ALCOHOL AND SOCIETY



Åsa Jinder on growing up with alcoholism

Alcohol is the fifth leading cause of death and disability

THEME 2015/2016: SECOND-HAND EFFECTS OF ALCOHOL CONSUMPTION

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SECOND-HAND EFFECTS OF ALCOHOL CONSUMPTION

– can we prevent harm to others?

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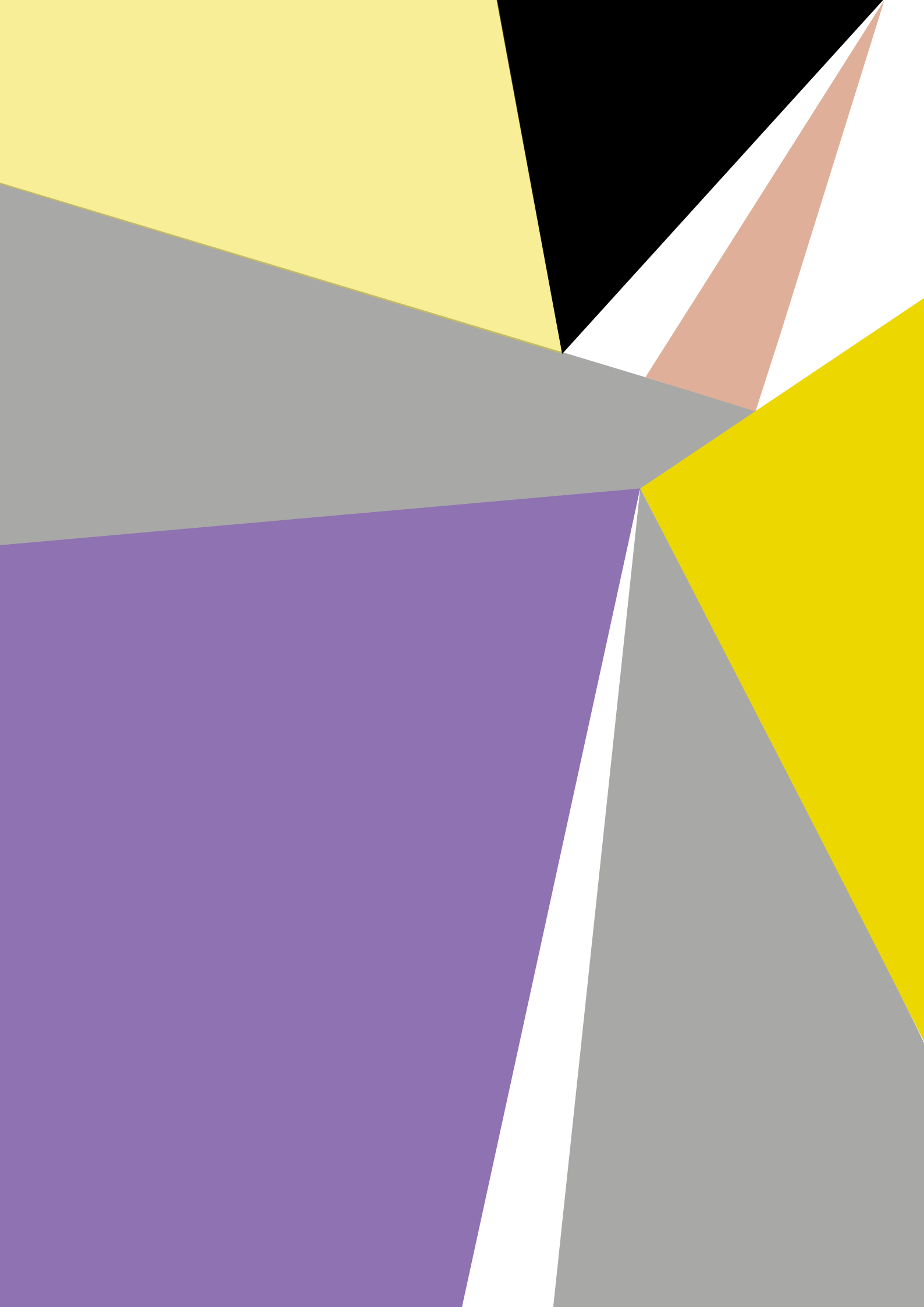

THE SECOND-HAND HARMS OF ALCOHOL

IOGT-NTO and the Swedish Society of Medicine are proud to present, for the third year in succession, a research report on the theme of alcohol. This year's theme is the alcohol-related second-hand harm – a relatively underused concept that refers to the harms to society and to individuals around those who drink alcohol. The second-hand harm of alcohol consumption occurs in all areas of society and can involve anything from traffic accidents, through violence and abuse in both personal relationships and the public space, to children being neglected and a loss of the capacity for work. The aim of this report is to make available what we know about alcohol-related second-hand harm and to present the research conducted in this field.

An international team of six researchers, headed by Harold Holder who is one of the world's leading alcohol researchers, meets every year in Gothenburg to discuss and write articles on a pre-determined theme. The group reviews the international research conducted in the field and then draws conclusions and comes up with measures tailored to Sweden and the other Nordic countries. Previous years' reports have focused on such subjects as alcohol and young people, and the effects of low-dose alcohol consumption.

The articles in this report have a wide target group and can be read by anyone with an interest in public health issues. There is also an English language version of the report that includes descriptions of methodologies and source references. The English language version is available on our respective websites.

We hope that you will find this report absorbing and that it will provide you with valuable information on the latest findings in the field of alcohol-related research.



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SECOND-HAND EFFECTS OF ALCOHOL CONSUMPTION

– can we prevent harm to others?

The second-hand effects of alcohol consumption are pervasive affecting, in principle, all major parts of society, e.g. fetal alcohol effects, lower grades in school, injuries, violence and cost for medical care. This report summarizes current evidence on the harm caused by alcohol to people other than the drinker and effective ways to reduce it.

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EXECUTIVE SUMMARY

▶ Alcohol causes significant harms to many people other than the drinker; in other words it causes substantial "second-hand" effects.

