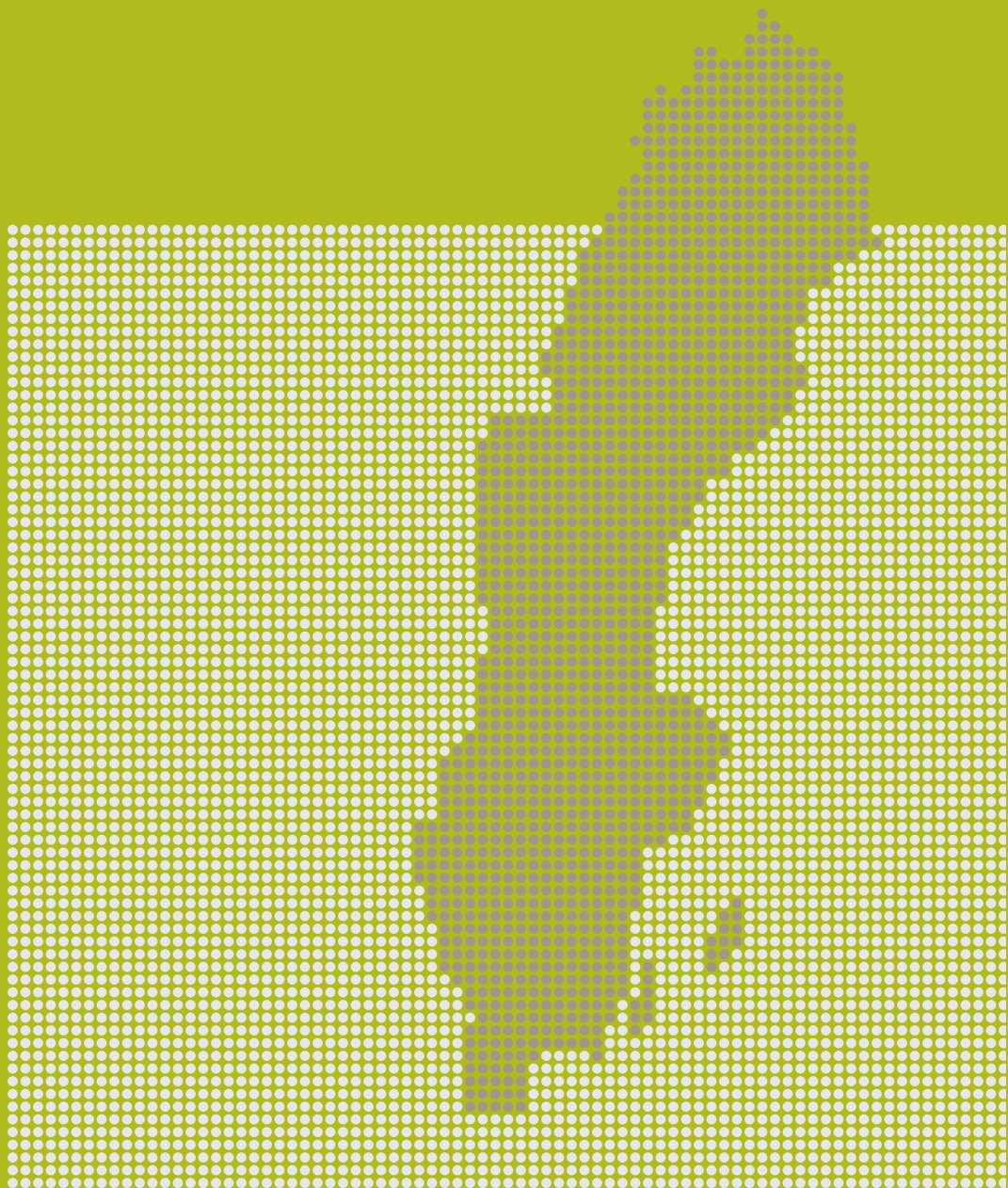
C·A·N THE SWEDISH COUNCIL FOR INFORMATION ON ALCOHOL AND OTHER DRUGS

Drug Trends in Sweden 2017

CAN report 163



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C.A.N

The Swedish Council for Information on Alcohol and Other Drugs

Report 163

Stockholm 2017

Preface

Since the early 1970s CAN has produced reports describing trends in drug use in Sweden. These publications, which are based on information from a variety sources, mainly statistical in nature, represent the most comprehensive compilations about substance use trends in the country. The main objective is to describe trends in the consumption of alcohol and narcotics, in sniffing, doping and in tobacco use.

The latest edition in this series was *Drug Trends in Sweden 2014*, which means that there has been a hiatus of a couple of years. CAN plans to continue publishing reports regularly, but at intervals of a few years. Between these major publications, we will publish short versions in English, based on updated summaries of the aforementioned report series.

The report you are currently reading is one of these short English versions. In conjunction with the publication of this edition, a supplement in English featuring tables of statistics in Excel format, was made available on CAN's website. Visitors to the website can freely download the data they wish to use.

Tony Nilsson was in charge of the chapter on trends in alcohol. Ulf Guttormsson wrote the chapters on illicit drugs, inhalants and doping, while Clara Henriksson was responsible for the chapter on tobacco. Britta Grönlund was in charge of proofreading, layout and typesetting. Janet Holmén translated most of the report and the supplementary tables from Swedish to English.

In addition to statistics produced by CAN, the report presents data derived from a variety of agencies, institutions, organisations and companies, including The Swedish National Council for Crime Prevention, the Ministry of Finance, the Public Health Agency of Sweden, the Police Authority, the National Board of Health and Welfare, Statistics Sweden, the Swedish Transport Administration, the Swedish Transport Agency and Swedish Customs.

Stockholm, March 2017

The Swedish Council for Information on Alcohol and Other Drugs (CAN)

Håkan Leifman
Director

Contents

Summary 9
Trends in alcohol 13
- Availability 13
- Consumption 15
- Harm 18
- International comparison 21

Trends in illicit drugs 23
- International comparison 28

Trends in inhalants 31
- International comparison 32

Trends in doping 35
- International comparison 37

Trends in tobacco 39
- Availability 39
- Consumption 40
- Harm 46
- International comparison 48

References 49

Figures

1. Number of licensed premises to the general public and to restricted groups. Numbers are from the end of each year. 1977–2015. 14

2. Consumption of alcohol from different sources, in litres of 100% alcohol per inhabitant aged 15 or over, in Sweden, 2001–2015. 16

3. Average total alcohol consumption in litres of pure alcohol (100%) by gender and school year, 1977–2016. 17

4. Number of admissions (inpatient) and number of treated (inpatient) individuals for alcohol-related diagnosis, primary or secondary diagnosis. Number of individuals beeing treated (inpatient) for the first time for alcohol-related diagnosis, primary or secondary diagnosis, since 1987. 1987–2015. 19

5. Number of deaths with alcohol-related diagnosis as underlying or contributing cause of death by gender. Age-standardised mortality per 100,000 inhabitants. 1969–2015. 21

6. Trends in street prices of cannabis resin, marijuana, amphetamines, cocaine and brown heroin, adjusted to the 2015 consumer price index. 1988–2015. 24

7. Proportion of students in their ninth and eleventh school years and 18-year-old male conscripts, reporting lifetime prevalence of illicit drugs. 1971–2016. 25

8. Proportion of people under 30 years old suspected of drug offenses, hospitalised for illicit drug-related primary diagnoses, or deceased of drug-related causes. 1987–2015. 27

9. Proportion of students who have used cannabis in the past 30 days in Sweden, other Nordic countries, other ESPAD countries, and all ESPAD countries. 1995–2015.. 29

10. Proportion of students in their ninth and eleventh school year reporting lifetime use of inhalants. 1971–2016. 31

11. Proportion of persons suspected of violating the law prohibiting certain doping substances, by age groups. 1993–2015. 36

12. Proportion of smokers in the population (16–84) by gender. Two-year averages of daily use since 1980–2015, of sporadic and total use since 1988–2013. 41

13. Proportion of frequent smokers (daily or nearly every day use) in the population (16–84 years) and among students in their ninth and eleventh (since 2004) school year by gender. 2000–2016. 42

14. Annual sales of cigarettes (numbers), other tobacco products intended for smoking (cigars/cigarillos, loose tobacco), and moist snuff (gram) per person age 15 or over. 1970–2015. 44

15. Proportion of frequent snuff users (daily or nearly every day use) in the population (16–84 years) and among students in their ninth and eleventh school year by gender. 2000–2016. 45
16. Deaths due to lung cancer per 100,000 inhabitants. Age-standardised. 1955–2015. 47

Summary

The total alcohol consumption of the Swedish population has decreased since the middle of the 00s. Among teenagers, consumption levels are at an all time low. Men drink more alcohol than women, but the gender difference in self-reported alcohol consumption has decreased. The proportion of the population that has tried narcotic drugs has been relatively stable during the 00s after an increase in the previous decade. However, there are signs that use of narcotics has intensified among young adults, and the indicators that reflect the more serious forms of drug use suggest that the situation is deteriorating. Sniffing and use of doping substances is relatively rare in Sweden, and no major changes have been observed in the 00s. Tobacco consumption has decreased in Sweden in the 00s.

Trends in alcohol

The availability of alcohol has increased over time in terms of the number of licences to serve alcohol and state liquor stores. The price of alcohol has varied over time but retail prices have risen in the past few years. The time series for the price of alcohol at licenced premises is relatively short, 2007–2014, but during that period, spirits, wine, and strong beer have all become more expensive.

Between the peak year of 2004 and 2015, total alcohol consumption decreased by about 1.4 litres of pure alcohol per person aged fifteen or older. Nonetheless, total consumption in 2015 was about 0.4 litres higher than in 2001. Men drink more alcohol than women, but over time, the difference between men's and women's self-reported alcohol consumption has narrowed. The alcohol consumption of students in their ninth school year increased during the 1990s until the early 00s (boys) or the mid-00s (girls). Since then, consumption has decreased among both genders. Data on alcohol consumption among students in their eleventh school year are available from 2004; these also show declining consumption among both boys and girls since the mid-00s.

Alcohol-related DALYs have fallen overall in Sweden in recent decades. In recent years, nearly 6% of the Swedish population are estimated to be either dependent on or abuse alcohol. On average, nearly 19% of the drivers killed in traffic accidents during the past decade had blood alcohol levels exceeding the legal limit. Alcohol-related violence (the number of reported assaults outdoors

where the perpetrator was unknown to the victim) increased between 2000 and 2007, then declined through 2015. Women and men treated for alcohol-related diagnoses generally increased between 2000 and 2012, then dropped through 2015. Alcohol-related mortality increased among both men and women in the 1970s, then decreased sharply among men. Men's mortality was considerably lower in 2015 than in the late 1970s. However, from the end of the 1970s until 2015, there were temporary increases in male mortality, for example in the early 1990s and mid-00s. From the late 00s, however, men's mortality generally decreased until 2013. Alcohol-related mortality among men was higher in 2014 and 2015 than in 2013. Among women, the changes in alcohol related mortality over time are less clear. Nonetheless, a clear increase can be seen in the 1970s, a gradual increase during the 1990s to the mid 00s, and a slight decline in the late 00s until about 2013. However, in 2014 and 2015, mortality among women was higher than in 2013

Among adults in Sweden (from age 15 years), total alcohol consumption is under the European average. The same applies to the proportion of drinkers and binge drinkers among Swedish students in their ninth school year.

