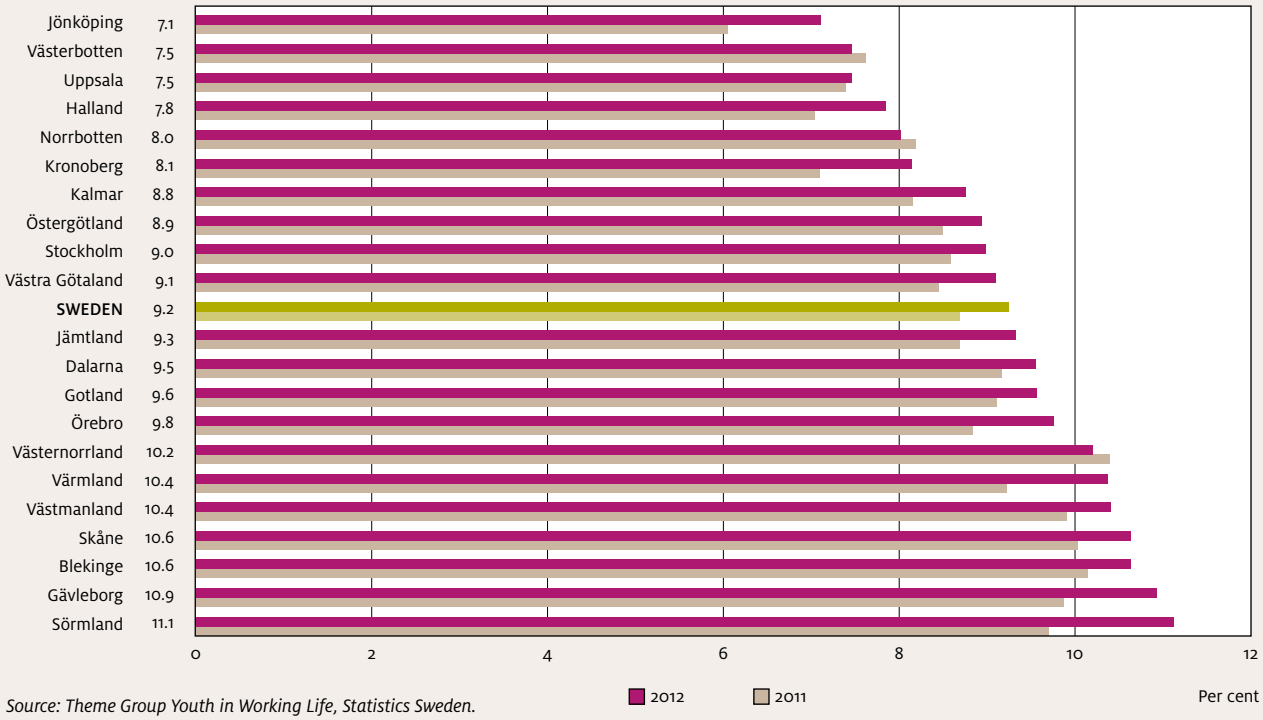
Source: Theme Group Youth in Working Life, Statistics Sweden.

FIGURE 19.2 – REGIONS. WOMEN: Individuals (16–25 years old) who neither work nor study during a full calendar year, 2012.



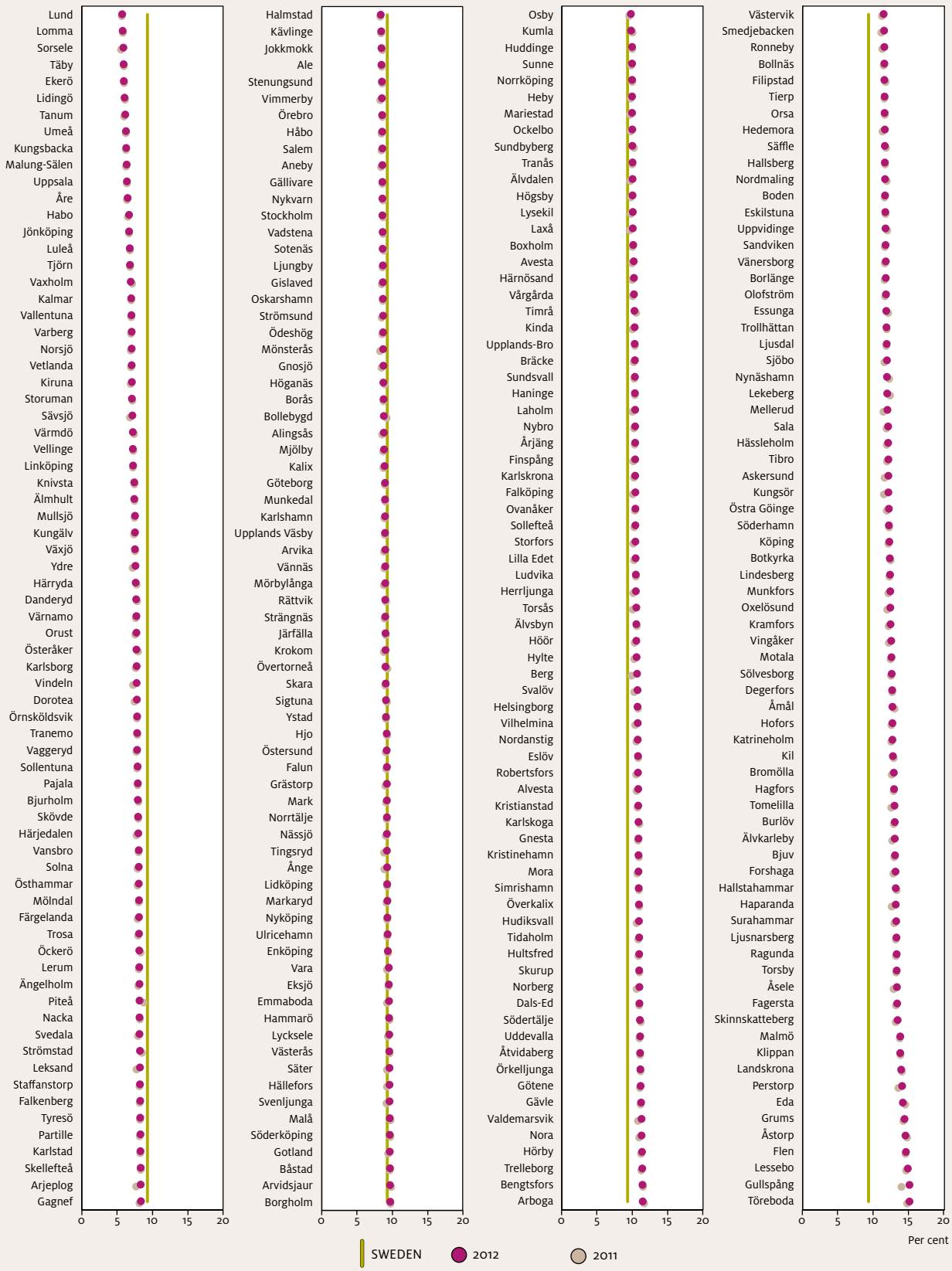
Source: Theme Group Youth in Working Life, Statistics Sweden.

FIGURE 19.3 – REGIONS. MEN: Individuals (16–25 years old) who neither work nor study during a full calendar year, 2012.



Source: Theme Group Youth in Working Life, Statistics Sweden.

FIGURE 19.4 – MUNICIPALITIES: Pupils who completed an upper-secondary programme within 4 years, 2013.



Source: Theme Group Youth in Working Life, Statistics Sweden.

20. LONG-TERM UNEMPLOYMENT

The link between unemployment and ill-heath is well-known – unemployment can contribute to ill-heath and ill-health can contribute to unemployment [12, 97, 98]. Unemployment can increase the risk of developing unhealthy lifestyle habits and reinforce those that are already established [12]. Studies also show that unemployment increases the risk of mental ill-health and cardiovascular disease [12]. In subsequent studies, cardiovascular disease may also be explained by causes other than unemployment specifically [104]. The most well-researched area is the connection to mental ill-health (stress, anxiety, psychosomatic symptoms, etc.) [104], with studies having shown, for example, that the unemployed are twice as likely to have mental problems, compared with those who work [98]. Nevertheless, there is also research into the effects of unemployment on physical health that shows a clear link to ill-health in both cross-sectional analyses and longitudinal studies [98]. However, it is not just the unemployed who can be affected by ill-health; their children are also more likely to suffer from ill-health than other children [96].

There are several theories as to why unemployment can lead to ill-health. While earlier studies focused on the link to finances, more recent studies have focused more on factors such as stress and having less control over one's own life [98]. Other research links the causes to identity, status and opportunities to interact with others [98, 105]. Longitudinal studies confirm the incidence of mental ill-health among the unemployed, but also that their mental health improves significantly when they return to work [12, 104].

It is more common for individuals who only have a pre-upper-secondary education to be unemployed than those who have a higher educational level, and for women to have a somewhat lower employment rate than men [12]. Long-term unemployment is also more common among individuals with various forms of disability who have considerably more trouble establishing themselves in the labour market, particularly if they have attended a special school. An international comparison shows that there are large differences in Sweden in terms of the proportion of unemployed young people, compared with the rest of the population, and the number of those born abroad who are unemployed, compared with those born in Sweden [106]. In addition to educational background, the risk of unemployment is greater for those who have previously been unemployed or have been in receipt of financial assistance [106].

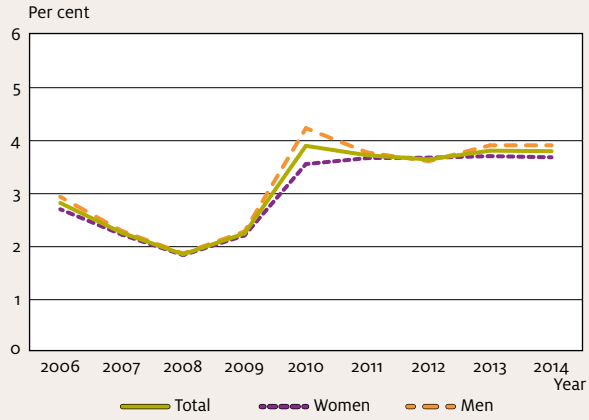
The measure used for long-term unemployment in this report is the proportion of the population who have been unemployed for six months or more. It is common for other reports to instead use the proportion of long-term unemployed in relation to the group of those who are unemployed.

Long-term unemployment in the population has increased considerably since the comparison year 2009, but the increase has levelled off and is now at the same level as in 2013, i.e. 3.8 per cent at the national level. However, these results do not show whether the group is changeable – whether it contains new people who have become long-term unemployed as others have found work, or the same people who remain long-term unemployed.

The distribution within the country is large and long-term unemployment at the county level is 2.4–5.5 per cent of the population for 2014. This is considerably higher than in 2009 and the distribution within the country is also greater. The variation becomes even greater when comparing municipalities. Long-term unemployment in the municipalities has increased since 2009, at the same time as the variation between municipalities has increased. The variation between municipalities is large.

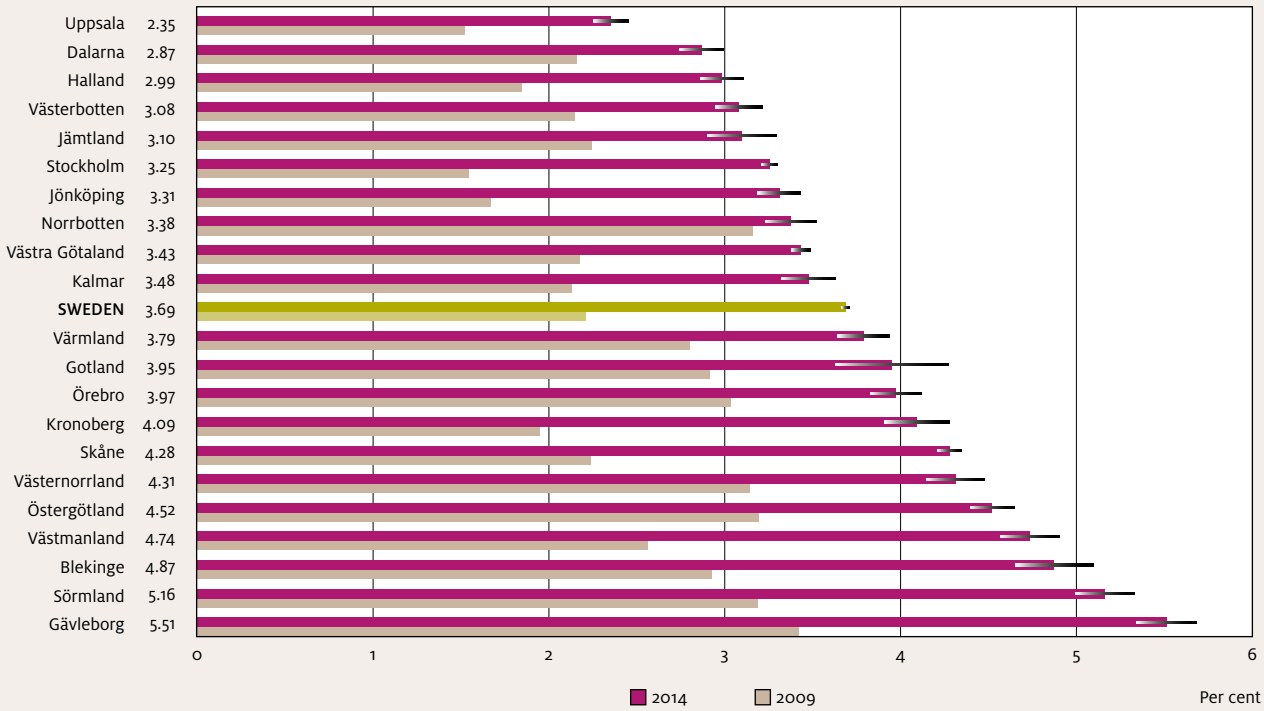
Central government, county councils, municipalities and labour market stakeholders need to become more involved in order to reduce the risk of individuals ending up in long-term unemployment (through education, training and other forms of support), as well as to reduce the risk of ill-health in this population. Interventions targeted at individuals who only have pre-upper-secondary education should be given special priority [97]. The municipality can also establish partnerships with the local enterprise sector. Other important stakeholders are the voluntary sector and social enterprises, which work to help integrate people into the labour market.

FIGURE 20.1 – SWEDEN: Individuals in the population aged 25–64 years old who have been registered as unemployed or in programmes with activity support for at least six months.



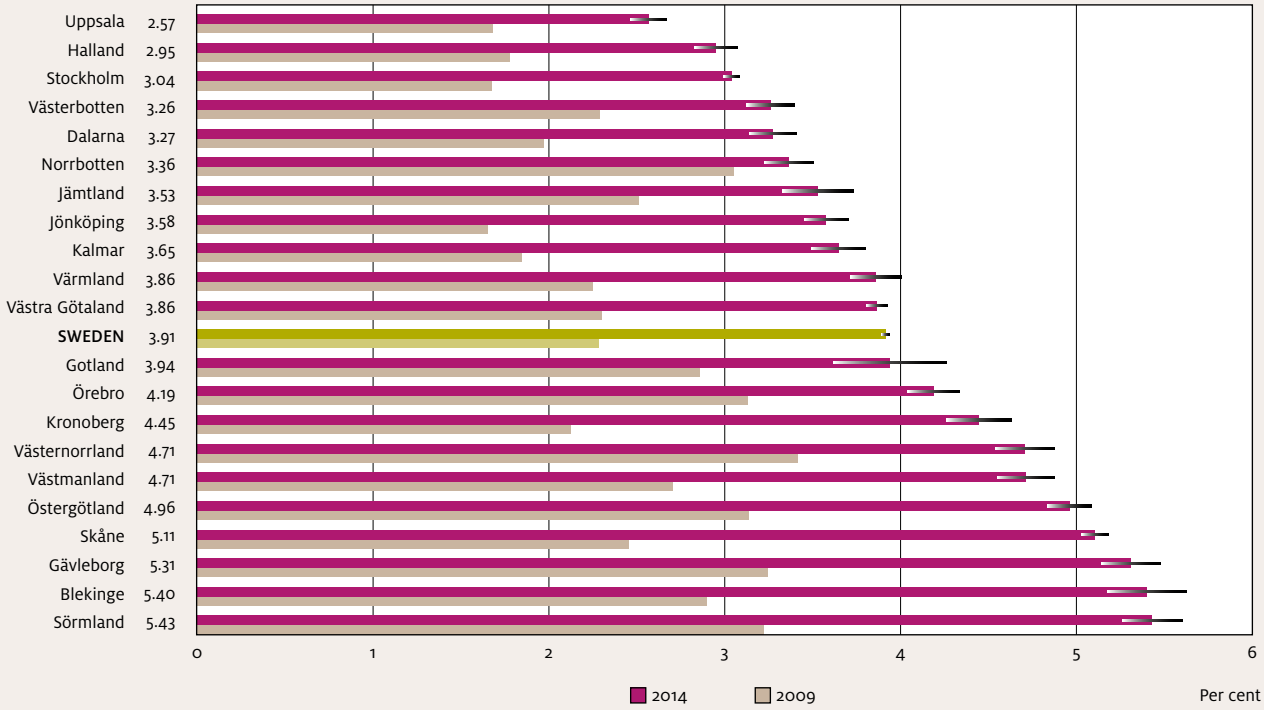
Source: The Swedish Public Employment Service.

FIGURE 20.2 – REGIONS. WOMEN: Individuals in the population aged 25–64 years old who have been registered as unemployed or in programmes with activity support for at least six months, 2014.



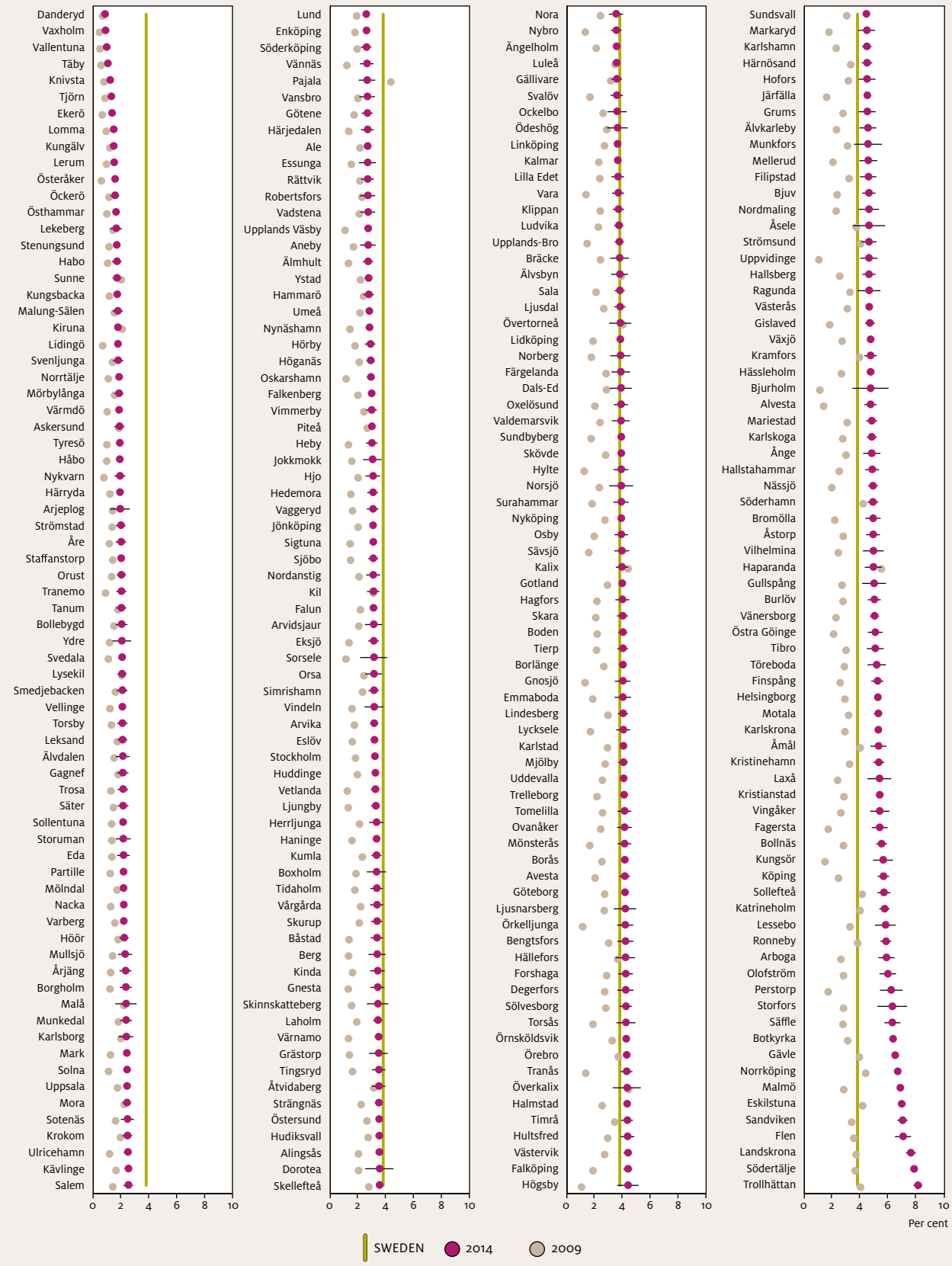
Source: The Swedish Public Employment Service.

DIAGRAM 20.3 – REGIONS. MEN: Individuals in the population aged 25–64 years old who have been registered as unemployed or in programmes with activity support for at least six months, 2014.



Source: The Swedish Public Employment Service).

FIGURE 20.4 – MUNICIPALITIES: Individuals in the population aged 25–64 years old who have been registered as unemployed or in programmes with activity support for at least six months, 2014.



Source: The Swedish Public Employment Service.

21. LONG-TERM ASSISTANCE

Assistance is an economic aid under the Social Services Act and is a part of the welfare system in municipality. The assistance is a protection that comes into place if an individual is unable to receive unemployment insurance

or otherwise unable to support themselves. The proportion of the population who are in receipt of assistance has not changed much, while the statistics show that the proportion of those receiving assistance who do so in the long-term continues to increase [107]. Unemployment is the most common reason why individuals are unable to support themselves financially and require assistance. Young single mothers and people born abroad are over-represented among those receiving assistance.

A long-term requirement for assistance can make it more difficult to gain a permanent foothold in the labour market, with may also mean that the individual's health deteriorates [107].

The indicator reflects the proportion of all adults in receipt of assistance (18 years and older) who received long-term assistance (10–12 months over the course of the year). According to Chapter 4, Section 1 of the Social Services Act, applicants will receive such assistance as provides a reasonable standard of living, which means this is a relatively small amount compared to families who have the means by which to support themselves. Changes to income levels in recent years have resulted in a large difference between those who are receiving assistance and the rest of society [60]. Close to 37 per cent of the total amount of assistance in Sweden is provided to people who are in receipt of long-term assistance.

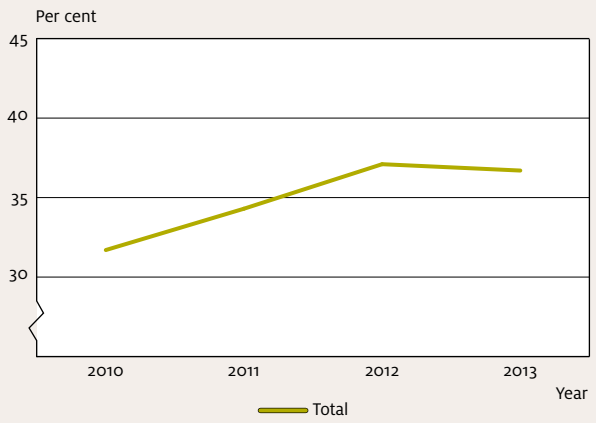
When analysing this indicator, it is important to also take into account the proportion of the total population who are receiving assistance, as municipalities with plentiful resources may, for example, have a high proportion of long-term assistance recipients at the same time as the proportion of the total population in receipt of assistance in the municipality is low.

The proportion of the total population in receipt of assistance in the municipality gives an indication of the proportion of the population who are financially vulnerable. At the municipal level, the distribution of the proportion of assistance recipients is quite large, which is illustrated in the latest edition of *Regional Comparisons of Assistance 2014* [107].

In terms of the distribution between counties, the major city regions have a higher proportion of long-term assistance recipients and the distribution at the municipal level is very large.

Long-term assistance is an important indicator to monitor in the field of public health, together with changes to

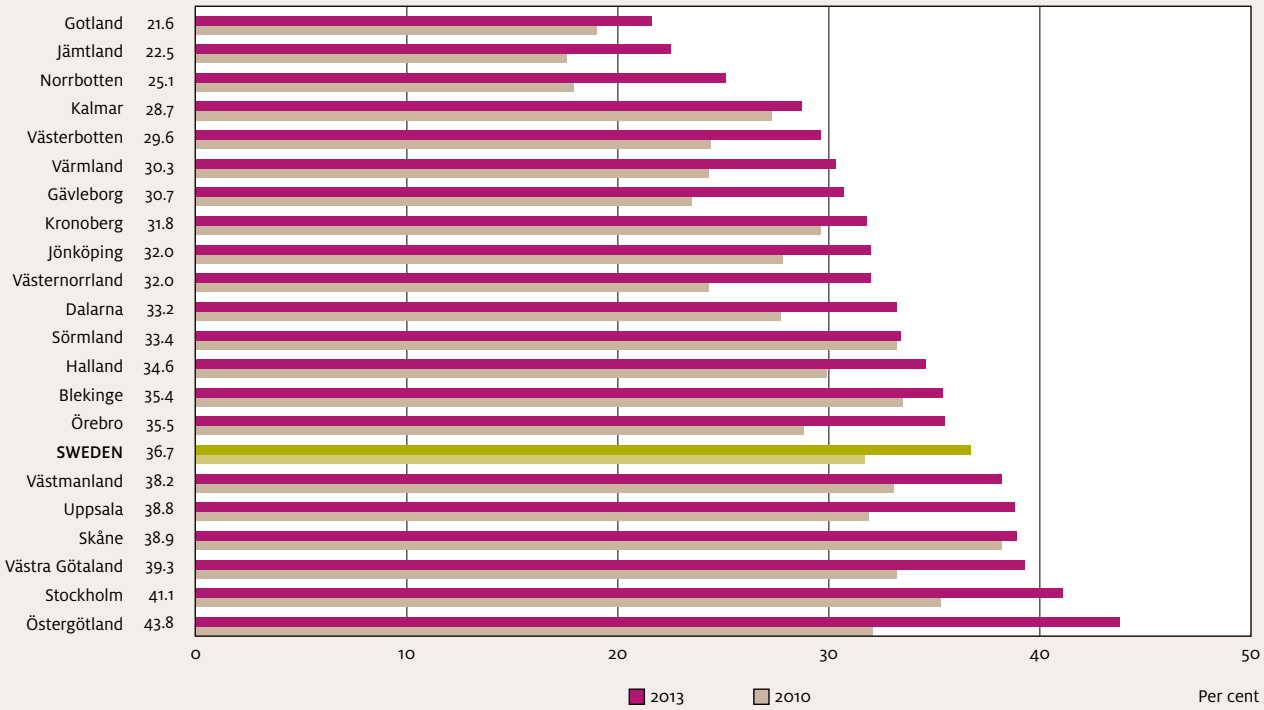
FIGURE 21.1 – SWEDEN: Individuals aged 18 and older who has received long-time assistance (10–12 months of the year).



Source: The Social Assistance Register, the National Board of Health and Welfare.

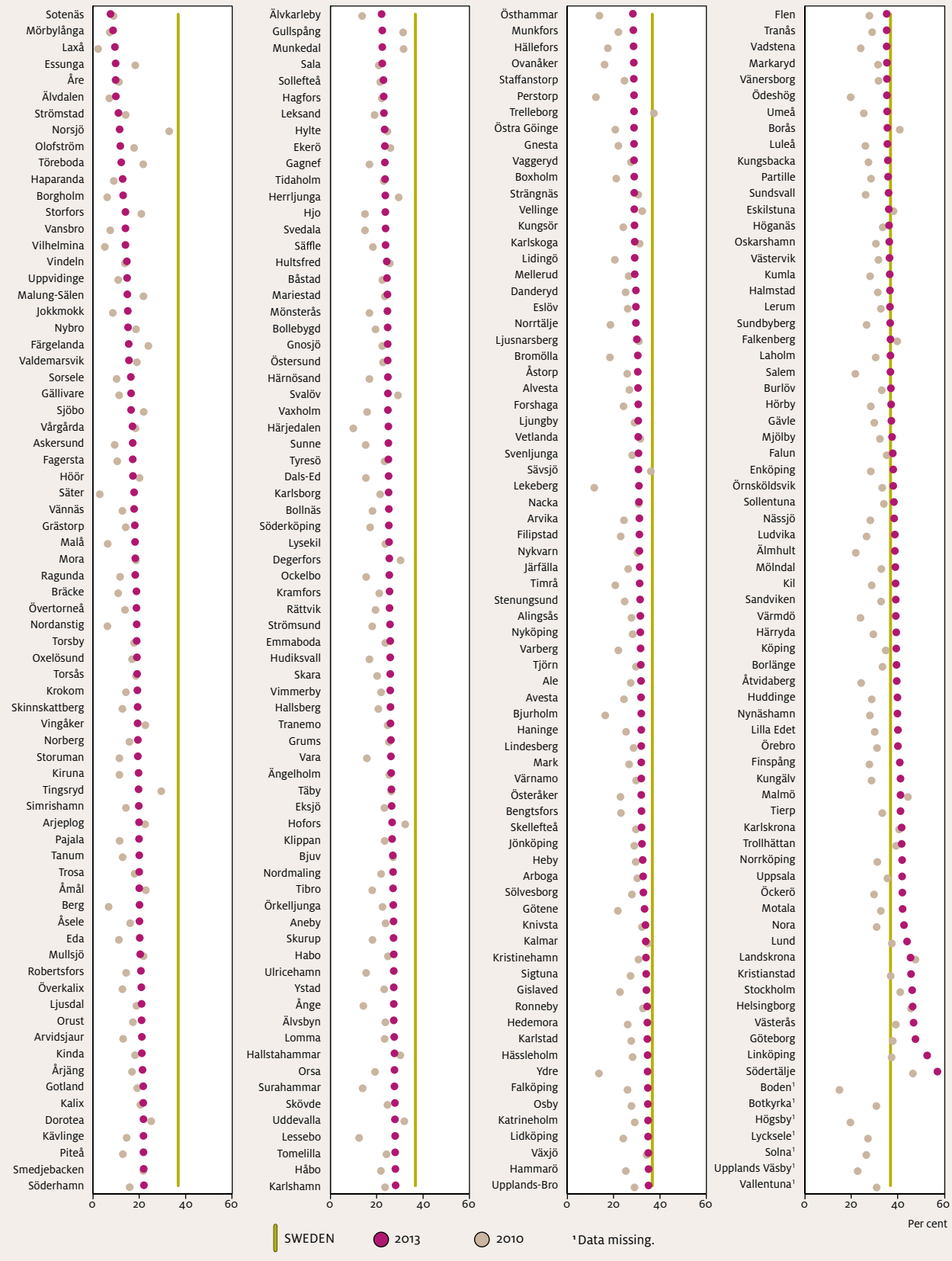
long-term unemployment as this is the primary reason why people apply for assistance. Individuals in receipt of long-term assistance may have a greater requirement for health promotion interventions, compared to other groups. Arbetsförmedlingen (the Swedish public employment service), social services, the Swedish Social Insurance Agency and primary care services are other important stakeholders in this context. These organisations' ability to collaborate and coordinate their efforts can have a major impact on the chances of achieving satisfactory societal effects that can promote public health. However, the municipalities need to develop additional joint procedures to improve how they collaborate with other stakeholders. This applies to social services and Arbetsförmedlingen, for example. In addition, social services in the municipalities have, since 2013, been given more opportunities to refer those in receipt of assistance to practical training or skills courses if Arbetsförmedlingen has been unable to offer any appropriate employment interventions.

FIGURE 21.2 – REGIONS: Individuals aged 18 and older who has received long-time assistance (10–12 months of the year), 2013.



Source: The Social Assistance Register, the National Board of Health and Welfare.

FIGURE 21.3 – MUNICIPALITIES: Individuals aged 18 and older who has received long-time assistance (10–12 months of the year), 2013.



Source: The Social Assistance Register, the National Board of Health and Welfare.

Participation in society

Participation and influence in society is one of the fundamental prerequisites of health. People need to have the opportunity to influence their own social conditions and the society in which they live as a lack of power and opportunities for influence is linked to ill-health [108, 109]. A variety of factors can have an impact on how much someone participates, for example the availability of work, club activities and social networks [12, 108, 109]. Furthermore, the sense of community and that life has meaning is one of the explanations for why some people are able to cope with stressful situations better than others. Participation is measured through factors such as democratic participation in the form of turnout at elections, as well as through inhabitants' perceptions of their opportunity to influence decision-making.

22. TURNOUT AT ELECTIONS

Turnout at general elections is often used as a measure of democratic participation. There is also a link between a lack of democratic participation and ill-health, with groups that have low turnout at elections having lower self-rated health [58, 110].

Turnout at elections in Sweden has increased steadily since the 1910s, but there are distinct differences between different groups. Groups with a high educational level and high income, those who are married/cohabiting, professionals and those who are employed have the highest turnout at elections. Women have a higher turnout at elections than men, and the youngest and oldest sections of the population have a somewhat lower turnout. These patterns have been relatively stable over time. In the period 1994–2002, turnout at elections decreased, primarily among those groups who already had lower turnouts, but turnout has increased again at the past two elections. This increase has taken place primarily among those groups who previously had a low turnout.