▶ The second-hand effects of alcohol are a compelling justification for strong public policies on alcohol to protect the health and well-being of all Swedes.

▶ Until recently, research into the extent and nature of second-hand effects have been limited. This report describes emerging research and offers recommendations for their prevention.

▶ Alcohol is the 6th leading risk factor globally for preventable death, disease and disability according to the latest Global Burden of Disease estimate, ahead of high cholesterol and most dietary risk factors.

▶ Alcohol is the leading risk factor globally for persons aged 15-49, ahead of e.g. smoking and high blood pressure.

▶ No other risk factor in the Global Burden of Disease report involves as many types of disease and injury as does alcohol, illustrating the toxicity of alcohol to all tissues and organs of the body through a variety of physiological and psychological mechanisms.

▶ When the second-hand harms are added to the harms to drinkers it has been estimated the total harm from alcohol is about double that from tobacco, which is currently considered the 2nd leading contribution to the global burden of disease.

▶ Similarly, the types of second-hand harms caused by alcohol are pervasive and include impacts on children and families, unintentional injuries and violence, crime, property damage and adverse economic effects.

▶ Notable examples of second-hand effects of alcohol include motor vehicle crashes and drunk driving, sexual assault, domestic violence, child maltreatment and neglect, vandalism, and lost productivity.

▶ The proportion of fatal motor vehicle crashes in Sweden where at least one driver had blood alcohol levels above the legal limit has been 20-25% of dead drivers over the past 8 years.

▶ Survey data suggest 50,000 Swedish households experience financial problems due to a family member's drinking, 30% of Swedish adults have had a negative alcohol-related experience involving a family member or close associate in the past year, and 10% have had a negative alcohol-related experience involving a stranger.

▶ In developed nations, more than half the economic costs from alcohol are borne by those other than the drinker (e.g., are costs borne by government or individuals not generating the costs).

▶ While most second-hand effects from alcohol are caused by drinking to the point of intoxication (i.e., binge drinking), most second-hand effects are caused by those who are not themselves alcohol-dependent.

▶ The most effective ways to prevent second-hand effects and costs from alcohol are policies that reduce its affordability and ease of access; efforts to simply "treat" those with alcohol dependence can only prevent a small proportion of alcohol's second-hand effects.

▶ Specific examples of effective alcohol policies that should be strengthened include: increasing the overall price of alcohol through taxation, introducing minimum pricing which targets the cheapest alcohol, limiting the number of outlets that can sell alcohol, limiting the hours and/or days of sale for alcohol, and increasing the age at which persons can purchase or possess alcohol in public. Attention should be paid to restricting cross-border sales of alcohol which currently weaken the effectiveness of Systembolaget, and Internet sales, which may pose a future threat.

INTRODUCTION

While it is clear that alcohol causes a multitude of medical and social harms to individual drinkers,

"What makes drinking unique in comparison to other risk factors is that the costs to society from these second-hand effects are by several estimates more extensive than the direct costs to the drinkers."

this report is a summary of the harms caused by alcohol to people other than the drinker. A recent report from Sweden showed that more than 30% of the population has a person close to them who drinks alcohol excessively of whom 50% of them felt adversely affected by this.[1]

What makes drinking unique in comparison to other risk factors is that the costs to society from these second-hand effects are by several estimates more extensive than the direct costs to the drinkers. This was found in a recent Swedish parliamentary inquiry[2], and similar conclusions have been published from other countries, e.g. Scotland[3] and Australia[4]. Another type of evidence comes from the ranking of substance-related harm in the UK, where the harm caused to others from alcohol was estimated to be almost double that to the user.



Furthermore, the combined harm to both drinkers and others from alcohol was estimated to be almost double the combined harm to smokers and others from tobacco.[5]

To a large extent, it has been these indirect effects that have motivated national legislators to introduce policies for the reduction of alcohol related harms in most countries around the world, including Sweden. This was the main driving force behind the creation of restrictive alcohol policies in Sweden in late 19th and early 20th century. In the report from the Swedish Society of Medicine 1912 "Alkoholen och samhället" (Alcohol and Society) it was the social harm caused by alcohol: public drunkenness, harm to wife and children, poverty and crime[6], that motivated the national policies recommended. The Swedish Society of Medicine report came to be the foundation for Swedish alcohol policy from 1920 and remains influential in the 21th century.

In 1974, the Swedish parliamentary "Alcohol Policy Inquiry" noted the absence of research on social harms, e.g. effects on children or impact on the economy, while there was reasonable knowledge of the most serious medical consequences of alcohol. Nevertheless, the inquiry still saw the social problems caused by alcohol as more important and widespread than medical problems. The inquiry also suggested using total consumption of alcohol in the population as an overall indicator of problems, especially noting that the proportion of heavy consumers tends to increase with increasing per capita consumption.[7]

However, it has only been in the last decade that more attention has been given in the research world to alcohol's harms to others. Even in 2001, WHO Europe published a report on social harms the introduction was entitled "Social consequences of alcohol – the forgotten dimension?".[8] Further, the impressive WHO Global Burden of Disease project

FROM ALKOHOLEN OCH SAMHÄLLET (ALCOHOL AND SOCIETY), 1912:

"The brutalizing effect of alcohol on the spirit of the home and marriage should be one of it's most serious negative consequences. ... the daily impressions of the children ... the solidarity between family members suffer, as does the capability to adjust to each other for peace and comfort, self-control, truthfulness and openness stand back; harsh words, quarrels, hardened and shameless behaviours ... hygienic care neglected ... the mother has to leave the home day-time to work to keep it up. ... marriage problems, work capacity ... the harm caused by alcohol in this respect cannot be expressed in figures"
[Svenska läkaresällskapet (1912). Alkoholen och samhället (Alcohol and society): betänkande angående de samhällsskadliga inflytanden bruket af rusdrycker medför jämte förslag till systematiska åtgärder för deras bekämpande i Sverige. Stockholm: Isaac Marcus' boktr.-aktiebolag. (Alcohol and society. Swedish Society of Medicine, 1912)]

does not include harms to others (medical or social) from the various risk factors in the estimations, with the single exception of second-hand smoke. The estimates of burden of disease attributed to alcohol therefore capture only part of the consequences of alcohol consumption in a population.