Trends in illicit drugs

The segment of the population who have tried illicit drugs has remained relatively unchanged during the 2000s, after a rise in the previous decade. However, there are indications of that drug use may have intensified somewhat among young adults. In 2016, 17% of 18-year-old students in secondary school reported that they tried drugs at some time; 13% had used drugs in the past 12 months, and 3% had done so 20 times or more. Compared with data from Europe and the United States, for example, illicit drug use among teenagers, as well as adults, is relatively uncommon in Sweden. In the latest ESPAD survey (from 2015) among European 16-year-old students, Sweden ranked sixth from last of a total of 35 European countries in terms of cannabis use over the past 30 days.

Serious drug use also increased during the 1990s. The most problematic types of drug use are more difficult to measure than casual use, but available indicators such as hospitalisation statistics, cause of death statistics and crime statistics suggest that the situation has deteriorated somewhat further in the 2000s. Available statistics indicate that the proportion of problematic users in Sweden is about the same as the European average, but that the mortality rate is considerably higher in Sweden. However, it is difficult to make this type of international comparison because of differences in how this type of information is collected in different countries.

Trends in inhalants

It is clear that in Sweden, the use of inhalants is mainly prevalent among people in their early teens. The percentage who have used inhalants has decreased since the turn of the millennium and was around 3% among Swedish students in 2016. Sniffing has also gone down in the United States, where the decline began back in the mid-1990s. According to the ESPAD survey among 16-year-old students in Europe, sniffing levels have been relatively stable in Europe, and levels in Sweden fall somewhere in the middle.

Trends in doping

Few Swedes have used hormonal doping drugs such as anabolic androgenic steroids. According to population-wide surveys, less than 1% have done so, and most of them are young or middle-aged men. Use of doping substances outside elite athletics became more common in the 1990s and now a rather limited group has become established whose main objective in using these substances is not to attain advantages in sports.

Trends in tobacco

Unlike many other countries, where tobacco consumption mainly takes the form of cigarette smoking, tobacco use in Sweden involves two main products: cigarettes and moist snuff.

Concerning the availability of tobacco in Sweden, data about tobacco price changes in relation to consumer buying power since 2000 show decreased availability of tobacco in the 2000s owing to increased index prices. Data from 2006 and onward indicate that the physical accessibility of tobacco has also decreased in terms of the number of tobacco retail outlets per capita.

Both the sales statistics and the surveys of consumption habits described in this report's chapters on tobacco show that tobacco consumption has been declining in Sweden for a long time, mainly because daily smoking has decreased in the population. This decline is seen in both genders, but is strongest among men. Since the mid-1990s, daily smoking has been more common among women than men in Sweden, which is unusual from an international perspective. In general, smoking is less common in Sweden than in other EU countries. In the most recent nationwide public health survey, carried out by the Public Health Agency of Sweden in 2016, about 8% of men and 10% of women said they smoked every day.

In most countries, a larger proportion of men than women uses tobacco in the form of cigarette use. In Sweden, however, tobacco consumption also includes

use of snuff, which is significantly more common among men than among women in the country. When the total percentage of tobacco consumers (those who smoke and/or use snuff) is compared between the sexes, the pattern in Sweden is normal, with a higher percentage of tobacco consumers among men. Snuff use has not been studied as continuously as smoking in Sweden, but the available data indicate that snuff use increased during the 1990s and continued to increase somewhat until 2004, when regular studies of snuff use in the population began. Since then the extent of snuff use has been relatively stable. Most of the men and women who use snuff do so on a daily basis. In the 2016 survey, about 18% of men and 4% of women in the population used snuff daily.

Among students in their ninth school year (i.e. those who will turn 16 during the survey year), the percentage of tobacco consumers has declined over a long period; in the 2000s, the percentage of ninth-year students who smoke or use snuff has fallen by half. Among those participated in the Swedish survey of students in their eleventh school year (those who turn 18 during the year of the survey), tobacco use has not declined to the same extent as among ninth-year students. For several years after 2004, when this age group was first included in the survey, the proportion of 17-to-18-year-olds who used tobacco was relatively stable, but surveys from the past 5–6 years show that the percentage of eleventh-year girls who consume tobacco has decreased, and in the two most recent surveys, a decrease among eleventh-year boys has also been seen.

In summary, tobacco consumption has declined significantly in Sweden during the past few decades. The number of men who die of lung cancer has long been declining, whereas it has increased among women in Sweden. The most recent data show that slightly fewer women died of lung cancer in 2015 than the year before, and hopefully a peak has been reached also among women. However, tobacco consumption still underlies a substantial proportion of the disease burden in Sweden. According to the latest comparisons, tobacco caused about 8% of the disease burden in the country, which is more than twice the disease burden caused by alcohol and narcotics.

Trends in alcohol

This section briefly describes alcohol trends over time. To this end, several different sources of statistics have been used. The underlying data sets include both long and short time-series, as well as information that might be described as statistical snapshots. By combining different data sources, the aim is to obtain the best possible depiction of trends in alcohol.

A country's alcohol policy are important for alcohol consumption. One comprehensive compilation has shown how alcohol policy instruments – not least price and physical availability – affect consumption (Babor 2003). This section therefore begins with a description of trends in alcohol availability in terms of price developments and information on physical availability. Subsequently, trends in alcohol consumption are described on the basis of both recorded sales and data from general population surveys that provide information on the consumption of unrecorded alcohol. Lastly, trends related to the harmful effects of alcohol are presented. This information comes mainly from various registers of alcohol-related harm and problems associated with alcohol consumption. Examples include hospitalisation and mortality owing to alcohol-related diagnoses, driving while intoxicated, and violence.

Availability

The economic and physical availability of alcohol is an important factor in the extent of its consumption. By studying the real price trend on alcohol, it is possible to get an picture of how alcohol prices have evolved. The retail price of alcohol in Sweden has varied over time (Table 1). The price of strong beer, "starköl", (≥ 3.51% alc. by vol.) has varied most; it cost most around 1990 and prices were considerably lower around 2006–2007. Prices for wine and spirits were high in the early 2000s, then generally declined until 2012. Since then, these two beverages have grown more expensive. Prices for strong beer and low alcohol beer, "folköl" (2.26–3.50% alc. by vol.) have also increased over the past 2–3 years in Sweden. The time series on alcohol prices at licenced premises is relatively short, 2007–2014, but during that period, spirits, wine, and strong beer have all become more expensive.

The number of Systembolag (stores for the state liquor retailing monopoly) has increased over time and stores can now be found in all Sweden's 290 municipalities. In 2015 there were 436 Systembolag spread all across the country

(Systembolaget, 2015), versus 359 stores in 245 municipalities in 1992 (Folkhälsomyndigheten 2014).

In addition being sold through the state liquor retailing monopoly, alcohol is sold at licenced premises, and low alcohol beer is sold at retail locations. The total number of licences issued (Table 2) rose from about 3,000 in the late 1970s to 11,000 by the end of the 1990s. The total number of licensed premises (to the general public and to restricted groups) continued to increase during the 00s, and reached about 14,800 in 2015. As also shown in Figure 1 below, the number of licences issued to the general public has increased substantially over time.

In the early 1990s (1992) there were approximately 13,000 retail outlets for low alcohol beer. The corresponding figure 20 years later (2013) was about 6,900, which represents a decline of about 47% (Folkhälsomyndigheten 2014).

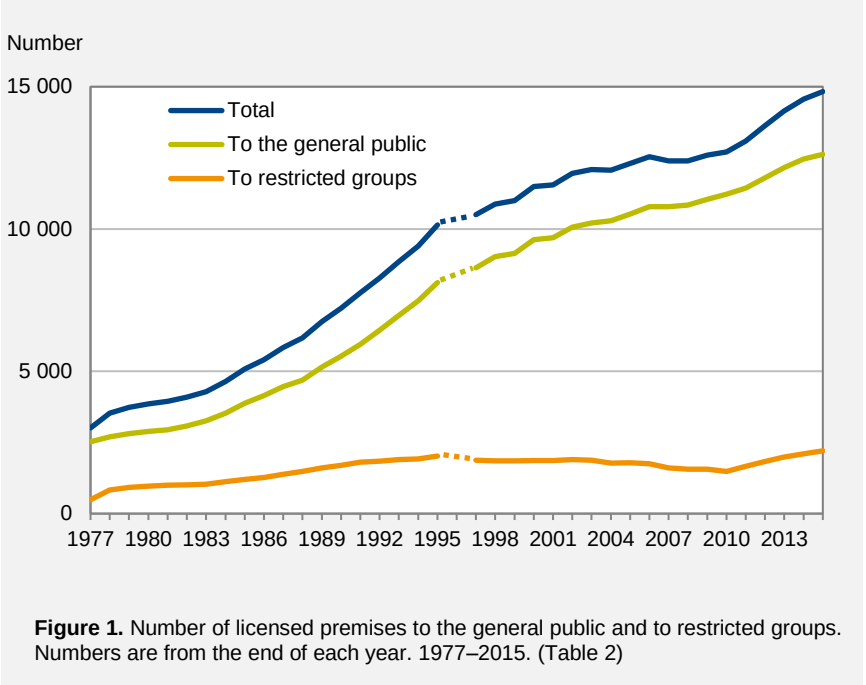

Figure 1. Number of licensed premises to the general public and to restricted groups. Numbers are from the end of each year. 1977–2015. (Table 2)

Consumption

Alcohol consumption in Sweden is studied by measuring both recorded and unrecorded consumption. Recorded consumption is comprised of domestic alcohol sales at Systembolaget, licenced premises and groceries (low alcohol beer). Recorded consumption is denoted recorded because this segment of alcohol consumption is recorded in the Swedish domestic sales statistics. Unrecorded consumption includes alcohol brought into the country legally in connection with travel, home-made alcoholic beverages, smuggled alcohol and alcohol purchased over the internet. Unlike recorded consumption, unrecorded consumption does not get included in domestic statistics in the same way and is therefore estimated by means of general population surveys.

During the 1980s and 1990s, *recorded consumption* (domestic sales) corresponded to about 6 litres of pure alcohol per person age 15 years or older. Between 1998 and 2003, however, sales increased by almost 20% (to 6.9 litres of pure alcohol). Sales declined slightly over the two following years, then increased again; total sales in recent years correspond to approximately 7.2–7.3 litres of pure alcohol per person age 15 or older (Table 3 and 5).

During the 1990s, *total* alcohol consumption (i.e. recorded + unrecorded) was about 8 litres of pure alcohol per person age 15 or older (Kühlhorn et al 2000; Leifman & Gustafsson 2003). In 2001, the total was 8.8 litres, rising gradually to about 10.6 litres in 2004, an increase of nearly 20%. From the peak year (2004) to 2015, total consumption fell by approximately 1.4 litres, which corresponds to about 13%. Nonetheless, total consumption in 2015 was 0.4 litres higher than in 2001, representing an increase of 4% between these years. Over the past two years (2014–2015) total consumption has been stable at about 9.3–9.2 litres (Table 5).

Of total consumption in 2015, recorded alcohol comprised 78% and the remaining 22% was unrecorded. Concerning unrecorded consumption in 2015, alcohol imported by travellers contributed 13% of total consumption, smuggling accounted for 5%, and homemade alcohol about 2%. Purchase of alcohol over the internet accounted for about 1%. It is worth noting that in 2004, when total alcohol consumption was nearly 10.6 litres, unrecorded consumption accounted for almost 40% of the total. Detailed information about the different subsets of alcohol consumption and changes over time can be found in Table 5, see also Figure 2.