In recent years, turnout has been more equal, but there are still larger differences today than prior to the drop in turnout of the 1990s [111].

High turnout at elections is often said to strengthen the legitimacy of the democratic system and to make politics more representative and equal. It is also a way for citizens to participate in various societal issues. Consequently, there is concern voiced in the public discussion regarding a low turnout among younger people and those with a foreign background [58, 112].

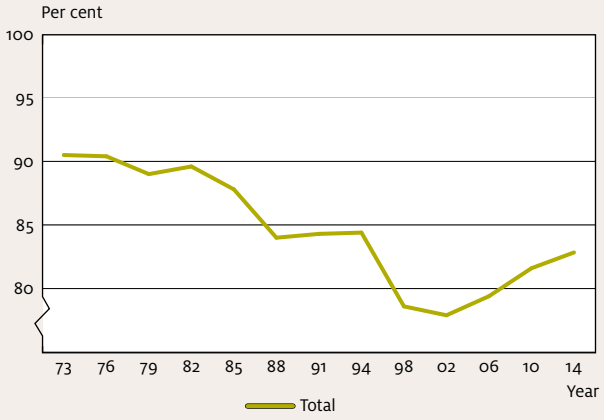
There are many other ways to be democratically active aside from actively voting, for example by being a member of a political party or representing other groups in society.

One way to capture the area of participation and influence is to monitor turnout at elections over time and among different groups. This reports looks at turnout in municipal council elections, which involves a certain measure of influence in the local democratic process [58, 112].

Turnout in the last general municipal council elections in 2014 was 82.8 per cent, an increase for the second election in a row following the previous downward trend. Turnout varied between municipalities from 60.2 to 92 per cent. Turnout in the municipal council election in 2014 was somewhat lower than in the Riksdag election (85.8 per cent), but about the same as for the county council election (82.4 per cent).

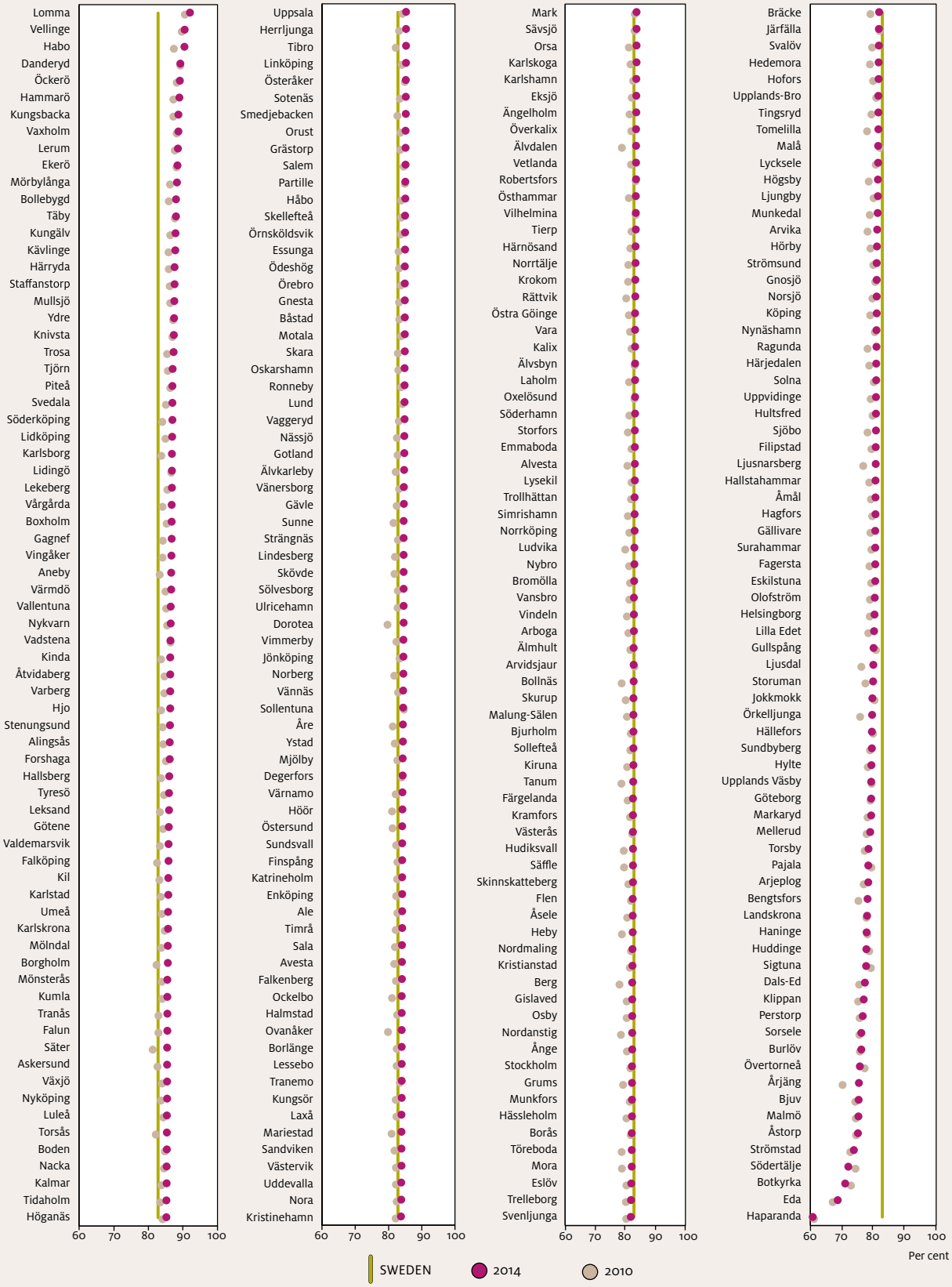
Aside from the political parties' own efforts to increase the turnout, much can be done at the national, regional and

FIGURE 22.1 – SWEDEN: Eligible voters who participated in municipal election of those citizens who are enrolled in the electoral register.



Source: The Election Authority, Statistics Sweden.

FIGURE 22.2 – MUNICIPALITIES: Eligible voters who participated in municipal election of those citizens who are enrolled in the electoral register, 2014.



Source: The Election Authority, Statistics Sweden.

local level. In terms of the municipalities, this can involve providing more information about the right to vote and developing methods that aim to make it easier for individuals to vote. Greater cooperation between various associations can also be one way to reach more of those eligible to vote in the municipality.

23. INHABITANTS' PERCEPTIONS OF THEIR OPPORTUNITY TO INFLUENCE DECISION-MAKING IN THE MUNICIPALITY

Participation and influence in society is one of eleven national objective domains in public health and encompasses several policy areas. Important stakeholders in this context are municipalities, county administrative boards, regions, county councils and various municipalities, as well as the voluntary sector. Influence and the opportunity to have an impact can be measured at several different levels in society and in relation to different welfare services. Citizens' perceptions of their opportunity to influence decision-making give an indication of any needs for development in, for example, a municipality [110]. Allowing the inhabitants of a municipality to participate in decision-making and taking account of their views can increase the quality of municipal services.

Statistics Sweden's citizen survey (medborgarundersökning) contains what is known as the municipality's Satisfaction-Influence Index (Nöjd-Inflytande-Index, NII). This is based on three questions about opportunities to influence decision-making in the municipality. The questions cover how satisfied the respondent is with the transparency of and their influence on the municipality's decision-making and services, how well this meets their own expectations and how close they believe this situation is to a possible ideal situation [113].

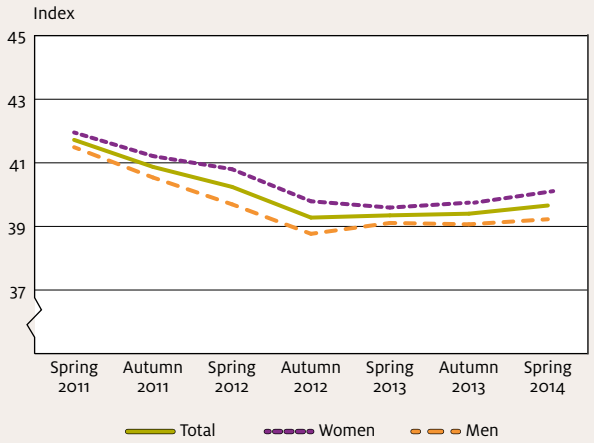
This citizen survey has been carried out by Statistics Sweden since 2005. A total of 256 Swedish municipalities have participated and the majority of these have participated more than once. This report presents a combination of the results from autumn 2013 and spring 2014. The results for the municipalities' NII amounted to an average of 40 in the measurement period 2013/2014. The index varied between 29 and 52 among the participating municipalities. There were clear differences between women and men. Half of the municipalities that participated in the survey in 2013/2014 achieved an index of 40 or over, which can be interpreted as "acceptable" based on Statistics Sweden's investigation of citizens' interpretation of the grade.

No municipality achieved over 55, which is the equivalent of "satisfactory".

The citizen survey also includes specific questions about contact, information, impact and trust – which are all expected to contribute towards the overall NII score. For municipalities, information achieves the highest grade, while impact gets the lowest grade among both women and men.

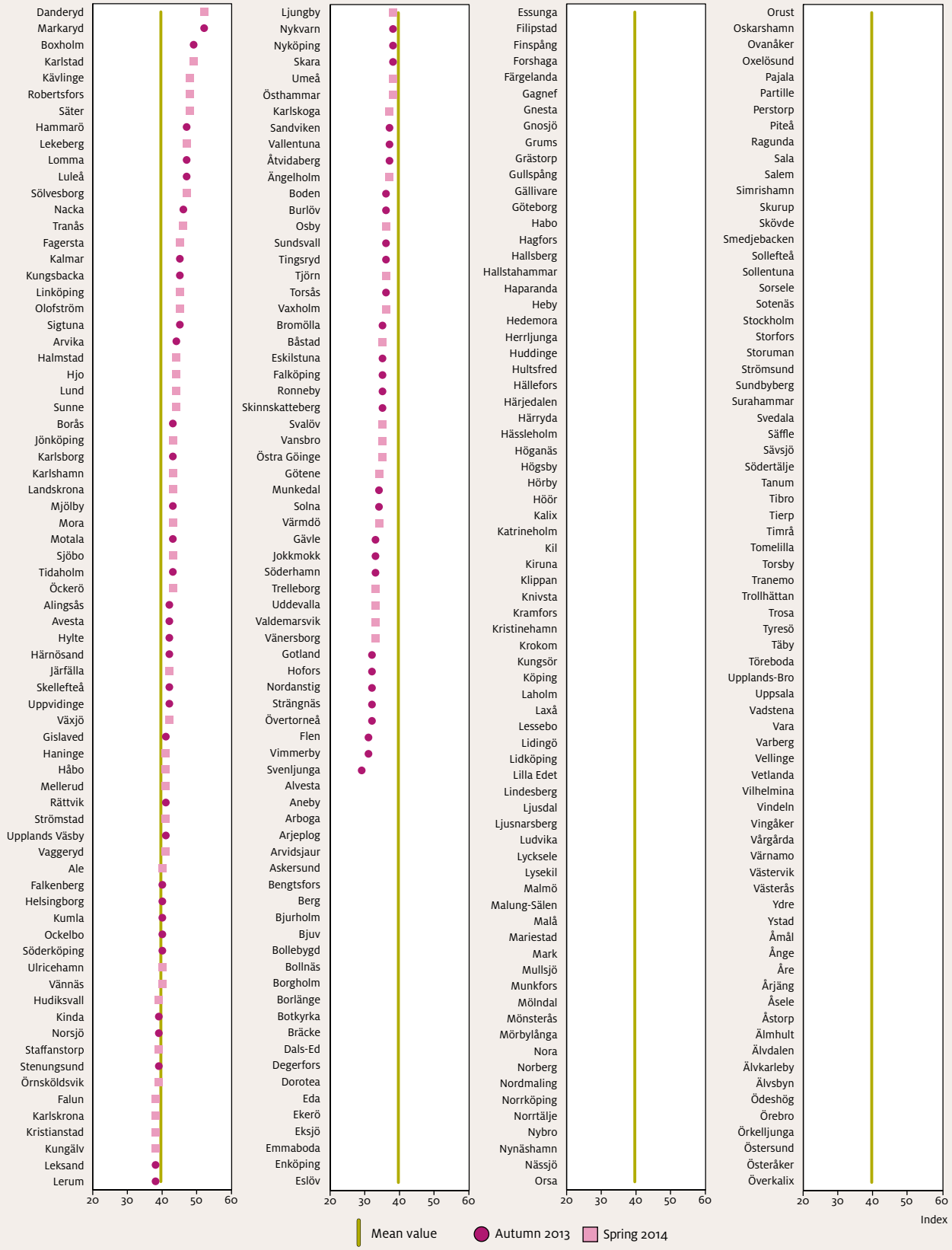
For the purposes of future improvement, it is important for the municipalities to review all four areas (information, contact, impact and trust) and investigate whether there are any differences related to gender, age and socioeconomic factors. Statistics Sweden's final report on the citizen survey also presents results based on age group and type of place, as well as on how long individuals have lived in the municipality. Integrating such local results can supply improvement efforts with further valuable information. Some municipalities also conduct their own surveys that may also give an indication of what can be improved.

FIGURE 23.1 – SWEDEN: Citizens' possibility of influencing the decision-making in the municipality, based on three questions with the satisfaction of influence, index on a scale of 1–100.



Source: The Swedish Citizen Survey, Statistics Sweden.

FIGURE 23.2 – MUNICIPALITIES: Citizens' possibility of influencing the decisionmaking in the municipality, based on three questions about satisfactory with influence, index on a scale of 1–100, autumn 2013 or spring 2014 (see explanation below for measurement period).



Source: The Swedish Citizen Survey, Statistics Sweden.

RECREATION AND TRANSPORT

Physical activity is an important prerequisite for good health. People are of course in control of their own lifestyle habits, but they are affected by societal conditions. By improving the physical environment, it is possible to encourage movement, particularly among those who are least active [114–116].

Statistics Sweden's citizen survey measures the population's attitudes and the societal conditions for such factors as recreation and opportunities to actively transport yourself (walking and cycling). The survey is conducted twice a year and municipalities choose whether to participate and how often. This report uses the results from autumn 2013 and spring 2014, when a total of 119 municipalities participated at least once. The citizen survey contains questions in several areas, for example how the respondent rates living in the municipality and what they think about municipal services. The results indicate an average grade on a ten-point scale. Statistics Sweden has investigated how the grade is perceived by asking groups to state where on the scale different assessments fit. The survey indicates that below 5 can be classed as "not acceptable", 6–7 as "satisfactory", while 8 and over is interpreted as "extremely satisfied".

24. ACCESS TO FOOTPATHS AND CYCLE PATHS

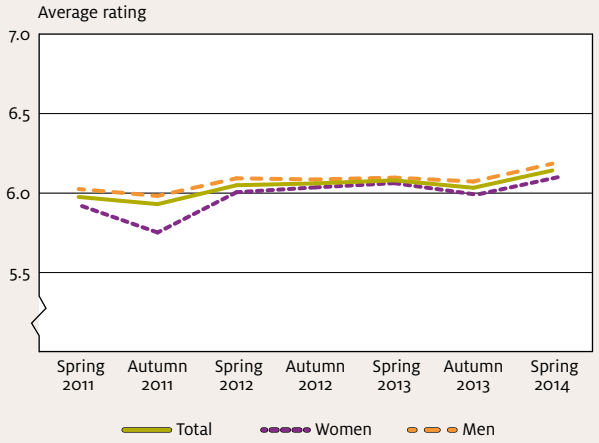
Research indicates that people in "walkable" areas are more physically active, independent of individual factors. An attractive environment that makes movement easier has more impact on the rate of physical activity than providing information to individuals. It is also beneficial to provide sufficient opportunities to transport yourself in a physically active way to and from work, school, services, etc. [115–117].

Choosing to cycle instead of driving doesn't just have an impact on your own health, it also has major benefits for the entire economy and an environmental impact. If one per cent – of the population choose to cycle to work instead of driving a car, carbon dioxide emissions would decrease by 55 million tons per year [117].

Children's freedom of movement has decreased and some contributory factors are that the physical conditions along routes to school have become increasingly unsafe, with greater distances to schools and greater volumes of traffic [115]. It is important to think through how footpaths and cycle paths are built, their characteristics, safety, lighting and maintenance, as these factors are also decisive to the degree to which they are used by different groups. International studies also indicate a link between cycle infrastructure and the proportion who cycle [116, 117]. The public health policy report 2010 contained proposals for measures to improve the physical environment in order to stimulate the population to become more physically active, but these have not yet been implemented fully [120].

Citizens' views on the accessibility of footpaths and cycle paths give an indication of any requirements for development, but this covers more than the actual accessibility. Expectations also understandably have an impact, as does how often people use footpaths and cycle paths themselves. There are also other factors in the citizen survey that can expand knowledge in this area. This involves issues relating to how satisfied citizens are with the charac-

FIGURE 24.1 – SWEDEN: Citizens' assessment of the availability of footpaths and cycle paths in the municipality, on a scale of 1–10.



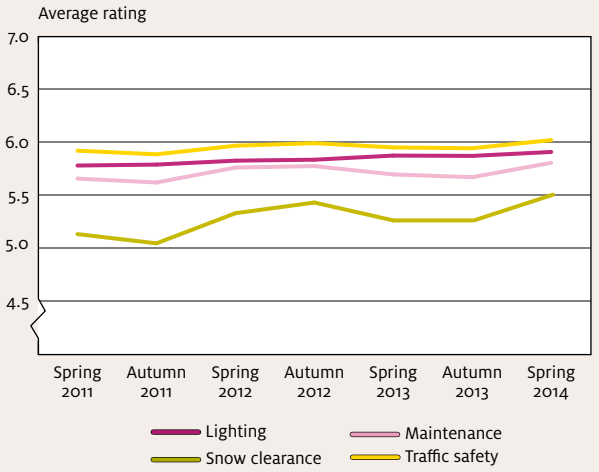
Source: The Swedish Citizen Survey, Statistics Sweden.

teristics of footpaths and cycle paths in terms of lighting, maintenance, snow clearance and traffic safety. However, the results of these are not presented at the municipal level in this report.

The citizen survey's questions about views on accessibility of footpaths and cycle paths are presented using an average grade on a ten-point scale. With respect to the accessibility of footpaths and cycle paths for all municipalities, the average grade was 6.1 among men and 6.2 among women. Women's average grade is equivalent to satisfactory in 57 per cent of the participating municipalities, while men were satisfied in 55 per cent of these municipalities. The average grade has been relatively stable in recent years.

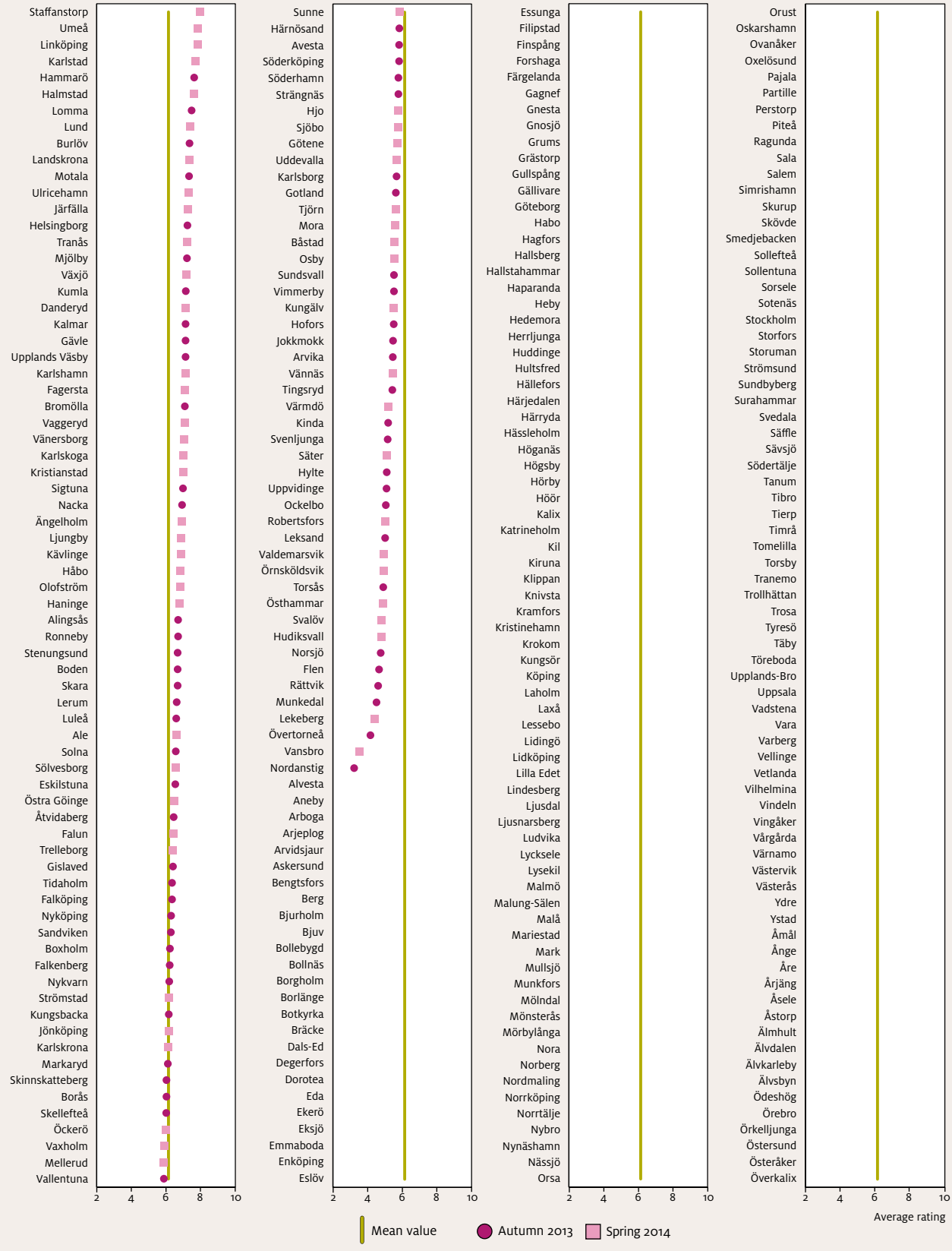
In the questions concerning the quality of footpaths and cycle paths, both women and men gave traffic safety the highest grade (6.0 = satisfactory), while snow clearing received the lowest grade, but still managed to reach the level of satisfactory (5.3).

FIGURE 24.2 – SWEDEN, SUB-QUESTIONS: Citizens' assessment of lighting, maintenance, snow clearance, traffic safety on footpaths and cycling paths, on a scale of 1–10.



Source: The Swedish Citizen Survey, Statistics Sweden.

FIGURE 24.3 – MUNICIPALITIES: Citizens' assessment of the availability of footpaths and cycle paths in the municipality, on a scale of 1–10, autumn 2013 or spring 2014 (see explanation below for measurement period).



Source: The Swedish Citizen Survey, Statistics Sweden.

25. ACCESS TO PARKS, GREEN SPACES AND THE COUNTRYSIDE

Proximity to parks, green spaces and recreation areas is very important as these create good conditions for physical activity. The more supportive environments, spaces and facilities there are in the local area, the greater the chances of its inhabitants being regularly physically active [117].

The countryside itself has an effect that promotes the health of people of all ages, both physically and mentally; parks and green spaces are thus important to individuals in various stages of life [115, 118] and for all socioeconomic groups in the population [121]. Children need good conditions in which to explore their local environment as this is beneficial to their physical, mental and social development [115, 122].

Citizen's views on the accessibility of parks, green spaces and the countryside provide an indication of any requirements for development, but the actual accessibility is not everything. Naturally, people's expectations have an impact on the responses and the extent to which they spend time in parks, green spaces and the countryside.

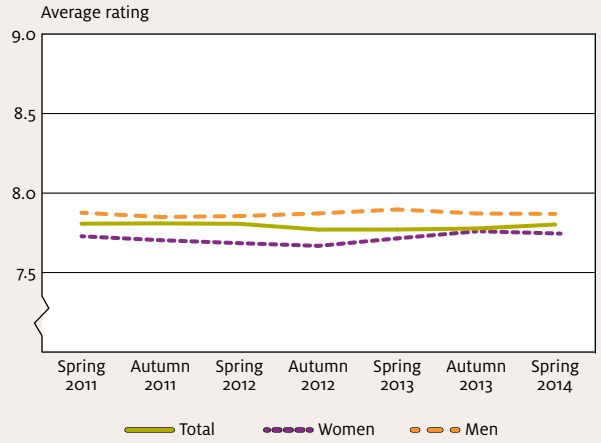
When residential areas grow and become denser, the number of green spaces decreases. Consequently, the National Board of Housing, Building and Planning has drawn up guidance in order to ensure access to green spaces close to housing [123]. The Public Health Agency of Sweden has also drawn up guidance that can be used to assess the proximity to and the attractiveness of green spaces [121], as well as a document providing support and inspiration when creating sustainable living environments that promote health. For many years now, there has also been a manual for planning active lives in built environments that is based on past research in this area [116, 117, 119, 125]. Municipalities and county councils can also conduct assessments of the impact on health when planning physical environments in order to find balance in any conflicts between goals [126].

The citizen survey's questions about views on the accessibility of parks, green spaces and the countryside are presented using an average grade on a ten-point scale.

With respect to the accessibility of parks, green spaces and the countryside for all municipalities, the average grade was 7.7 among men and 7.8 among women. This means that both women and men were satisfied with the accessibility of parks, green spaces and the countryside in all participating municipalities. The average grade has been relatively stable in recent years.

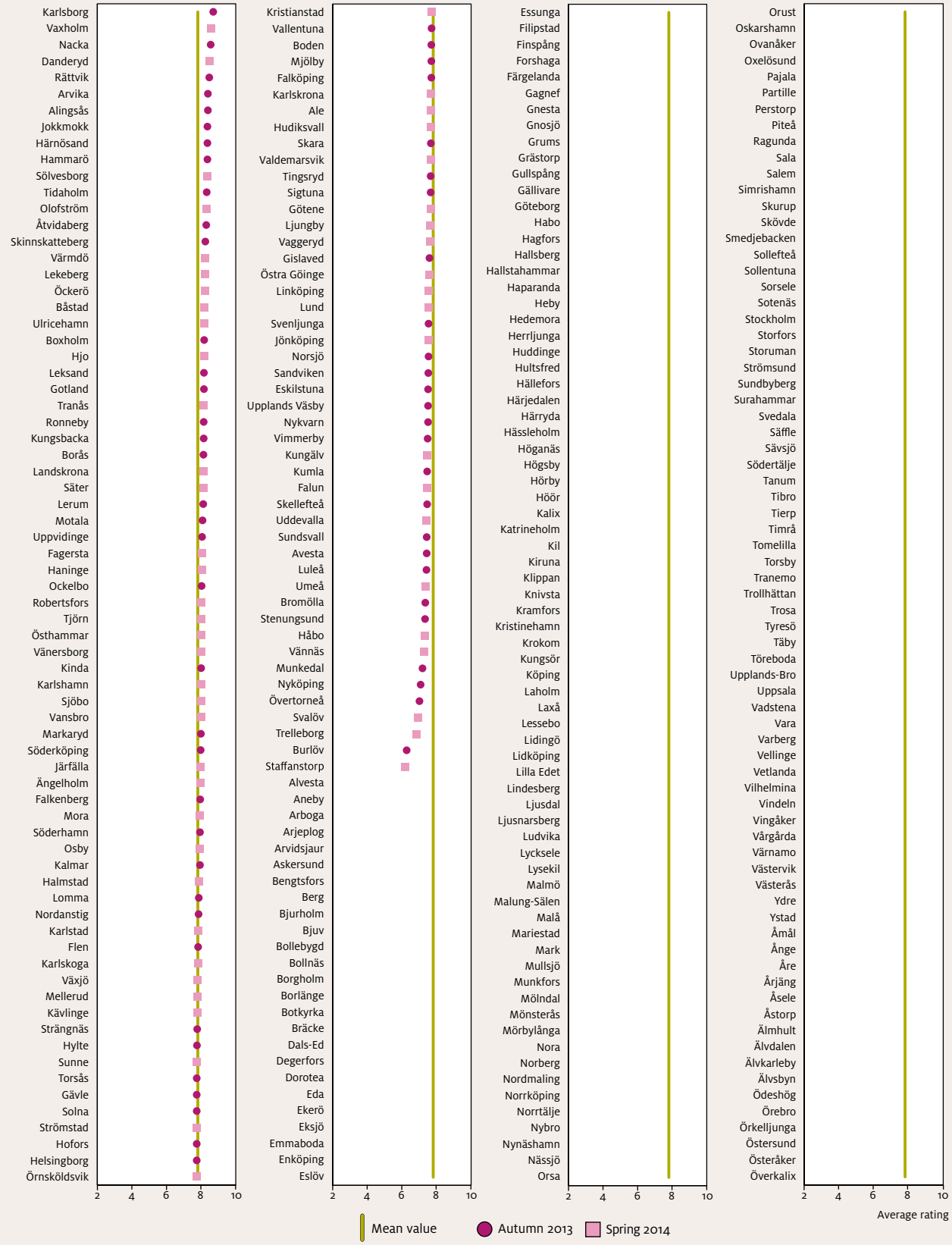
The average grade for the additional question concerning the cleanliness of parks and public spaces is somewhat lower than that for accessibility.

FIGURE 25.1 – SWEDEN: Citizens' assessment of the availability of parks, green spaces and nature in the municipality, on a scale of 1–10.



Source: The Swedish Citizen Survey, Statistics Sweden.

FIGURE 25.2 – MUNICIPALITIES: Citizens' assessment of the availability of parks, green spaces and nature in the municipality, on a scale of 1–10, autumn 2013 or spring 2014 (see explanation below for measurement period).



Source: The Swedish Citizen Survey, Statistics Sweden.

SAFETY AND SOCIAL RELATIONSHIPS

A fundamental prerequisite for social development is that there are societal institutions that fulfil their commitments and do not discriminate against individuals or groups. Such institutions can be formal or informal. Another component that is just as important is the individual's power over their own situation and their active participation in social life. Exclusion often goes along with a lack of participation in decision-making and not being able to fulfil your social and cultural obligations in society, but this is also connected to work, education and health. Social security systems are therefore important as they can reinforce people's own capacity, capability and influence and provide support and protection to those who are vulnerable. Swedish policy also emphasises the importance of the active participation of civil society, i.e. allowing organisations, private companies, trade unions and other stakeholders to be involved in decision-making processes that have an impact on people's lives.

Our lifestyle habits are affected by people around us and the networks we belong to in both positive and negative ways. Our relationships can also improve our chances of enjoying good health. Aside from the fact that they constitute social support and contribute to a sense of security, connection and participation, they also act as special information channels. Many studies have shown that isolation, particularly a lack of close relationships, is associated with poorer health and shorter lifespan [127].

26. SAFE IN SCHOOL

Schools must offer pupils an environment characterised by stability, safety and peace and quiet in which to study. Those who feel safe find it easier to learn and develop as people. Children who feel safe achieve better results and also learn to take responsibility and to voice their opinions. A lack of peace and quiet in school, as well as feelings of not being safe, with the constant fear of being subject to bullying, abuse and persecution, don't just put the pupil's future studies and career at risk, but can also have a detrimental impact on their mental health in the long-term [128–130]. A lack of safety in schools should therefore be taken extremely seriously.

Several studies indicate that a high proportion of pupils in Swedish schools feel safe in school [131–133], and Sweden is also well-placed internationally in terms of pupil safety. The results of a European study concerning abusive behaviour in schools show that Swedish pupils are safest of all in comparison with other EU and OECD countries [134].

SALAR conducts an annual survey of Swedish pupils to find out their views on school and teaching. Pupils in both municipal and independent schools in years 5 and 8 take part in the survey. Around 104 000 pupils from a total of 192 municipalities took part in the survey in school year 2012/13.

The majority – around 93 per cent of pupils in year 5 – state that they feel safe in school. However, the proportion of pupils who feel safe varies and there are relatively large differences between some of the municipalities. About the same proportion of girls as boys have stated that they feel safe in school (results are not shown in the diagram).