There are important lessons to be learned from the tobacco field, especially the huge policy implications following research on the effects of second-hand smoking. While the secondary effects are different in nature; mostly biologically toxic in the case of tobacco and mostly social or behavioural in the case of alcohol, they both provide strong arguments for society to protect non-consuming individuals and groups.

Alcohol is different from other risk factors also in its multifaceted impact, in the medical domain as well as in the social. No other risk factor in the Global Burden of Disease report impacts on as many types of disease and injury as alcohol, illustrating the general toxicity of alcohol to all tissues and organs of the body. Similarly, the list of social harms caused by alcohol constitute a long catalogue, summarized in this report. Indeed, it is difficult to find any part of society that is not negatively affected by alcohol.

"No other risk factor in the Global Burden of Disease report impacts on as many types of disease and injury as alcohol."

This report provides an updated overview of recent research on the harm to others from alcohol. While this emerging literature is still small in comparison to the medical literature, it nonetheless helps establish a stronger foundation for alcohol policies.



SECOND-HAND EFFECTS

ALCOHOL CONSUMPTION PATTERNS AND SECOND-HAND EFFECTS OF ALCOHOL

Before considering the different types of alcohol-related problems that make up the second-hand effects of alcohol, it is important to consider how alcohol consumption patterns are related to those effects. For second-hand effects consumption to and beyond the point of impairment, is responsible for the vast majority of problems and is the key determinant of harms to others.[9] Impairment refers to blood alcohol concentrations in which the performance of certain tasks is compromised. For example, for outcomes such as motor vehicle crashes impairment may begin at 0.02% BAC,[10] even though that is below the level that defines legal intoxication for operating a motor vehicle in most countries. However, for outcomes other than motor vehicle crashes or risks of unintentional injury, levels leading to impairment are less well defined and may be variable at the level of the individual. It should be noted that impairment of driving ability begins at blood alcohol concentrations well below those associated with intoxication, which is when impairment from alcohol is more easily observable to the drinker or to an observer.[11] [12]

Binge drinking and resulting alcohol impairment can lead to a variety of transient physiological and psychological changes that increase the risk of harm to others including impaired coordination, delayed reaction time, loss of self-control and judgement, diminished executive function, and aggression.[13] It is also possible that chronically high levels of average alcohol consumption may cause permanent neurological and psychological changes that could also increase the risks of second-hand effects. Furthermore, persons with high average consumption are impaired frequently and/or for prolonged periods, and tend to consume most of their alcohol during occasions in which 5 or more drinks are consumed. Alcohol dependence (i.e., alcoholism) is associated with a loss of economic productivity and other outcomes that may effect persons other than the drinker.[14]

OVERVIEW: THE SCOPE OF SECOND-HAND EFFECTS OF ALCOHOL

Alcohol causes or contributes to a vast array of conditions and events which may cause harm to those other than the drinker.[15] These various conditions and events occur in several domains, including health care, social institutions, criminal and legal justice systems, and economics. Outcomes range from those that are severe (death) to those that might be considered mildly annoying (a delay in falling asleep due to local noise from an alcohol-related disturbance). Some outcomes associated with harms to others are well-established (e.g., alcohol-related motor vehicle crashes, fetal alcohol spectrum disorder, sexually transmitted disease), others are growing in appreciation (e.g. HIV/AIDS, tuberculosis), and others have yet to be appreciated. Many of the second-hand effects of alcohol are acute (immediate and near the drinking event), while others are more chronic in nature (resulting from drinking over an extended time, sometimes several years).

"Among the twenty types of drugs, alcohol caused the greatest overall harm and the greatest ham to others."

Although health conditions can be measured by mortality and economic outcomes can be measured in monetary terms, some second-hand effects may be difficult to quantify. In addition, it is difficult to aggregate second-hand effects across multiple domains (e.g., social harms in relation to economic costs and health outcomes). However, a study from the United Kingdom developed a composite harms index using an expert panel and multi-criteria decision analysis to compare the effects of 20 psychoactive drugs across multiple domains. Among those drugs, alcohol caused the greatest overall harm and the greatest ham to others (e.g., alcohol's harm to others was three times that for tobacco). In addition, alcohol was the only substance which caused a greater harm to others than harm to the user.[16]

The evidence for assessing the second-hand effects of alcohol is primarily based upon epidemiological studies, i.e. studies of how often effects occur in different groups of people in relation to data on alcohol consumption from self-reports or mean per capita consumption. In addition, "direct" evidence of alcohol involvement may be assessed through measurement of blood alcohol concentration (e.g., alcohol-related motor vehicle crash data) or by self-report. Nonetheless, it may be difficult to determine what proportion of a particular outcome would constitute a second- versus first-hand effect.

Because of the strong justification for addressing risk factors or behaviors that effect others, additional research into the second-hand effects of alcohol should be a high scientific priority. Despite the gaps and deficiencies in the evidence, in the following sections we review several areas for which alcohol's second-hand effects are important, well established, and well quantified.



CHILDREN AND FAMILIES

Many people who drink are also parents or have a central role in a family unit, e.g. grandparents, siblings, aunties, uncles, legal guardians. Drinking among Swedish parents is widespread, as it is among parents in most Western nations. Based on a national survey in 2007, 380 000 children were estimated to be living with a parent who drank above low risk consumption guidelines.[17] When caregiver drinking is heavy, either intermittently or on a regular basis, the risk of indirect or direct harm occurring to vulnerable family members is increased.

Tolerance to negative effects of alcohol misuse on children and other family members is generally low in most societies. The influence of alcohol consumption, most often male drinking, on the family was the impetus behind demands for alcohol control in the 19th and 20th centuries.[18] [19]

"In Sweden, 380 000 children were estimated to be living with a parent who drank above low risk consumption guidelines."