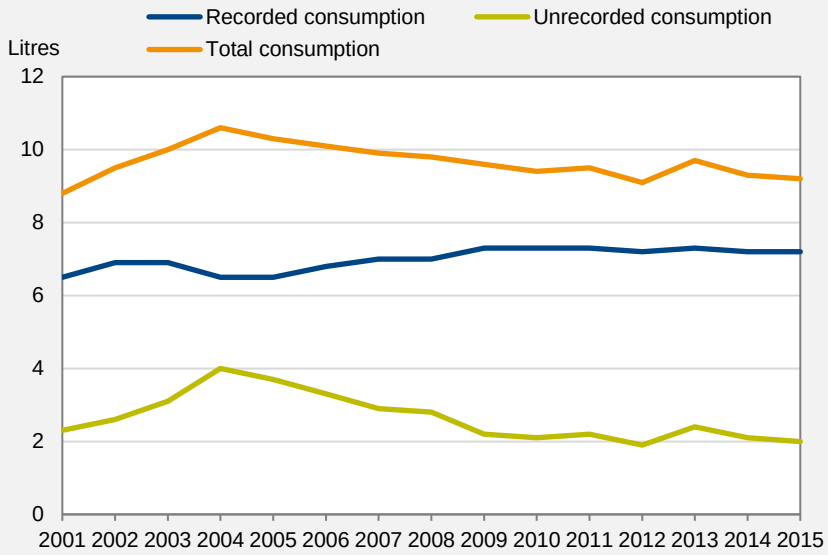

Figure 2. Consumption of alcohol from different sources, in litres of 100% alcohol per inhabitant aged 15 or over, in Sweden, 2001–2015. (Table 5)

By studying self-reported alcohol consumption instead of recorded alcohol sales and uncrecorded purchase estimates is it possible to examine consumption in different subgoups of the population, such gender and age. In 1990, women's self-reported alcohol consumption was about 34% that of men in 1990, whereas in 2015 reached 50% of men's. Gender differences in self-reported alcohol consumption have thus decreased compared to the beginning of the 1990s (Table 9).

A closer look at the proportion of those with risky drinking habits, (defined as 6–12 points for men and 5–12 points for women on the three item AUDIT-C scale) reveals that men are over-represented in comparison to women. The proportion of men who were at-risk consumers was 20% in 2016, versus 13% among women. In 2004, the corresponding proportions were 23% and 13% (Table 14). The development over time was different in different age groups. For example, the proportion of at-risk consumers in the age group 16–29 years decreased from 37% to 25% between 2004 and 2016. The oldest age group, 65–84 years, had lowest proportion of at-risk consumers in both 2004 and 2016 but the proportion of at-risk consumers increased from 5% to 11% between those years (Folkhälsomyndigheten 2016).

Among students in their ninth school year (15-to-16-years-old), alcohol consumption increased during the 1990s up until the early 00s for boys, and to the mid-00s for girls. Subsequently, consumption has decreased in both genders. At the time of the latest survey, in 2016, average annual alcohol consumption among boys was 1.2 litres of pure alcohol, and 0.9 litres among girls (Table 7). Consumption data for students in year 11 (17-to-18-years-old) are available from 2004; these data also show declining consumption among both boys and girls since the mid-00s. Consumption levels are considerably higher in year 11 than in year 9: in 2016, boys consumed 3.4 litres of pure alcohol, while girls consumed 2.3 litres, see Figure 3 (Table 8).

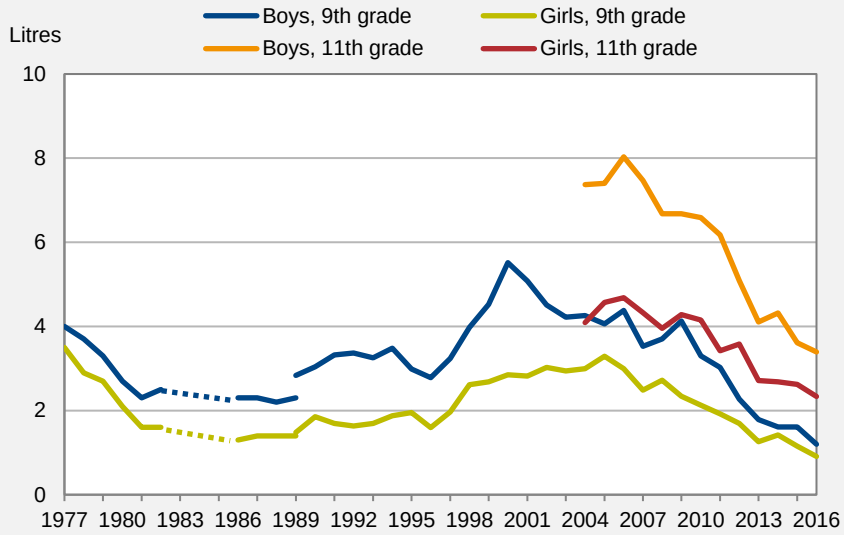

Figure 3. Average total alcohol consumption in litres of pure alcohol (100%) by gender and school year, 1977–2016. (1977–1989 relates to estimated values). (Tables 7–8)

Harm

That alcohol may have detrimental effects on both health and society is well known. Some of these effects can be described reasonably well with statistics but providing a comprehensive picture of their magnitude and development over time is difficult. In particular, societal harm such as sick leave and the consequences for people who live with someone who abuses alcohol can be difficult to capture. Furthermore, many factors can influence the indicators used to measure the harm caused by alcohol. Examples include changes in legislation, praxis, and financial and human resources, as well as changes in how crimes, mortality, and health care are coded in data registers. The indicators used and presented in this brief chapter therefore do not provide a complete picture of the development and magnitude of alcohol-related harm.

The proportion of Sweden's population who are dependent on, or abuse alcohol has been estimated at 5.9%, corresponding to 285,000 men and 161,000 women (Ramstedt et al 2014). Alcohol can also have a negative impact on people other than those who consume it. Nearly 15% of the Swedish population state that they are adversely affected by people around them drinking too much. In addition to those who say they are affected by the drinking habits of friends and relatives, nearly 10% report negative effects of strangers' drinking. More women than men report that they are negatively affected by the drinking habits both of friends and relatives, and of strangers. (Ramstedt et al 2014).

DALY (disability-adjusted life year) is a measure of the total number of years lost due to premature mortality (YLL) and time with illness (YLD) (Agardh et al 2014). During 2013, the number of DALYs related to alcohol was nearly 788 per 100,000 inhabitants; corresponding figures were 831 (in 2010), 908 (2005) 916 (in 2000), 946 (in 1995) and 1101 (in 1990). Alcohol-related DALYs have thus fallen overall in Sweden in recent decades (Agardh et al 2016).

The number of vehicle drivers killed in 2015 was 160, and of these, 22% (35 motorists), had blood alcohol levels exceeding the legal limit (0.2‰). On average, nearly 19% of all vehicle drivers killed in traffic from 2006 to 2015 had illegal blood alcohol levels. Men are over-represented, and of the drunk drivers who have been killed, it is most common that they are between 18 and 44 years of age (Trafikanalys 2016). The available statistics showing drunk driving offences over time, namely reported crimes for driving while intoxicated, has major weaknesses if the objective is to follow actual developments. The reporting is influenced by the resources assigned to policing of traffic. Table 20 shows the number of reported crimes for drunk driving and reveals, among other things, a continuous decline since 2008.

Trends in assaults committed outdoors, in which the offender was unknown to the victim, is a violent crime considered to be a valid trend indicator for alcohol-related violence. Between 2000 and 2007 the number of reported assaults falling into that category increased by about 47%. Since then (2007), the number of reports had decreased by roughly 29% until 2015 (Table 22).

Between 1987 and 1998 the number of alcohol-related inpatient admissions fell from 51,000 to 37,000. After that, the trend reversed and the number rose to about 56,600 in 2012. During the past few years, however, the number of inpatient admissions decreased again and was about 51,400 in 2015, see Figure 4 (Table 23). Women's share of inpatient admissions for alcohol-related diagnoses has increased over time. Between 1987 and the first half of the 1990s, women comprised about 20%, and during 2000 to 2015 they averaged 26% (Table 23).

The proportion of people aged 60 years or older and who have been treated for alcohol-related diagnoses have almost doubled in 2015 compared with in the late 1980s. In the younger age groups (20–49 years) emerges however clear reductions at the same temporal comparison. Among the youngest (up to 19 years), the proportions are higher in 2015 compared with in the late 1980s but lower than what they were, for example, around 2006–2007 (Table 24).

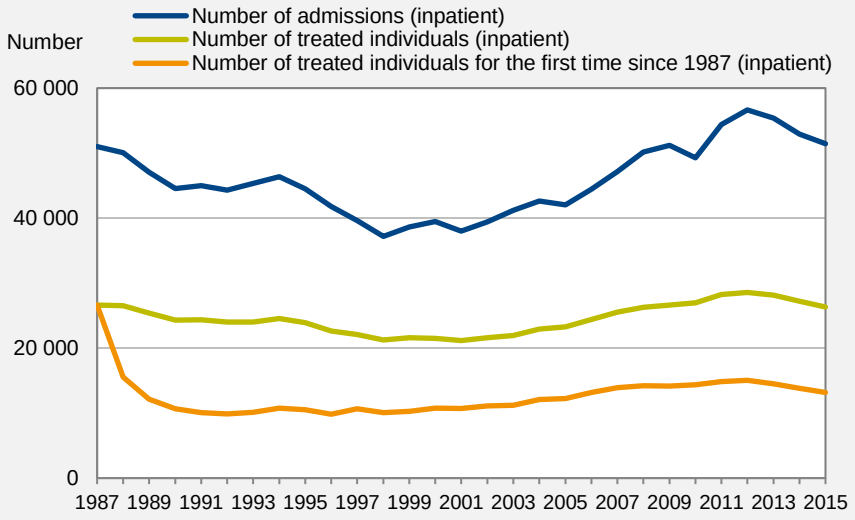

Figure 4. Number of admissions (inpatient) and number of treated (inpatient) individuals for alcohol-related diagnosis, primary or secondary diagnosis. Number of individuals beeing treated (inpatient) for the first time for alcohol-related diagnosis, primary or secondary diagnosis, since 1987. 1987–2015. (Table 23)

The number of individuals being treated (inpatient) for the first time for alcohol related diagnoses increased from just over 10,000 per year in the late 1990s to about 15,000 in 2012, an increase of about 50%. During the most recent years, however, the number of people being treated for the first time for alcohol-related diagnoses has decreased, falling to about 13,200 in 2015. The number of treated individuals (inpatient) rose by about 30% from the late 1990s to 2012, and subsequently declined by about 8% to 2015, see Figure 4 (Table 23).

When it comes to alcohol-related treatment in terms of numbers of patients and/or number of admissions for inpatient care (as above), factors such as age, gender and population size play an important role in the magnitude of the problem and thus on developments over time. These factors can be accounted for by using data subdivided by gender and standardised for age, and viewed in relation to the population as a whole. Such strategies for calculating the number of people treated (as inpatients) for alcohol-related diagnoses reveal that the number of female inpatients per 100,000 people in the population 15 years or older increased from 160 to 217 between 2000 and 2012, then decreased to 196 in 2015. The corresponding number of male inpatients increased from 425 to 497 between 2000 and 2012, then dropped to 449 in 2015 (Folkhälsomyndigheten, Indikatorlabbet).