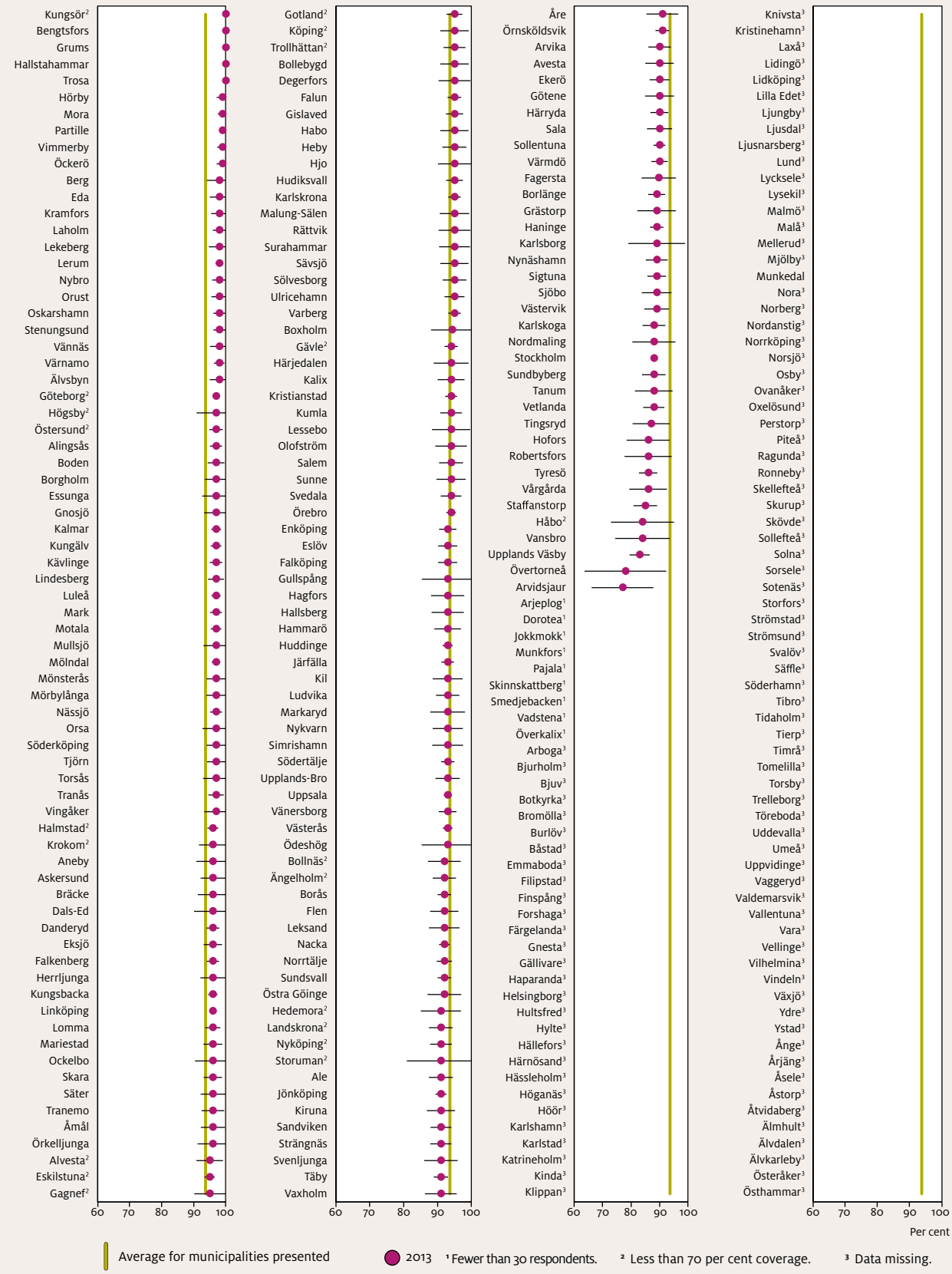
At the same time, there are pupils who do not feel the same sense of safety (on average around 6–7 per cent). Accordingly, it is important that schools work consciously to take action with the aim of improving safety.

If the school environment is to be characterised by safety and peace and quiet in which to study, pupils, teachers and other staff must feel a sense of collective responsibility for the working environment and respect one another. Pupils should have the opportunity to shape the learning environment, for example by drawing up the school rules.

It is also important that schools work together with the pupils' guardians.

Systematic programmes to prevent bullying have been shown to be effective tools in the fight against bullying. Evaluations show that both the proportion of bullies and the proportion of pupils subject to bullying are on average lower in schools that have implemented such anti-bullying programmes [135, 136]. The programme components that are considered to be most effective are parental education, increased supervision of school playgrounds, yards and disciplinary measures. Classroom leadership and clear rules in the classroom are other important factors, as is the programme being run for a longer period and involving both teachers and pupils [136].

FIGURE 26.1 – MUNICIPALITIES: Pupils in grade 5 in compulsory school who answered “agree completely” or “mostly true” in response to the statement “I feel safe at school”, the municipal pupil survey 2013.



Source: The Pupil Survey, the Swedish Association of Local Authorities and Regions.

27. UNSAFE ENVIRONMENT – INDIVIDUALS WHO AVOID GOING OUT ALONE

Individuals' perception of a safe and secure environment is one of the most central human needs and is vital to our well-being. Safety comes immediately after our purely physical requirements in a classical order of precedence of human requirements [137].

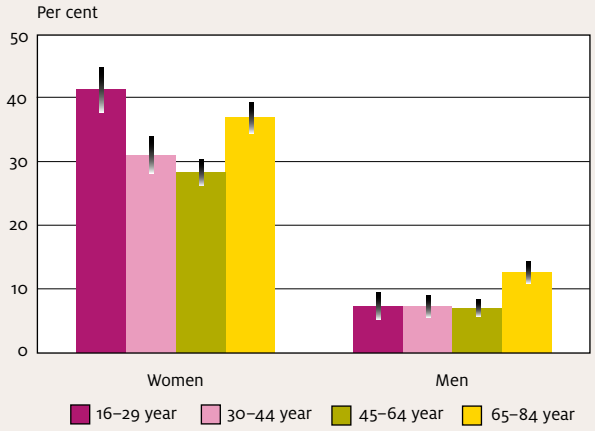
The safety of the residential area is important to both comfort and health. A person's ability to choose where to spend time and what to do is dependent on them feeling safe in their own neighbourhood. For example, people have to be able to go for a walk or a run without fear and to feel that there are safe play parks for children [138, 139]. Studies have shown that feeling safe in the area in which we live is absolutely the most important factor if a residential area is to be perceived as good [127]. Residential environment is also one of the determinants in the public health objective domain "Economic and social prerequisites" [140].

When planning the physical layout of different environments, it is important to take into account the gender equality perspective that both women and men have to be able to be there and feel safe. There are considerably more women than men who do not feel safe outdoors. This means that women are more likely to be limited in terms of their freedom of movement and, for example, avoid going out alone when it is dark in order to avoid the risk of violence, molestation and sexual offences. Sometimes, this may involve weighing up different risks against one another, for example by avoiding pedestrian subways and instead crossing heavily trafficked roads or walking or cycling on the road instead of a dark or lonely footpath or cycle path. Public spaces can thus become less accessible for women if these aspects are not factored into the physical planning process [19, 141, 142].

Among the municipal interventions in this area are a good home and residential environment, close to services and with safe footpaths and cycle paths and good communications. This also involves creating natural meeting points where people can make contact and that stimulate a sense of community and a "feeling of we". Night-time foot patrols and proactive activities for older people are other examples of initiatives that increase safety. Good outdoor lighting has a tangible impact on the safety of outdoor environments and increases comfort [19].

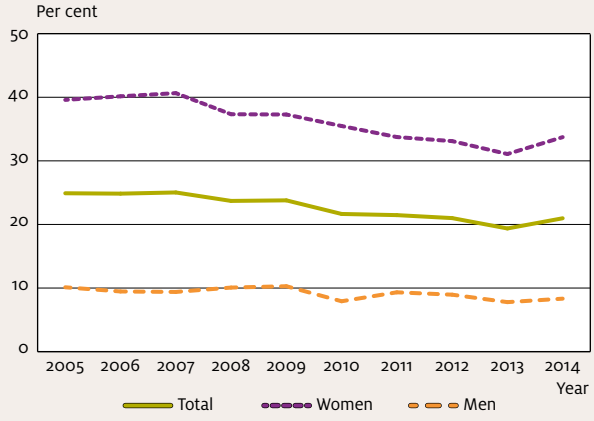
In the measurement period (2011–2014), somewhat fewer people state that they often or sometimes avoid going out alone due to the fear of being attacked, robbed or otherwise molested than in the previous measurement period (2007–2010). There are large regional and local variations within the country. Women are considerably more likely

FIGURE 27.2 – AGE GROUPS, SWEDEN: Individuals who stated that they often or sometimes avoid going out alone for fear of being attacked, robbed or otherwise molested, 2014.



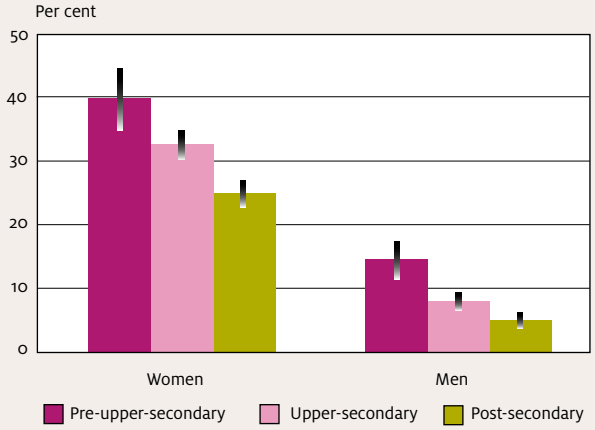
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 27.1 – SWEDEN: Individuals who stated that they often or sometimes avoid going out alone for fear of being attacked, robbed or otherwise molested, 16–84 years old.



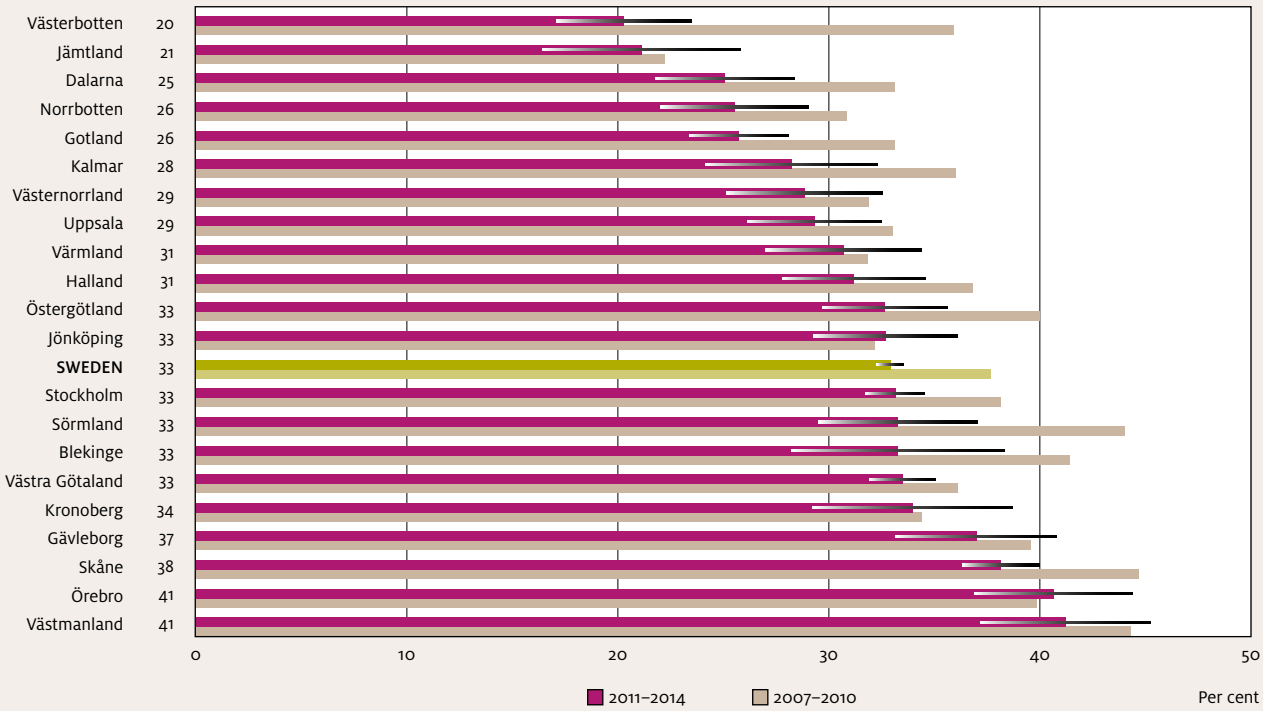
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 27.3 – EDUCATION. SWEDEN: Individuals who stated that they often or sometimes avoid going out alone for fear of being attacked, robbed or otherwise molested, 35–74 years old, 2014.



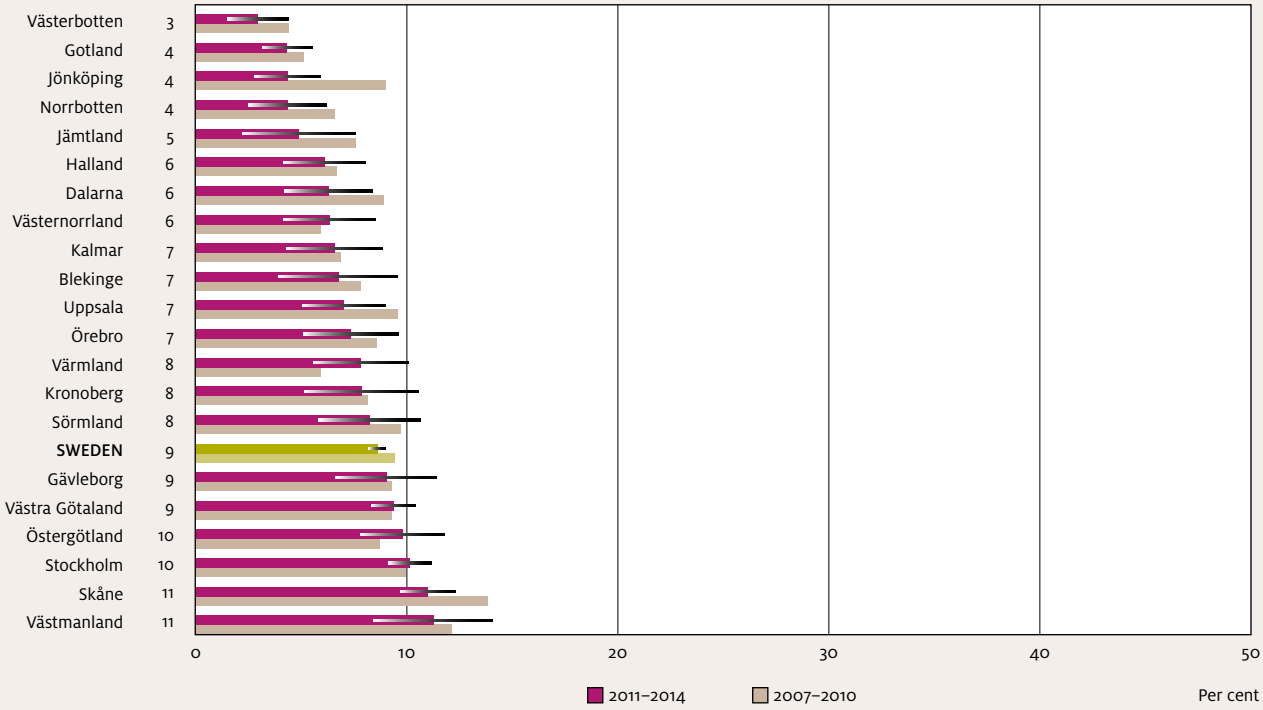
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 27.4 – REGIONS, WOMEN: Individuals who stated that they often or sometimes avoid going out alone for fear of being attacked, robbed or otherwise molested, 16–84 years old, 2011–2014.



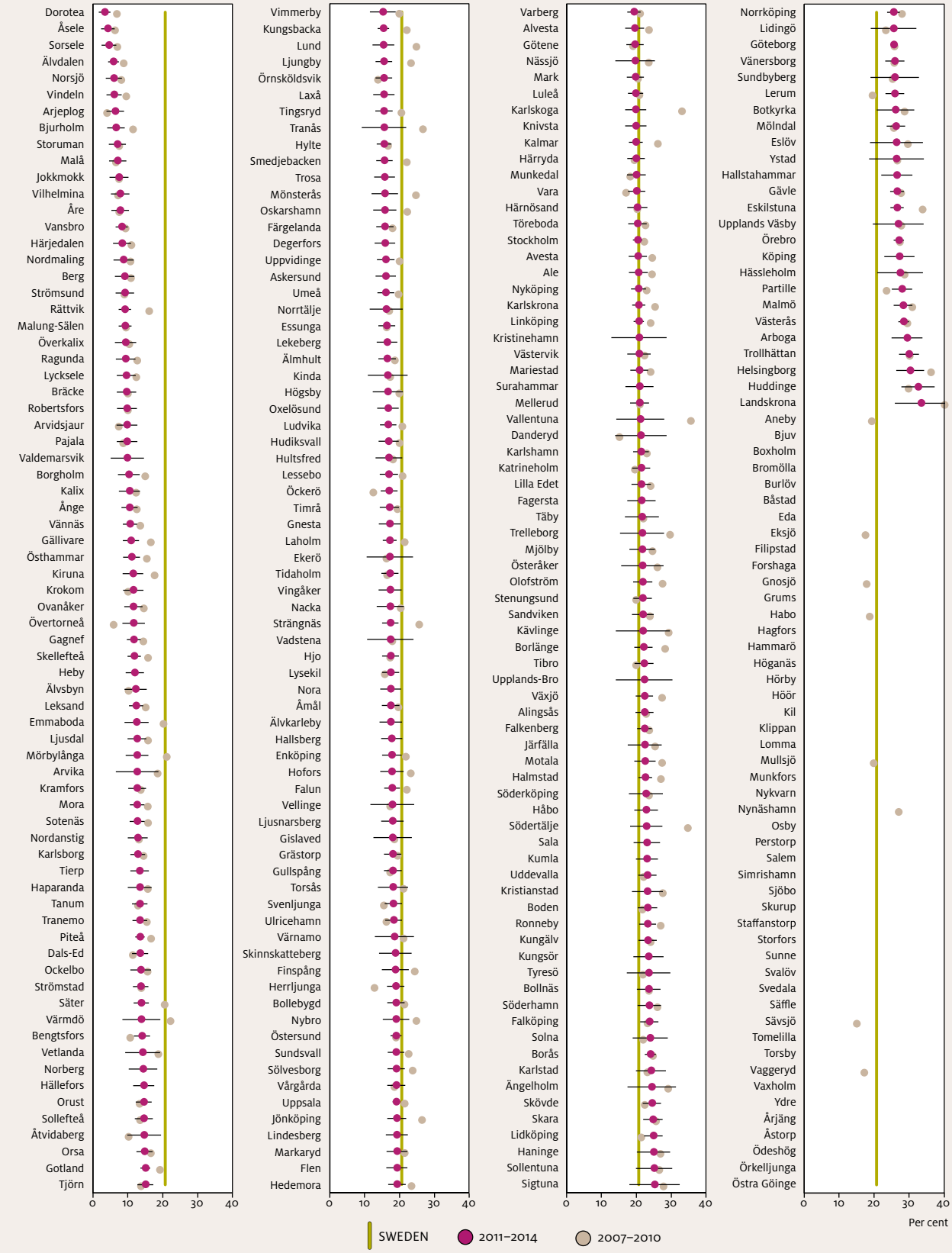
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 27.5 – REGIONS, MEN: Individuals who stated that they often or sometimes avoid going out alone for fear of being attacked, robbed or otherwise molested, 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 27.6 – MUNICIPALITIES: Individuals who stated that they often or sometimes avoid going out alone for fear of being attacked, robbed or otherwise molested, 2011–2014.



Values with fewer than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden.

to avoid going out alone than men, but the differences between the sexes have decreased. The proportion who state that they avoid going out is lowest among women with post-secondary education, something which is, to some extent, likely also a reflection of differences between different residential areas and the perception of them.

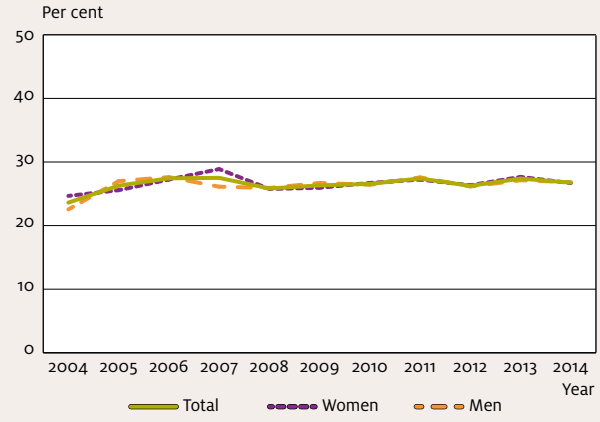
28. LACK OF TRUST IN OTHERS

Those who trust others are more likely to participate in social activities; something which in turn also contributes to good health. Several studies have also demonstrated that a low level of trust in society is linked to an increased risk of ill-health. The degree of trust has played a key role in studies of social capital – a terms that can be defined and measured in various ways. Studies about the importance of social capital to health at the area level have proved increased risks of ill-health and mortality in residential areas that are characterised by a low level of trust in other people [19, 138, 139, 143–145].

There are large differences between both counties and between municipalities in the proportion who stated that they generally cannot trust other people. The proportion is clearly highest in the youngest age groups, compared to the other age groups. Individuals with post-secondary education are more likely to trust other people than individuals with a lower educational level. In the country as a whole, the level has been relatively stable for the past decade and there have been no major differences between the sexes.

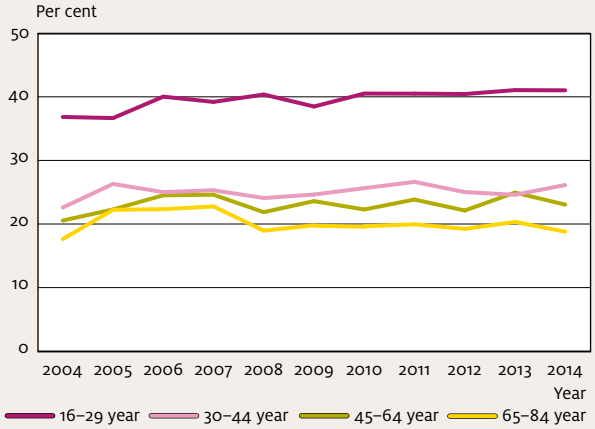
The Public Health Agency of Sweden produced a national evidence base for the objective domain "Participation and influence in society" in 2011 that highlights interventions relating to social participation and social support [110]. With respect to interventions targeting the elderly, proactive activities from the municipality are mentioned specifically. In the area of social relationships, the municipality can also provide for a good residential environment that invites contact in public spaces such a play parks or other communal outdoor areas. The municipality's work to combat bullying in schools and in workplaces is one further example of an intervention that can increase trust being people in society. In addition, voluntary organisations also work proactively [19, 138, 139, 143].

FIGURE 28.1 – SWEDEN: Individuals who stated that they generally cannot trust people, 16–84 years old.



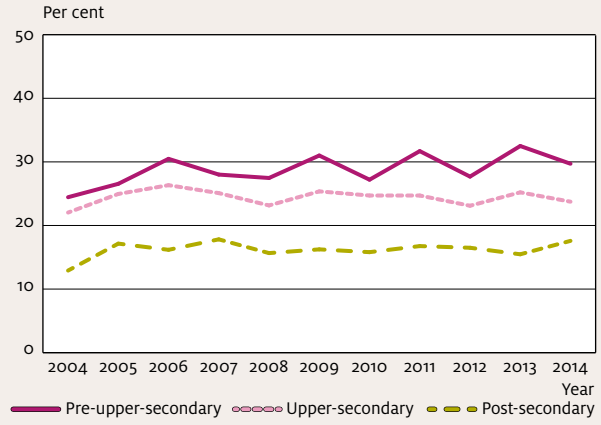
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 28.2 – AGE GROUPS, SWEDEN: I Individuals who stated that they generally cannot trust people.



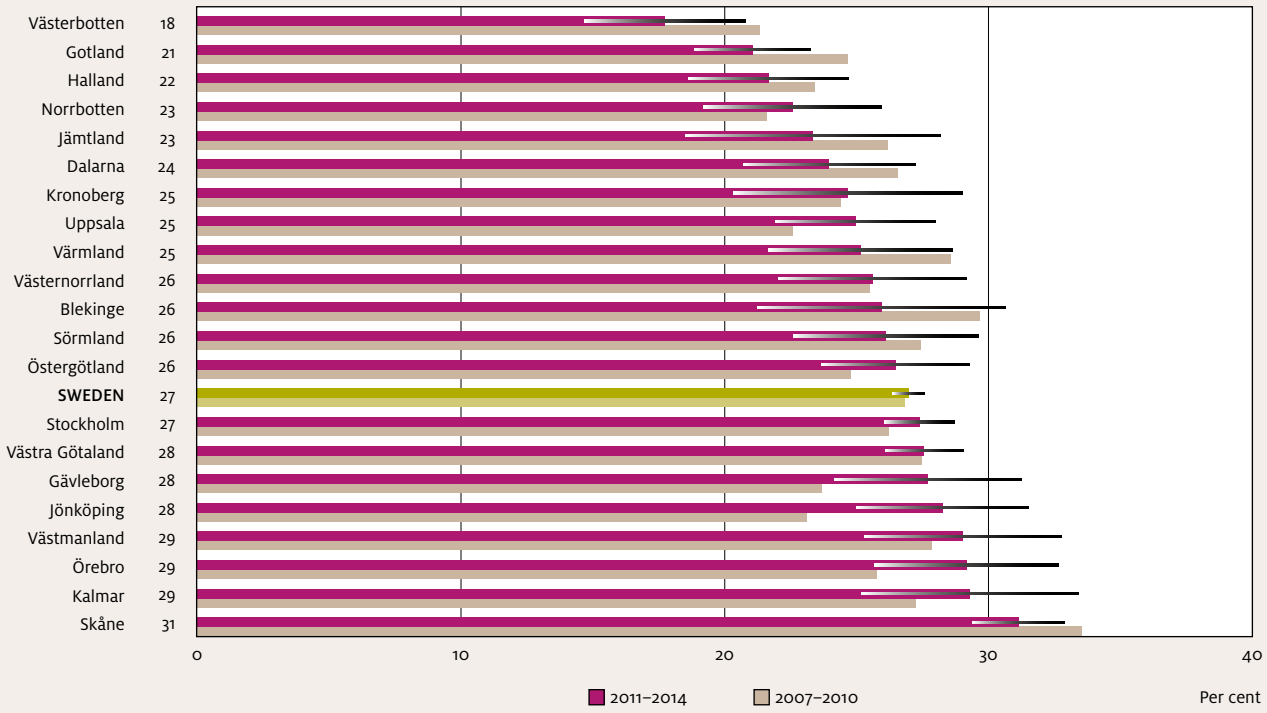
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 28.3 – EDUCATION, SWEDEN: Individuals who stated that they generally cannot trust people, 35–74 years old.



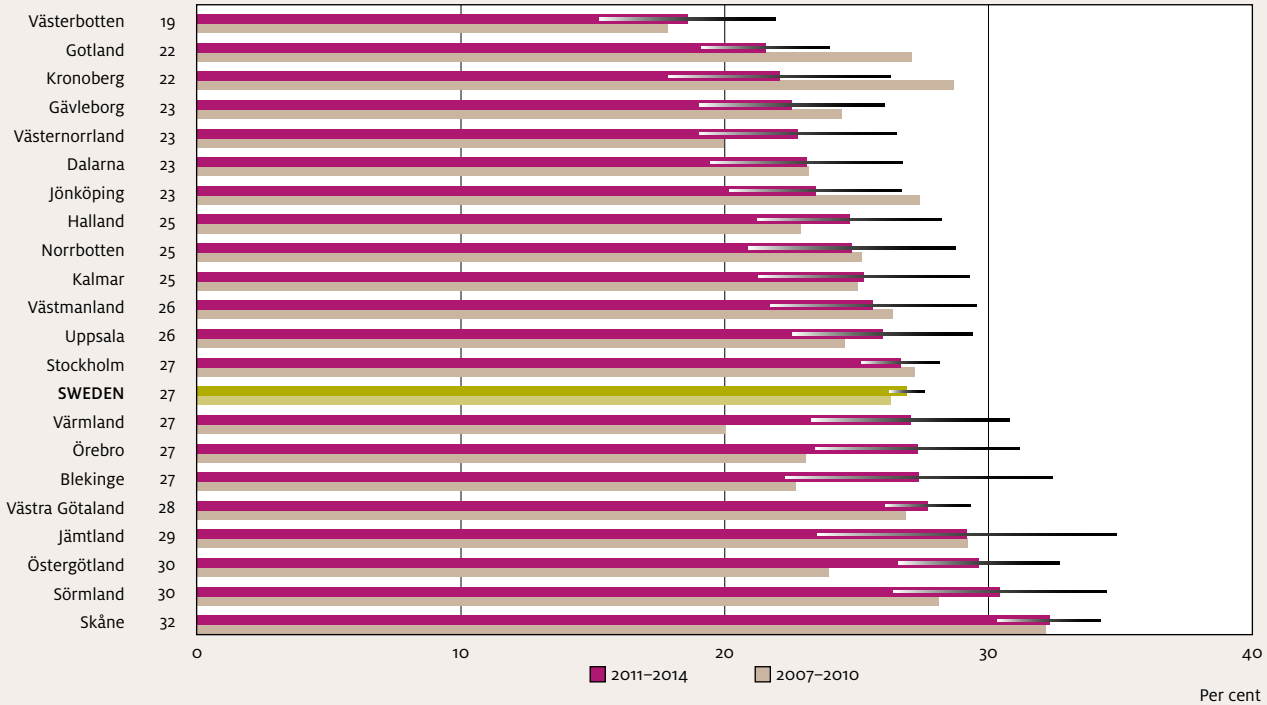
Source: Health on Equal Terms, Public Health Agency of Sweden. Register of Education (UREG), Statistics Sweden.

FIGURE 28.4 – REGIONS, WOMEN: Individuals who stated that they generally cannot trust people, 16–84 years old, 2011–2014.



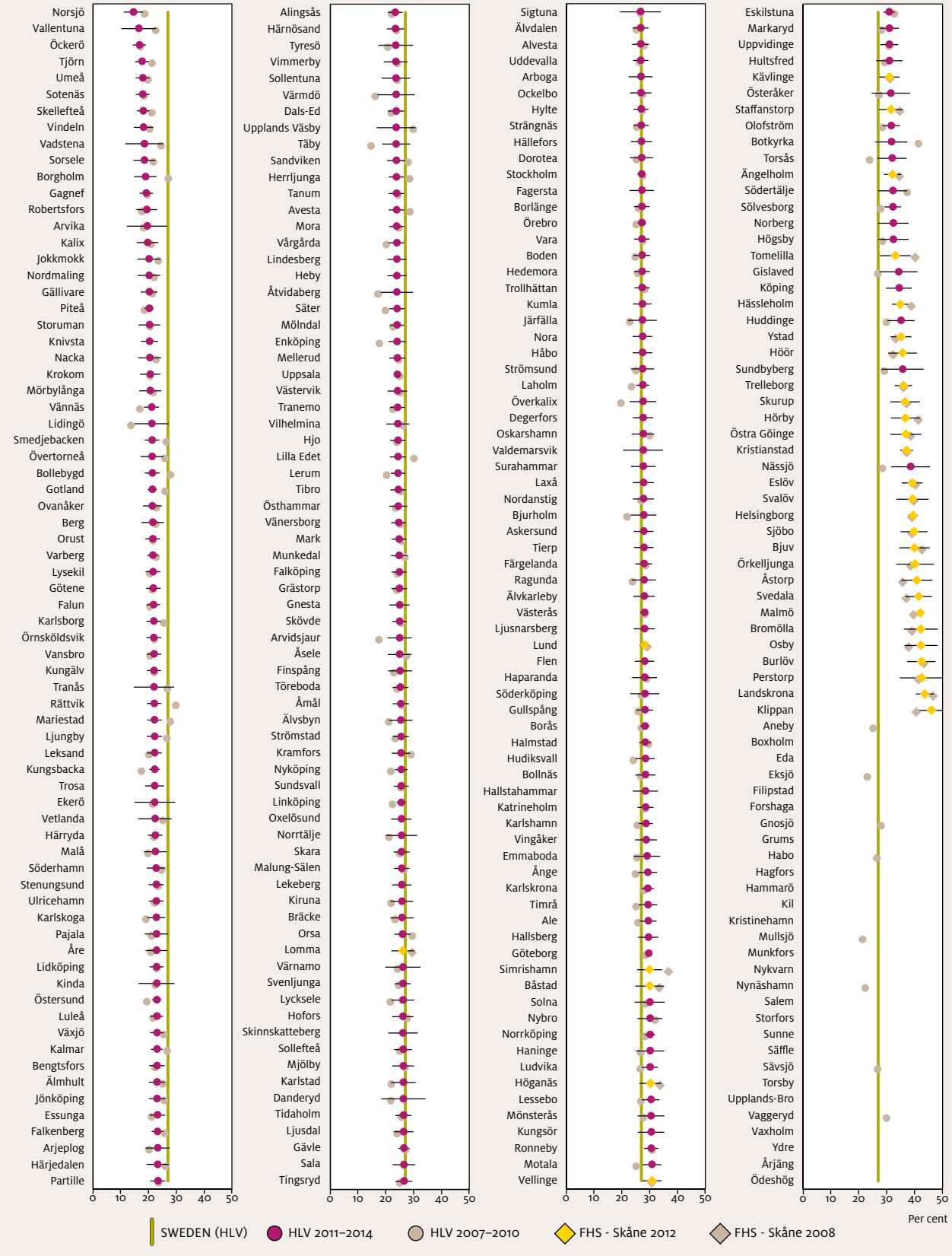
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 28.5 – REGIONS, MEN: Individuals who stated that they generally cannot trust people, 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 28.6 – MUNICIPALITIES: Individuals who stated that they generally cannot trust people (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old.



Values with fewer than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne.

29. PROBLEMS RELATING TO ISOLATION AMONG THE ELDERLY

Involuntary isolation is a growing problem in Sweden. Older people are particularly vulnerable and perceive a greater risk of isolation and exclusion, which in turn has a detrimental impact on their health. Involuntary isolation among the elderly can also be related to physical limitations such as difficulty moving about outside the home due to poor health. In addition, involuntary isolation can increase the risk of depression and other physical illnesses, give rise to risky alcohol consumption and poorer eating habits. In order to combat such a development, society should use various means to offer social connections that contribute to creating content and meaning for older people who feel isolated.