In a Swedish National Public Health Institute survey, while two thirds of respondents felt it was acceptable to get drunk at home when children were not present, less than ten per cent considered this acceptable if children were present.[20] Data from other countries concurs but some also suggest that although most people express a view that drinking to intoxication while engaged in a caregiving role is inappropriate, many adults will nevertheless at least occasionally become intoxicated while in the presence of children.[21] [22] [23]

Children

There are multiple day-to-day challenges that children of heavy drinkers may face. Scientific evidence for impoverished family functioning and ill effects on the lives of children due to the drinking of others has arisen from a range of countries.

Swedish data on the educational results from over 600 000 children found that those of parents with a substance abuse diagnosis were less likely to complete primary school and among those who progressed to secondary school, grades were some 20% lower when compared to other children.[24] Another Swedish study of more than half a million children followed until 35 years of age showed that almost 3% had grown up in a household where at least one parent was diagnosed with alcohol abuse. Among these children the risk of developing a substance use problem was four to seven times higher and the risk of dying before 35 years was three times higher than for the group as a whole. Financial support from social services was four times more common among these children and in adulthood they were significantly more likely to receive financial support as a result of chronic illnesses.[25]

One in ten Irish adults reported that children for whom they were parentally responsible experienced at least one or more harms as a result of someone else's drinking, including being left in unsafe situations, verbal abuse, physical abuse or being a witness to serious violence in the home. Frequency of harms to children were highest when adults had lower socioeconomic status or drank regularly at risky levels.[26]

Australian children living in families with at least





one heavy drinking parent are more often exposed to family arguments, injury, neglect, abuse and violence. They are more likely to witness verbal or physical conflict, or inappropriate behaviour and more likely to be verbally abused, left in unsupervised or unsafe situations, physically hurt or exposed to domestic violence.[27]

A U.S. study of parental drinking patterns, alcohol outlets and child physical abuse found that parents who drank more frequently at home, parties or bars used physically abusive parenting practices more often. The use of greater amounts of alcohol in association with drinking at bars appeared to increase risks for corporal punishment with a dose-response effect.[28]

A Russian study concluded that the amount of alcohol consumed by fathers was negatively related to the amount of time they spent with their children, i.e. the more alcohol consumed the less hours spent interacting with their offspring.[29]

"Increased drinking by parents is a risk factor for higher levels of alcohol use by their offspring."

From a young age, children learn about alcohol from a range of sources including peers, media, wider society and family members. Initially, children's basic knowledge, attitudes, expectations and intentions are influenced by their family, particularly parents.[30] Children may observe their parents drinking, hear their parents talk about



their own drinking or witness the outcomes. There is compelling evidence to suggest that increased drinking by parents is a risk factor for higher levels of alcohol use by their offspring.[31] Children and youth may initiate drinking by observing their parents' drinking behaviors and often adopt the values and norms of their parents.[32] [33]

It has been repeatedly demonstrated that children of alcohol dependent parents are more susceptible to developing alcoholism, other substance use disorders (tobacco, drug) and psychiatric disorders (e.g. mood disorders, anxiety disorders, schizoid personality, problem gambling). There also appear to be strong but variable gender-related differences in risk depending on the diagnosis. The likelihood of female children developing alcohol dependence in later life appears to be increased by the presence of either paternal or maternal alcohol dependence whereas the risk for boys seems less related to the presence of alcohol dependent mothers.[34] The increased risk of alcohol dependence among children of alcohol dependent parents is likely caused by a mix of both genetic transmission and shared family environment. Rose and Dick (2005)[35] suggest that; *"... drinking initiation is determined primarily by environmental influences, whereas the establishment of drinking patterns is determined mostly by genetic factors, which themselves are subject to moderation by the environment." (pp. 222)*

Beyond the family and societal hardships often faced by children of heavy drinkers, increased risks to the child's physical and mental health have also been documented, many with long term consequences.

Children of heavy and dependent drinkers suffer higher risks of; anxiety, depression, adolescent suicidality, eating disorders, obesity, poorer general health, hospitalisation, injury, curtailed cognitive development, Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Spectrum Disorder (FASD).[36] [37] [38] [39] [40] [41] [42] [43] [44]

"Increased risks to the child's physical and mental health have also been documented, many with long term consequences."

Of all the substances of abuse, including heroin, cocaine, and cannabis, alcohol produces by far the most serious neurobehavioral effects on the fetus.[45] Alcohol is a known teratogen and when ingested by the mother it crosses the placenta in almost equal concentrations. The potential adverse effects of exposing human offspring to alcohol during gestation have received considerable attention in the research literature and the public realm in recent decades. Although the precise relationship between maternal alcohol use and harms to the fetus are not yet fully understood, particularly in relation to threshold levels for significantly increased risk and timing of exposure, there is no doubt that alcohol can have irreversible, negative long-term consequences for the child including birth defects and neurodevelopmental disorders.[46] [47]

Perhaps the most commonly known of the alcohol-caused birth defects is Fetal Alcohol Syndrome (FAS) -- a debilitating condition caused by high levels of prenatal alcohol exposure resulting in facial abnormalities (and usually a range of physical birth defects), impaired growth, abnormal function and structure of the central nervous system, ultimately resulting in lifelong arrested cognitive development.[48] Fetal alcohol exposure may result in a spectrum of more subtle and variable adverse effects collectively referred to as Fetal Alcohol Spectrum Disorders (FASD). The impact of FASD on an individual's development and potential is lifelong; afflicted individuals suffer learning difficulties, disrupted education, elevated rates of mental illness, substance use problems and criminality.[49]

Higher levels of alcohol intake by mothers during pregnancy may also influence birth weight of the baby. A systematic review and meta-analyses found that compared to abstainers, women who drank more that an average of 1.5 drinks per day had an increased risk of having preterm and low birth weight babies.[50]