As shown in Figure 5, alcohol-related mortality (alcohol diagnosis, age standardised, per 100,000 inhabitants) increased among men and women in the 1970s and then decreased sharply among men. Men's mortality rate is considerably lower in 2015 than in the late 1970s. However, from the late 1970s until 2015, there are temporary increases in male mortality, for example in the early 1990s and mid-00s. From the late 00s, however, men's mortality generally decreased until 2013. Alcohol-related mortality among men was higher in 2014 and 2015 than in 2013. Among women, the changes over time are less clear. But a clear increase can be seen in the 1970s, a gradual increase during the 1990s to the mid 00s, and a slight decline in the late 00s until about 2013. However, in 2014 and 2015, mortality among women was higher than in 2013 (Table 26).

Number of deaths with alcohol diagnosis (non standardised) is considerably higher among people who are 60 years or older in 2015, compared with in the late 1980s for instance. In younger age groups clear reductions are displayed at the same temporal comparison. (Table 26).

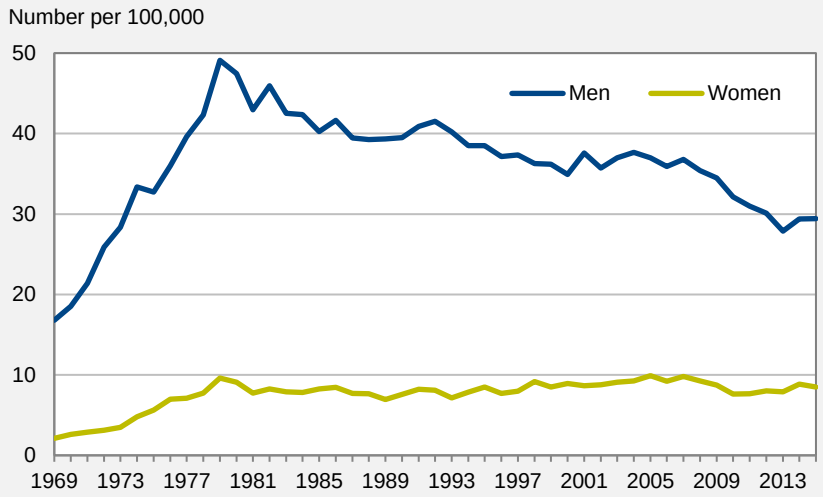

Figure 5. Number of deaths with alcohol-related diagnosis as underlying or contributing cause of death by gender. Age-standardised mortality per 100,000 inhabitants. 1969–2015. (Table 26)

International comparison

Comparing alcohol consumption and alcohol-related harm in different countries is a challenge because of different measures and definitions between countries.

Total (recorded and uncrecorded) alcohol consumption worldwide has been calculated to correspond to 6.2 litres of pure alcohol per person age 15 years and older (2010). Generally, consumption is highest in WHO's European region (10.9 litres) and lowest in the Eastern Mediterranean region (0.7 litres). The reported figure for Sweden was below the European average and amounted to about 9.2 litres (average 2008–10). Overall, global alcohol consumption increased slightly between 2005 (6.1 litres) and 2010 (6.2 litres). In the various WHO regions, consumption increased between 2005 and 2010 in South-East Asia and the Western Pacific, while it decreased in the African and Americas regions and especially in the European region (from 12.2 to 10.9 litres). Like consumption, alcohol-related mortality (alcohol-attributable fractions, AAFs for all-cause deaths) is highest in the WHO's European region. In this region, it is mainly eastern European countries that contribute to the high mortality figures. Lowest AAFs are found in the African and Eastern Mediter-

ranean regions. In a global perspective, the harmful use of alcohol was estimated to have caused about 3.3 million deaths in 2012, representing 5.9% of all deaths (World Health Organization 2014).

Since 1995, the European school survey ESPAD has been conducted on six occasions. It is the largest survey on young people's substance use and is conducted through surveys of 15-to-16-year-old students in almost 40 European countries (Kraus et al 2016). The survey from 2015 shows that Sweden is well below the ESPAD average regarding drinking alcohol before the age of 14, life time use of alcohol, consumption during the past 30 days and binge drinking during the past 30 days (heavy episodic drinking) The proportion of students in Sweden who had drunk alcohol on any occasion has declined from about 89% in 1995 to 65% in 2015. Taken overall, there are similar downward trends in ESPAD countries, although the reduction starts later and is smaller (Guttormsson & Leifman 2016). The proportion of students who report binge drinking during the past 30 days has been in a general decline in Sweden since 1999 whereas the average for ESPAD countries shows a tendency to a decline in the 2015 survey. Surveys of American students in grades 8, 10 and 12 (Johnston et al 2016) yield result similar to those from surveys of Swedish students (Guttormsson & Leifman, 2016), namely a decreasing proportion of binge alcohol consumers since the millennium change.

Trends in illicit drugs

Drug use harms people in various ways, including detrimental effects on health. One way to describe the scope of physical negative effects is to express them in DALYs, an internationally used measure of healthy years of life lost due to illness or premature death; DALYs can quantify the disease burden caused by illicit drug use, for example. In 2010, the number of DALYs in Sweden due to illicit drug use was about 32,000 among men and about 8,000 among women (Agardh 2014), corresponding, respectively, to 1.8% and 0.7% of the country's total disease burden. This makes narcotic drug use the tenth largest risk factor in that year, although drugs such as tobacco and alcohol generated a larger proportion of the disease burden (7.7% and 3.4%, respectively).

Just as in the case of alcohol, surveys and statistics about illicit drugs do not simply reflect the current situation, but are also influenced by other factors, such as changes in legislation and law enforcement, shifting priorities and resources within efforts to combat narcotic drugs, new definitions and routines for how health care and causes of death are registered, etc. This is important to keep in mind when interpreting data on illicit drug trends, not least because such trends are often based on indicators that vary in terms of how closely they are linked to actual consumption.

The increase in availability of traditional narcotic drugs (cannabis, cocaine, etc.) observed during the 1990s seems to have plateaued somewhat in the 2000s; this conclusion is based, among other things, on the fact that prices have stopped falling and – in the case of cannabis products – have even begun to increase. Meanwhile, as shown in Figure 6, the prices of narcotics remain lower now than they were about 25 years ago, despite seizures of large quantities of drugs (Table 38). We can therefore assume that drug availability of illicit drugs is relatively high at present. In addition, a broader range of illicit drugs is now available, partly because several new psychoactive substances have been introduced, partly because pharmaceutical drugs such as pain killers and tranquillisers have become more common on the illegal market (CAN 2014, Guttormsson 2016a and 2016b).

Information about sporadic drug use is primarily obtained through surveys. Despite the methodological problems associated with such studies, surveys are considered to reflect trends fairly accurately. From 1971 onward, data are available on self-reported illicit drug use among 16-year-olds in Sweden (see Figure 7). In general terms, these studies show that after an increase in drug

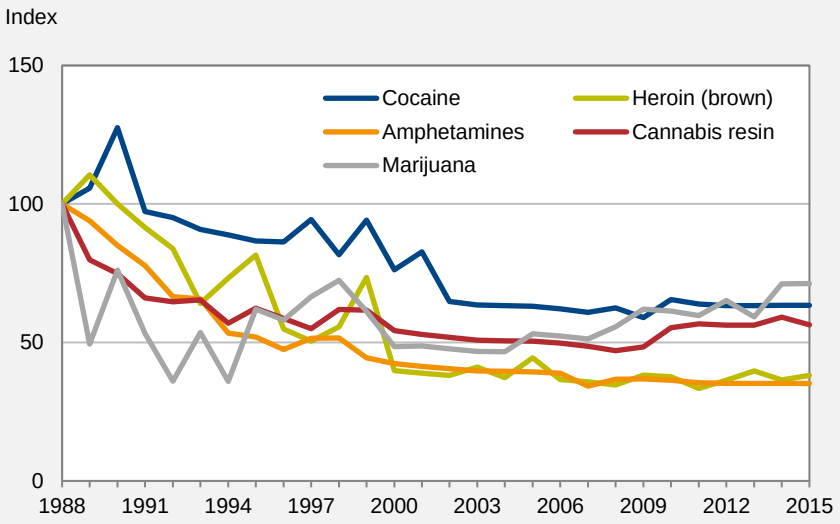

Figure 6. Trends in street prices of cannabis resin, marijuana, amphetamines, cocaine and brown heroin, adjusted to the 2015 consumer price index. 1988–2015. Index 1988=100. (Table 38)

use in the 1990s, use among youth of school age has been relatively stable since the turn of the millennium, in terms of both experimenting with drugs and regular use (Englund red. 2016). Other studies indicated the same situation among adults (Folkhälsomyndigheten 2017).

In the 2016 survey, 4% of 16-year-olds and 13% of 18-year-olds responded that they had used drugs in the past 12 months (Tables 39–40). In a broader group of young adults (16–29 years), about 8% said they had used cannabis in the past year (Table 45). Viewed in a 45-year perspective, it is mainly the 1980s that stand out, with a lower percentage reporting personal experience of illicit drug use.

Although the percentage of young people who use illicit drugs has remained relatively stable during the 2000s, there are signs of a slight increase in the frequency with which they use drugs (see Tables 41–42). Thus, even if the user group has not grown, consumption within the group appears to have increased.

Among 18-year-old students who have used illicit drugs, almost two-thirds have used cannabis only; slightly under one-third have also used other drugs, and 5% have exclusively used other drugs. In recent years, synthetic cannabis smoking mixtures such as “spice” have risen to second place after traditional cannabis (cannabis resin and marijuana). Other illicit drugs, mentioned less frequently, include ecstasy, cocaine, amphetamines, and pharmaceutical drugs

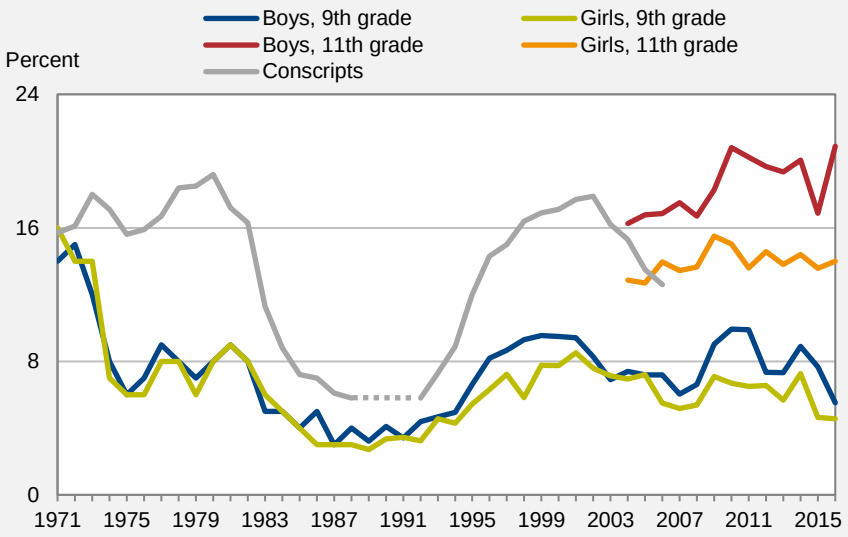

Figure 7. Proportion of students in their ninth and eleventh school years and 18-year-old male conscripts, reporting lifetime prevalence of illicit drugs. 1971–2016.
(Tables 39–40 and 43)

as tranquillisers and pain-killers, which are classified as narcotic drugs when used without prescription.