Elderly care is based on fundamental values that imply the elderly are to be able to choose when and how support and assistance at home will be provided. This is based on Chapter 5, Section 4 of the Social Services Act (2001:453), which, in summary, implies that older people are to be able to live a dignified life and feel a sense of well-being.

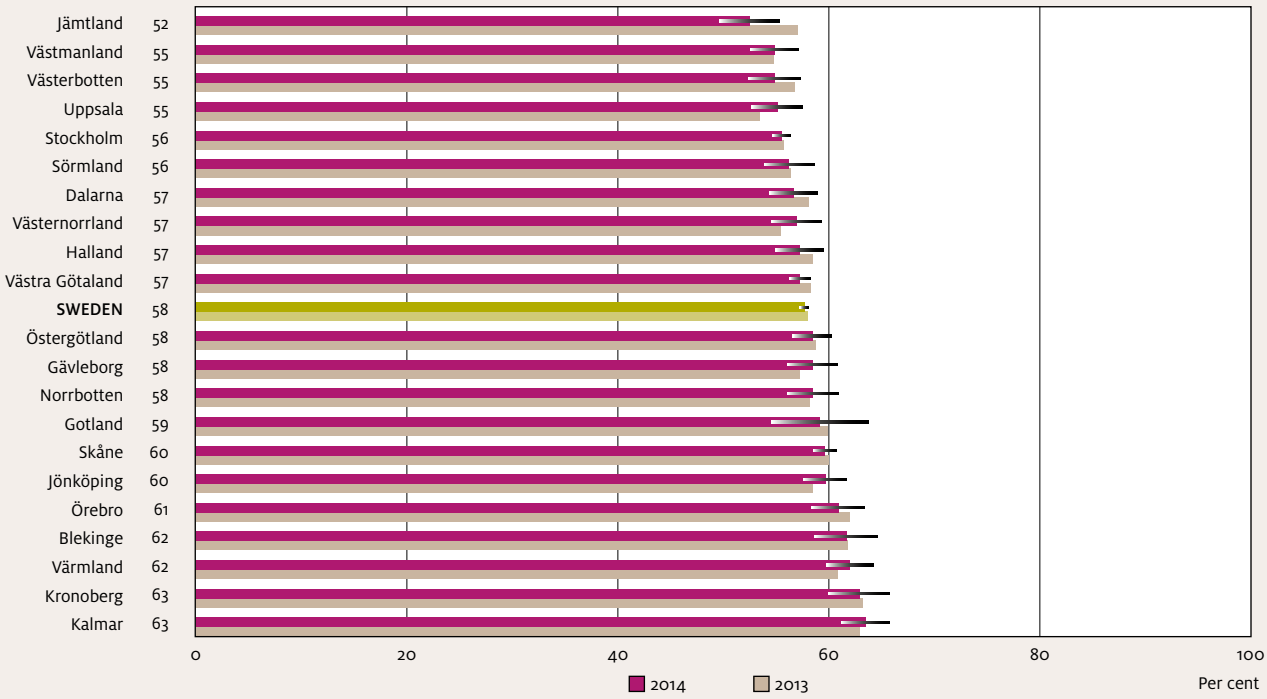
The National Board of Health and Welfare's general advice about the fundamental values emphasises safety and meaningful relationships, and the fundamental values are to be taken into account in the delivery of all elderly care services [146]. Social activities play an important role in well-being and they can increase the sense of belonging and meaningfulness. This may involve someone having contact with staff, being able to go outdoors and undertaking activities that they find agreeable.

Social activities such as going outdoors and physical activity can also improve sleep and appetite and reduce the risk of osteoporosis. Elderly care services can have an impact on the outcome by working with, for example, social activities and through adapting support to the individual to a greater extent. This can contribute to minimising older people's sense of isolation.

The National Board of Health and Welfare's national survey is targeted at people over the age of 65 who receive home-help services or live in sheltered accommodation. However, the data presented in this report only concerns elderly people receiving home-help services.

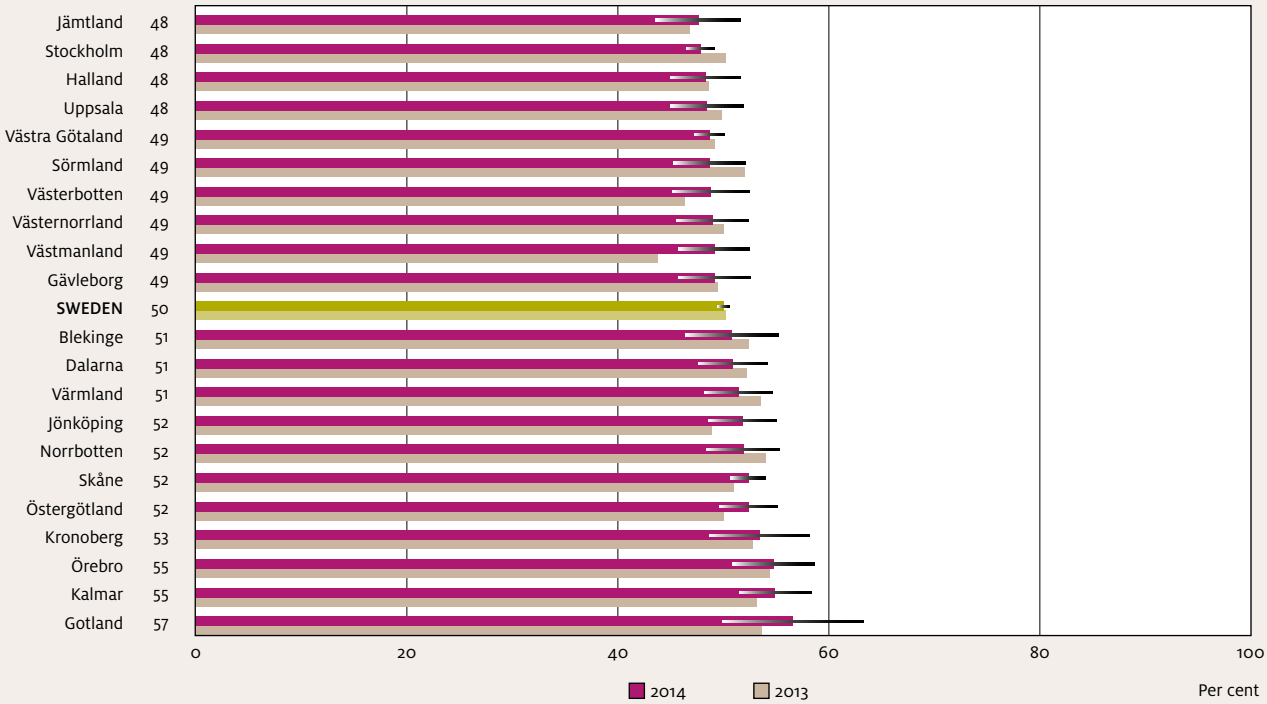
In general, it can be concluded that there are somewhat fewer women than men who state they feel isolated and that the results differ very little from the previous measurement period. Nevertheless, there are differences between both counties and between municipalities.

FIGURE 29.1 – REGIONS, WOMEN: Individuals who answered yes to the question "Do you ever suffer from loneliness?", among elderly over 65 who have home care from the social service in the municipality, 2014.



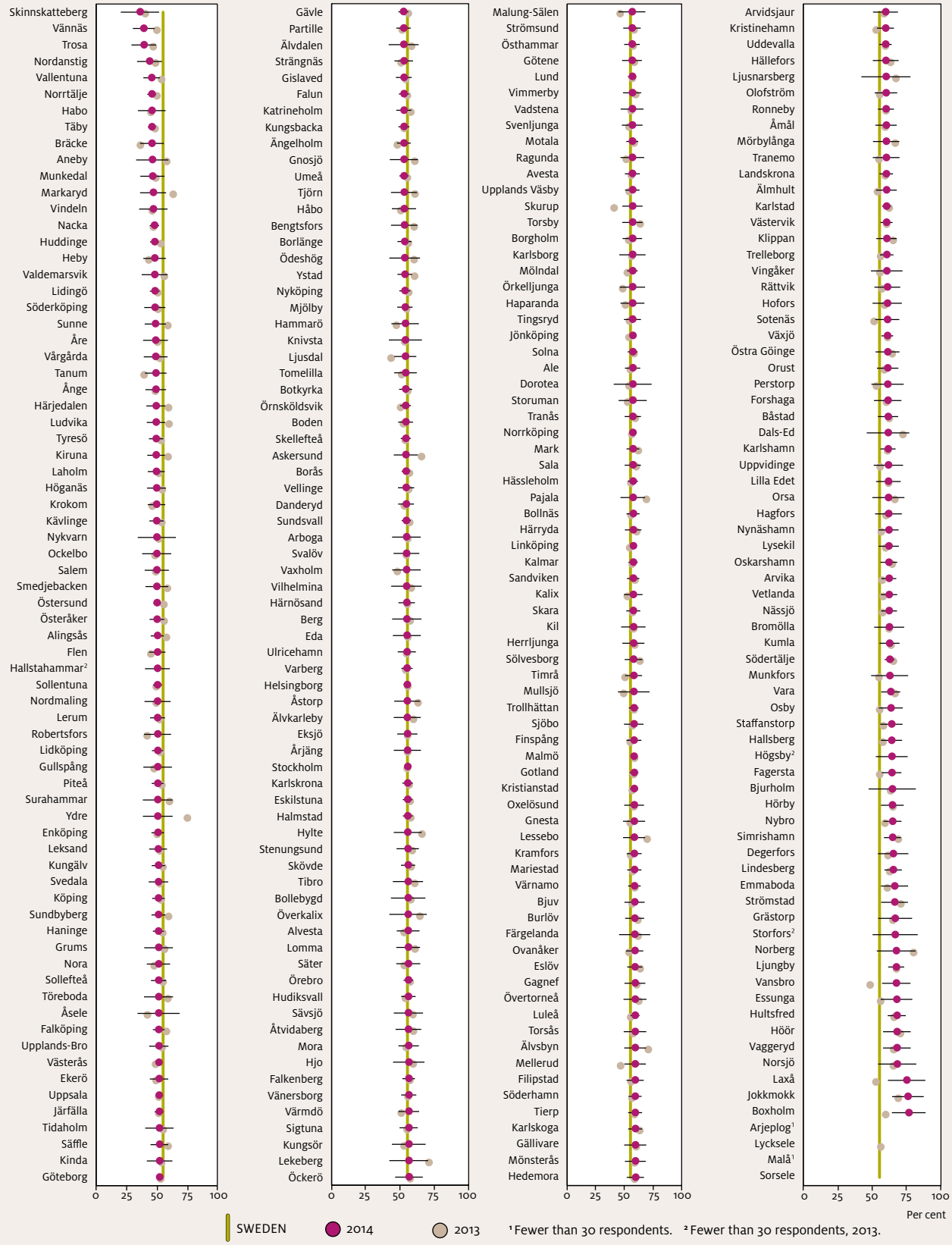
Source: Vad tycker de äldre om äldreomsorgen? [What do the elderly think about geriatric care?], the National Board of Health and Welfare.

FIGURE 29.2 – REGIONS, MEN: Individuals who answered yes to the question "Do you ever suffer from loneliness?", among elderly over 65 who have home care from the social service in the municipality, 2014.



Source: Vad tycker de äldre om äldreomsorgen? [What do the elderly think about geriatric care?], the National Board of Health and Welfare.

FIGURE 29.3 – MUNICIPALITIES: Individuals who answered yes to the question "Do you ever suffer from loneliness?", among elderly over 65 who have home care, social service interventions for elderly in the municipality, 2014.



Source: Vad tycker de äldre om äldreomsorgen? [What do the elderly think about social care for elderly in the municipality?], the National Board of Health and Welfare.

DOMESTIC VIOLENCE

Domestic violence in this context implies any form of physical, sexual, psychological or honour related violence which concerns members of the household or persons otherwise connected through a specified intimate relationship. Violence is committed by both women and men, but women are more likely to be the victims of domestic violence and the perpetrator is usually a man [147, 148]. Domestic violence is rarely reported to the police. A study from the Swedish National Council for Crime Prevention (BRÅ) indicates that about 4 per cent of those who were victims of domestic violence in 2012 reported this to the police [149]. In addition, few make contact with any form of support organisation. Only 7.0 per cent of women and 3.5 per cent of men who fall victim to domestic violence have made contact with social services because of the violence [149]. The combination of there being so few people who report domestic violence and few who are reached by the support available means that further stakeholders than simply the police or social services are needed in order to reduce the violence and support the victims, the perpetrators and those who are affected by domestic violence.

30. SURVEYING AND COLLABORATION

Women and men who are the victims of violence are in danger of being affected by a range of consequences that have an impact on their health, with post-traumatic stress disorder, depression, self-harming, risky use of alcohol and impaired physical health being some common examples [12, 20, 150]. The health consequences are also serious for children who are often at risk of developing post-traumatic stress disorder, behavioural problems and problems in their relationships with others. In addition, there is a risk of them becoming worried, restless and having difficulties in school, which can itself lead to ill-health [151]. There is also an increased risk of them becoming the victims of violence as adults [150].

Among women, the violence can also contribute to long periods of sick leave [152]. The health consequences are more serious for women, compared to the domestic violence to which men in heterosexual relationships are subjected [147, 149, 150]. The gender differences are even more considerable when it comes to deadly violence – women are four to five times more likely to be killed by their partner or ex-partner than men [20]. Domestic violence also has financial consequences for society as the costs for municipalities, the healthcare system, central government agencies and voluntary organisations, as well as the loss of production, amount to at least SEK 2.5 billion per year [125].

This report looks at two indicators related to domestic violence that are taken from regional comparisons of municipalities support for victims of crime. The first indicator studies the incidence of surveys concerning the extent of violence against adults in the municipalities, while the second measures the incidence of current agreements concerning collaboration between social services for youth and adolescent, preschools and schools in the municipalities.

The National Board of Health and Welfare's general advice (SOSFS 2014:4) states that the municipality should survey the extent of the problem of violence against women and of children who have witnessed violence. By doing so the municipality can see whether the interventions used meet the needs of the target group [154]. A survey of the municipalities in conjunction with regional comparisons of support to victims of crime in 2013 included a question concerning whether the municipality surveyed the extent of the problem of violence against adults. This process can involve collecting information from women's refuges, the police, schools and the healthcare system that gives an indication of the extent of violence in the municipality.

Few make contact with social services because of domestic violence [149], which means social services also need to work with other stakeholders [148]. Furthermore, social services' interventions reach even fewer and complementary interventions from other organisations are also required. Preschools and schools are important partners as they have the opportunity to detect children who are being harmed. Written procedures concerning collaboration with these can provide support to staff. A stable and effective partnership between social services, preschools and schools is dependent on governance from senior management and a good structure that prevents barriers. This structure can consist of written contracts or agreements with clarifications of who does what, when and how. These agreements can also involve the providers who looks after children placed in residential care homes in collaborating with schools, or ensuring children have the opportunity to complete their schooling while living in protected accommodation. If collaboration is to function, there needs to be a clear division of responsibility and a clear mission [155].

In conjunction with regional comparisons of social services for youth and adolescent municipalities had to respond to survey questions concerning the existence of such agreements with external stakeholders (e.g. preschools and schools) at the senior management level in individual cases, as well as to state whether they had monitored these agreements. In order for the agreements to count as current, the answer to both questions had to be "yes".

The results indicate that just under half of the municipalities (49 per cent) surveyed the extent of the problem of violence against adults in the municipality at some point in the past two years. This figure was 31 per cent at the time of the previous measurement in 2012. However, this only covered violence against women, which is why the results are not completely comparable.

With respect to the question concerning agreements with external stakeholders, the results show that a total of 60 per cent of the country's municipalities have a current agreement with both preschools and schools.

The proportion of municipalities that both survey the extent of the problem of violence against adults and also have a current agreement with preschools and schools in the specific case of violence amounts to 40 per cent.

Municipalities, county councils and voluntary organisations have an important role when it comes to domestic violence. This involves everything from being attentive to the problem of domestic violence and providing clear information about the initiatives available in order to ensure that all families receive the support they need. The following areas for development are among those that appear in regional comparisons of support provided to victims of crime 2014:

- using the opinions of victims of violence in order to develop services
- implementing systematic monitoring of interventions for victims of violence and children who have witnessed violence
- drawing up procedures for ensuring children in protected accommodation can go to school
- drawing up procedures for detecting violence and supporting victims of violence in services for the elderly and people with disabilities
- offering information about where to obtain support in different languages and in alternative formats.

30.1 - MUNICIPALITIES: Domestic violence, the social service in the municipalities answered questions regarding mapping and collaboration with external stakeholders:

1. Domestic violence, the social service in the municipalities answered questions regarding mapping and collaboration with external stakeholders:
2. The social service for children and youth have through agreements cooperated in individual cases together with preschool and schools (has followed up a written agreement adopted at management level and established on 1 November 2012 - 1 November 2013).

Municipality	1.	2.
Upplands Väsby	Yes	No
Vallentuna	Yes	Yes
Österåker	No	No
Värmdö	Yes	No
Järfälla	No	Yes
Ekerö	No	No
Huddinge	Yes	Yes
Botkyrka	Yes	Yes
Salem	No	No
Haninge	Yes	Yes
Tyresö	No	Yes
Upplands-Bro	No	No
Nykvarn	No	Yes
Täby	No	No
Danderyd	Yes	Yes
Sollentuna	Yes	Yes
Stockholm		
Rinkeby-Kista	*Yes*	*Yes*
Spånga-Tensta	*No*	*No*
Hässelby	*Yes*	*No*
Bromma	*Yes*	*Yes*
Kungsholmen	*Yes*	*No*
Norrmalm	*Yes*	*Yes*
Östermalm	*Yes*	*Yes*
Södermalm	*Yes*	*Yes*
Enskede-Årsta-Vantör	*No*	*Yes*
Skarpnäck	*Yes*	*No*
Farsta	*No*	*No*
Älvsjö		*Yes*
Hägersten-Liljeholmen	*No*	*No*
Skärholmen	*Yes*	*Yes*
Södertälje	No	Yes
Nacka	Yes	No
Sundbyberg	No	Yes
Solna	Yes	No
Lidingö	Yes	No
Vaxholm	No	No
Norrtälje	Yes	No
Sigtuna	Yes	Yes
Nynäshamn	Yes	Yes
Håbo	Yes	No
Älvkarleby	No	No
Knivsta	No	No
Heby		No
Tierp	No	No
Uppsala	Yes	Yes
Enköping	Yes	No
Östhammar		Yes
Vingåker	No	Yes
Gnesta	Yes	Yes
Nyköping	No	Yes
Oxelösund	Yes	Yes
Flen	No	No
Katrineholm	Yes	Yes
Eskilstuna	No	No
Strängnäs	Yes	Yes
Trosa	Yes	No
Ödeshög	No	No
Ydre		No
Kinda		
Boxholm	No	No
Åtvidaberg	Yes	Yes
Finspång	No	Yes
Valdemarsvik		
Linköping	Yes	No
Norrköping	No	Yes
Söderköping	No	No
Motala	Yes	No
Vadstena	No	Yes
Mjölby		Yes
Aneby	No	Yes
Gnosjö	Yes	Yes
Mullsjö	Yes	Yes
Habo	Yes	Yes
Gislaved	Yes	Yes
Vaggeryd	Yes	Yes
Jönköping	Yes	Yes
Nässjö	No	Yes
Värnamo	Yes	Yes
Sävsjö	Yes	Yes

Municipality	1.	2.
Vetlanda	No	Yes
Eksjö	No	Yes
Tranås	No	Yes
Uppvidinge		No
Lessebo	No	No
Tingsryd	No	Yes
Alvesta	Yes	No
Älmhult	No	No
Markaryd	Yes	Yes
Växjö	No	Yes
Ljungby	No	No
Högsby	No	
Torsås	No	Yes
Mörbylånga	No	No
Hultsfred		No
Mönsterås	No	No
Emmaboda	No	Yes
Kalmar	No	Yes
Nybro	Yes	Yes
Oskarshamn	No	Yes
Västervik	No	No
Vimmerby	Yes	No
Borgholm	No	No
Gotland	Yes	No
Olofström	Yes	Yes
Karlskrona	No	Yes
Ronneby	Yes	Yes
Karlshamn	No	Yes
Sölvesborg	No	No
Svalöv	Yes	Yes
Staffanstorp	Yes	No
Burlöv	No	No
Vellinge		
Östra Göinge	No	No
Örkelljunga	Yes	Yes
Bjuv		*
Kävlinge	Yes	Yes
Lomma	No	No
Svedala		Yes
Skurup		Yes
Sjöbo	Yes	Yes
Hörby	Yes	Yes
Höör	No	No
Tomelilla	Yes	No
Bromölla	Yes	No
Osby	No	Yes
Perstorp	No	No
Klippan		No
Åstorp	Yes	Yes
Båstad	No	Yes
Malmö		
Innerstaden	*Yes*	*No*
Norr	*Yes*	*No*
Söder	*No*	*No*
Väster	*No*	*No*
Öster	*Yes*	*No*
Lund	Yes	Yes
Landskrona		No
Helsingborg	No	Yes
Höganäs	Yes	Yes
Eslöv		Yes
Ystad	Yes	Yes
Trelleborg	No	Yes
Kristianstad	Yes	No
Simrishamn	Yes	No
Ängelholm	No	No
Hässleholm	Yes	Yes
Hylte	No	
Halmstad	Yes	No
Laholm	Yes	Yes
Falkenberg	No	No
Varberg	Yes	No
Kungsbacka	No	Yes
Härryda	No	Yes
Partille		Yes
Öckerö	No	Yes
Stenungsund	Yes	Yes
Tjörn	No	Yes
Orust	Yes	No
Sotenäs	No	No

Municipality	1.	2.
Munkedal		
Tanum	No	Yes
Dals-Ed	No	Yes
Färgelanda		
Ale	Yes	Yes
Lerum	No	Yes
Vårgårda		Yes
Bollebygd	No	Yes
Grästorp	No	Yes
Essunga	No	Yes
Karlsborg	No	No
Gullspång	Yes	Yes
Tranemo	Yes	Yes
Bengtsfors	No	No
Mellerud	No	
Lilla Edet	Yes	Yes
Mark	No	Yes
Svenljunga	Yes	
Herrljunga		Yes
Vara	Yes	No
Götene	No	No
Tibro	Yes	Yes
Töreboda	Yes	No
Göteborg		
Angered	Yes	Yes
Östra Göteborg	Yes	Yes
Örgryte-Härlanda	Yes	Yes
Centrum	Yes	No
Majorna-Linné	Yes	Yes
Askim-Frölunda-Högsbo	Yes	Yes
Västra Göteborg	No	Yes
Västra Hisingen	Yes	Yes
Lundby	Yes	No
Norra Hisingen	No	Yes
Mölndal	Yes	Yes
Kungälv		No
Lysekil	No	No
Uddevalla	Yes	Yes
Strömstad	Yes	Yes
Vänersborg	Yes	Yes
Trollhättan	Yes	Yes
Alingsås	Yes	No
Borås	Yes	Yes
Ulricehamn	No	Yes
Åmål	No	Yes
Mariestad	No	No
Lidköping	Yes	Yes
Skara	No	No
Skövde	No	Yes
Hjo	No	No
Tidaholm		Yes
Falköping	Yes	Yes
Kil	No	No
Eda		
Torsby	No	No
Storfors	No	
Hammarö	Yes	
Munkfors	No	No
Forshaga	No	Yes
Grums	Yes	Yes
Årjäng	No	No
Sunne		No
Karlstad	Yes	Yes
Kristinehamn	Yes	Yes
Filipstad	No	Yes
Hagfors	Yes	Yes
Arvika	No	Yes
Säffle	No	No
Lekeberg	No	No
Laxå	No	No
Hallsberg	No	No
Degerfors	No	Yes
Hällefors	No	No
Ljusnarsberg		No
Örebro	Yes	Yes
Kumla	No	No
Askersund	No	No
Karlskoga	No	Yes
Nora		Yes
Lindesberg	Yes	No

Municipality	1.	2.
Skinnskatteberg	No	No
Surahammar	Yes	No
Kungsör	No	No
Hallstahammar	Yes	Yes
Norberg	Yes	No
Västerås	No	Yes
Sala	No	Yes
Fagersta	Yes	Yes
Köping	Yes	Yes
Arboga	No	Yes
Vansbro	No	*
Malung-Sälen	No	Yes
Gagnef	Yes	No
Leksand	No	Yes
Rättvik	No	No
Orsa	No	No
Älvdalen	No	No
Smedjebacken	No	Yes
Mora	No	No
Falun	Yes	No
Borlänge	Yes	
Säter	Yes	No
Hedemora	No	
Avesta	No	No
Ludvika	Yes	No
Ockelbo	Yes	Yes
Hofors	No	No
Ovanåker	Yes	Yes
Nordanstig	Yes	No
Ljusdal	Yes	No
Gävle	No	No
Sandviken	Yes	Yes
Söderhamn	Yes	No
Bollnäs	No	Yes
Hudiksvall	Yes	Yes
Ånge	No	*
Timrå	No	Yes
Härnösand	Yes	No
Sundsvall	Yes	No
Kramfors	Yes	Yes
Sollefteå	Yes	Yes
Örnsköldsvik	Yes	No
Ragunda	No	No
Bräcke	No	No
Krokom	No	No
Strömsund	No	No
Åre	No	No
Berg	Yes	No
Härjedalen	Yes	Yes
Östersund	Yes	Yes
Nordmaling	Yes	No
Bjurholm	Yes	*
Vindeln	No	No
Robertsfors	No	No
Norsjö	Yes	No
Malå	No	Yes
Storuman	No	Yes
Sorsele		No
Dorotea		*
Vännäs	Yes	Yes
Vilhelmina	No	No
Åsele		No
Umeå	No	No
Lycksele	No	Yes
Skellefteå	Yes	Yes
Arvidsjaur	No	Yes
Arjeplog		Yes
Jokkmokk	Yes	No
Överkalix	No	Yes
Kalix	No	Yes
Övertorneå	No	
Pajala	Yes	Yes
Gällivare	No	No
Älvsbyn		Yes
Luleå	Yes	Yes
Piteå	Yes	Yes
Boden		Yes
Haparanda	No	
Kiruna	Yes	Yes

* Not applicable if the operations are conducted by the same manager.

Source: Open comparisons - Crime victim, the National Board of Health and Welfare.

Lifestyle and living habits

Lifestyle and living habits deals with specific human behaviours in everyday activities over which the individual themselves has an influence, for example eating habits, physical activity, tobacco and alcohol use and sleeping and sexual habits. Society can also create favorable conditions in which individuals can themselves influence the choices they make concerning their own lifestyle habits. Lifestyle habits are affected by social conditions and living conditions [1, 2].

PHYSICAL ACTIVITY

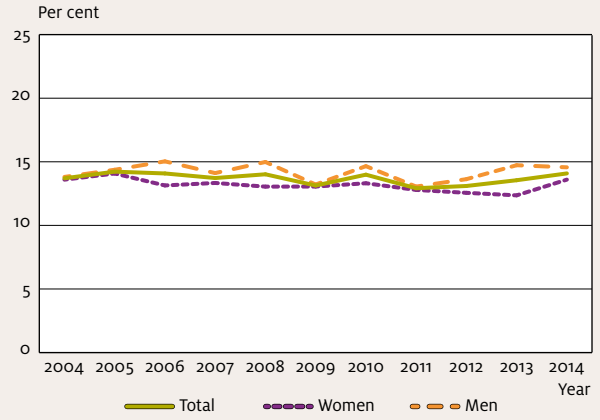
Physical activity is used as a generic term and encompasses body movements during both work and recreation and various forms of physical activity, for example sport, play, gymnastics, exercise and outdoor activities. It can also be said that physical activity is a health factor, while physical inactivity is a risk factor. However, it is entirely possible to achieve the recommended minimum of 30 minutes' moderate physical exertion at the same time as being highly sedentary.

The "bone bank" that children and adolescents build up in their skeletons has a great deal of importance later in life. The bone bank is built up through physical activity and loading and part of this activity can be made up of sport. Physical activity in leisure time has become increasingly important as our work has become increasingly sedentary.

31. SEDENTARY LEISURE TIME

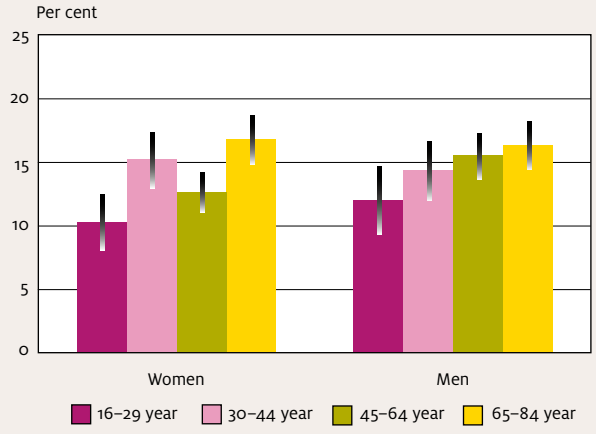
New research shows that being sedentary is in itself a risk factor for several diseases [12]. According to the WHO, physical inactivity is the fourth most important risk factor for premature death and plays a major role in the increasing global incidence of non-infectious diseases [156]. It is primarily the level of activity during leisure time and the quality of that leisure time that has been shown to be important to how people feel with respect not only to physical capacity and general health, but also to general health and social capacity, emotional and mental health [157]. A common recommendation is 30 minutes of physical activity per day.

FIGURE 31.1 – SWEDEN: Individuals who stated that they have a sedentary leisure time when asked "How much have you moved about and exerted yourself physically in your leisure time during the past 12 months?", 16–84 years old.



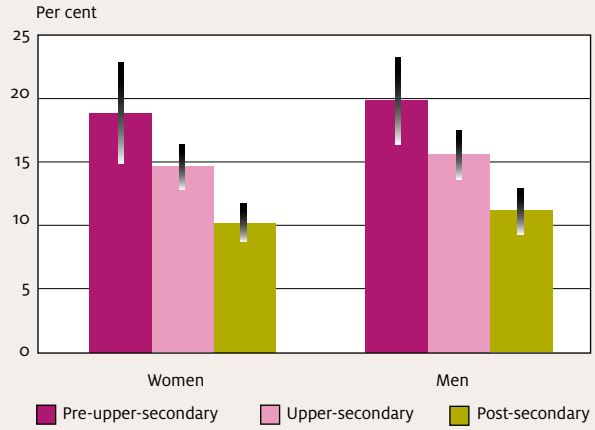
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGUARE 31.2 – AGE GROUPS, SWEDEN: Individuals who stated that they have a sedentary leisure time when asked "How much have you moved about and exerted yourself physically in your leisure time during the past 12 months?", 2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGUARE 31.3 – EDUCATION: SWEDEN: Individuals who stated that they have a sedentary leisure time when asked "How much have you moved about and exerted yourself physically in your leisure time during the past 12 months?", 35–74 years old, 2014.



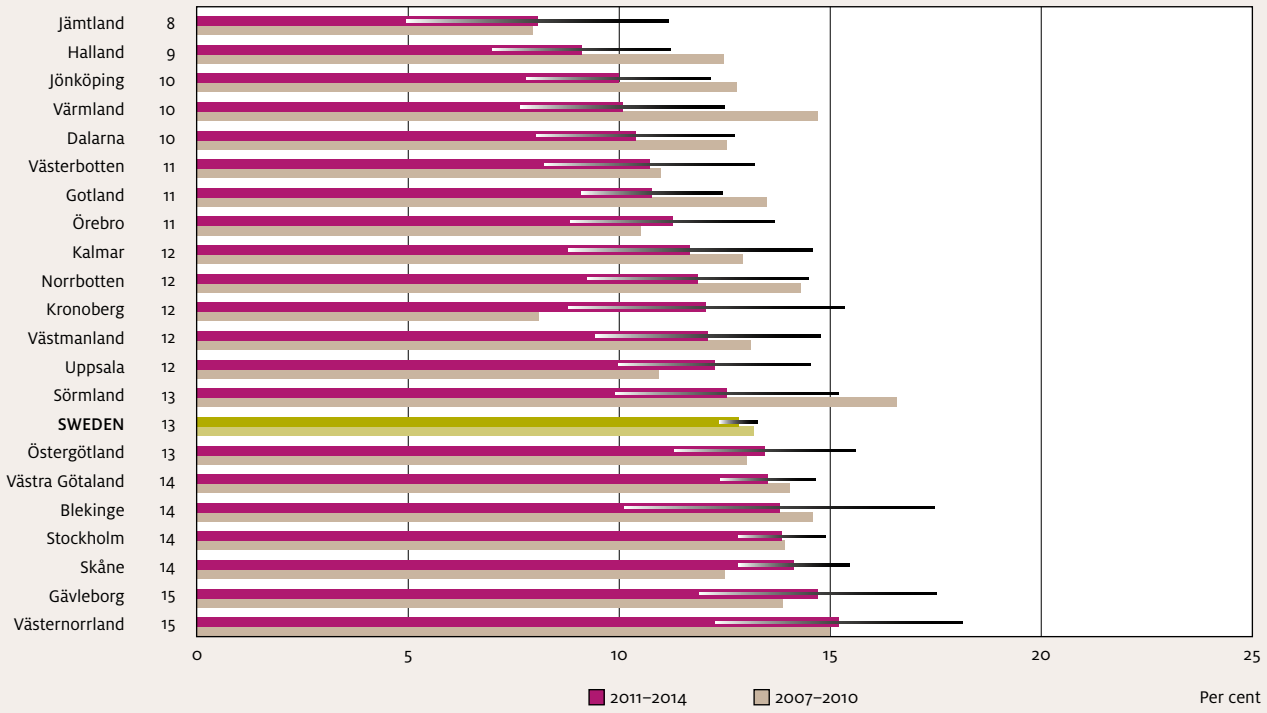
Source: Health on Equal Terms, Public Health Agency of Sweden. Register of Education (UREG), Statistics Sweden.