Adverse effects on children's behaviour have also been reported for low and moderate levels of alcohol exposure during pregnancy including: habituation to stimuli, delayed reaction time, inattention, hyperactivity, learning problems, attention and impulsivity problems, memory deficits, distractibility and mood disorders.[51] Even in adulthood, individuals who were prenatally exposed to moderate levels of alcohol have been shown to exhibit attention problems, executive functioning deficits leading to difficulty with problem solving and functioning in everyday life, increased incidence of adult antisocial syndrome and higher rates of alcohol, drug, and nicotine dependence.[52] These findings suggest that alcohol can affect academic and social functioning even when prenatal alcohol exposure occurs at social drinking levels. Such exposure has been implicated as the most common cause of mental retardation and the leading preventable cause of birth defects in the United States, accounting for significant educational and public health expenditures.[53]



Divorce and domestic violence

Many studies have shown an association between the divorce rate and heavy alcohol consumption, and a few well-designed studies have demonstrated a significantly increased risk of divorce among married heavy drinkers.[55] An aggregate level study based on U.S. divorce data from 1934 to 1987 demonstrated that for every one litre increase in per capita alcohol consumption, the divorce rate increased by about 20%.[56] A more recent longitudinal study also based on U.S. data found that couples with one heavy drinker were more likely to divorce than couples who both abstained or where both were heavy drinkers.[57] However, a study of Russian couples indicated higher risk of divorce where both husband and wife were heavy drinkers.[58]

Some studies have attempted to gauge the impact of family member drinking on other members of the household by surveying representative samples of a population. A 2005 nation-wide Swedish survey reported that 2% of respondents stated they were sharing a household with someone who had a drinking problem. These respondents had a lower quality of life-score than those without anybody close with a drinking problem. Areas most affected included general health, pain and discomfort, energy and fatigue, working capacity and sex.[59] An Australian study found that 17% of people surveyed were negatively affected by a family member's drinking, half of whom were affected "a lot". Twenty-eight per cent named a partner or ex-partner, 14% a parent, 19% a child, 20% a sibling and 17% another relative as the person whose drinking had most affected them. Being emotionally hurt or neglected (66%) was the most common harm reported, followed by having a social occasion negatively effect them (65%) and being involved in a serious argument (63%). [60]

"In a study of US couples, alcohol consumption increased the risk of intimate partner violence more than twofold compared to abstaining couples."

A review of 60 studies on the association between

alcohol use and marital functioning concluded that spousal alcoholism is maladaptive, and that heavy and problematic alcohol use is associated with lower levels of marital satisfaction, higher levels of maladaptive marital interaction patterns, and in particular, higher levels of marital violence.[61] A meta-analysis of 50 studies focused on alcohol and intimate partner violence, found a small to moderately sized association between alcohol use/alcohol disorder and male-to-female partner violence. The association between alcohol and aggression was strongest among those with more severe alcohol-related problems.[62] Risk of violence also appears to vary depending on the combination of drinking habits of intimate partners. In a study of US couples, alcohol consumption increased the risk of intimate partner violence more than twofold compared to abstaining couples. The risk increased when both partners were moderate drinkers and when both were frequent drinkers. The risk tripled for couples where the partners had large differences in drinking habits, e.g. one with frequent heavy drinking and the other with infrequent drinking.[63] Many assaults occurring in private settings where the perpetrator is male and the victim female are of a sexual nature. It has been estimated that as many as 75% of sexual assaults involve prior alcohol consumption by the perpetrator, the victim, or both.[64]

"Non-moderate drinking by males generated a quasi-external effect on spouses via unfair allocation of resources."

Aggregate studies of changes to alcohol policy and alcohol availability have also demonstrated effects on intimate partner violence. One recent review of 10 outlet density studies concluded that higher densities of alcohol outlets were associated with higher rates of intimate partner violence.[65] Relatively few studies have examined impacts of changes to trading hours on intimate partner violence, however, there are some examples from Australia which show that restricting trading hours in communities with high levels of alcohol-related problems reduces the number of injured females presenting to hospital or women seeking refuge at women's shelters.[66] The evidence for effects of price changes on intimate partner violence is also limited although some analysts have estimated that for the US population, a 1% increase in the price of alcohol lead to a 5% decrease in intimate partner violence towards women.[67]

Household finances

Financial strain and depletion of household resources are challenges frequently reported by families affected by the alcohol misuse of a member. For the Swedish population it has been estimated that as many as 50 000 families (0.7%) have less money available to the household as a direct result of a member's drinking.[69] About 7% of the U.S. population have experienced financial trouble due to someone else's drinking[70] and in Ireland about 4.5% have had money problems[71]. In Italy, researchers investigated whether consumption of alcoholic beverages had an effect on the distribution of resources among household members and found that a high level of alcohol consumption of one household member significantly affected the allocation of household resources among the others. Specifically, there was evidence of a 'passive drinking' effect where non-moderate drinking by males generated a quasi-external effect on spouses via unfair allocation of resources.[72]

Few studies have attempted to estimate the magnitude of financial loss to the household. An Australian survey asked household members who were directly affected by another family member's drinking to quantify both the number of occasions when money was not available for household expenses and the average amount of money that was unavailable as a result of the drinker's behaviour. About 30% reported having less money as a direct result of the family member's drinking with the amount ranging from about $10 to $10 000 on an average of eight occasions a year.[73]

1960S SWEDISH NATURAL EXPERIMENT WITH STRONG BEER

The effects of alcohol availability on prenatal alcohol exposure among young mothers and subsequent long-term consequences were demonstrated by a 1960s Swedish natural experiment where strong beer (max 5.6% alcohol by volume) was trialled for sale in grocery stores instead of monopoly stores in two counties for eight months. The trial was planned to run from November 1967 until the end of 1968 but was ended prematurely in July 1968 due to a sharp increase in alcohol consumption in the experimental regions, particularly among youths. During the first six months of 1968, per capita consumption of strong beer increased ten-fold in the experimental region. Since the age limit for strong beer in grocery stores was only 16 years of age compared to 21 years in the monopoly stores, youth access to alcohol increased markedly during the trial months. It was later shown that children born to mothers under 21 years in the trial areas and pregnant during the experiment had fewer years of schooling, lower high school and college graduation rates, lower levels of employment, lower income and a higher welfare dependency rate than did children born to young mothers outside of the trial areas.[54]

World Health Organization (WHO) review of intimate partner violence

A review by the World Health Organization (WHO) noted that studies of intimate partner violence routinely identify recent alcohol consumption by perpetrators. Estimates varied between countries. In the U.S, and in England and Wales, victims believed their partners to have been drinking prior to a physical assault in 55% and 32% of cases respectively. Perpetrators in one Canadian community had consumed alcohol in 43% of cases. In Australia, 36% of intimate partner homicide offenders were under the influence of alcohol at the time of the incident, while in Russia, 10.5% of such offenders were intoxicated. In South Africa, 65% of women who experienced spousal abuse within the past 12 months reported that their partner always or sometimes used alcohol before the assault.