In the adult population (ages 16–84), about 12% state that they have used cannabis on some occasion, and 1% report having used it during the past 30 days (Tables 44 and 46). Personal experience of illicit drugs is more common among adult men than among adult women. These disparities emerge in late adolescence and can be seen even more clearly if one takes into account regularity and frequency of use. Illicit drug use is most common in urban areas, and least common in small towns and in rural settings. The same is true for sporadic use. Young men in urban areas are the segment of the population in which cannabis use is most widespread (CAN 2014, Englund red. 2016).

Even though studies often reveal that problematic drug users had marked social problems early in life, it is obvious that this is not true of everyone who has experimented with illicit drugs. Nonetheless, various studies have shown that young people who have tried drugs stand out from their peers in some regards. For example, they may be more prone to truancy, more discontented at school, have worse conditions at home, and lower educational attainment. The differences are greater among those who use drugs regularly. Those who continue to use narcotics often stand out in terms of these characteristics, differing not

just from those who have used illicit drugs a few times, but especially from those who have never tried drugs (CAN 2014).

It is usually said that modern illicit drug abuse became established in Sweden in the second half of the 1960s (Olsson 1994). The number of problem drug users in 1967 has been estimated to about 0.8 per 1,000 inhabitants (Ds S 1980:5). In the second half of the 1970s, the number of drug offenses and drug seizures continued to rise, along with the number of hepatitis infections associated with intravenous drug use and drug-related deaths. It was during this period that heroin was introduced in earnest in Sweden. In 1979, the estimated number of problem drug users was 1.8 per 1,000 inhabitants, increasing by 1992 to 2.2 and by 1998 to 2.8, according to special investigations (see Olsson et al 2001 and Table 47).

Estimates of the extent of problematic drug use made in the 2000s do not indicate that the situation has improved, though it should be borne in mind that these estimates employed different methods, making comparisons difficult. In the absence of direct measures of the evolution of problematic drug use in recent years, indicative sources must be used, i.e., information such as statistics on health care or crime, which may indirectly reveal the scope and consequences of drug abuse.

Available indicators are in overall agreement with the results of earlier investigations and estimates, showing an increase in illicit heavy drug use in the 1990s. Subsequently, the estimations made show slower rates of increase whereas the indicators suggest quicker rates (CAN 2014). Judging from the drug use indicators, the situation has deteriorated over the last 10 years, with increases in drug seizures and drug-related hospitalisations and mortality. As shown in Figure 8 the proportion of young people (under 30) who have been registered for drug-related crime, or have suffered from drug related mortality or morbidity has increased somewhat. The number of first time hospital admissions for treatment of drug-related diagnoses, regardless of age, has increased over the past 10 years (Table 60). However, at the same time, the situation appears to have improved in terms of intravenously transmitted HIV and hepatitis C infections (Tables 63–64).

Thus, available indicators suggest that problematic illicit drug use may have increased over the past 10 years, and that a recruitment of users hence has taken place. However, intravenous drug use appears not to have increased, suggesting that the increases reflect oral drug use, not least of pharmaceutical drugs in the opioid and benzodiazepine groups, which are classified as narcotics when being used without a prescription.

A clear pattern in the earlier surveys of the heavy drug abuse was a concentration in urban areas. The same pattern can be seen in different types of indicators (see Tables 51, 52, 62, 63, 65 and 67). However, since the early 1990s,

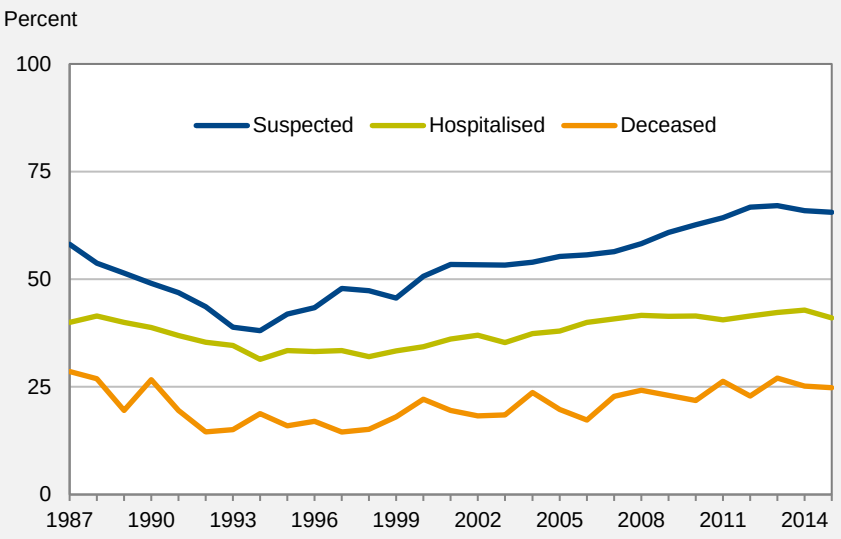

Figure 8. Proportion of people under 30 years old suspected of drug offenses, hospitalised for illicit drug-related primary diagnoses, or deceased of drug-related causes. 1987–2015. (Tables 53, 61 and 66)

heavy drug use in counties without major cities has gradually increased, and if this trend continues for a few more years, the metropolitan regions will no longer be over-represented in drug use statistics.

In earlier investigations, the proportion of problematic drug abusers who were women was fairly stable at about one quarter. This is higher than the women's share of drug offense suspects (around 14% according to Table 53) but lower than their share of hospitalisations for drug abuse (about one third according to Table 60). On the basis of these surveys, one can conclude that women are under-represented among (known) drug offenders but over-represented among those in need of medical care for their drug use.

In summary, we have no fully reliable picture of the extent and evolution of problematic illicit drug use in the 2000s. A conservative estimate is that although the relatively quick expansion in the 1990s slowed in the 2000s, it has not fully stopped. The fact that most of the relevant indicators (crime, morbidity, mortality) suggest a deterioration in recent years ought to reflect the reality – at least partially – not least considering that the illicit drug market is now relatively large. However, the rate of increase suggested by the indicators ought to be exaggerated owing to measurement errors (see Leifman 2016, for

example). During the same period, sporadic or recreational illicit drug use, do not show any major signs of increase.

International comparison

A comparison between Sweden and the rest of Europe reveals that, in this perspective, it is relatively unusual for Swedish 15-to-16-year-old students to have experimented with illicit drugs. This is clear from the ESPAD study, conducted in European countries every fourth year since 1995, which uses standardised data collection methods to generate statistics that are as comparable as possible (see Kraus et al 2016).

On average, 18% of European young people surveyed in 2015 stated that they had used illicit drugs on some occasion; in Sweden the corresponding figure was 8%. In virtually all countries, most of the students who had tried drugs had used (at least) cannabis. Levels were particularly high (30–35%) in Bulgaria, France, Liechtenstein, Monaco and the Czech Republic.

Among the 35 European countries that participated in the survey in 2015, Swedish students were sixth from the bottom in terms of current cannabis use (in past 30 days). Figure 9 shows that over the past 20 years, around 2% of the Swedish students have reported current cannabis use. This is slightly lower than in other Nordic countries and significantly lower than in non-Nordic ESPAD countries (Guttormsson & Leifman 2016).

Among young adults, and among the population as a whole, personal experience of narcotics is less widespread in Sweden than in the rest of Europe. For example, on average about a quarter of the European population aged 15–64 years had used cannabis on some occasion, versus about 14% in Sweden (ECNN 2016). Among young adults (15–34 years), 13% of Europeans had used cannabis, versus about half the proportion in Sweden (6%).

In the United States, 18-year-old students' experience of illicit drugs has been surveyed regularly since the mid-1970s. These surveys show trends similar to those among Swedish adolescents of the same age, including increasing use in the 1970s, declines in the 1980s, increases in the 1990s, and relatively stable use over the past 20 years (Guttormsson 2007, Englund red. 2016, Johnston et al 2017). During this time period, on average, the percentage who had used illicit drugs was 3–4 times larger in the United States than in Sweden (48% versus 17% in 2016).

Thus, even though the trends were similar over time, significantly more American 18-year-olds had used illicit drugs; this applies, not least, to regular drug use, as 24% versus 2% had used illicit drugs during the past 30 days. In the

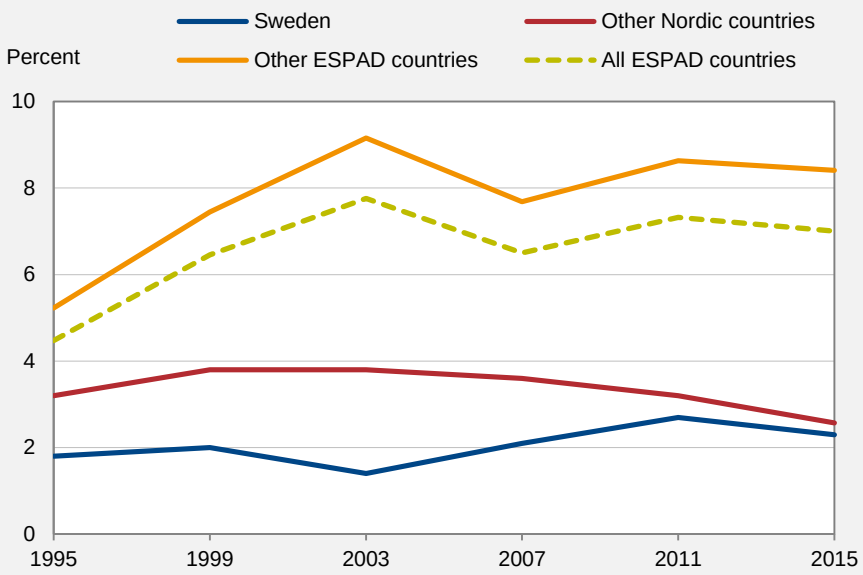

Figure 9. Proportion of students who have used cannabis in the past 30 days in Sweden, other Nordic countries, other ESPAD countries, and all ESPAD countries [a)]. 1995–2015. (Source: Guttormsson & Leifman 2016).

a) The 25 countries that participated in 2015 and on at least three other occasions.

United States, about half of the adult population (12 years and older) say that they have tried illicit drugs on some occasion (SAMHSA 2016). This is about four times higher than in Sweden.

Attempts to compare the more problematic forms drug use, which may have more serious consequences to the user, are to some degree thwarted by the fact that the available data have not been gathered in such a way as to enable comparison between countries. Using indirect indicators such as drug-related mortality to compare different countries' levels of problematic drug use can be difficult. First, use patterns vary from country to country, as different drugs are abused in various ways. Second, differing perceptions of drug use are reflected in national definitions and statistical routines. How this type of data is collected can thus be crucial for the outcome of international comparisons.

The best possibility of comparing several similar countries is provided by the EMCDDA statistics representing a number of European countries (see the EMCDDA Statistical Bulletin). According to these data, Sweden appears to be in an intermediate position in terms of problematic drug use, related to the size of its population aged 15–64 years. According to the statistics on drug-related

mortality, Sweden is significantly worse off than the EU average. The problems inherent in this type of statistics must however be taken into careful consideration, particularly in international comparisons, to prevent incorrect conclusions being drawn from observed differences.