It is important to take into account people's varying circumstances when society's public, private and voluntary stakeholders design environments and organise services [158]. Promoting older people's opportunities to take part in daily activity and go outdoors is vital. This can be done by working together with citizens to plan easily accessible green spaces close to housing. Municipalities and county councils also have a responsibility as employers to encourage opportunities for physical activity among their employees, which may involve activities both during and outside of working hours. The national guidelines for methods of preventing disease recommends advisory discussions and written prescriptions of physical activity and/or the use of step counters. These measures have been shown to be effective [55, 159].

Sedentary leisure time is most common among those with a low educational level

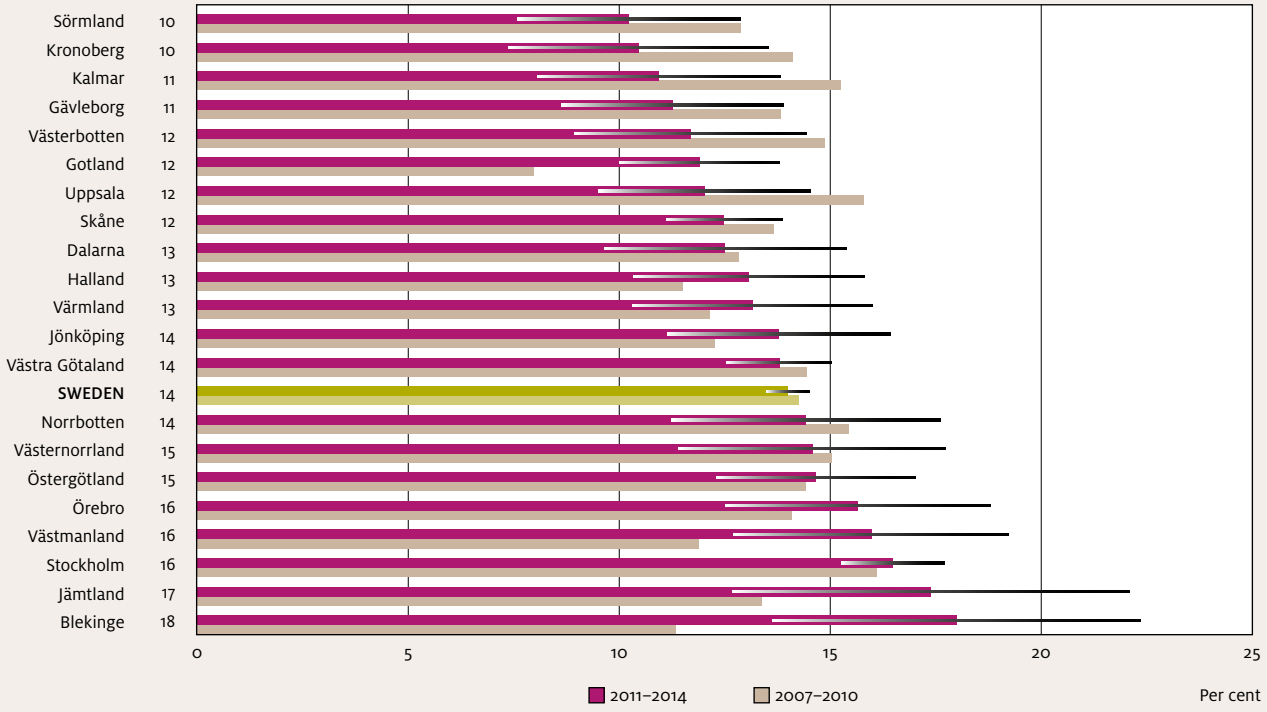
The proportion who state they have a sedentary leisure time has not changed appreciably between the measurement periods 2007 and 2014, but there are regional and local variations. Among women, sedentary leisure time is commonest in the oldest age group, while, for men, the age group 45–64 years contains the highest proportion who are inactive in their leisure time. The proportion whose leisure time is sedentary has been around 12–14 per cent since 2004. A sedentary leisure time is more common among individuals with a low educational level than among those with a higher educational level.

FIGURE 31.4 – REGIONS, WOMEN: Individuals who stated that they have a sedentary leisure time when asked "How much have you moved about and exerted yourself physically in your leisure time during the past 12 months?", 16–84 years old, 2011–2014.



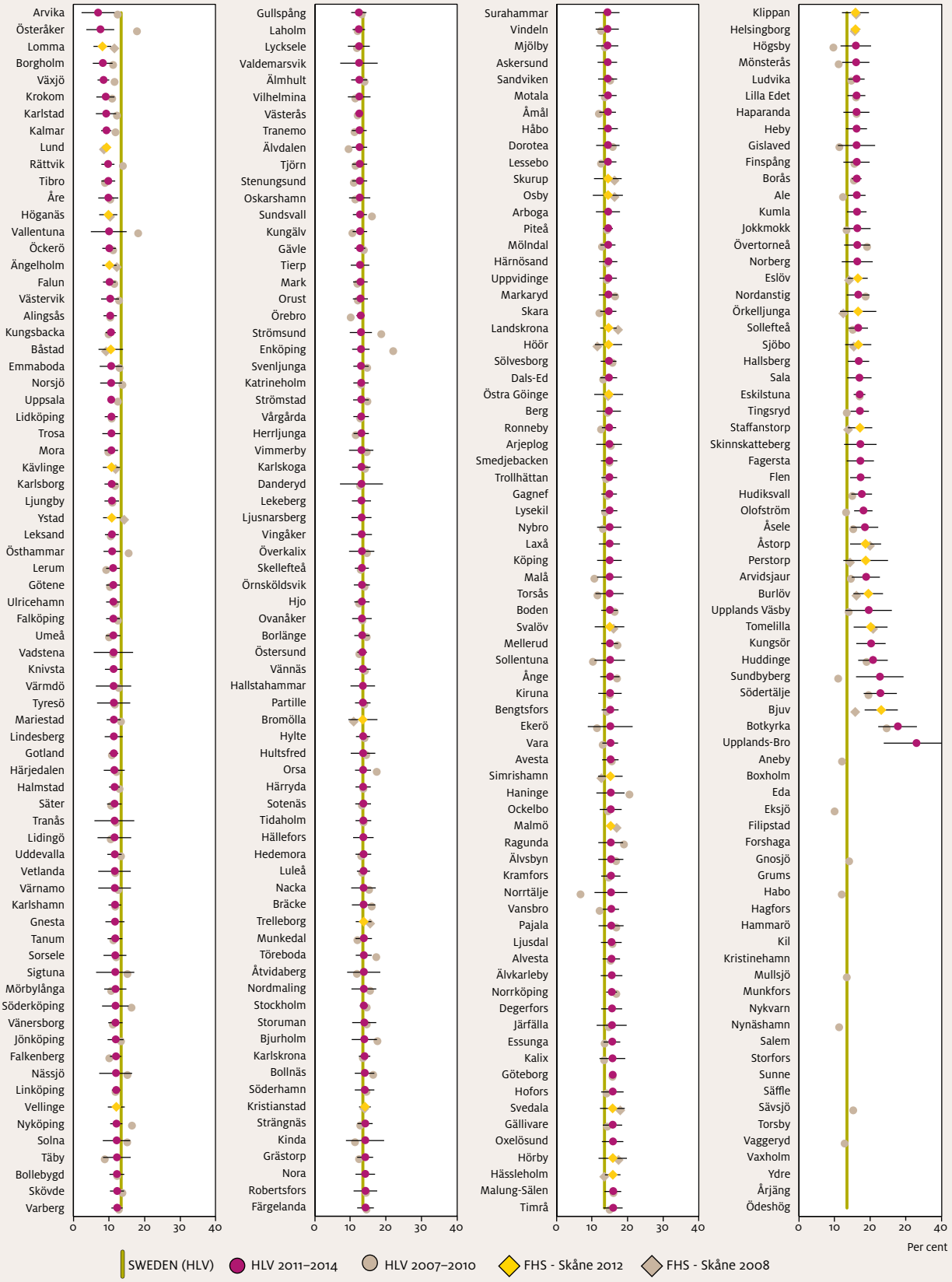
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 31.5 – REGIONS, MEN: Individuals who stated that they have a sedentary leisure time when asked "How much have you moved about and exerted yourself physically in your leisure time during the past 12 months?", 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 31.6 – MUNICIPALITIES: Individuals who stated that they have a sedentary leisure time when asked "How much have you moved about and exerted yourself physically in your leisure time during the past 12 months?" (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old.



Values with less than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne.

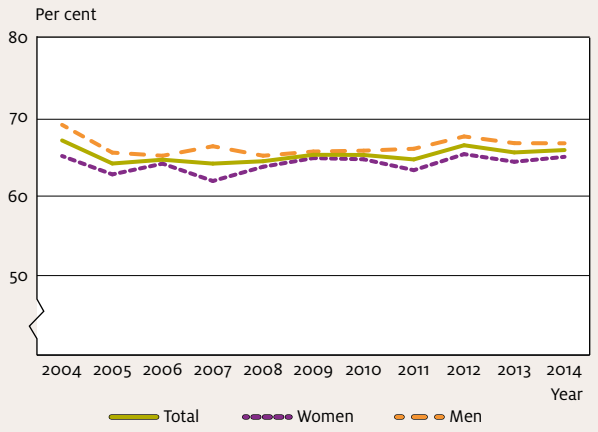
32. REGULAR PHYSICAL ACTIVITY FOR AT LEAST HALF AN HOUR PER DAY

Regular physical activity is a health factor and has been shown to combat the emergence of a large number of diseases such as cardiovascular disease, type 2 diabetes, hypertension, high cholesterol, bowel cancer and also depression [53]. Physical activity also has a major importance in combating overweight and obesity, strengthening the muscles, joints and immune system, as well as relieving anxiety, worry and sleep disturbances. Physical activity also reduces the risk of death [55, 160]. Physical activity should be undertaken regularly and feel mildly strenuous [157].

It is primarily the level of activity during leisure time and the quality of that leisure time that has been shown to be important to how people feel with respect to not only physical capacity and general health, but also general health and social capacity, emotional and mental health. A common recommendation is 30 minutes of physical activity per day [158]. Specially adapted conditions can be created for daily physical activity through dialogue with citizens, for example in childcare services and schools. It is important to design school playgrounds and play parks so that they are safe environments that encourage play and movement. Schools have to encourage their pupils to be healthy and school health services are responsible for preventative work that takes place in schools [161].

FYSS 2008 is a source of information summarising the extent to which physical activity can be used to prevent and treat various illnesses. Research indicates that prescribing physical activity on prescription (fysisk aktivitet på recept, FaR®) increases patients' physical activity [160]. FaR® has also been shown to have the same degree of compliance among patients as other long-term treatments, but there needs to be support and interventions in a number of areas in the FaR® concept. For example, this involves expanding the training of qualified staff, developing information and discussion techniques for prescribers and stimulating the monitoring of FaR® patients. The target group for this assignment is broad as the entire chain of FaR® is to be illuminated. The care chain encompasses such groups as prescribers within the county council, district sports associations, activity organisers and patients [160].

FIGURE 32.1 – SWEDEN: Regular physical activity – individuals who answers two questions, how much they estimate to be engaged in 30 minutes of moderately strenuous activity a day (3.5 hours per week), 16–84 years old.

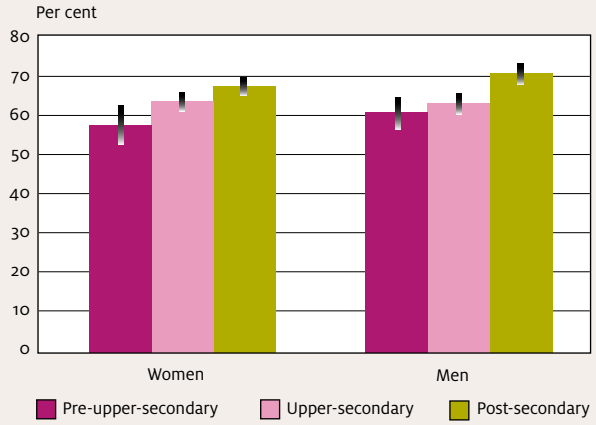


Source: Health on Equal Terms, Public Health Agency of Sweden.

Municipalities and county councils also have a responsibility as employers to encourage opportunities for physical activity among their employees. It is also possible to read about this in the national guidelines for methods of preventing disease [55] in the section on physical activity and sedentary lifestyle habits.

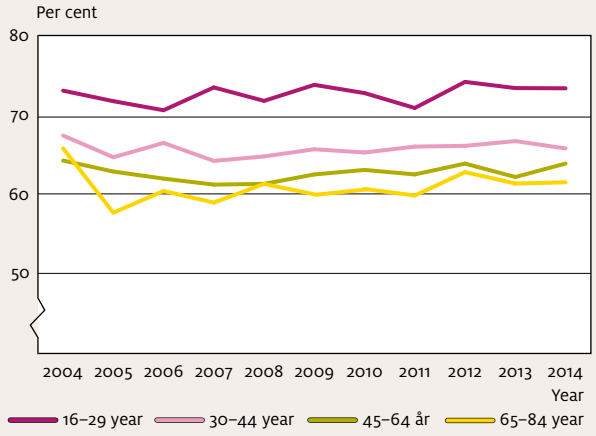
It is difficult to estimate the degree of physical activity in a population. The indicator shows an estimate, based on responses to two questions, of the proportion who achieve an average of 30 minutes' moderately strenuous physical activity per day, in line with what is commonly recommended. However, it is not possible on the basis of the response options available to draw an exact limit as these contain a mixture of intensity, volume and frequency. The assessment of the response options available is consistent, but there is the potential for individuals to be assigned to the wrong categories.

FIGURE 32.3 – EDUCATION: SWEDEN: Regular physical activity – individuals who answers two questions, how much they estimate to be engaged in 30 minutes of moderately strenuous activity a day (3.5 hours per week), 35–74 years old, 2014.



Source: Health on Equal Terms, Public Health Agency of Sweden. Register of Education (UREG), Statistics Sweden.

FIGURE 32.2 – AGE GROUPS, SWEDEN: Regular physical activity – individuals who answers two questions, how much they estimate to be engaged in 30 minutes of moderately strenuous activity a day (3.5 hours per week).



Source: Health on Equal Terms, Public Health Agency of Sweden.

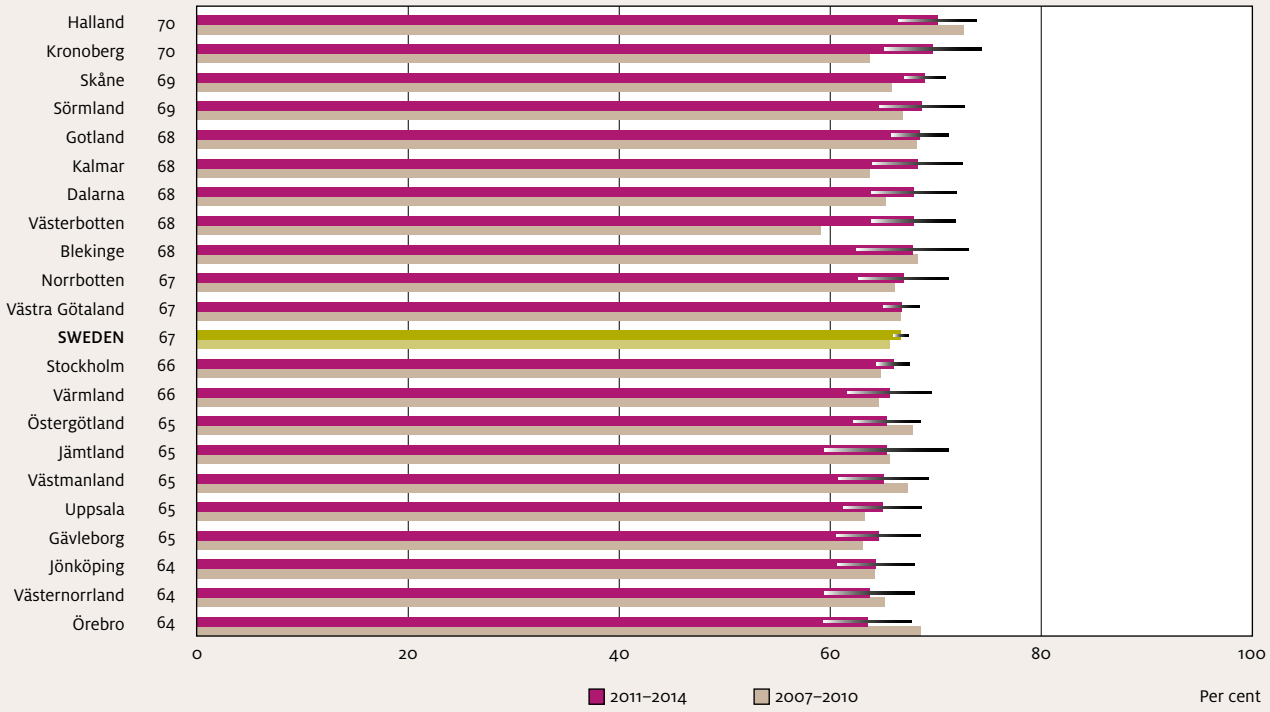
Men with a high educational level exercise most

The proportion who state that they are physically active (measured as at least 30 minutes per day) is basically unchanged over the course of the period 2007 to 2014, but there are regional and local variations. The proportion who are physically active has been around 65 per cent since 2004 among both women and men. The lowest proportion is found among women with only pre-upper-secondary education. The proportion who state they are physically active is highest in the younger age groups and then declines. There are differences between the educational groups to the advantage of those who have a high educational level.

FIGURE 32.4 – REGIONS, WOMEN: Regular physical activity – individuals who answers two questions, how much they estimate to be engaged in 30 minutes of moderately strenuous activity a day (3.5 hours per week), 16–84 years old, 2011–2014.

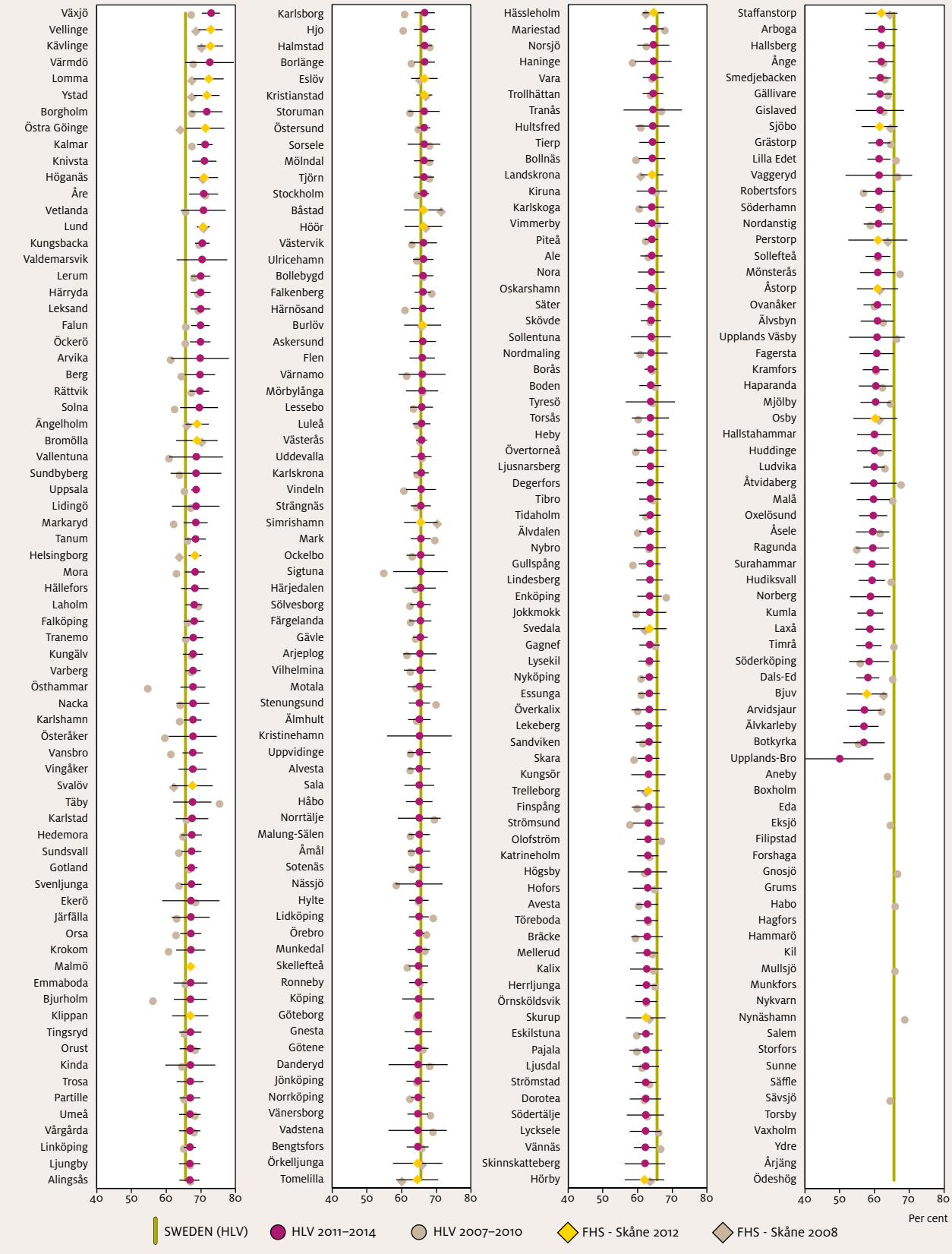
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 32.5 – REGIONS, MEN: Regular physical activity – individuals who answers two questions, how much they estimate to be engaged in 30 minutes of moderately strenuous activity a day (3.5 hours per week), 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 32.6 – MUNICIPALITIES: Regular physical activity – individuals who answers two questions, how much they estimate to be engaged in 30 minutes of moderately strenuous activity a day (3.5 hours per week), (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old.



Values with fewer than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne.

33. PARTICIPATION IN ACTIVITIES ARRANGED BY SPORTS CLUBS

Children and young people who are physically active build up their skeleton and their muscles at the same time as they develop their movement capability. If they are not sufficiently physically active, they are at a greater risk of ill-health [162]. Physical activity also has a relatively positive impact on young people's perceived physical expertise. The potential of physical activity to prevent young people smoking is relatively underutilised [163]. A review of the literature on children's physical activity reports the results of a measurement using step counters. The results show that Swedish children and adolescents aged 7–18 are the most physically active in comparison with those in other countries [164]. Nonetheless, self-reported physical activity among 11–15-year olds is low according to an international comparison that investigated the proportion who state that they achieve the Public Health Agency of Sweden's recommended amount of physical activity per day, which is 60 minutes for children and adolescents. Physical activity decreases during the teenage years; a trend that continues in adult life [162]. Boys are more physically active at all ages. Those who stop participating in team sports often do so because they do not believe they are sufficiently good at them and they do not get to play enough. In order to prevent people stopping an activity, it has to be sufficiently fun. This factor is of great importance when someone begins taking part in a sport, but then gradually stops [165].

There are many ways for children and adolescents to be physically active in their leisure time, for example play, cycling to and from school or practising a sport or sporting activity. There are statistics at the local level on payments of central government grants for local activities (statligt lokalt aktivitetsstöd, LOK), the intention of which is to support the activities of sports clubs for children and young people aged 7 to 20. Several studies show a decline in physical activity [166] and the activities of sports clubs in the teenage years [165–168]. The age group 13–20 is therefore of great interest. In addition, adult-led structured activities are important and can prevent the use of alcohol and drugs [169].

The indicator shows the number of instances of participation per inhabitant aged 13–20 in the sports clubs that were eligible for LOK over the course of the year. The measure shows the average number of instances of participation, which means that some individuals may account for many instances, while others for none. In addition to LOK, municipalities also often provide local grants to instances of participation, but this information is not included here.

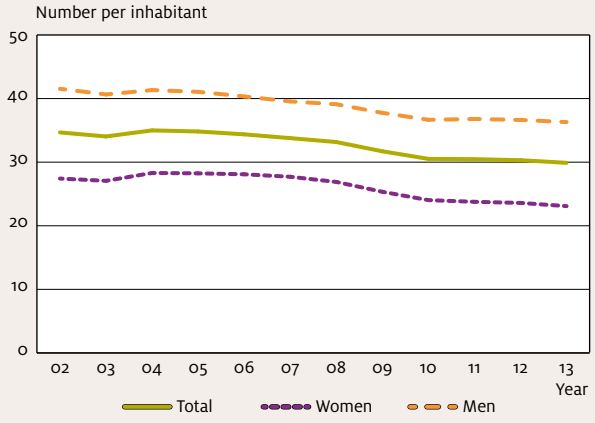
The results for instances of participation in sports clubs at the national level in 2013 are 36 instances for boys and 23 instances for girls in the age group. The number of instances has decreased over the course of a ten-year period for both boys and girls. The results are also lower at the municipal level in the majority of municipalities and in almost all counties when comparing 2013 and 2009.

The figures for instances of participation vary a lot between municipalities – overall between 3 and 71 instances (girls 1–49 and boys 4–92 instances of participation). These vary between 23 and 39 at the county level. If the results are broken down into different ages in the group, you can see that the instances of participation halve among 17–20-year olds, compared with 13–16-year olds. Football, horse-riding and floorball are the sports that have more participation among 7–20-year olds [170]. The number of sports clubs in the country increased up until the year 2000, but has been decreasing ever since. The density of sports clubs is highest in Jämtland, Härjedalen and Dalarna [170].

Many stakeholders can contribute to improving the situation. The central government contributes to reducing the cost of participation through LOK grants, something that

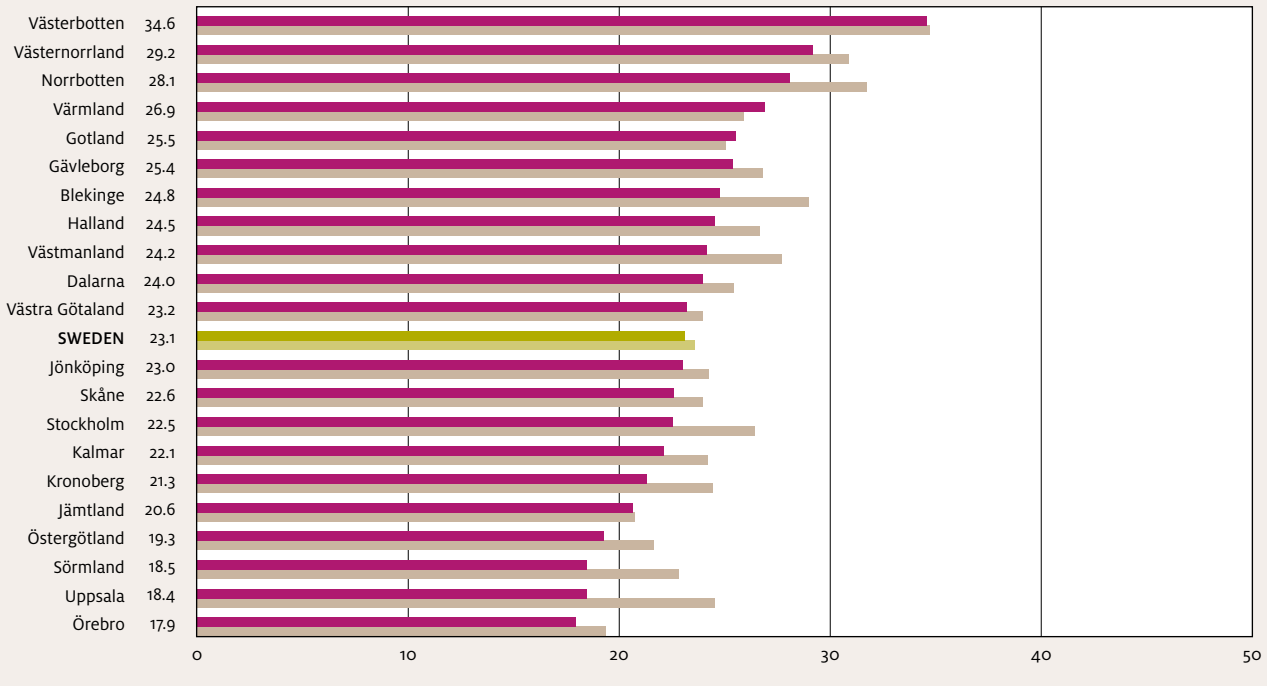
can be complemented by financial support from municipalities. This can contribute to additional families having the financial opportunity to participate in sports clubs' activities. Some municipalities use the socioeconomic perspective as the basis of their work to review the guidelines for calculating assistance with respect to children and young people's leisure activities. Work to improve the situation should be directed not just at involving and retaining the involvement in sporting activities of as many young people as possible, but can also be combined with other things. These can be supervised spontaneous sporting activities for both boys and girls, e.g. drive-in-sports, which do not require much equipment or focus on competition, etc. Municipalities can also contribute by providing attractive local environments in residential areas, around preschools and schools and invest in building safe routes to schools. Furthermore, voluntary organisations are important stakeholders in sport and in cultural and other activities. Such organisations can reach out to and engage with different groups of children and young people based on the different desires, financial circumstances and diversity of boys and girls. In addition, this involves the content and format of sporting activities such as the group climate, the level of attention regardless of ability, the importance of reinforcing social skills and good contact with adults and other young people [163]. Supervised activities are also a protective factor that reduces the use of alcohol, narcotics, doping and tobacco (ANDT). Activities are presumed to reinforce the bond between people and create clear rules of behaviour [169]. Leisure activities are one of many important constituents of the preventative work against ANDT, particularly in the age groups 6–12 and 13–18 [169].

FIGURE 33.1 – SWEDEN: Individuals in the age group 13–20 who participate during a year in sports associations that qualify for municipal local activity support, divided by the number of inhabitants aged 13–20.



Source: The Swedish Sports Confederation.

FIGURE 33.2 – REGIONS, WOMEN: Individuals in the age group 13–20 who participate during a year in sports associations that qualify for municipal local activity support, divided by the number of inhabitants aged 13–20, 2013.

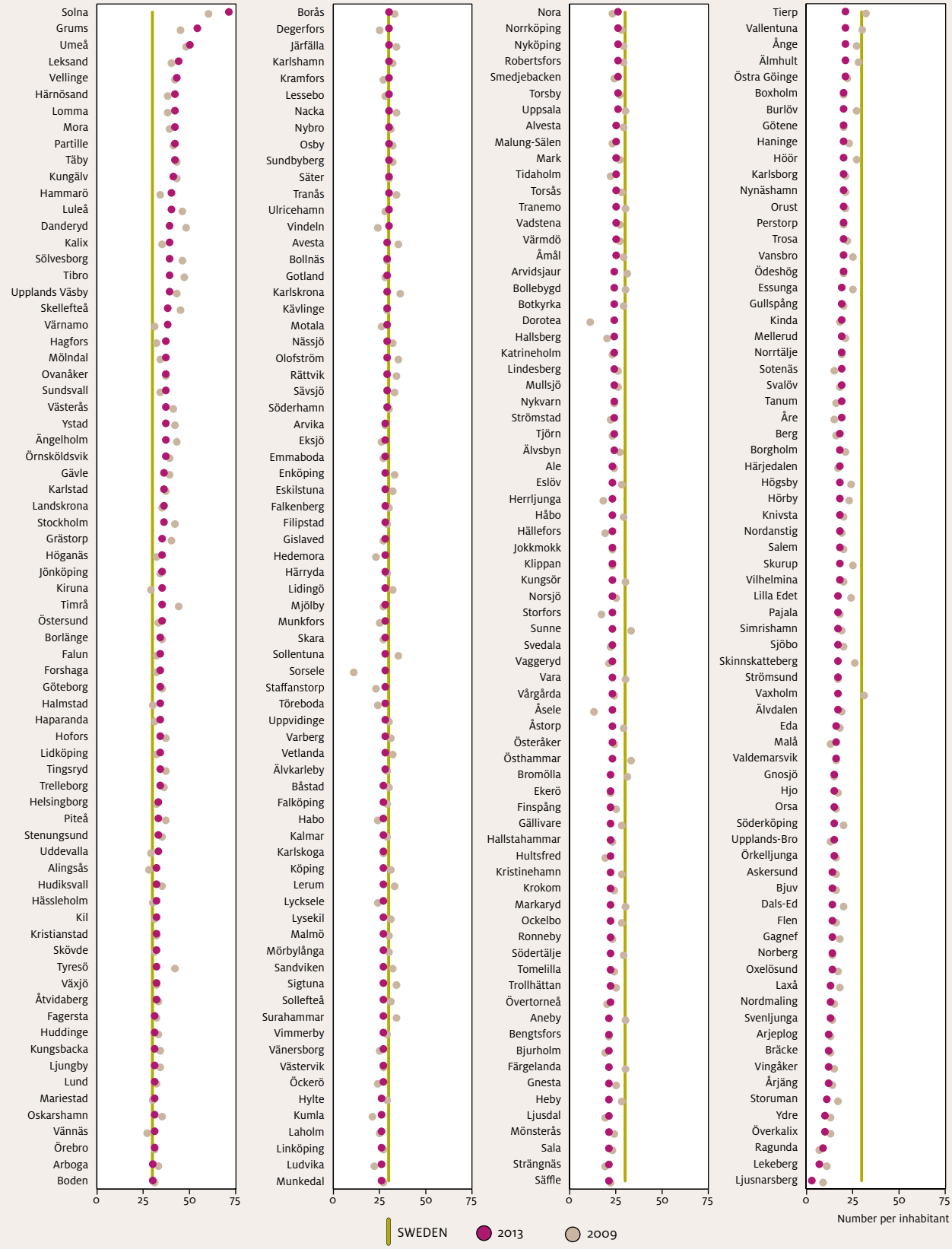


Source: The Swedish Sports Confederation.