HARMS BEYOND THE FAMILY: UNINTENTIONAL AND INTENTIONAL INJURIES AND MORTALITY

The risk of harm associated with drinking extends beyond the family into the local environment including driving, public drinking, and crime where violence and intentional injury and death are occurring outside of the home.

Drink Driving

Alcohol use by a driver of any motor vehicle has been widely recognized as contributing to an increase in accidents, injuries, and deaths. Since operating a motor vehicle is a complex task with many challenges to judgment, reflex and skills, drinking alcohol, even with only one drink, can impair the ability of the driver to appropriately and safely operate the vehicle. Thus the risk of a motor vehicle crash increases when a driver has been drinking, even allowing for speed, road conditions and weather, as well as other vehicles. Alcohol-involved crashes are of considerable risk not only to the impaired driver but to passengers of that vehicle, drivers and passengers of other vehicles, as well as pedestrians.

It is well established that the risk of alcohol involvement in crashes is highest for young adults thus, injuries associated with alcohol-related crashes are at highest risk of being caused by the alcohol consumption of others, particularly for the 15-19 year age group. Evidence suggests that among children (under 18 years old) who are injured in alcohol-related crashes, most are passengers in a vehicle where their own drivers were drinking.[74] Over 14% of motor vehicle crash deaths involving children have been linked to the drinking of others.[75] Studies in the United States found that over 60% of crashes in which at least one child was killed involved a drinking driver who was actually transporting these children.[76] [77] In practice, the more a driver is alcohol-impaired, the less likely that a child passenger will be protected by a seat belt or child carrier equipment.[78] These studies confirm the significant contribution which drinkers make to traffic-associated harm to others as well as to the individual drinker.

In Sweden, the number of crashes in 2006-2009, resulting in road death or severe injuries, were 11,035 of which 11% were definitely confirmed as alcohol-related. However, up to 20% of the accidents did not have this information recorded.[79] Over the last 8 years, the proportion of fatal motor vehicle crashes where the driver had blood alcohol levels above the legal limit has been stable at 20-25% of dead drivers. In 2013, of 102 drivers who died in crashes, 19 had blood alcohol levels above the legal limit. In the same year, of the 260 persons that died in road accidents in Sweden, 49 died in an alcohol related accident.[80] The relative risk of being killed in a car crash given a specific blood alcohol concentration (BAC) has been estimated to be 12 times that for a sober driver in the lowest concentration interval, 0.02–0.04% BAC, and rises considerably with increased alcohol concentration to almost 1,300 times that for a sober driver for the interval 0.22–0.24% BAC.[81]

In both Norway and Sweden, per capita alcohol consumption has been found to be highly associated with rates of arrests for driving while intoxicated (DWI).[82] This association has been confirmed even allowing for the density of automobiles on the roadway.[83]

In the United States, a time series analysis of fatal accidents between 1950 and 2002 found that changes in per capita alcohol consumption



accounted for a large part of fatal motor vehicle crashes for both men and women.[84] This is confirmed by a review of five studies with direct measurement of BAC in fatal motor vehicle crashes. These studies provided evidence of a dose-response relationship between BAC and risk of fatal injury such that for every 0.02% increase in BAC the injury risk increased by 74%.[85] Another study found that about 14% of all motor vehicle crash fatalities were considered victims of impaired driver crashes using United States data.[86] More recently, significant reductions in both violent and impaired driving offences in British Colombia, Canada were found to be associated with increases in minimum alcohol prices.[87]

"For every 0.02% increase in BAC the injury risk increased by 74%."

In New Zealand, a study found that in a five-year period (2003–2007), more than 40% of injuries resulting from alcohol-related crashes were for people who were not themselves drinking,[88] and a recent study in Australia found that road deaths from another's drinking were more than three and a half times as common as deaths from violence attributable to another's drinking. For both deaths from violence and pedestrian deaths, there were twice as many male as female deaths, while there were over three times as many male as female deaths among non-pedestrian traffic deaths.

Injuries and Violence

Injuries caused by the behavior of others, most often associated with violence, can involve persons who have been drinking, both as perpetrators and as victims. Thus drinking may increase the risk of harm when either or both (or many) participants have been drinking. Specifically, to determine the connection of drinking to violence in the general population, two approaches have been undertaken. One approach is to analyze the relationship over time between overall level of alcohol consumption

and the population level of violence. For Sweden, a statistically significant relationship between assaults rate and a combined measure of on-site outlet sales of beer and spirits with an attributable fraction of about 40% has been found. In addition, Swedish homicide rate has been significantly associated with sales of spirits with an attributable fraction of about 50%.[89] Previous cross-sectional and trend studies have shown associations between levels of spirits and beer consumption and levels of different forms of criminal violence in Sweden.[90]

Similar associations have been found in other countries. In Australia, for every one-litre increase in per capita alcohol consumption there was an 8% increase in male and a 6% increase in female homicide rates, mainly related to beer consumption.[91] In a time series analysis of annual alcohol consumption and homicide rates for two groups of countries, one with more hazardous drinking patterns (Russia and Belarus) and one with somewhat less hazardous patterns (Bulgaria, Hungary, Poland, and former Czechoslovakia), annual changes in alcohol consumption were positively and significantly associated with homicide rates for both groups of countries, however, the associations were stronger among the countries with a more detrimental drinking pattern.[92] In the European context, beer consumption per capita -- a useful indicator of alcohol consumption among young people -- is strongly correlated to levels of assaults/ threat of harm. In a global estimate, alcohol consumption was associated with self-reported assault rates[93], and a recent meta-analysis reported strong associations with violence.[94]