Trends in inhalants

The phenomenon of use of inhalants was observed as early as the 1950s. At that time, it was mainly a matter of young people inhaling volatile solvents, such as trichloroethylene, benzene, and thinner. During the 1990s, a similar phenomenon called “huffing” arose. This involves deep inhalation of gases, such as aerosol propellants in spray cans, nitrous oxide and butane gas intended for cigarette lighters (CAN 2014).

In 2016, about 3% of the ninth-year students and 2% of the eleventh-year students who responded to CAN's school survey stated that they had sniffed or huffed on some occasion (Englund red. 2016). Few, particularly in the older group, said they had done so during the past month. Unlike use of alcohol or illicit drugs, the use of inhalants does not become more common with age: rather, it is something that (especially) young teenagers try a few times and then stop. Despite adjustments in how the survey question is phrased, sniffing/huffing appears to have become less prevalent than ever in recent years.

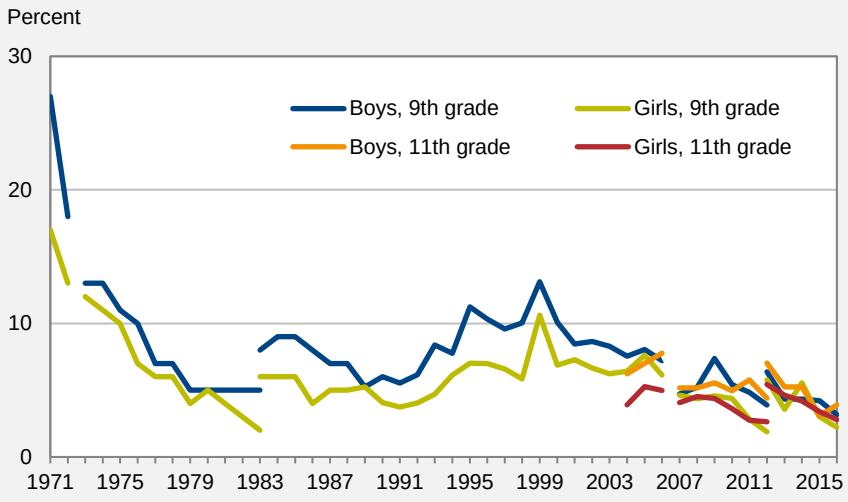

Figure 10. Proportion of students in their ninth and eleventh school year reporting lifetime use of inhalants. 1971–2016. (Tables 69–70)

As shown in Figure 10 (and Tables 69–70), the surveys of ninth-year students revealed a marked decrease in the use of inhalants during the 1970s, an increase during the 1990s, and a peak around the turn of the millennium. This transient peak was nowhere near the levels seen in the early 1970s. Sniffing levels in subsequent years are very low, especially considering that the concept was expanded to include huffing in the 2012 survey, and that only current use of inhalants was included up until 1983 (discontinuous lines signal that the data are not directly comparable throughout the time series).

From the early 1970s until 2011, experience of inhalants use was slightly more common among boys than among girls. However, after 2012, when the question was supplemented with the term huffing, the genders are essentially even. Glue, aerosol propellants and petrol were the substances most frequently mentioned as examples by students in 2016.

Regional differences in the use of various drugs are often apparent. However, available surveys show no major differences between big cities and small towns where sniffing is concerned: On the contrary; experience of sniffing is now relatively evenly distributed across the country (see for example Englund red. 2016). However, students who have used inhalants stand out with respect to various risk factors. For example, they frequently appear less comfortable both at school and at home and have considerably more extensive substance use habits (see Table 71).

Knowledge about the use of inhalants among adults is limited. Studies of heavy drug abuse in 1992 and 1998 showed that a few percent of the problematic drug users abused solvents, among their many other substances of abuse (Olsson et al 2001). Approximately the same percentage was noted among adults under compulsory care, at least up until 2012, when this was no longer listed separately in the statistics (CAN 2014).

International comparison

The European school survey ESPAD includes questions about the use of inhalants. The study is the largest survey on young people's substance use and is conducted through surveys of 15-to-16-year-old students in almost 40 European countries (see Kraus et al 2016).

According to the student survey from 2015, an average of 7% said that that they had used inhalants on some occasion. The percentage was the same for Swedish students in the survey; Sweden thus lies near the averages for Europe in terms of experience of inhalants use. It is noteworthy that the annual Swedish survey indicates lower percentages than the European survey owing to methodological differences. The lowest percentages (1–2%) were recorded for

the Faroe Islands, Macedonia, and Moldova, and the highest in Estonia, Georgia, Greece, Ireland, Croatia, Poland, and Slovenia (above 10%). European averages show no gender differences. Habits in the use of inhalants in Europe have remained essentially unchanged since 1995, when the survey began.

Questions about experience of inhalants use have been included in the national school survey in the United States since the early 1990s. Since the second half of that decade, use of inhalants has become successively less common among both 16- and 18-year-old students (Johnston et al 2017). The levels are similar to those measured in Sweden in the ESPAD survey; it is worth noting that declining trends in the 2000s have thus been measured in both the United States and Sweden.

Trends in doping

In the past, use of hormonal doping substances was mainly associated with sports, but more recently, use in other contexts, such as strength training and body building, has become more common in Sweden (SOU 2008:120). According to an investigation on the control of drugs of abuse, doping substances are abused in other contexts than sports, especially by bodybuilders, but also by violent offenders (Statens folkhälsoinstitut 2009). In response to the spreading abuse, a law prohibiting certain doping substances was enacted in 1992, and broadened in 1999 to prohibit not just trading and possessing these substances, but also the actual consumption. The law has been tightened successively and since 2011, serious doping offenses can render a prison sentence of up to six years. The most common prohibited hormonal preparations are anabolic-androgenic steroids (AAS), commonly known as anabolic steroids.

Ever since questions about doping were introduced into various representative nationwide surveys in the early 1990s, about 1% of the young and middle-aged male respondents answered that they have tried anabolic steroids at some time. Fewer have used growth hormones, and women rarely report having used hormonal doping substances. In the case of young people in particular, links have been shown between experience of doping and heavy consumption of alcohol, as well as links to experience of narcotics and other drugs (CAN 2014).

The fact that few respondents state that they have personal experience of anabolic steroids means that the surveys lack the statistical power needed to assess the extent and evolution of current or regular use patterns. According to CAN's school survey among 16- and 18-year-olds, use seems to have declined slightly after 2007 (Englund red. 2016), and in the past two years, slightly more than 0.5% have used doping substances (Tables 76–77).

Statistics on seizures of doping substances and doping-related crime showed increasing trends for a long time, but over the past five years, the situation has stabilised. Compared with the end of the 1990s, the number of seizures, as well as the number of persons convicted of doping offenses, is 3–4 times as high (Tables 72–73). However, when making assessments based on crime statistics, it is important to keep in mind that the legislation on doping offences has been tightened and that statistical procedures, education and basic knowledge have evolved through the years. Changing priorities within the justice system can also influence the trends. Narcotic drug seizures have increased substantially since the beginning of the 1990s, but this does not necessarily mean that the

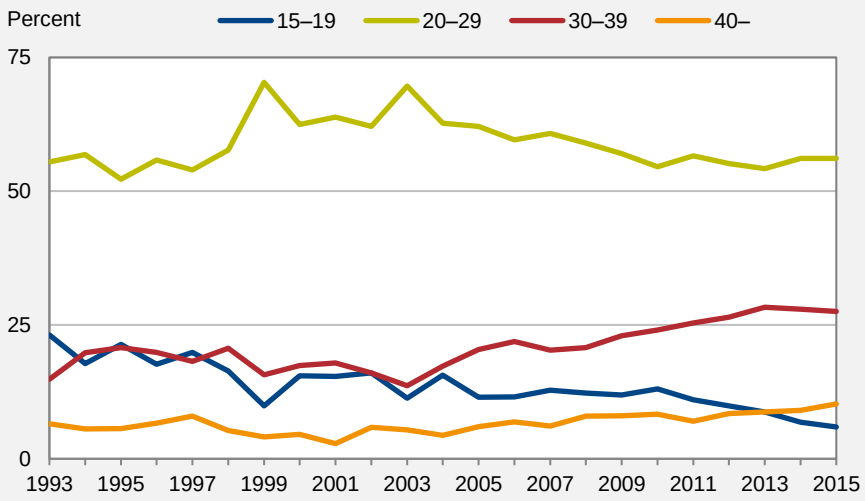

Figure 11. Proportion of persons suspected of violating the law prohibiting certain doping substances, by age groups. 1993–2015. (Table 74)

use of narcotics has increased in parallel. Seizures and prosecutions for doping offences total about 3% of the corresponding numbers for narcotic drugs.

Approximately 60% of all persons suspected of doping offences are between 20 and 29 years old and only a few percent are women. This agrees fairly well with the picture that emerges from various population studies. The number of suspects under age 30 has dropped from 81% to 62% between 2003 and 2015, which indicates that the recruitment of new users may have slowed (see Figure 11).

It is evident that a black market for hormonal doping substances has become established in Sweden since the early 1990s. It is likely that the group of regular users has grown successively over the same period, even if the growth is not on a scale that leaves clear signs in population studies. It is still much more uncommon that a person has tried hormone doping than narcotics; results from various surveys show that 10–20 times more young men have tried narcotics than have tried anabolic steroids.

International comparison

Since 1995, the European school survey ESPAD has been conducted. This is a survey on young people's substance use conducted among 15-to-16-year-old students in Europe (Kraus et al 2016). Among other things, the survey enquires about use of anabolic steroids.

According to the 2015 survey, an average of 1% of European students stated that they had used anabolic steroids at some point; this level has been relatively unchanged since the surveys began in 1995. The percentage was the same for Swedish students in the survey; Sweden thus takes an intermediate position among European countries. The lowest numbers for 2015 (below 0.5%) were recorded in Belgium (Flanders), Denmark, Finland, Faroe Islands, Norway and Portugal, while the numbers were highest (3–4%) in Bulgaria, Cyprus and Poland. The European average for personal experience of anabolic steroids was three times higher among boys than girls (1.8% versus 0.6%).

Nationwide school surveys of 16- and 18-year-old students in the United States have been enquiring about use of anabolic steroids since the early 1990s. At the beginning of the 1990s, about 2% responded that they had used such substances (Johnston et al 2017). The number increased to 4% at the turn of the millennium and has since dropped to around 2% in 2015. Use levels are thus somewhat higher in the United States than in Sweden, and there was no peak at the turn of the millennium in Sweden, although use levels have declined somewhat since 2007.

Trends in tobacco

In contrast to many other countries where tobacco consumption mainly equates with cigarette smoking, tobacco use in Sweden involves two main products: cigarettes and moist snuff (hereafter abbreviated to snuff). In the rest of the European Union, sale of snuff is prohibited, but Sweden has a permanent exemption from this ban and snuff may be manufactured and sold in Sweden. Snuff may not be exported to other EU countries, but it is permissible to bring along snuff for personal use when travelling to other EU countries (EU-upplysningen).

This chapter describes trends in the use of tobacco. The data originate from several different sources, including both long and short time-series, and what might be described as statistical snapshots. By combining different data sources, the aim is to obtain the best possible depiction of trends in tobacco use over time, and the scope of present-day tobacco use in Sweden.