FIGURE 33.3 – REGIONS, MEN: Individuals in the age group 13–20 who participate during a year in sports associations that qualify for municipal local activity support, divided by the number of inhabitants aged 13–20, 2013.

Source: The Swedish Sports Confederation.

FIGURE 33.4 – MUNICIPALITIES: Individuals in the age group 13–20 who participate during a year in sports associations that qualify for municipal local activity support, divided by the number of inhabitants aged 13–20, 2013.



Source: The Swedish Sports Confederation.

EATING HABITS

Good eating habits and safe food are prerequisites if the population's health is to develop in a positive direction, and these together constitute one of the objective domains of public health policy [18]. Good eating habits in the form of the intake of fruit, vegetables and fats has been shown to be linked to, for example, a decreased risk of cardiovascular disease and certain forms of cancer. Diet and eating habits are also of considerable importance to type 2 diabetes, overweight and tooth decay [55, 160].

34. CONSUMPTION OF FRUIT AND VEGETABLES

A well-composed and nutritious diet promotes health. Wholemeal cereal products, fish, fruit and vegetables are foods with a good nutritional content that we eat too little of. Educational level, accessibility, price and values are some factors that have an impact on consumption. Heart disease, high blood pressure and some types of cancer are examples of diseases and conditions linked to low intake of fruit and vegetables. The Swedish National Food Agency's recommendations to eat more vegetables and fruit are supported by major international health studies. The recommendation is to eat at least 500 grams per day. Barely 10 per cent are estimated to achieve the recommended level [171, 172].

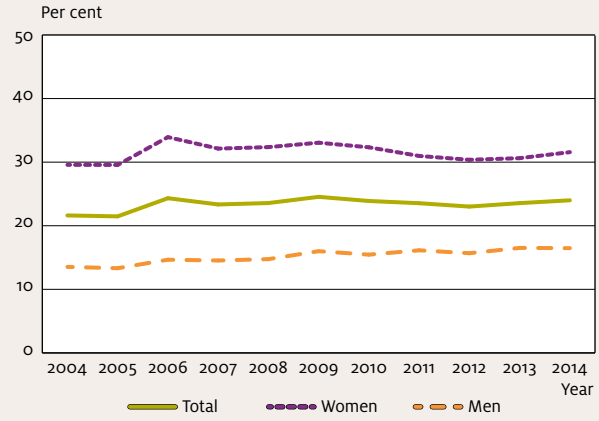
Schools and health and social care organisations, including the healthcare system, have a responsibility to serve good, nutritious food to pupils, service users and patients. Offering a good range of nutritious products in children's environments is particularly important. Schools have a responsibility to educate pupils and promote a good diet [173].

The government commission "A Healthier Sweden" aims to give people inspiration and knowledge about eating well and taking exercise by taking note of concrete examples from throughout the entire country. This commission has included a specific focus on individuals with intellectual disabilities. Municipalities, county councils, regions, voluntary organisations and private stakeholders will collaborate in this work. For 2014, Friskvården i Värmland, has been responsible for the administration and coordination of "A Healthier Sweden".

The healthcare system should work to ensure that food is good and nutritious and provide information and individual advice about diet and breastfeeding. This applies both within the scope of its work with patients and also to prevention, for example in maternal and paediatric health services. The national guidelines for methods of preventing disease recommends that patients with unhealthy eating habits be offered a qualified advisory discussion.

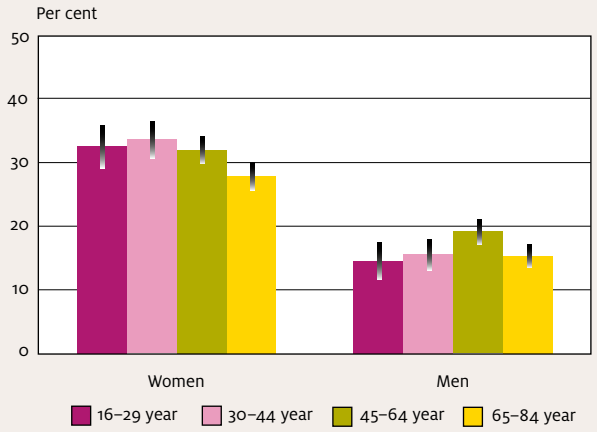
The National Board of Health and Welfare assesses that eating habits is the lifestyle habit that the healthcare system has so far devoted the least effort to tackling. Accordingly, there is room for improvement [55].

DIAGRAM 34.1 – SWEDEN: Individuals who states that they eat fruit and/or vegetables more than 3 times per day, 16–84 years old.



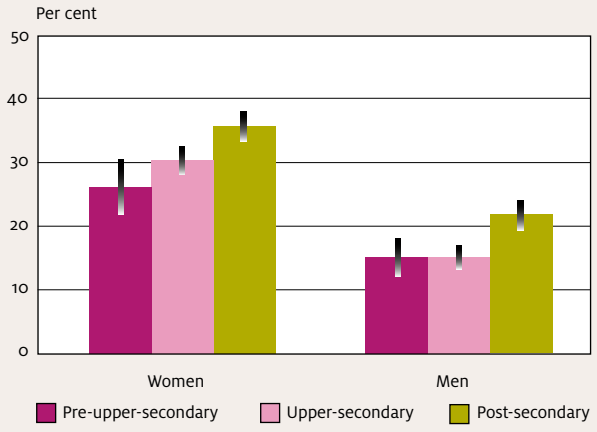
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 34.2 – AGE GROUPS, SWEDEN: Individuals who states that they eat fruit and/or vegetables more than 3 times per day, 16–84 years old, 2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGUARE 34.3 – EDUCATION: SWEDEN: Individuals who states that they eat fruit and/or vegetables more than 3 times per day, 35–74 years old, 2014.



Source: Health on Equal Terms, Public Health Agency of Sweden. Register of Education (UREG), Statistics Sweden.

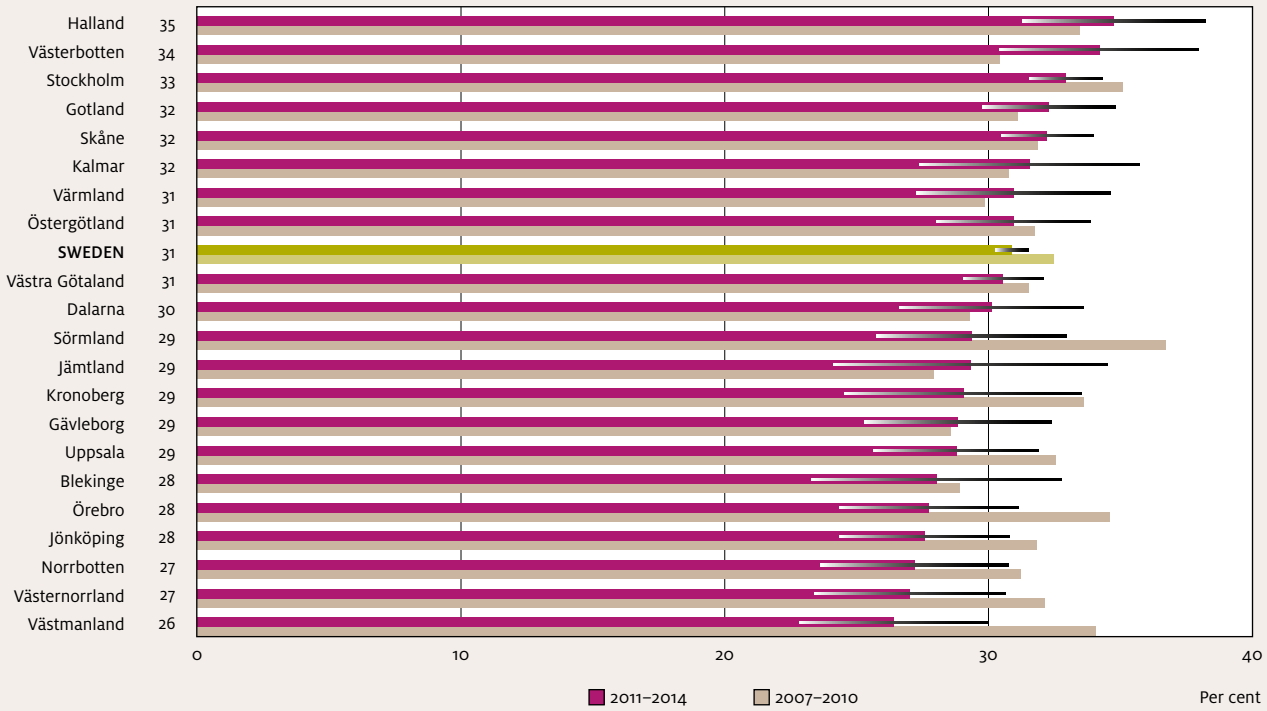
The indicator is measured using data gathered from the national public health survey. Two questions measure the frequency of consumption of fruit and vegetables, respectively. This report sets out the proportion who consume fruit and vegetables more than three times per day. Five times per day is said to be equivalent to the recommended consumption of 500 grams. A lower limit is used because only 25 per cent of the population achieve this level of consumption. Validation studies have shown that the questions about fruit and vegetables have a strong association with other good eating habits [127].

When the indicator was presented in 2009, the limit for eating fruit and vegetables was five times per day, rather than more than three times per day as is measured now.

Women with a high educational level eat the most fruit and vegetables

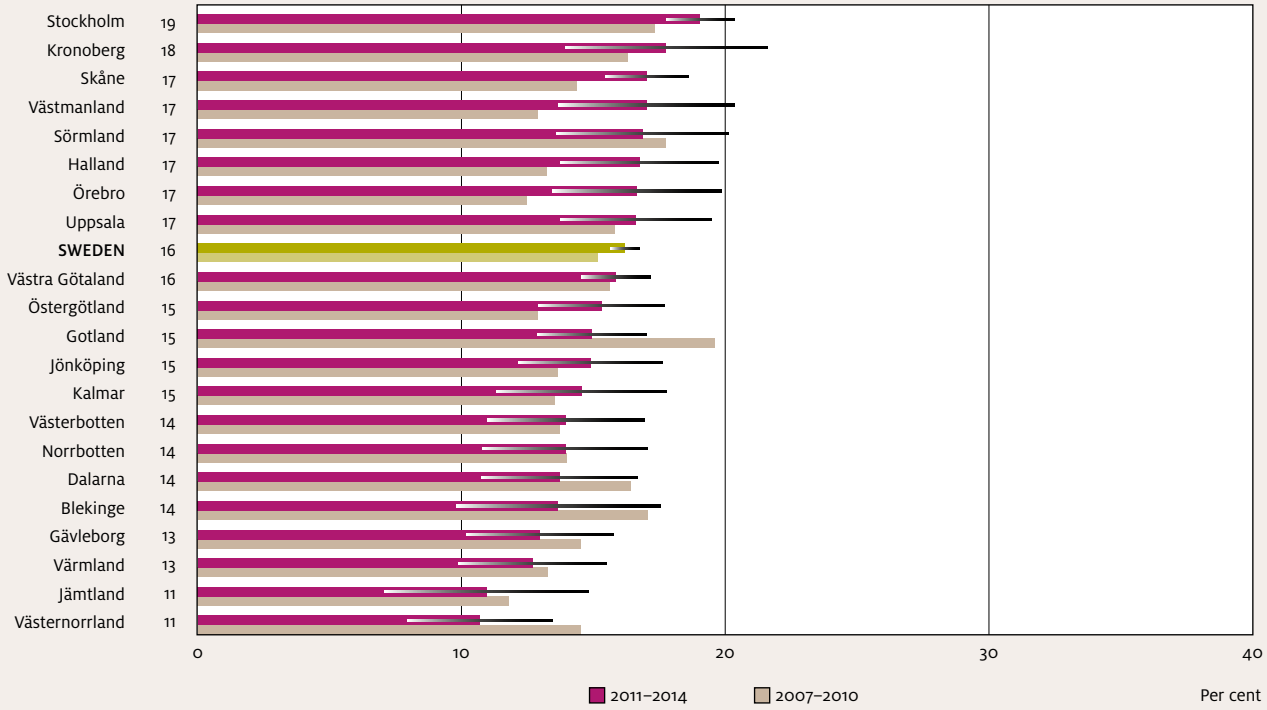
More than 30 per cent of women and only about 15 per cent of men state that they consume fruit and vegetables more than three times per day. Over the course of the two measurement periods, we can see a tendency for men to increase their consumption, while women are eating less fruit and vegetables. There are local and regional differences. There is also a difference between groups with different educational levels; women with a high educational level more frequently eat fruit and vegetables, compared with women with a low educational level. The pattern is similar for men, but not as distinct.

FIGURE 34.4 – REGIONS. WOMEN: Individuals who states that they eat fruit and/or vegetables more than 3 times per day, 16–84 years old, 2011–2014.



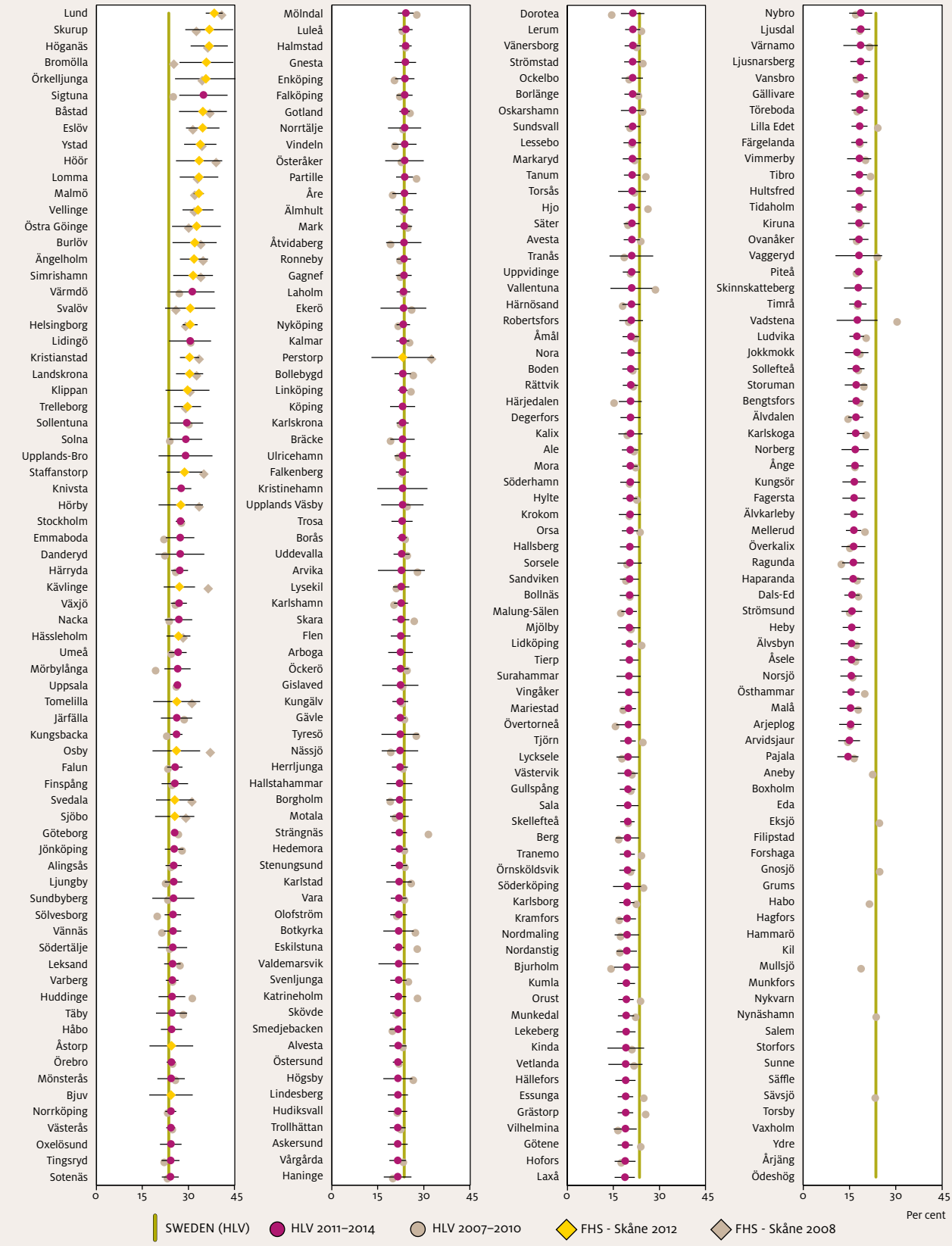
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 34.5 – REGIONS. MEN: Individuals who states that they eat fruit and/or vegetables more than 3 times per day, 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 34.6 – MUNICIPALITIES: Individuals who states that they eat fruit and/or vegetables more than 3 times per day. (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old.



Values with fewer than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne.

TOBACCO USE

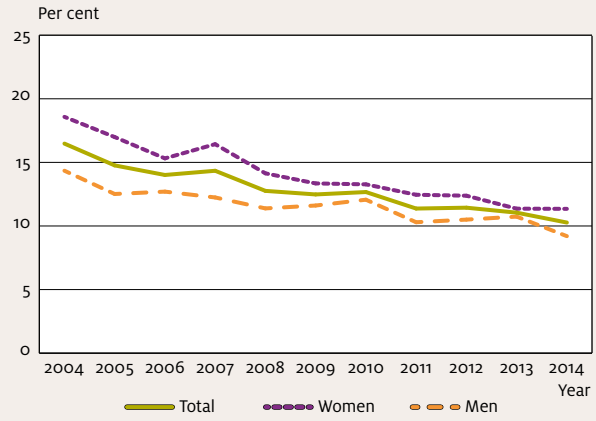
Smoking has been decreasing in Sweden since the middle of the 1980s. This reduction is presumed to be due to factors such as increased tobacco taxes and new legislation concerning smoke-free environments. Smoking is still estimated to be the single greatest risk factor for disease and premature death [18].

35. DAILY SMOKING

About 12 000 people in Sweden die each year from diseases related to smoking. In the future, we should see a more positive trend as the number of smokers decreases [175]. Smoking carries a considerable cost for the Swedish economy as a whole. The costs of healthcare, absence from work due to illness and loss of production have been estimated at SEK 30 billion per year [176]. Many of those who stop smoking start using snus instead (a Swedish moist powder tobacco product consumed by placing a small wad under the upper lip). Using snus increases the risk of gum damage and doubles the risk of pancreatic cancer, although this disease is uncommon. Mortality from stroke and myocardial infarction also appears to be higher among those who use snus than those who do not use tobacco, although the incidence of these diseases is not higher [55].

The municipalities are responsible for the supervision of retailers with respect to tobacco products. However, half of the municipalities only allocate 10 per cent or less of one full-time equivalent employee to this supervision and 6 per cent do not devote any resources to this at all. Some municipalities provide a good service in this area, but generally there needs to be improvement. Municipalities have an important role in the prevention of tobacco use, for example supervising age limits in the retail sector and smoke-free schoolyards. Better collaboration with the police and improvements to self-regulation are also required in the retail sector. The Government's ANDT strategy specifically emphasises the importance of initiatives that increase the likelihood of compliance with the ban on smoking in schoolyards [177]. Many people still smoke in schoolyards, despite this having been prohibited since 1994 and supervision of the ban needs to be given a higher priority in the majority of municipalities [178].

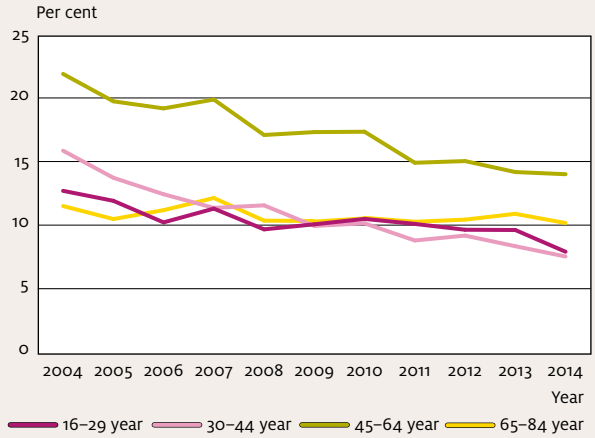
FIGURE 35.1 – SWEDEN: Daily smoking – individuals who reported that they smoke daily, 16–84 years old.



Source: Health on Equal Terms, Public Health Agency of Sweden.

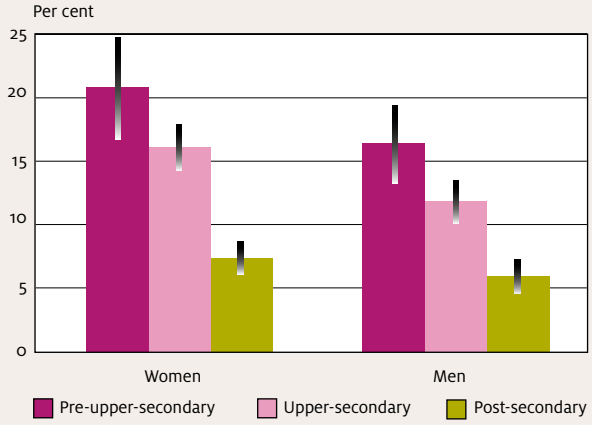
Three quarters of adult smokers want to stop and many want professional help with this [176]. Research shows that it is possible to prevent tobacco use among young people through collective support from schools and parents [179]. It is also unusual for young people to begin smoking after the age of 19. Accordingly, it is of the utmost importance to implement smoking prevention efforts at an early stage, for example in childcare and schools. The healthcare system's role in prevention is also important, not least within maternal and paediatric health services, guidance centres for young people, student health and occupational health services. There are many interventions that help in the work to prevent tobacco use, for example establishing municipal action plans and collaborating with other stakeholders such as educational associations, sports clubs

DIAGRAM 35.2 – AGE GROUPS, SWEDEN: Daily smoking – individuals who reported that they smoke daily.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 35.3 – EDUCATION: SWEDEN: Daily smoking – individuals who reported that they smoke daily, 35–74 years old, 2014.



Source: Health on Equal Terms, Public Health Agency of Sweden. Register of Education (UREG), Statistics Sweden.

and voluntary organisations [180, 181]. Tobacco Endgame – Smoke-free Sweden 2025 is an opinion-building project. The aim is to get a political decision in 2015 to set a target for Sweden to be smoke-free in 2025 [181].

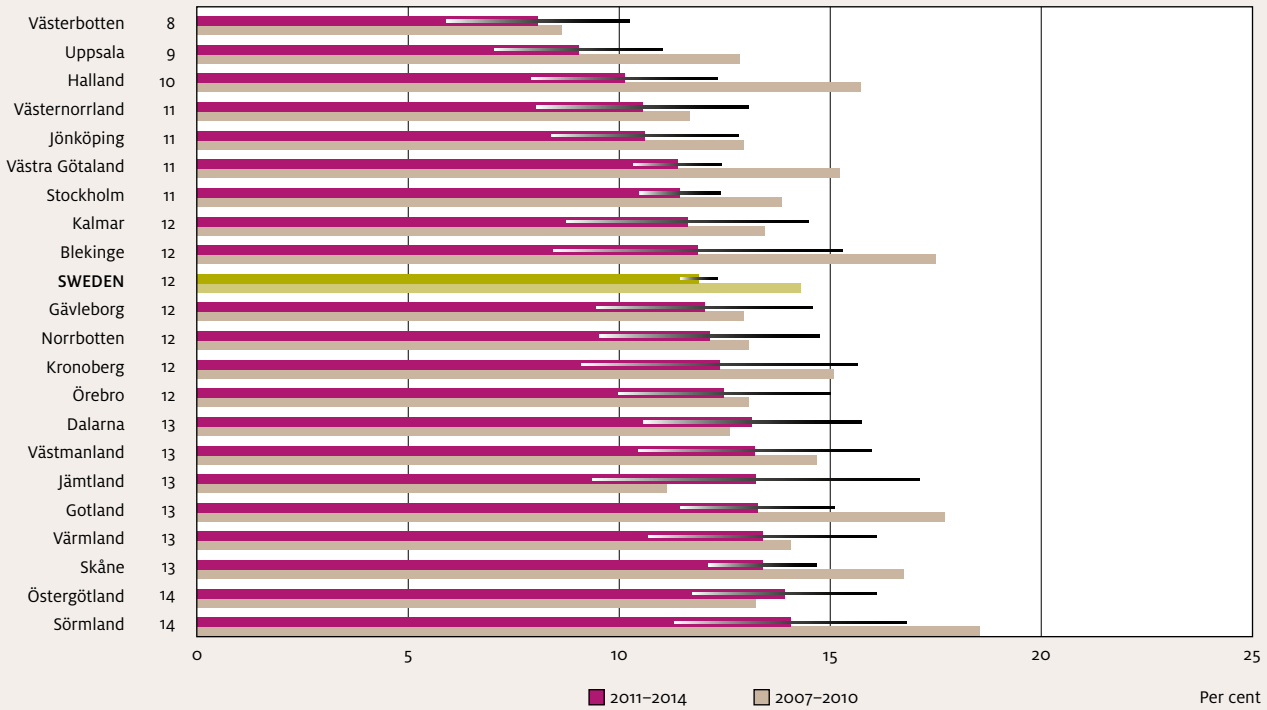
The national guidelines for methods of preventing disease recommends that patients who are daily smokers should be offered a qualified advisory discussion. Although the use of nicotine replacement therapy can have a number of side-effects, prescription of these medications is given a relatively high priority as daily smoking is judged to be much more dangerous. For pregnant women, legal guardians and individuals who are to have surgery, the interventions have an even higher priority and also encompass those who smoke more infrequently. There are also recommended interventions for pregnant and breastfeeding women who use snus. County councils and municipalities are also working towards smoke-free workplaces.

Daily smoking is most common among those with a low educational level

The proportion of daily smokers has decreased over the course of this period in the majority of counties and municipalities, with the exception of women in the oldest age group. However, there are major local differences in the incidence of both smoking and the use of snus. The highest proportion of smokers is in the 45–65 age group and the proportion of daily smokers is still considerably higher among individuals with a low educational level. Daily use of snus among men has decreased somewhat, but not to the same extent as daily smoking.

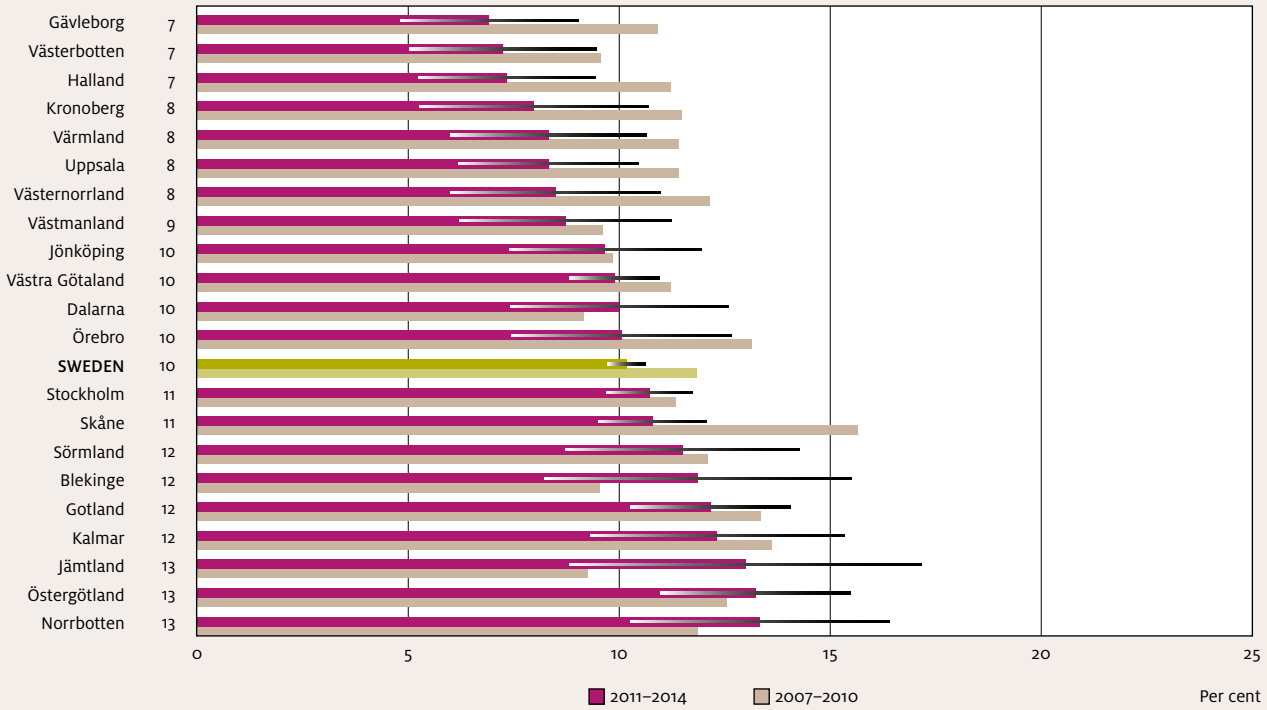
Smoking is sometimes also monitored in the national public health survey and this data is necessary in order to get an impression of the extent and development of the problem. The proportion who responded that they smoke sometimes is most notable among the younger age group and has not decreased in the same way as the proportion who are daily smokers.

FIGURE 35.4 – REGIONS, WOMEN: Daily smoking – individuals who reported that they smoke daily, 16–84 years old, 2011–2014.



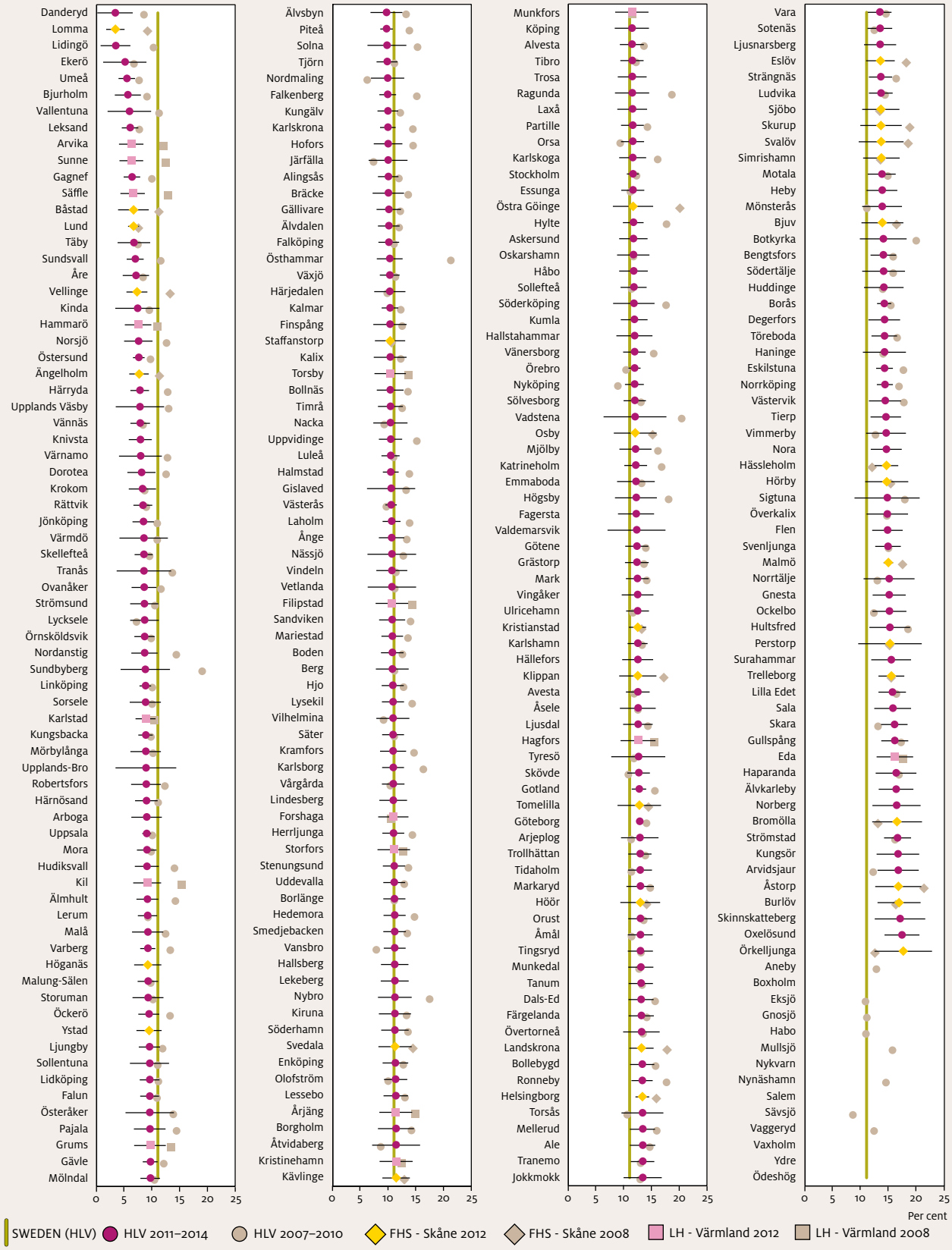
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 35.5 – REGIONS, MEN: Daily smoking – individuals who reported that they smoke daily, 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 35.6 – MUNICIPALITIES: Daily smoking - individuals who reported that they smoke daily (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old. Värmland (LH), 18+ years old.