Using changes in alcohol taxes across U.S. states, a study also found that an increase in alcohol taxes and its estimated impact on drinking was related to a reduction in rates of violent and property crime.[95] Alcohol is known to be associated with criminal violence both in the domestic and public domain and national levels of violence are particularly associated with beer consumption. Although consumption of alcohol is not an absolutely (100%) necessary or sufficient cause of violent crime, its excessive use is known to lessen behavioural control and to contribute to violent behaviour among young males in specific cultural settings.[96] [97] [98] In the U.S., a longitudinal study of adolescents found a strong positive relationship between self-reported alcohol consumption, the commission of crimes, and criminal victimization for both genders.[99]

"Swedish homicide rate has been significantly associated with sales of spirits with an attributable fraction of about 50%."

In the European context beer consumption is positively related to national wealth. In relation to this, a statistically significant correlation was found between levels of affluence and violent crime among European countries. In the current era alcohol abuse in Europe is no longer, as in the 19th century, predominantly associated with extreme poverty and related social problems; alcohol-related violence can be identified as more contemporarily associated with modern affluence.[100]

A second and independent approach to study the relationship between drinking and violence is to determine if either victims or perpetrators were drinking. In a WHO study from emergency departments across 14 countries, victims' estimates

of whether the perpetrator had been drinking ranged from 14% up to 73% of victims.[101] [102] A recent study from Sweden found that 62% of perpetrators of assaults were intoxicated while 39% of the victims were intoxicated.[103]

One study showed that across the world alcohol consumption was associated with self-reported assault rates.[104] In the specific case of alcohol, researchers have consistently noted that alcohol use by the perpetrator or victim immediately preceded many violent events.[105] [106] [107] In addition, other studies have found drinking to precede at least half of all violent events.[108] [109] In fact, drinking more than five drinks per occasion increases the likelihood that the drinker will be involved in violence, either as perpetrator or a victim.[110] More than any other group, young adults are likely to have been drinking prior to being either a perpetrator or victim of fatal or nonfatal violence.[111] [112] Alcohol use by both attacker and victim is common in incidents of rape, assault, robbery with injury, and family violence.[113] [114] [115] [116] In addition, Roizen[117] reports that in nearly 40 studies of violent offenders, and an equal number of studies of victims of violence, alcohol involvement was found in about 50% of the cases.[118] Death from violence includes victims of homicide or manslaughter, whether in public or in private places. In Australia with a total of 182 interpersonal violent deaths in 2005, 42% (77 deaths) were estimated to be attributable to another person's drinking, and a total of 1,802 potential years of life were estimated to be lost (PYLLs).[119]

"In Australia with a total of 182 interpersonal violent deaths in 2005, 42% were estimated to be attributable to another person's drinking."

In New Zealand a recent study found that almost 7% of men and 3% of women reported having been physically assaulted in the previous year, with 44% of these people having suffered more than one assault including sexual assault. In more than half of all physical as well as sexual assaults, victims reported the perpetrator to have been drinking.[120]

There exists a question of whether the level of drinking by a victim, either in the moment or as a general pattern, influences the self-report estimate of whether one's perpetrator was also drinking. In an Irish study, the self-report of perpetrator drinking by the victim was examined to determine if this was associated with the victim's own drinking pattern. For assault victims, there was a higher likelihood of reporting perpetrator drinking with more frequent episodes of risky drinking by the victim. For example, of those who were non-drinkers, 5% reported experiencing assault as a result of someone else's drinking, and of those who did not drink in a risky way, the proportion was 6%. This proportion increased to 10% for infrequent risky drinkers and rose to 17% for those engaged in risky drinking at least once a week. There were no apparent significant differences for money problems or property vandalised when examined by drinking pattern.[121] While one interpretation of these findings is that the victim's drinking pattern can bias the self-report of whether the perpetrator had been drinking, an alternate interpretation is that the victim's drinking pattern can be associated with entering settings and situations where drinking exists and thus increases one's personal risk of a drinking-related assault.



CRIME IN GENERAL AND PROPERTY DAMAGE AS WELL AS SOCIETAL COSTS

While drinking is associated with increased risk of harm to others, it has also been associated with crime in general but especially property crimes including theft, robbery and burglary as well as property damage. Pernanen et al (2002) estimated the proportions of different crime categories that are likely caused by alcohol based on a survey of Canadian prison inmates. They estimated that approximately 28% of violent crimes, 11% of robbery and theft, and 35% of other criminal code offences were committed under the influence of alcohol.[122] Within the EU, levels of car vandalism and property damage have also been found to be related to levels of beer consumption.[123]

One report, reviewing research on the relationship between price changes and crime, found that U.S. and UK studies in general supported an inverse relationship such that price increases were associated with reductions in most crime outcomes.[124] While the report found variable results of studies in Scandinavian countries, studies on recent tax reductions concluded that tax reductions led to increases in overall crime levels. In non-Scandinavian and modeling studies, decreases in tax/price were associated with an increase in overall crime, violent crime, and drunk and disorderly behaviour.

Specifically the report found:

- *Overall crime:* The evidence was mainly from Overall crime: Taxation decreases were associated with increased overall crime rates, and taxation increases with decreased rates of crime.

- *Criminal damage:* The evidence was mainly from several modeling studies of how tax and price increases would be related to reductions in criminal damage offences. Only one older observational study was located, with findings consistent with the modeling studies.