Because of the harm caused by tobacco, the overall objective of Swedish tobacco policy is to reduce use of tobacco in any form, and to prevent minors from starting to use tobacco.

The following section describes tobacco users as *frequent* and *sporadic* consumers. We define frequent tobacco users as people who smoke or use snuff daily or nearly every day, and define sporadic tobacco users as those who use tobacco less often (i.e. people who reported smoking/using snuff "occasionally"/at parties/"sometimes")[1].

Availability

Important factors in the scope and evolution of tobacco consumption include the economic and physical availability of tobacco products. By relating the cost of tobacco products to consumer buying power (i.e. adjusting for the consumer price index), we get a clearer picture of trends in tobacco's economic availability. Table 78 shows the retail price of cigarettes and snuff adjusted to purchasing power in the base year, 2011. (Thus 2011 prices are by definition 100. Prices below 100 indicate that tobacco was cheaper and hence more economically accessible, while prices above 100 indicate the opposite.)

[1] The response alternatives were phrased differently in different surveys.

During the first decade of the millennium, the adjusted price of snuff has increased more than that of cigarettes. Since then, snuff and cigarette prices have changed essentially in parallel, though the adjusted price of snuff has remained somewhat higher. Statistics for the latest year reported (2015) showed somewhat larger price increases for cigarettes than for snuff.

Since 2006, some data indicate reduced physical availability of tobacco owing to fewer retail outlets: their number has fallen 15% in relation to Sweden's total population. In 2014 there were a total of 11,066 tobacco retail outlets in Sweden (Folkhälsomyndigheten Indikatorlabbet).

Consumption

Here the trends in tobacco consumption will be decribeded in the order of cigarette consumption first followed by consumption of snuff.

Cigarettes

Since the early 1980s, cigarette use in terms of the proportion of daily smokers has been included in Statistics Sweden's annual survey of living conditions (ULF), shown in Table 83. However, some earlier data on the prevalence of smoking in Sweden are also available. In the first survey of smoking habits, conducted in 1946, smoking was most prevalent among men. Men were over five times more likely to smoke than women. Every other adult man in the country (50%) and about a tenth of the women (9%) were smokers at that time (Socialstyrelsen 1986).

About two decades later, in 1963, the number of women in Sweden who smoked had more than doubled. Nearly one in four (23%) smoked every day, according to a study from Statistics Sweden, while the number of adult men who smoked daily remained about the same as in the previous survey (49%) (Socialstyrelsen 1986).

At the beginning of the 1970s, daily smoking began to decrease among men. It remained more prevalent among men than among women, but the gender gap had narrowed considerably since 1946 and it continued to narrow, as the number of daily smokers among women did not begin to decline until the end of the 1970s (Socialstyrelsen 1986). Since then, smoking has continued to decrease among both men and women, but the largest decline in daily smoking has been among men. From the mid-1990s onward, daily smoking has been more widespread among women than among men in Sweden; this is unusual from an international perspective. However, if occasional smokers are included among those who smoke, the percentage of smokers is about the same among men and women.

Occasional smoking is thus slightly more common among men than among women, although the difference is small. It is worth noting that the percentage of sporadic smokers – unlike the percentage of frequent smokers – did not decrease at any time during the period when the Statistics Sweden survey enquired about sporadic smoking (from the late 1980s to the early 2010s). Throughout the period when the percentage who reported daily/near daily smoking was changing markedly, occasional smoking remained at around 10% of the population. The overall decline in the population as a whole thus results from a decline in the percentage who smoke frequently, as is apparent from figure Figure 12.

It should here be noted that the data from 2016 in Table 83 indicate that the the percentage of sporadic smokers was reduced by half in one year. Most likely though this is a result of the changes made in the survey question rather than a change in behaviour[2].

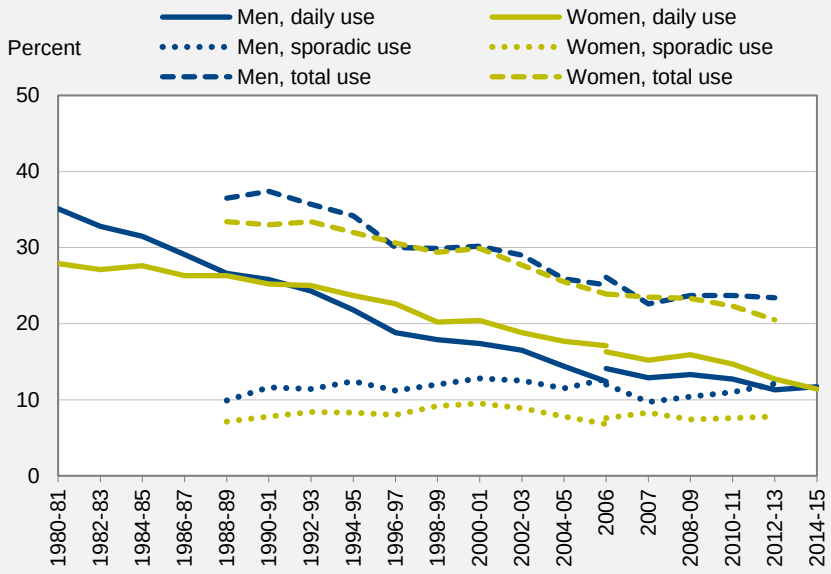

Figure 12. Proportion of smokers in the population (16–84) by gender. Two-year averages of daily use since 1980–2015, of sporadic and total use since 1988–2013. (Table 83)

[2] In the other national survey where sporadic use of cigarettes is measured in the population (in the so called Monitormätningarna), no changes have been made in the questions and no decrease is shown. Further on, it has been shown that when measuring tobacco use in surveys, the form of the questions has a high impact for the results of sporadic use meanwhile results of daily use is less sensitive for the form of the question (Skolelevers drogvanor 2014).

From the 1970s onward, the tobacco use among schoolchildren have also been studied. Smoking in this younger segment of the population has also decreased since then. In the 1980s however there was an increase in the percentage of frequent smokers (daily/near daily smoking) and smoking overall among students in their ninth school year (see Table 81), but after fluctuating around a relatively stable level during the 1990s, smoking fell sharply among ninth year students in the 2000s. Since 2004, eleventh-year students have also been included in the school survey. Among them, there was no sharp decline corresponding to that seen in ninth year students in the first decade of the millennium, but recent surveys show a downward trend also among eleventh-year students. The decline It is mainly seen among girls, but is starting to show among boys as well.

Figure 13 shows how the percentage of frequent smokers has evolved since 2000[3]. It shows that the percentage at the latest survey in 2016 was roughly the

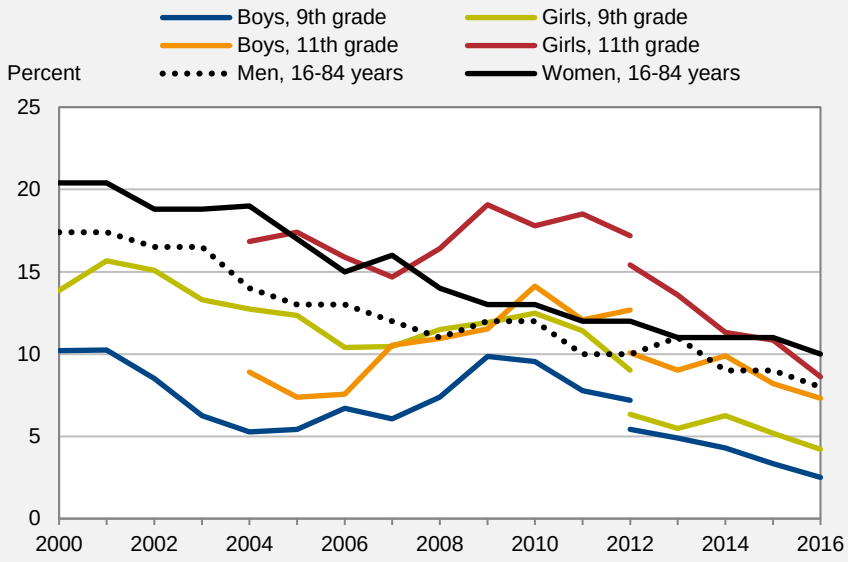

Figure 13. Proportion of frequent smokers (daily or nearly every day use) in the population (16–84 years) and among students in their ninth and eleventh (since 2004) school year by gender. 2000–2016[3)]. (Tables 81–83)

[3] The figures given in Figure 13 for the population aged 16–84 years in 2000–2003 are Statistics Sweden's two-year averages for the years 2000–2001 and 2002–2003. For other years, the data were retrieved from the Public Health Agency of Sweden.

same among students in their eleventh year of school (about 8%) as in the general population in 2016 (about 9%). When the 16–84 years old population is subdivided into age groups, the largest percentage of frequent smokers is found in the group aged 55–64 and among women in the group aged 45–54 (Table 84).

The figure also shows the percentage of frequent smokers among ninth-year students. Clearly, the percentage of frequent smokers was significantly lower among ninth-year students than in the older age groups at time of the latest survey (3% in 2016).

In summary, the major decline in frequent smoking (daily/near-daily smoking) is seen among both the population as a whole and among students. The exception is boys in their eleventh school year: in that group the percentage of frequent smokers increased between 2006 and 2010 but since then the frequent smooking seems to have returned to the levels measured when the survey was first conducted among eleventh-year students (2004).

In 2014, the average consumption was 11 cigarettes per day among daily smokers and 8 cigarettes per week among sporadic smokers (Henriksson & Ramstedt 2015).

Because the number of smokers in the population has dropped significantly, cigarettes sales have also declined sharply since the 1970s, as shown in Table 79 and Figure 14. At the end of the 1970s, the number of cigarettes sold averaged 1800 per capita (age 15 and older) per year. The latest data (2015) on recorded domestic sales show an average of almost 700 per person per year. It should be kept in mind that these figures do not include consumption of cigarettes purchased abroad and brought into the country by travellers, and that smuggled cigarettes are also sold in Sweden. In recent years, unrecordedcigarette sales are estimated to represent about 10% of total cigarette consumption, which means that total average consumption figures should be increased by roughly 70 cigarettes per person per year (Henriksson & Ramstedt 2015).