Values with fewer than 100 respondents are not presented

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne; Liv och Hälsa (LH) [Life and Health], County Council of Värmland.

36. TOBACCO USE DURING PREGNANCY

Smoking when pregnant is serious as it involves greater health risks for the foetus and the expectant mother. These risks include placental abruption, premature labour, impaired foetal growth and sudden infant death. There are also studies that show an increased risk of lower birth weight and an increased risk of stillbirth and sudden infant death [182]. The effects are clear during the pregnancy itself, but children of mothers who have smoked also appear to be at risk of later problems such as lower lung capacity, wheezy breathing, ear inflammation and colic in the first year.

Research also indicates that tobacco use is linked to asthma, allergies, an increased risk of behavioural problems, delayed cognitive development and difficulties reading and writing. In addition, there is an increased risk that the child will suffer from cancer and cardiovascular disease later in life. Snus can have a detrimental impact on the foetus and pregnancy in the same way as smoking. However, there are major differences between counties, which indicates that prevention can be improved regionally [55, 176, 183].

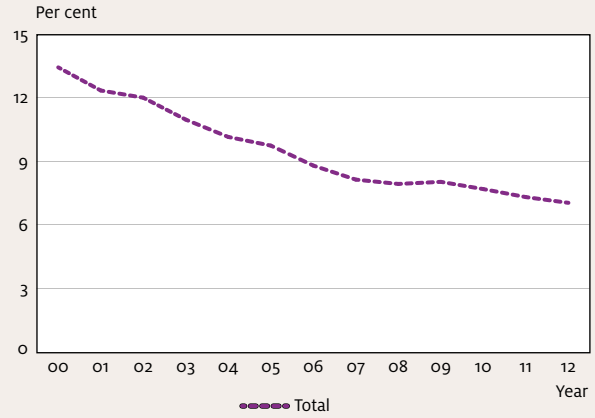
It is important to provide early interventions to pregnant teenagers

Around 15 per cent of women who gave birth in 2012 smoked three months before they became pregnant. The proportion of pregnant women who smoke at the time they are registered with maternal health services has decreased from about 31 per cent in 1983 to just under 6 per cent in 2012. Smoking has decreased in all age groups, but is still most common among the youngest women who give birth. Just under 22 per cent of the teenagers who gave birth in 2012 smoked during pregnancy, while this proportion was 12 per cent among women aged 20–24. The proportion who smoked late in pregnancy was about 18 per cent among teenagers and 9 per cent in the 20–24 age group. Pregnant women under the age of 19 are five times more likely to smoke late in pregnancy than those aged over 30 [184].

The positive trend among pregnant women may be due to Sweden having been early to adopt a preventative strategy to get the population to stop smoking. This involves smokers who are expecting children being offered advice and help with smoking cessation (such as motivational discussions) [55, 176, 183]. Maternal and paediatric health services and family health centres have a great opportunity to influence pregnant women's tobacco habits as almost all expectant parents make use of the healthcare system repeatedly during pregnancy. During pregnancy there are plentiful opportunities to provide information and have discussions about such aspects as the negative effects of smoking and to offer help with smoking cessation. Municipalities also have the opportunity to offer information and education and to draw up action plans for tobacco-free environments, not least around childcare facilities and schools. In addition, municipalities can reach many people in their capacity as employers. In recent years, work on the national guidelines has reinforced prevention at the regional and local levels [55].

Large regional and local differences

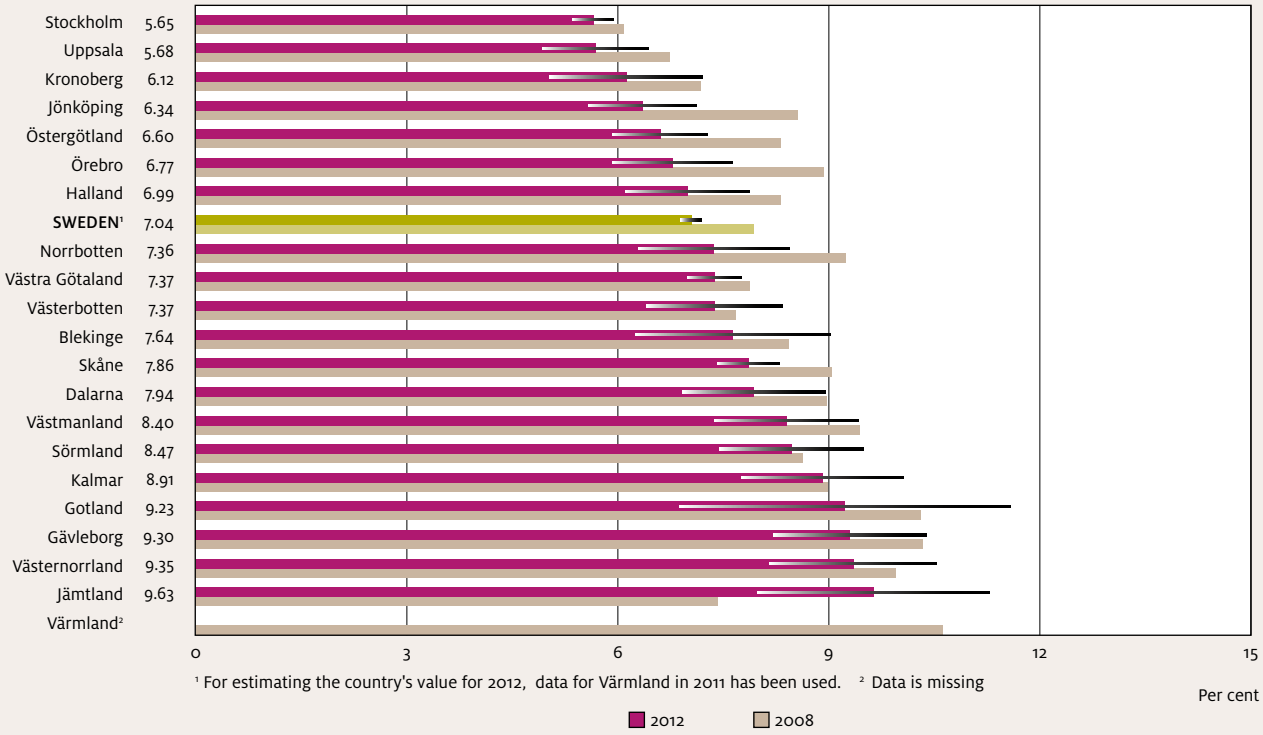
FIGURE 36.1 – SWEDEN: Women who smoke or use snus during early pregnancy week 8–12.



Source: The Swedish Medical Birth Register, the National Board of Health and Welfare.

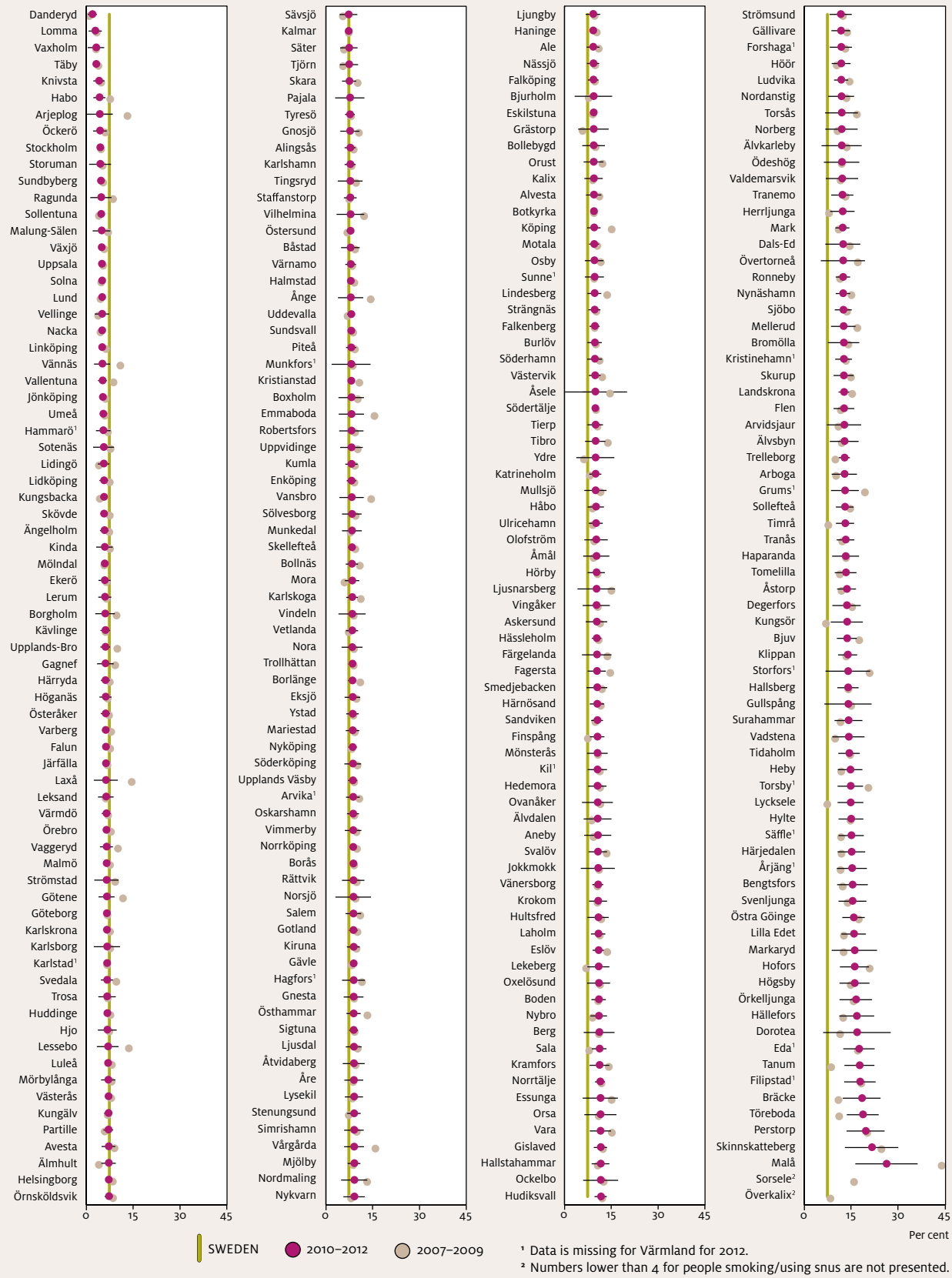
The proportion of pregnant women who use tobacco early in pregnancy varies between counties, but there are considerably larger differences at the municipal level. However, the local variations may be due to a small population. This means that relatively minor changes in the numbers can result in relatively large changes to the statistics. The use of snus is more common than smoking in Västerbotten and Jämtland and in some other northern counties. Tobacco use is more common among individuals with a low educational level than those with a high educational level.

FIGURE 36.2 – REGIONS. WOMEN: Women who smoke or use snus during early pregnancy week 8–12, 2012.



Source: The Swedish Medical Birth Register, the National Board of Health and Welfare.

FIGURE 36.3 – MUNICIPALITIES: Women who smoke or use snus during early pregnancy week 8–12, 2010–2012.



[1] Data is missing for Värmland for 2012.
[2] Numbers lower than 4 for people smoking/using snus are not presented.

Source: The Swedish Medical Birth Register, the National Board of Health and Welfare.

ALCOHOL USE

Alcohol consumption causes many diseases in the population, for example cancer, cardiovascular disease and liver disease. The WHO calculates that risky alcohol consumption is one of the five biggest risk factors for lost healthy life years [185].

37. RISKY CONSUMPTION OF ALCOHOL

Risky consumption of alcohol can contribute to an increased risk of harmful physical, mental and social sequelae. Several different measures of what is considered risky consumption are used and there is no nationally accepted measure currently in use. A measure for risky consumption of alcohol that is often used in healthcare is that more than 14 standard glasses per week for men and more than 9 glasses per week for women can be considered risky consumption. Lower limits for risky consumption also exist, for example prior to surgical procedures [186].

According to the WHO's calculations, alcohol consumption is among the most common risk factors for lost health life years and is also the greatest risk factor for individuals in the 15–49 age groups in both the EU and Sweden. Risky consumption of alcohol is estimated to cost society at least SEK 66 billion per year [187]. Risky consumption of alcohol can have serious long-term medical consequences and can result in other diseases such as high blood pressure, liver disease and cancer. In addition, it increases the risk of mental ill-health, alcohol psychosis and suicide. Drowning, injuries in traffic and violent crime are also linked to alcohol consumption [188].

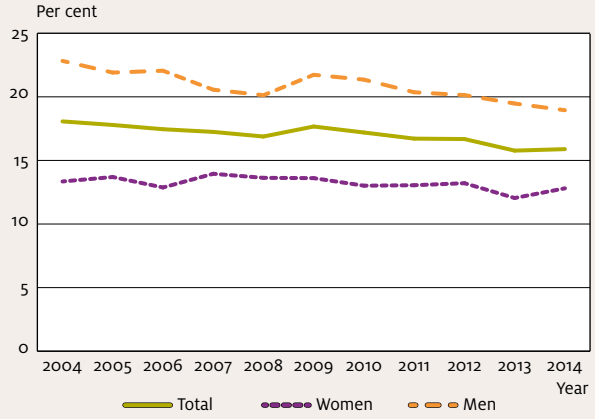
Alcohol consumption during pregnancy can result in foetal injuries and in the child having learning difficulties, behavioural disorders and deformities [189, 190]. The risk of foetal injuries as a result of low to moderate alcohol consumption is affected by both the mother's and the child's genes, which is an indication that the only option that is entirely free of risk is to refrain from alcohol during pregnancy [191]. It is estimated that one in five children grows up in a household with at least one adult who consumes alcohol in a way that is judged to put their health at risk, which is also a risk factor for the child's health [192].

In 2010, the Government adopted an overall strategy for its alcohol, narcotics, doping and tobacco policy (ANDT strategy) for the first time. Municipalities' role in alcohol prevention is to ensure compliance with age limits in shops, approving alcohol licences for restaurants and carrying out preventative work in schools. It is also important that they are able to offer drug-free recreational activities for young people. Teenagers' parents are important and the effort to achieve the overall goal of reducing the availability of alcohol to teenagers is assisted by getting parents and young adults to refrain from purchasing alcohol for young people under the age of 20 years [193].

The healthcare system's role in prevention is also important, not least within maternal and paediatric health services, guidance centres for young people, student health and occupational health services. Prevention is to be incorporated into both encounters with patients and in work involving the population at the county council level [194].

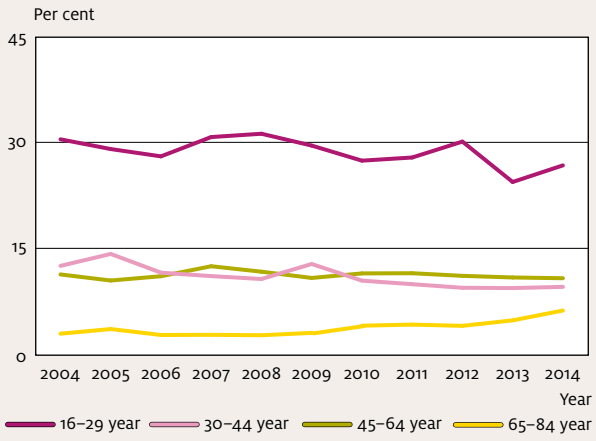
The national guidelines for methods of preventing disease recommends that advisory discussions and online and computer-based advice should be offered to patients whose use of alcohol is risky. Pregnant women, parents of small children and people who are to undergo surgery are priority groups in this work. For pregnant women, all alcohol use is considered risky use [55].

FIGURE 37.1 – SWEDEN: Indivudals identified as risk consumers after their responses to three questions on alcohol consumption, 16–84 years old.



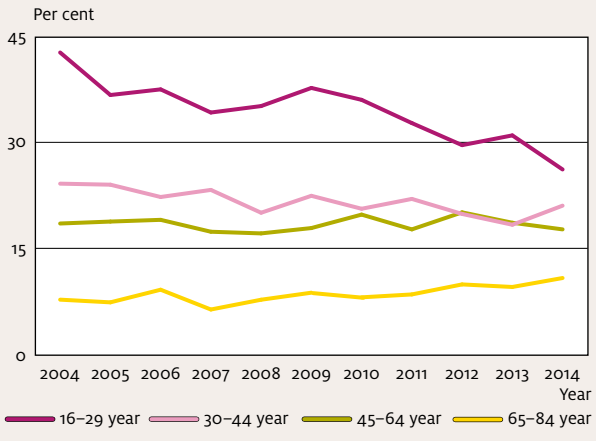
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 37.2 – AGE GROUPS. WOMEN: Indivudals identified as risk consumers after their responses to three questions on alcohol consumption.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 37.3 – AGE GROUPS. MEN: Indivudals identified as risk consumers after their responses to three questions on alcohol consumption.



Source: Health on Equal Terms, Public Health Agency of Sweden.

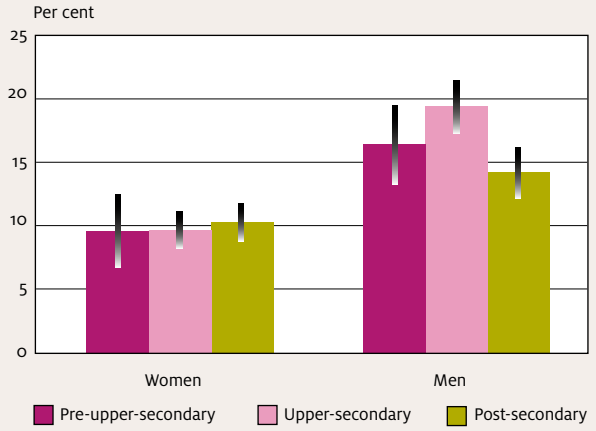
Data from the national public health survey is used as the indicator of risky alcohol habits. The indicator shows the proportion who are estimated to have risky alcohol habits based on how they responded to three questions. The questions concern how often the respondent drinks, how much they drink and how often they drink a large amount. The responses are assigned points and the respondent is classified as a risky consumer if they achieve a certain number of points. The limit is lower for women than for men. The method used to calculate the indicator has changed since 2009 and the Public Health Agency of Sweden publishes follow-ups of the ANDT strategy each year.

Reduced risky consumption among younger people

Risky alcohol consumption in the population varies considerably throughout the country, both regionally and locally. In general, young people in Sweden drink less alcohol than young people in other European countries and young people's consumption has decreased more in Sweden than in other places in recent years. There is an association between young people's alcohol consumption and alcohol consumption among adults.

In countries where adults consume a lot of alcohol, young people normally do so as well. Adults in Sweden are still among those who drink the least in Europe, despite levels of alcohol consumption becoming increasingly similar in countries within the EU [185].

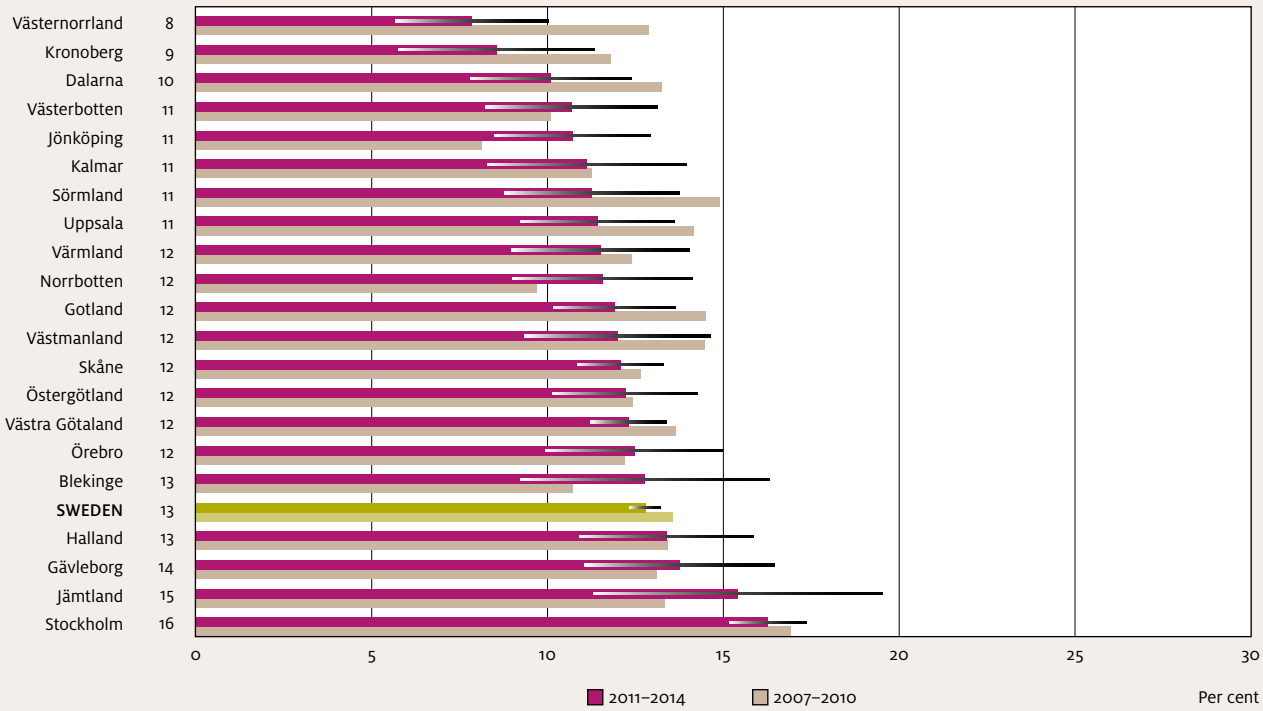
FIGURE 37.4 – EDUCATION: SWEDEN: Indivudals identified as risk consumers after their responses to three questions on alcohol consumption, 35–74 years old, 2014.



Source: Health on Equal Terms, Public Health Agency of Sweden. Register of Education (UREG), Statistics Sweden.

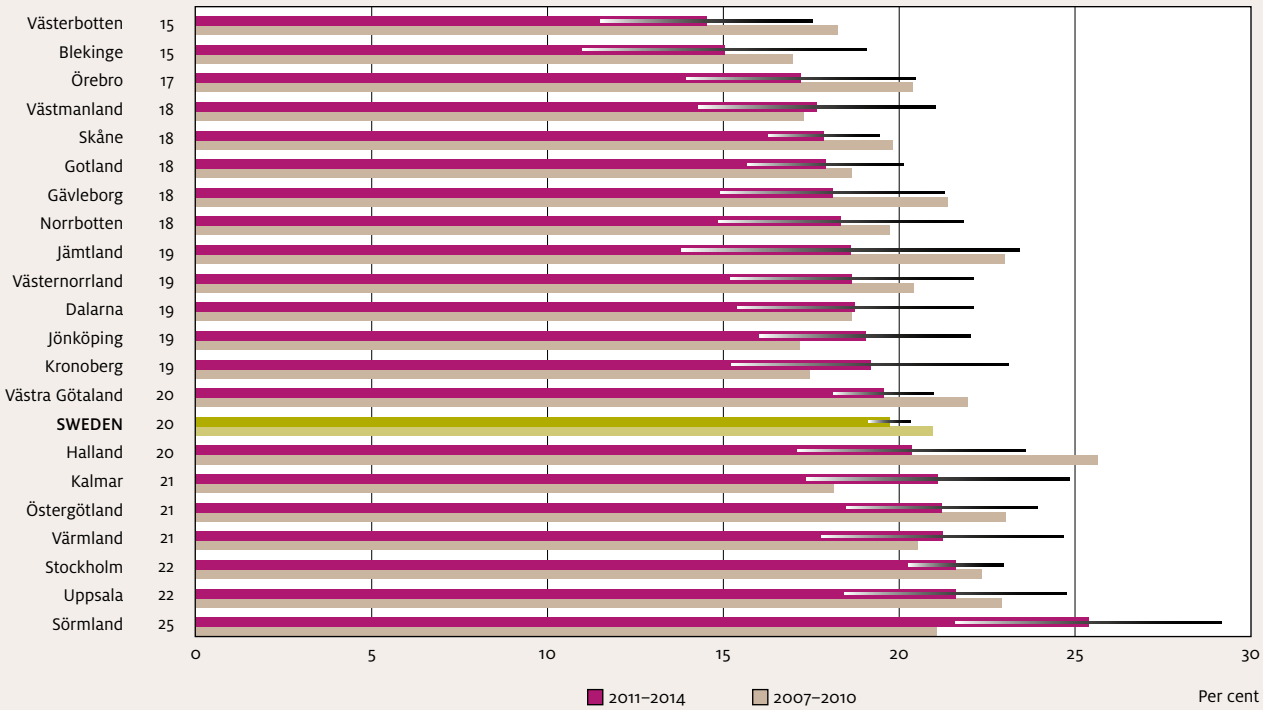
In Sweden, risky alcohol consumption is more common among young people (in the age 16–29) than in other age groups. Nevertheless, a clear downward trend can be seen among younger men, while the development for younger women has not been as positive. In the younger age group, the proportion of women whose alcohol consumption is risky is also just as high as for men in the same age group.

FIGURE 37.5 – REGIONS, WOMEN: Indivudals identified as risk consumers after their responses to three questions on alcohol consumption, 16–84 years old, 2011–2014.



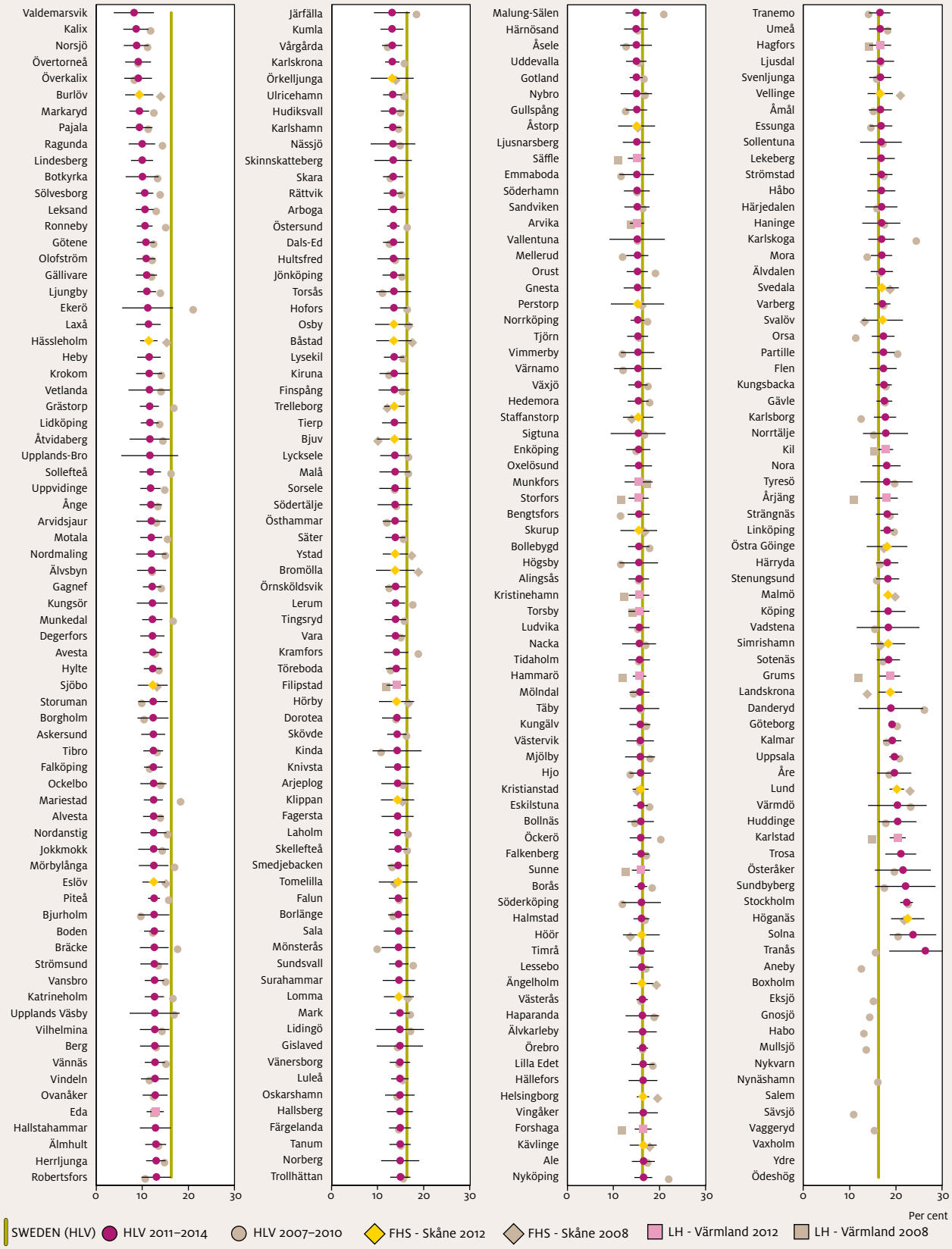
Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 37.6 – REGIONS, MEN: Indivudals identified as risk consumers after their responses to three questions on alcohol consumption, 16–84 years old, 2011–2014.



Source: Health on Equal Terms, Public Health Agency of Sweden.

FIGURE 37.7 – MUNICIPALITIES: Indivudals identified as risk consumers after their responses to three questions on alcohol consumption (see explanation below for measurement period). Age demarcation: National Public Health Survey (HLV), 16–84 years old. Skåne (FHS), 18–80 years old. Värmland (LH), 18+ years old.



Values with fewer than 100 respondents are not presented.

Source: Health on Equal Terms, including supplementary sample (HLV), Public Health Agency of Sweden; Public Health Survey Skåne (FHS), Region Skåne; Liv och Hälsa (LH) [Life and Health], County Council of Värmland.

PATIENT-REPORTED EXPERIENCES

Patient-reported experiences are used in various types of monitoring and evaluation. This type of indicator or measure is based on question from surveys that patients respond to in conjunction with receiving care and treatment from the healthcare system, social services or other organisations. The patient-reported measures can be divided into two categories. The first is PROM (patient-reported outcome measures) that measure outcomes before and after an intervention and they are designed as results measures. The second category is PREM (patient-reported experience measures) that measure patient-reported experiences. PREMs are often designed as structural or process measures, but also exist as results measures. PROMs measure results in care, for example functional capacity, quality of life and health-related quality of life, via the patients' own reports following treatment.

The report *Regional Comparisons 2013 – Healthcare* presented indicators that are based on general PROMs. The national patient survey highlights patients' experiences and can be defined as PREM indicators. In this report, a question has been chosen that deals with whether the patients have had a discussion about lifestyle and living habits during their most recent appointment with a general practitioner. The results are shown at the county council level and for the country as a whole. This report uses measurements from primary care from 2011 and 2013.

38. PATIENTS IN PRIMARY CARE – DISCUSSING LIFESTYLE AND LIVING HABITS

The burden of disease is a measure drawn up by the WHO in order to compare and monitor the diseases that lead to most ill-health and the risk factors that are of considerable importance to the development of disease. According to *National Guidelines for Methods of Preventing Disease 2011,* a large proportion of the total burden of disease can be ascribed to four living habits: tobacco use, insufficient physical activity, risky use of alcohol and unhealthy eating habits [55]. These habits should be taken into account in the healthcare system's contact with people seeking care and the National Board of Health and Welfare recommends offering advice or discussion in order to support those patients who need to make lifestyle changes. There is currently insufficient data to measure how the healthcare system works with living habits. What there is at the moment are a number of questions in the national patient survey that can demonstrate patients' experiences of the extent to which the healthcare system works with lifestyle habits during patient encounters.

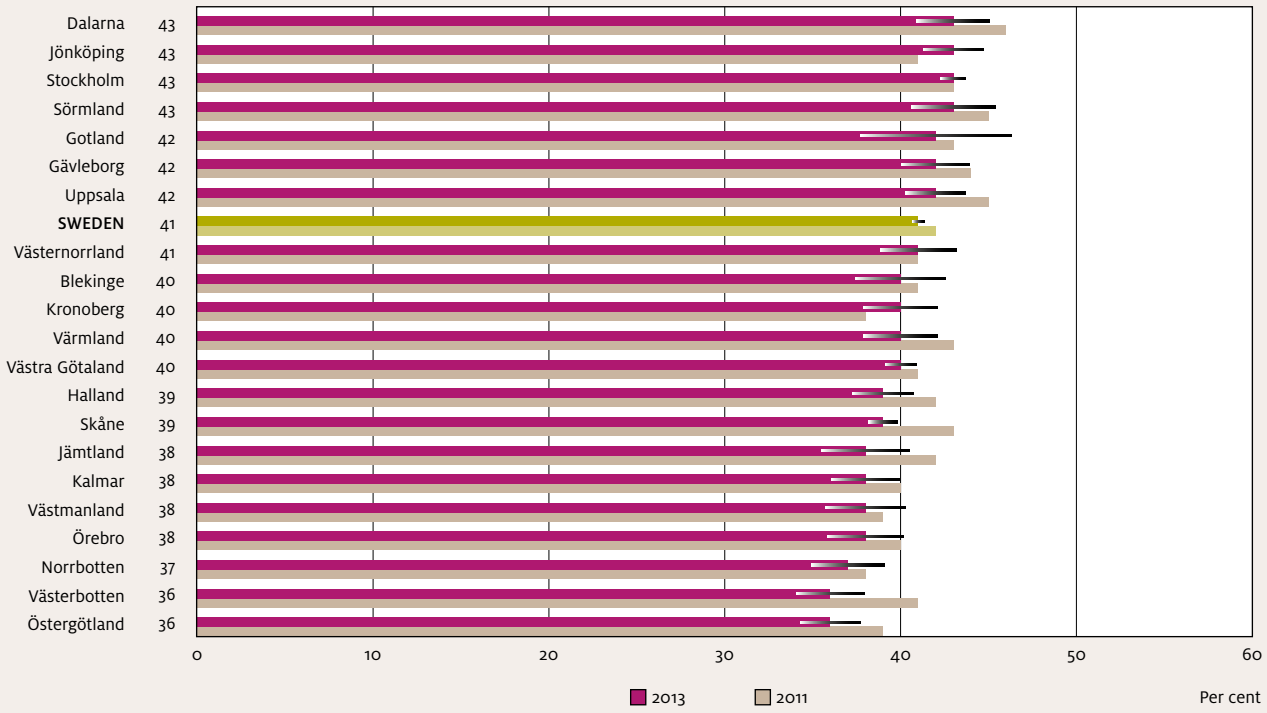
In addition, the National Board of Health and Welfare plans to publish an evaluation of the national guidelines for methods of preventing disease in order to answer the question of how the healthcare system uses advice or discussions in order to help patients change their living habits. Primary care is a large part of the healthcare system and its role includes monitoring the population's health and undertaking health promotion and disease prevention.