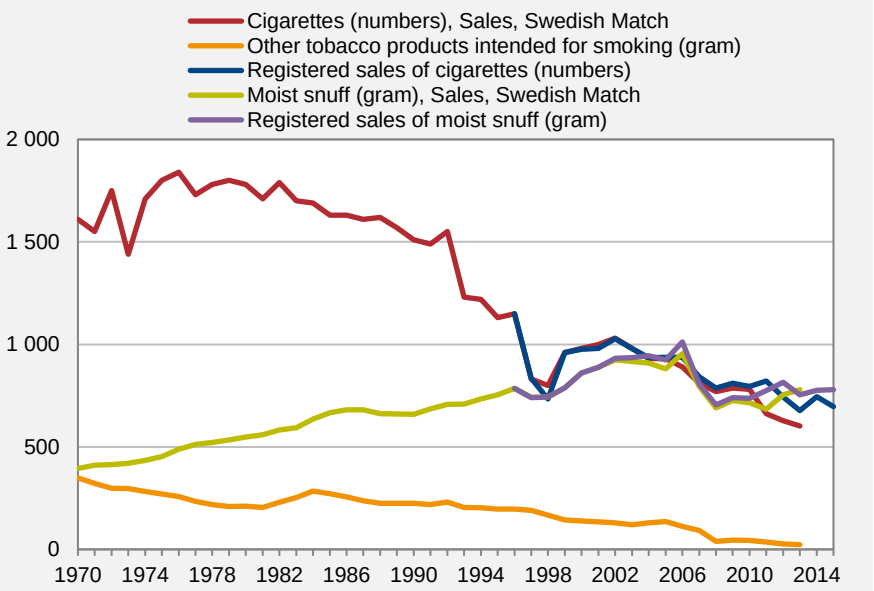

Figure 14. Annual sales of cigarettes (numbers), other tobacco products intended for smoking (cigars/cigarillos, loose tobacco), and moist snuff (gram) per person age 15 or over. 1970–2015. (Table 79)

Snuff

As mentioned the percentage of frequent smokers has long been higher among women and girls than among men and boys in Sweden. In recent years however, the gender difference can scarcely be described as large and if the number of sporadic smokers ar added the number of smokers has been about the same among men and women for a long time. Even a more or less equal number of male and female smokers is however relatively rare in an international perspective. The fact that Sweden differs from the international pattern of how smoking is distributed between men and women can probably be attributed mainly to snuff, which is both legal and widely used in Sweden, especially by men.

The percentage of snuff users in the population has not been studied as consistently as when it comes to smoking, but all surveys have shown that snuff use is much more common among men than among women (Table 85). Between the surveys done in the 1980s and 1990s, the number of snuff users increased. At the end of the 1990s, about one man in five used snuff daily (20%) and an additional 4% used it sporadically. The number of women who used snuff corresponded to 2% (1% used snuff daily and 1% occasionally). Since 2004 snuff use has been surveyed annually and at about that time snuff use was

somewhat more common than at the end of the 1990s, among both men and women (a total of 27% of men and 5% of women).

Since then, several changes have been made in the methods used in Statistics Sweden survey, but snuff use was studied also in the survey done by the Public Health Agency of Sweden since 2004, presented in Table 85. Since 2004, the percentage of daily snuff users in the population has fluctuated around 11% (about 19–20 % of men and about 3–4% of women).

As with smoking, there is a distinctly lower level of sporadic snuff use reported in the latest survey (2016). But as with sporadic smoking this is most likely a method effect caused by the changed question rather than a real decrease of sporadic snuff use in the population[4].

Figure 15 shows trends in the percentage of daily/near-daily snuff users in the 2000s among students in their ninth and eleventh school years (Tables 81–82)

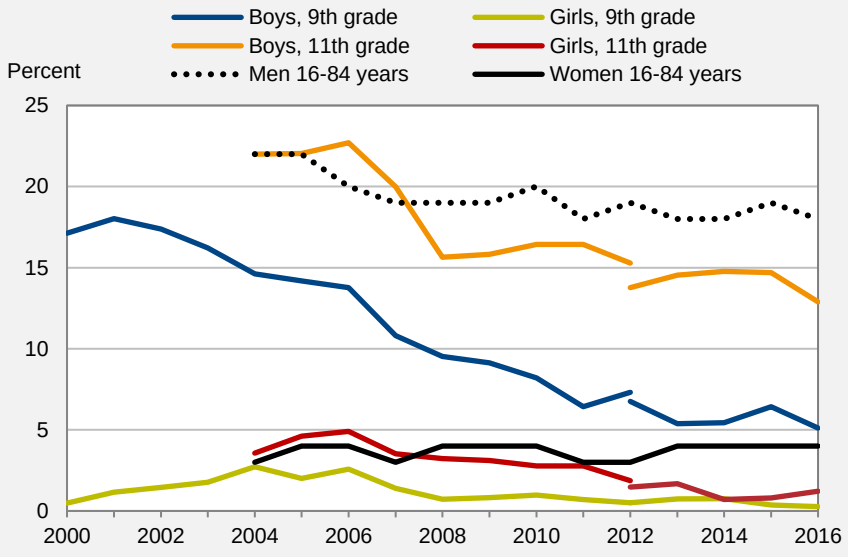

Figure 15. Proportion of frequent snuff users (daily or nearly every day use) in the population (16–84 years) and among students in their ninth and eleventh school year by gender. 2000–2016. (Tables 81–82 and 85)

[4] In the other national survey where sporadic use of snuff is measured in the population (in the so called Monitormätningarna), no changes have been made in the questions and no decrease is shown. Further on, it has been shown that when measuring tobacco use in surveys, the form of the questions has a high impact for the results of sporadic use meanwhile results of daily use is less sensitive for the form of the question (Skolelevers drogvanor 2014).

as well as trends in the percentage of daily snuff users in the general population (16–84 years) during the same period (Table 85).

The percentage of frequent snuff users declined less in the adult male population (22% to 18%) than among eleventh-year boys (22% to 13%). Among boys in their ninth school year, the decline since the early 2000s is great (from 17–18% in the early years of the 2000s to 5% in 2016). The levels of frequent snuff use among women in the population, and girls in their ninth and eleventh school years have been around or under 5% throughout the time period.

Harm

It is well known that tobacco use is detrimental. In Sweden, tobacco smoking is estimated to account for about 8% of the national burden of disease, which is more than twice as much as the estimated cost of alcohol and drug use (Agardh et al 2014). In high-income countries, tobacco use is at the top of the list of risk factors for premature death (WHO 2009).

While some of the detrimental effects of tobacco can be identified and described in statistics, others are more difficult to capture. This section gives a brief description of the detrimental effects of tobacco. In addition to these, tobacco production itself takes a toll on the environment and society in countries where production takes place (The Tobacco Atlas 2016). It should also be mentioned that both children and adults working on tobacco plantations suffer nicotine poisoning and other detrimental effect on health caused by handling of tobacco (WHO 2015).

Tobacco use in Sweden includes use of cigarettes and snuff, both of which contain nicotine, which affects the heart and the circulatory system, and may contribute to an increased risk of cardiovascular disease. Snuff can also harm the oral cavity and increase the risk of pre-eclampsia and premature birth (Hjärt-Lungfonden 2016). However, the main focus below will be on the use of cigarettes, which is the type of tobacco use that studies of tobacco's impact on human health have mainly associated with ill-health and early mortality.

In addition to the nicotine in the smoke that smokers inhale and exhale, there are many other substances that affect the body. Cigarette smoke contains over 4,000 chemicals, including at least 250 that are poisonous and 50 that are known to cause cancer (WHO 2015). Tobacco smoking has been identified as a risk factor for at least 28 diseases such as lung cancer and other forms of cancer, cardiovascular diseases, diseases and infections of the respiratory tract such as COPD and others. On this basis, the societal cost of tobacco use in Sweden, in 2010, is estimated at about 191,000 healthy years of life and as mentioned account for about 8% of the national burden of disease (Agardh et al 2014). Other studies indicate that tobacco can be associatied with even more

effects on health, and the number of diseases that are linked to tobacco use is increasing continuously (Surgeon General 2014).

Figure 16 shows the number of deaths caused by lung cancer in Sweden since 1955. The fact that many of the serious effects caused by smoking arise only after some time, means that there is a time lag in the mortality statistics, compared with the statistics on consumption. The figure shows the consequences of the high percentage of male smokers from the 1940s to the late 1960s. Tobacco smoking among men began to decline earlier than among women, and after 1980, lung cancer among men declines. At the same time lung cancer is still more common among men than among women. However, as shown in the figure, the number of women who die of lung cancer has long been on the rise. Since 2007, however, the level has been rather stable (around 32 deaths per 100,000 inhabitants) so it is possible that the peak in mortality may have been reached.

In addition to the extensive health damage suffered by smokers themselves, it is estimated that more than 600,000 people worldwide die each year because of so-called passive smoking (WHO 2015). Tobacco smoking can also reduce women's ability to conceive, and harm the foetus (U.S. Department of Health & Human Services 2016). In addition, it should be mentioned that around one

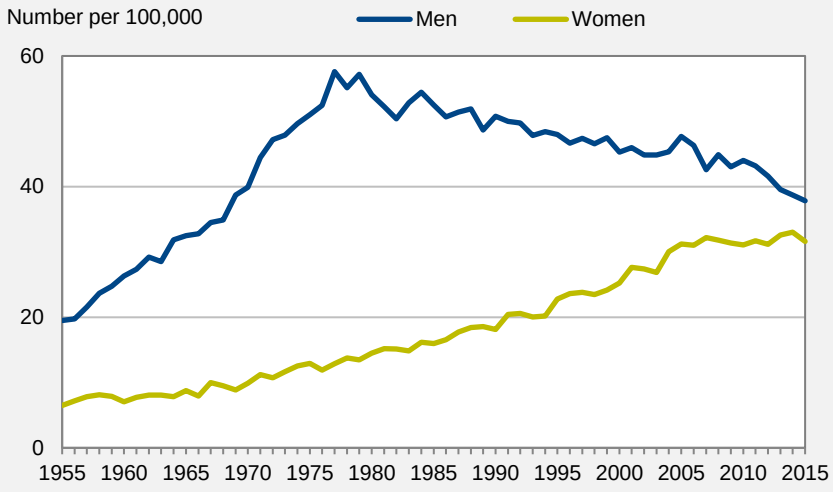

Figure 16. Deaths due to lung cancer per 100,000 inhabitants. Age-standardised. 1955–2015. (Table 88)

eighth of the people who responded to a survey conducted in Sweden in 2013 and 2014 stated that they had been adversely affected in terms of health, household economy, or in some other way because of a the smoking habits of a person in their closest circle (Ramstedt et al 2014, Sundin et al 2015).

International comparison

In comparison with other countries, the percentage of smokers in Sweden is low. In a survey of the EU Member States, carried out in 2014, Sweden had the lowest levels of smoking (Table 89). Compared to the EU average in that year (26%), the percentage of the Swedish population was barely half as large (11%).[5]

Similarly, a significantly smaller percentage of the Swedish 15-to-16-year-old students who participated in the European alcohol and drugsurvey ESPAD reported smoking than the average in the ESPAD countries (Table 90). In Sweden, 13% of the students said that they had smoked in the past month, while the average in the survey was 21%. However, the level measured in Sweden was not the lowest level found in the student survey. In Ireland, the percentage of smokers among 15-to-16-year-olds was also 13%, and even lower percentages of smokers were found in Albania (11%), Norway (10%) and Moldova (9%). The lowest percentage of smokers was found in Iceland, where 6% of the students said they had smoked in the past month.

In the case of both students and the adult population, Sweden differs from the international norm in terms of smoking patterns among boys/men versus girls/women. As mentioned earlier, in Sweden, daily smoking is slightly more common among women than among men, and although the percentage of smokers in total (frequent + sporadic smokers) is about the same among men and women in Sweden, this is also unusual from an international perspective. In the EU in 2014, the percentage of male smokers was 31% versus 22% among women (European commission 2015).

Among students examined in the ESPAD survey in 2015 the average percentage of smokers was about the same among boys and girls in Europe (22% of boys and 21% of girls smoked at least occasionally, and 13% and 12% smoked daily), while the difference between genders was somewhat greater in Sweden, girls were more likely to be smokers (11% of boys and 14% of girls smoked at least occasionally, and 5% and 8% smoked daily).

[5] Due to methodological differences, these figures differ from those presented above, which come from Swedish studies.

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