Unhealthy living habits are unevenly distributed throughout the population and are more common among those with a low educational level, for example. In addition there is covariance between them and other socioeconomic background factors. Living habits are established early in life and healthy habits should begin in childhood. Aside from the home, schools and leisure activities also play an important role in creating a healthy lifestyle.

The indicator measures how many patients who have a discussion about at least one living habit in conjunction with an appointment with a general practitioner. Such discussions may be about smoking, which is the habit that contributes most to early death. It is also vital that patients who are to undergo surgery or already have a smoking-related disease receive help to stop smoking in order not to worsen their health further. The report A National Cancer Strategy for the Future (SOU 2009:11) indicates that the number of cancers may double by 2030 and proposes that one of the targets for cancer prevention should focus on, for example, primary care facilities offering smoking cessation [195].

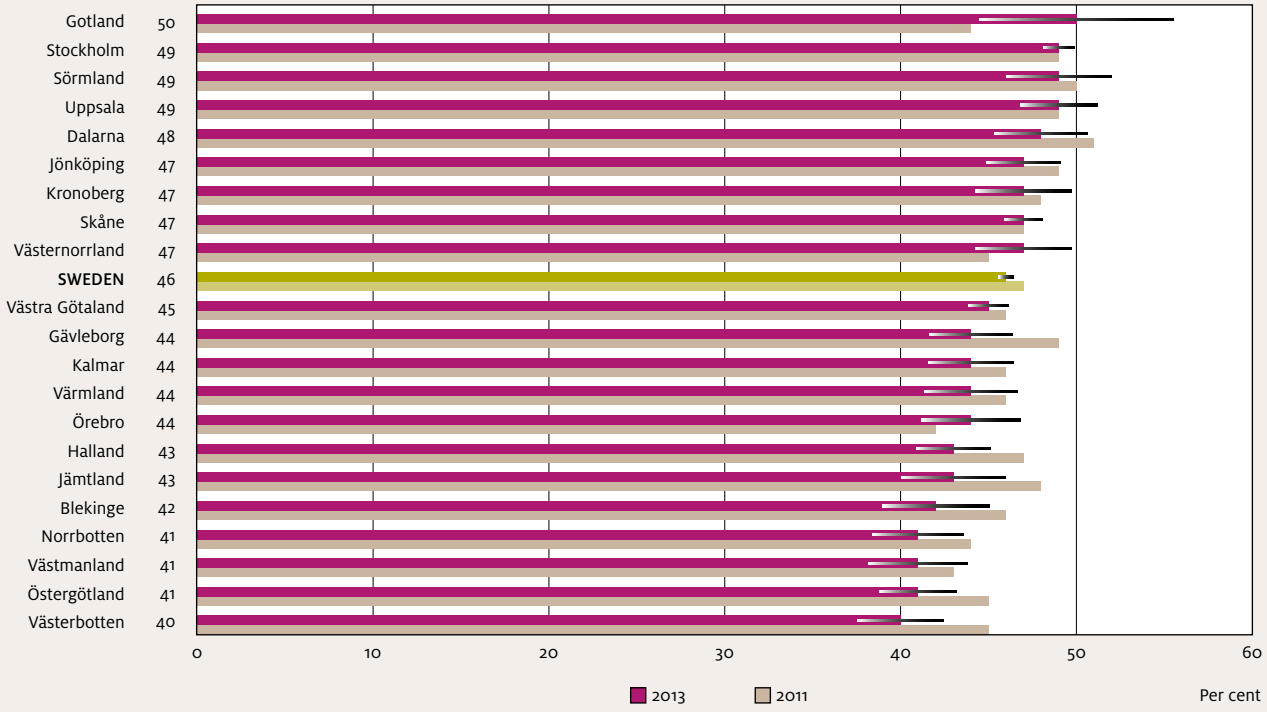
As indicated in the diagrams, the figures for the majority of county councils are largely unchanged between the two measurement periods. The outcome also shows that the variations between county councils are smaller among women than among men.

FIGURE 38.1 – REGIONS, WOMEN: Patients who answered "Yes" to the question: Did the doctor or another member of staff discuss any of the following living habits with you: tobacco, alcohol, exercise or eating habits?, 2013.



Source: National Patient Survey, the Swedish Association of Local Authorities and Regions.

FIGURE 38.2 – REGIONS, MEN: Patients who answered "Yes" to the question: Did the doctor or another member of staff discuss any of the following living habits with you: tobacco, alcohol, exercise or eating habits?, 2013.



Source: National Patient Survey, the Swedish Association of Local Authorities and Regions.

SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS

In Sweden, sexuality and reproductive health is one of the objective domains of public health policy. This domain covers the entire population and people's entire life cycle, which has a major importance to everyone's self-esteem, close relationships and well-being [196]. The term sexual and reproductive health and rights is used in both Sweden and abroad. Reproductive health is a state of complete physical, mental and social well-being concerning the reproductive system and all its functions, not simply the absence of disease. Sexual health deals with quality of life and personal relationships, with advice and healthcare, while sexual rights encompasses everyone's right to determination over their own body and sexuality. Reproductive rights encompass the individual's right to determine the number of children they will have and the length of time between each child. One of the determinants in sexual and reproductive health is unprotected sex. Unprotected sex can lead to unwanted pregnancies and sexually transmitted infections [196].

39. CERVICAL CANCER SCREENING

Human papilloma virus (HPV) is the most common sexually transmitted infection in Sweden and the rest of the world. In most cases, HPV infection has no symptoms and is self-limiting. However, this infection can also give rise to genital warts or gynaecological cell changes that may lead to cervical cancer [197].

Condoms are a relatively secure form of protection against sexually transmitted HPV, but the infection can also be transmitted through skin contact. It is therefore important that the condom covers the whole area of skin where an infected person has genital warts.

There are two vaccines against HPV, but they are not able to cure an existing infection and are thus preferably given prior to the commencement of sexual activity. Since 1 January 2010, vaccination against HPV has been included in the childhood vaccination programme and is offered by school health services to girls in years 5–6.

However, it is important that the women who are vaccinated also participate in regular cervical cancer screening as the vaccine does not protect against all types of HPV that can cause cancer. Consequently, screening will continue to be a very important complement to vaccination in the defence against this disease. In Sweden, all women aged 23–50 are invited to participate in cervical cancer screening once every three years. Screening takes place every five years for women aged 50–60. Women who have both been vaccinated and are screened regularly are very well protected against cervical cancer.

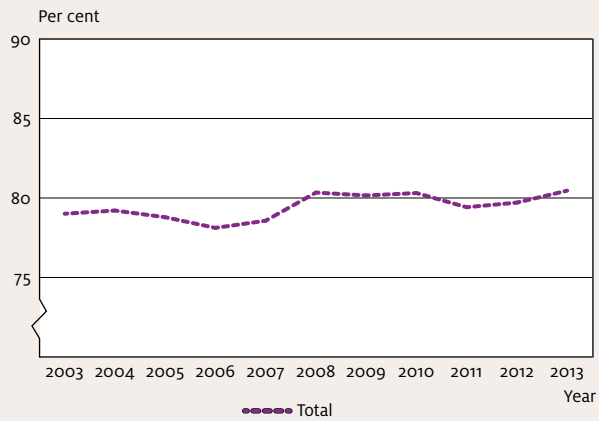
Screening is an effective way of detecting cell changes and preventing cervical cancer; with the number of cases having decreased by more than 50 per cent since screening was introduced in the 1960s. The reason for this is that early detection and treatment increases the chances of successfully treating cell changes. In countries where few women participate in screening, cervical cancer is the most common form of cancer and usually affects relatively young women aged 40–50. The majority of those women who develop cervical cancer in Sweden have not participated in screening in accordance with the recommendations [57].

The national quality register for cervical cancer prevention covers several interventions with a proven effect on increasing the screening rate. The invitation should include a pre-booked time, but it should also be simple to change this time, with plenty of options in terms of time and place. The screening rate increases if it is possible for screening to be conducted in conjunction with a gynaecological examination in some other context, but there then needs to be access to information about the previous screening in order to avoid screening taking place too frequently.

Women who have not taken part in screening for some time should be sent reminders, with the next step being to make contact by telephone to encourage them to attend. In some places there is also the opportunity to perform screening in the home, which has been shown to increase the screening rate. Previous experience of poor treatment by the healthcare system can lead to women not participating in screening.

Other interventions that are effective are information initiatives targeting areas with a low screening rate through local information channels and established institutions, as well as general information and marketing. Free screening and invitations containing information in

FIGURE 39.1 – SWEDEN: Women aged 23–60 who have undergone gynecological cervical screening within recommended intervals.



Source: National Quality Register for Cervical Cancer Prevention.

languages other than Swedish can also be effective, even if these interventions have not been verified in the same way as others [198].

HPV vaccination is a good indicator, but data are not currently available because this only became an obligatory part of the childhood vaccination programme in 2011. In addition, not all those involved began this work at the same time. The hope is that it will soon be possible to monitor the HPV vaccination rate at the local and regional level.

The cervical cancer screening rate has been chosen as an indicator. The screening rate is the proportion of women in the population in the age groups in question who have participated in one instance of screening within the recommended interval. The National Board of Health and Welfare is reviewing the recommendations for cervical cancer screening because a new method is now available that involves the sample being analysed initially using an HPV test. There is no difference to the woman, a sample is taken in the same way as before and then analysed for HPV. If the HPV test is positive, a cytological analysis (cell examination) of the sample is performed. A new recommendation is expected to come at the beginning of 2015 once the evidence concerning the HPV test has been reviewed and the National Board of Health and Welfare's national screening council has adopted a position on this matter.

Two out of ten women do not participate in screening

The screening rate varies between county councils and in general it is lower in the major cities and higher in northern than southern Sweden. The cervical cancer screening rate in the ages 23–60 was about 80 per cent for the whole of Sweden in 2013 and this has largely remained constant. No clear trend can be seen between the years compared for different county councils. The screening rate has decreased in some county councils and has increased in others.

FIGURE 39.2 – REGIONS, WOMEN: Women aged 23–60 who have undergone gynecological cervical screening within recommended intervals, 2013.

Source: National Quality Register for Cervical Cancer Prevention.

40. UNPROTECTED SEX – CHLAMYDIA

Klamydia Chlamydia is caused by a bacterium, Chlamydia trachomatis, which is found in the urethra and in the vagina and cervix in women. It can also be found in the rectum and/or throat and is transmitted through unprotected intercourse and other sexual acts. The disease usually has no symptoms and can therefore be difficult to detect. Any symptoms primarily appear in the form of burning and irritation when urinating due to an inflammation in the urethra [199]. A chlamydia infection can lead to complications that reduce fertility [200–203]. Early diagnosis and treatment of chlamydia reduces the risk of complications, future ill-health and the cost to society related to the infection [204]. It is difficult to conduct international comparisons of the incidence of chlamydia as relatively few countries have classified it as an infection that must be reported. In addition, the infection is seriously underreported in some countries. Sweden, Norway, Denmark, Finland, the Netherlands and the United Kingdom have good, reliable reporting systems for diagnosed cases of chlamydia and these countries thus account for 95 per cent of all reported cases in the EU [205].

In 2013, a total of 35 885 cases of chlamydia were reported in Sweden, which was a reduction of 4.7 per cent on the figure for 2012. Just over half (57 per cent) of the cases were women and their median age was 21. The median age among men was 23. In 2013, 22 cases of lymphogranuloma venerum (LVG) were reported. This is a particularly serious form of chlamydia infection. All those who contracted LVG were men who have sex with men [206].

Unprotected sex and having multiple partners increases the spread of infection. Currently, about 24 per cent of young people (15–24) state that they always use a condom. Just under four in ten say that they rarely or never use a condom and condom use has decreased in recent years. Younger men are those who are most likely to state that they always use a condom [207]. Young people's propensity for using condoms generally decreases with advancing age [207, 208].

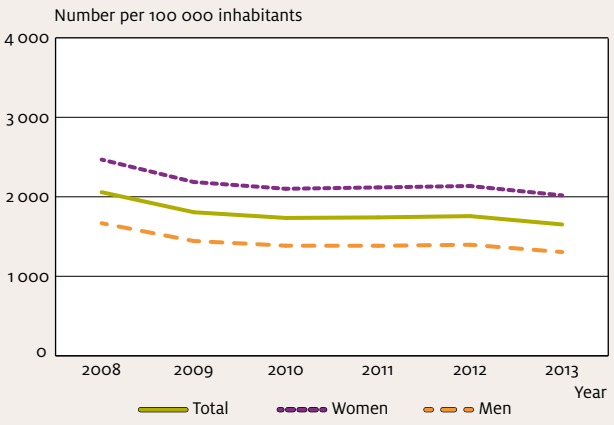
The national action plan for chlamydia prevention is an important governance document that supports a goal-oriented approach and the coordination of interventions at various levels in society [209, 210]. It is meant to help those involved see which interventions they need to implement and prioritise. Communicating information about health promotion and improved education for young people in schools are among the most important preventative interventions in the action plan. Municipalities are also responsible for various services for young people and share responsibility for guidance centres for young people with county councils. County councils are also responsible for the control of infectious diseases and for contraceptive advice [210].

There are differences between county councils in the rate of testing and the number of cases of chlamydia, which indicates that there are opportunities to improve prevention. As more women than men are tested in all county councils, more women are also diagnosed with chlamydia than men. The majority of cases of chlamydia in men are discovered via contact tracing, which clearly indicates that there needs to be more effective ways to reach men than those used today [202].

Chlamydia infection is classified by the Communicable Diseases Act as a disease that is harmful to public health and cases that are detected are reported using anonymised data to the communicable diseases doctor in the county council and the Public Health Agency of Sweden. In addition, there is an obligation to trace the infection in cases of chlamydia.

Since 2007, the chlamydia trend has been unchanged at the national level, but with large variations between counties. The biggest reduction has taken place in the 15–19 age group. The results show a higher incidence of chlamydia among women. As described above, however, more women get tested and this explains why fewer men are diagnosed with chlamydia. This means that the actual epidemiological situation may involve small or no differences between the sexes, which should be taken into account when interpreting these results. As chlamydia is reported using anonymised data, it is not possible to conduct any analysis relative to educational level. However, there is a large study of Swedish young people about self-reported knowledge, attitudes and behaviours [207] that shows a link between sexual risk-taking and social vulnerability and general risk-taking lifestyle.

FIGURE 40.1 – SWEDEN: Cases of chlamydia infection per 100 000 inhabitants, 15–29 years old.

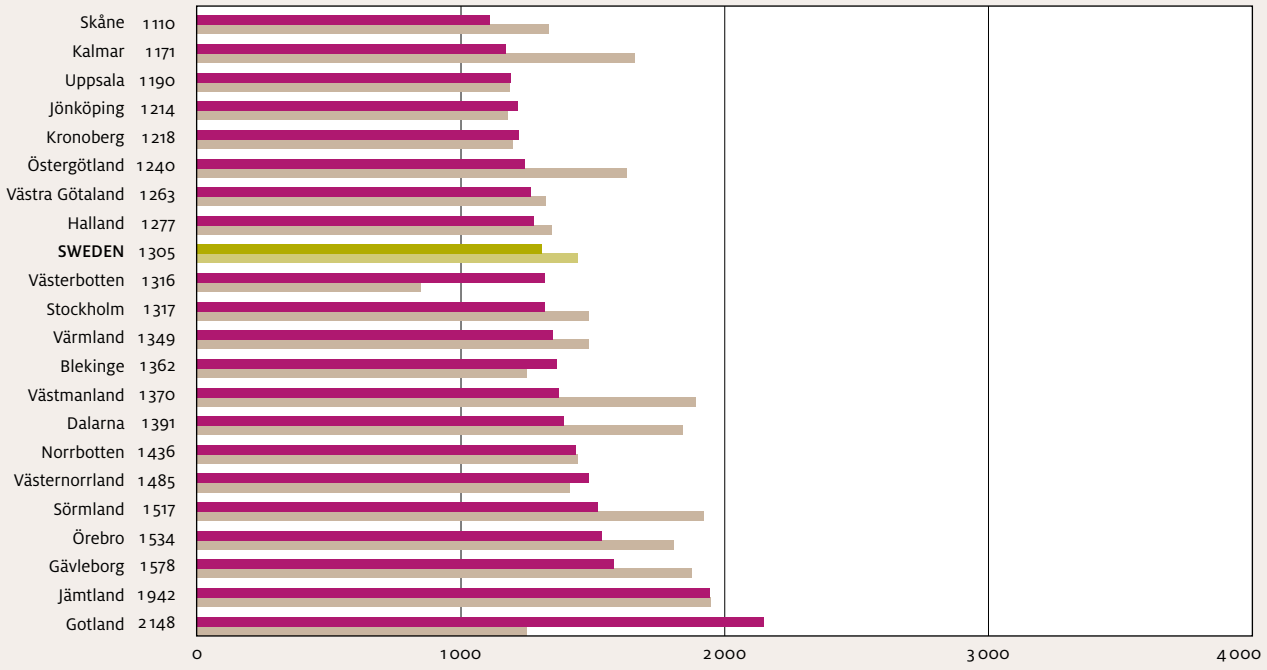


Source: Public Health Agency of Sweden.

FIGURE 40.2 – REGIONS, WOMEN: Cases of chlamydia infection per 100 000 inhabitants, 15–29 years old, 2013.

Source: Public Health Agency of Sweden.

FIGURE 40.3 – REGIONS, MEN: Cases of chlamydia infection per 100 000 inhabitants, 15–29 years old, 2013.



Source: Public Health Agency of Sweden.

41. UNPROTECTED SEX – TEENAGE ABORTIONS

The public health policy includes reducing unwanted teenage pregnancies as there is a link between becoming a teenage mother and socioeconomic vulnerability. Having children in your teens can also have a detrimental impact on the health of both the mother and the child [211–215]. However, not all teenage mothers and their children suffer from ill-health, although the risk is greater for these groups as a whole. The overall aim is for all children who are born to be wanted.

About 110 000 children are born and 35 000–38 000 abortions are carried out in Sweden each year. Women can choose to terminate a pregnancy because they do not want to or are unable to take care of (more) children, because the timing is unsuitable or because the relationship with their partner is problematic [217, 218]. An abortion is regarded as a human right in Sweden and one that is protected by law. This means that the primary aim is not to prevent abortions, but to prevent unwanted pregnancies. Sweden has a higher rate of teenage abortions than the other Nordic countries. Abortion legislation and the practicalities of prevention vary between countries [219].

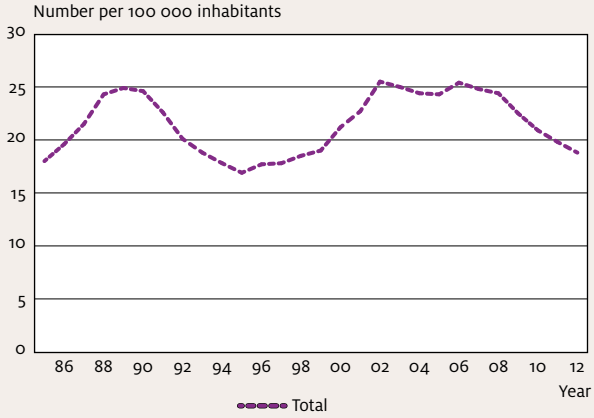
The average age of women having their first child in Sweden has increased from around 24 in 1975 to around 28 in 2012. The birth rate among teenagers has remained at the same level for the past ten years having previously been decreasing for many years. In 2012, almost 6 children were born per 1 000 women aged 15–19. The number of teenage abortions is decreasing in Sweden. In 2012, the abortion rate was 18.8 per 1 000 women aged 15–19. This is a reduction of 5.1 per cent, compared with the previous year, when the abortion rate was 19.8 per cent. Abortions were more common in the 20–24 age group, followed by 25–29 and 30–34, than in the teenage group 15–19 [215].

Since the 1970s, Sweden has been working to prevent unwanted pregnancies, but there is no national action plan that takes into account interventions for different target groups [196]. Today there is obligatory teaching about sex and relationships, good access to advice and a wide range of contraception; despite this, about one third of women seeking abortions have not used any form of contraception [220, 221]. However, many women are motivated to use an effective method of contraception following an abortion [217, 222]. Increased use of contraception is required to prevent unwanted pregnancy and discussions and advice in conjunction with the abortion is therefore important [223]. Studies show that the use of a coil following an abortion reduces the risk of repeated abortions [224, 225].

The services provided by guidance centres for young people vary across the country and the county councils have different policies with respect to financial subsidies for contraceptives [196]. However, national efforts are underway to coordinate these interventions and even out unfair inequalities within this area. The National Board of Health and Welfare and the Public Health Agency of Sweden submitted a final report on a government commission in September 2014; a proposal for a national strategy for sexual and reproductive health and rights. In addition, the National Agency for Education is working to improve teaching about sex and relationships in schools [226].

In prevention involving teenagers who have become pregnant, it is also important to ensure that support is provided to those who choose to go through with their pregnancy. Research shows that teenage mothers feel they receive less support from those around them, have lower self-esteem and report more depressive symptoms that older mothers, which is a factor that can have a detrimental impact on their parenthood. Consequently, researchers believe that early interventions are important to pregnant teenagers, for example psychosocial support and lifestyle interventions [215].

FIGURE 41.1 – SWEDEN: Abortions among women under 19 years of age per 1 000 women 15–19 years old, 2012.



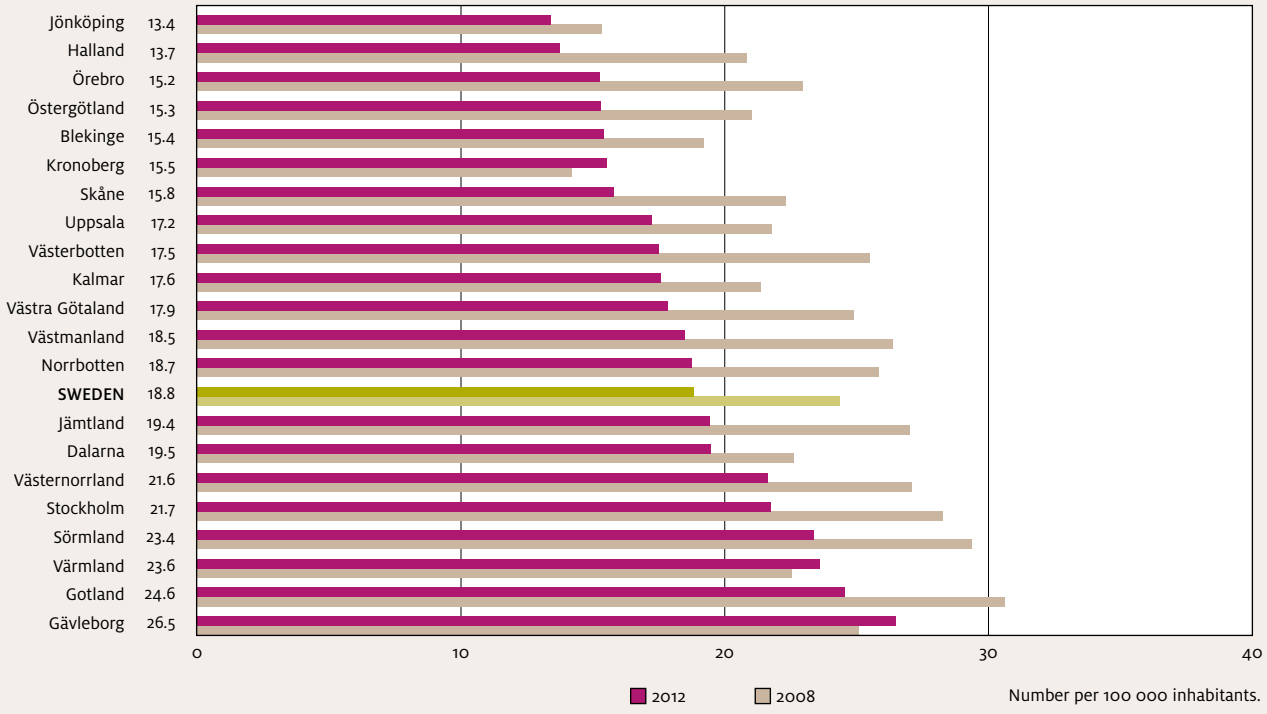
Source: Abortion Statistics, the National Board of Health and Welfare.

It is difficult to measure the number of unwanted pregnancies, but many of these lead to an abortion. The proportion of abortions carried out is therefore seen as an indicator of the incidence of unwanted pregnancies. Pregnancies among women younger than 15 are included, but the average population in the age group 15–19 has been used as the denominator.

Abortions and socioeconomic factors

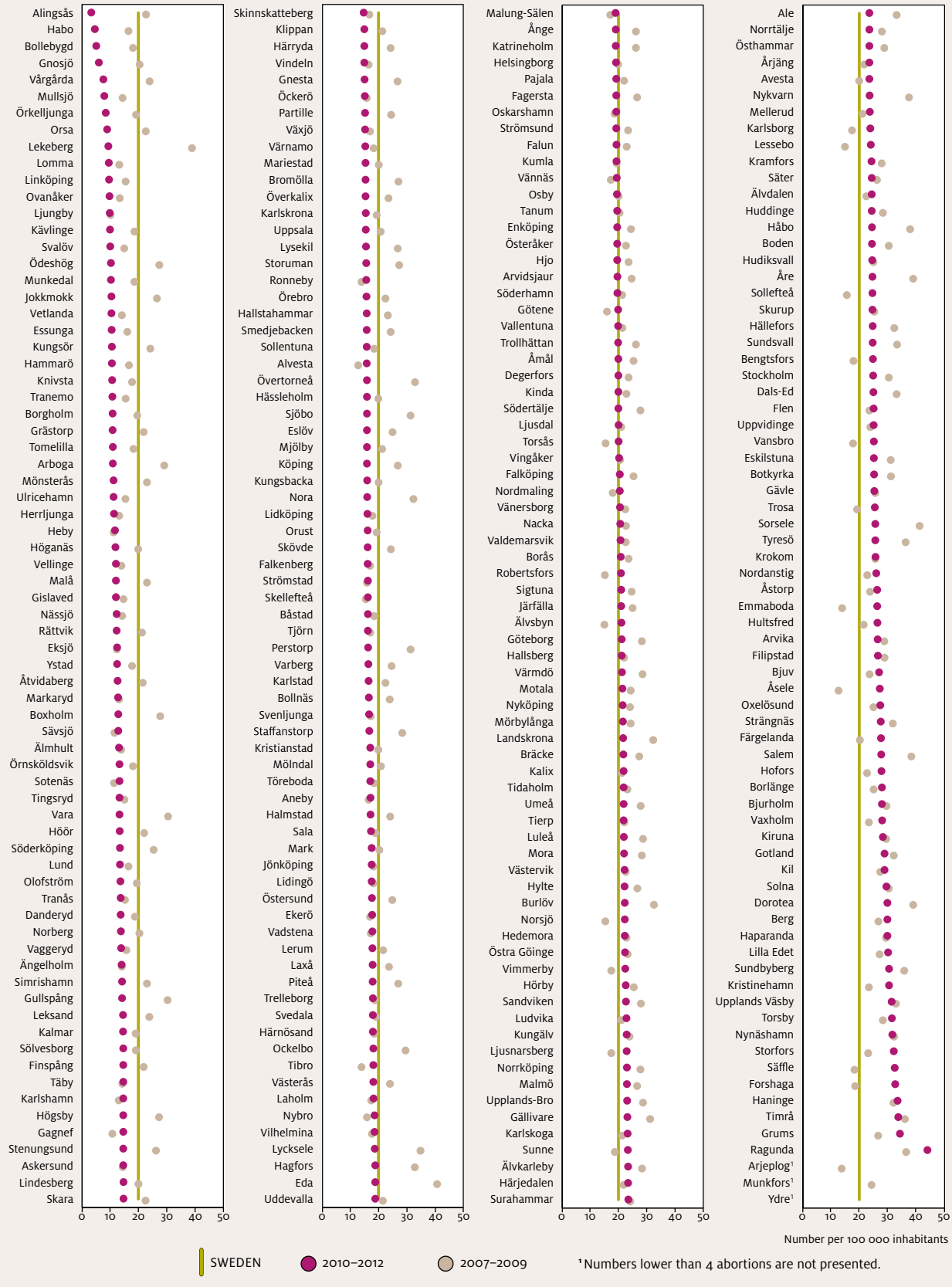
The results show that the proportion of abortions among teenagers has decreased between the measurement periods, but there are large variations between counties and between municipalities. It is important to emphasise that local changes can be the result of a small population, with small changes in the number of abortions leading to relatively large changes in the statistics. In Sweden, there are limited register data about women seeking abortions and there is also a lack of knowledge about the men who are involved in pregnancies that end in an abortion. Several research studies do, however, show that there is an association between socioeconomic factors and repeated abortions [221, 227–230]. Similar results exist for men who have been involved in pregnancies that have ended in abortions [231, 232]. The proportion of those teenagers seeking abortions who have previously had an abortion has been around 16–17 per cent in recent years..

FIGURE 41.2 – REGIONS, WOMEN: Abortions among women under 19 years of age per 1 000 women 15–19 years old, 2012.



Source: Abortion Statistics, the National Board of Health and Welfare.

FIGURE 41.3 – MUNICIPALITIES: Abortions among women under 19 years of age per 1 000 women 15–19 years old, 2010–2012.



Source: Abortion Statistics, the National Board of Health and Welfare.

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Appendix 1 Processing data from public health surveys

The government commission states that the report should be based to the greatest possible extent on indicators and results from the national public health survey (HLV), but also other sources of data.

The national selection from the HLV is not sufficiently large to be reported at the municipal level; therefore, the complementary selections provided by municipalities and county councils, which order and fund these themselves, are used. However, these supplementary selections are not made each year and they also vary in size between county councils, making the process of breaking down this data complex. Nevertheless, when reporting at the municipal level, the benefit of the supplementary selections is judged to outweigh the problems involved in using them. However, some municipalities only provide very small supplementary selections or none at all. This applies primarily to municipalities that have regional public health surveys. In order to get as many municipalities as possible into the report, data from these regional public health surveys is also used, provided the questions are identical or judged to be equivalent and that there are data available in the measurement period 2011–2014. These municipalities have been marked in the presentations in order to show that the data comes from a source other than the HLV. The measurements differ in several ways aside from the construction of the question. In this project, no analysis of other factors that disrupt comparisons has been performed, for example differences in the order of questions, the response options in the survey or differences in measurement periods and age groups. Accordingly, the comparisons are primarily limited to each survey itself.

The national selection alone is used for comparisons at the county council level. In this case the dataset is sufficiently large and does not need to be supplemented with data from supplementary selections or regional surveys, which means that the figures are more comparable. Consequently, data used in regional syntheses differs from those that appear in the report. In the regional context, it is possible to use a broader and better dataset that can be used advantageously for break-downs, analyses and point estimates.

In conjunction with the municipal and county council comparisons, average values that are calculated for four-year periods are used in order to get a sufficiently large dataset. A one-year period is used for the regional surveys as these are not performed as frequently. Data from public health surveys is presented in the report without age standardisation as the standardisation that was used previously can affect the individual values, making them misleading. This is also consistent with the Public Health Agency of Sweden's continuous reporting of the results of the HLV. Consequently, all indicators from the HLV are divided up into a number of different age groups in order to support the interpretation of the influence age has on outcome. A limit has also been chosen, requiring there to be a minimum of 100 responses to the survey for the data to be reported. This is consistent with the reporting of the HLV by the Public Health Agency of Sweden. Other assessments have been made for other indicators with other data sources. One reason for choosing a higher limit here is that a larger dataset is required for the calibration carried out to compensate for drop-out.

Regional Comparisons 2014 Public Health

For the second time, the National Board of Health and Welfare, the Public Health Agency of Sweden and the Swedish Association of Local Authorities and Regions present a regional comparison in the field of public health. The previous comparison was published in 2009.

This report presents results concerning the population's health and lifestyle habits. This year's report has also been expanded, with several new indicators concerning social conditions and living conditions. In total, 41 indicators are presented that highlight various outcomes concerning, for example, health, disease and mortality and outcomes for the population's education, working life and social relationships. Many indicators show an improvement at the national level, compared with the previous comparison year, 2009.

The aim of this report is to contribute to systematic, long-term improvements in services at the regional and local level and thus to improving public health.

Regional Comparisons 2014: Public Health can be downloaded or ordered from:

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