- *Specific policies:* A large majority of modeling studies from both the United Kingdom and internationally estimated that increased alcohol taxes, minimum alcohol prices or restrictions on discounting would be associated with a reduction in alcohol-related crime. The evaluation evidence relates only to taxation or naturally occurring price changes.[125]

Cost to society for crime in general is associated with enforcement, medical care, adjudication, employment disruption and personal or property losses with the financial repercussions borne by the total population, not specifically by individual drinkers. For example, one study estimated the total economic costs of alcohol abuse in Canada to be $14.6 billion Canadian dollars of which $3.1 billion was attributable to police, court and prison costs associated with crime.[126] A study of England and Wales estimated alcohol-related crime costs and how these would be reduced by different alcohol pricing policies; they estimated a cost saving of 231 million English pounds by introducing a minimum price of 45 pence per 8 grams of ethanol.[127]

ALCOHOL-RELATED COSTS AND ADVERSE ECONOMIC EFFECTS

Losses in economic productivity and costs to the workplace caused by drinking or increases in alcohol-related costs to society constitute second-hand effects of alcohol consumption. These economic costs extend far beyond any financial impacts directly on the individual drinker and are ultimately paid for by the broader community. Thus, economic considerations are increasingly important for policymakers, nationally and globally.

Estimates of Total Societal Costs

Estimates of world-wide alcohol-related costs have been based upon extending individual national costs tentatively to a global scale. Studies have suggested a range of estimates, that is, 1.3 to 3.3% of total health costs, 6.4 to 14.4% of total public order and safety costs as well as 0.3 to 1.4 per thousand of gross domestic product (GDP) for criminal damage costs, 1.0 to 1.7 per thousand of GDP for drink-driving costs, and 2.7 to 10.9 per thousand of GDP for work-place costs (absenteeism, unemployment and premature mortality). On a global level, this suggests costs of $210 to 665 billion USD in 2002.[128] Another review estimated that the economic burden of alcohol across 12 selected countries studied varied between 0.45 and 5.44% of GDP.[129]

In Sweden, the societal cost of alcohol consumption in 2002, as well as the effects on health and quality of life, is estimated at 20.3 billion Swedish kronor (SEK) with the gross cost (counting only detrimental effects) at 29.4 billon (0.9 and 1.3% of GDP). The estimation includes direct costs, indirect costs and intangible costs. Relevant cost-of-illness methods are applied using the human capital method and prevalence-based estimates, as suggested in existing international guidelines, allowing cautious comparison with prior studies. Alcohol consumption is estimated to cause a net loss of 121,800 (Quality Adjusted Life Years-- QALYs). The results are within the range found in prior studies, although at the low end.[130]

The cost of alcohol abuse to Sweden in 2008 was estimated at SEK 49.3 billion. [131]

In France, the use of alcohol, tobacco and illicit drugs cost more than 200 billion francs (French Francs or FF) in 1997, representing 3 714 FF per capita or 2.7% of the gross domestic product (GDP). Alcohol is the drug estimated to cause the greatest costs in France, i.e. 115 420.91 million FF (1.42% of GDP or 20 230 M USD) or an expenditure per capita of 1966 FF in 1997. The greatest share of the social cost of alcohol comes from the loss of productivity, due to premature death, morbidity, and imprisonment, representing more than half of the estimated costs of all drugs to society.[132]

In Australia, a recent estimate for heavy drinking concluded that the annual cost to others was in excess of 13 billion Australian dollars (AUD) in out-of-pocket costs and lost wages or productivity in 2005. Hospital and child protection costs to society due to another's drinking sum to a further AUD 765 million. In addition, there were large intangible costs, estimated at a minimum of AUD 6 billion.[133]

"The benefit-to-cost ratio of a substance abuse employee assistance program was estimated to be 26:1, i.e., for each 1 US dollar expended, 26 dollars were saved."

In the US, total alcohol-related costs were estimated to exceed those for smoking, with more than half accruing to people other than the drinker. The estimated economic cost of excessive drinking was $223.5 billion (U.S. dollars) in 2006 (72.2% from lost productivity, 11.0% from healthcare costs, 9.4% from criminal justice costs, and 7.5% from other effects) or approximately $1.90 per alcoholic drink. On a per capita basis, individual cost is approximately USD 746 per person, most of which is attributable to binge drinking.[134]

In Scotland, alcohol misuse imposes a substantial burden on Scottish society, approximately costing £1,071 million (British Pounds) per year

Alcohol is the drug estimated to cause the greatest costs in France

115 420.91 million FF

The cost of alcohol abuse to Sweden in 2008 was estimated at

SEK 49.3 billion

The global cost of alcohol-related absenteeism in the year 2002 was estimated to be between

$30–65 billion (USD)

In the US, total alcohol-related costs were estimated to exceed those for smoking

at 2000/2001 prices. Nine percent of this is due to National Health Services Scotland (NHS) expenditure, 8% to social work services resource use, 25% to resource use by the criminal justice system, 38% due to wider economic costs and 20% due to human costs. In terms of the statutory agencies, alcohol misuse imposes the greatest burden on the criminal justice system followed by NHS Scotland and social work services.[135]

While several different approaches for estimating the effects of alcohol consumption on loss of productivity in the work place have been utilized, based on a meta-analysis of national cost studies the global cost of alcohol-related absenteeism was estimated to be between $30-65billion (USD) in the year 2002.[136]

Other Workplace Related Consequences from Drinking

In addition to overall costs, both drinking at work and drinking patterns of workers can produce work disruptions, lower productivity and increase absences including paid sick leave.

An Australian study of 13 582 workers found that more than 40% of the work-force consumed alcohol at high-risk levels at least occasionally and high-risk drinkers were up to 22 times more likely to be absent from work compared to low-risk drinkers. Alcohol-related absenteeism was not restricted to the relatively small proportion of chronic heavy drinkers, but predominantly involved the much larger number of non-dependent drinkers who occasionally drank at high-risk levels.[137]

There are also studies that demonstrate how employee assistance programs can potentially save employer costs associated with injuries, productivity loss, and absenteeism. For example, a study of a U.S. transportation company estimated the benefit-to-cost ratio of a substance abuse employee assistance program to be 26:1 , i.e., for each 1 US dollar expended, 26 dollars were saved.[138]

A Swedish study on the relation between per capita alcohol consumption and sickness absence for the period 1935 to 2002 found that a one litre increase in total consumption was associated with a 13% increase in sickness absence among men. For women the corresponding increase was 6% but was not statistically significant.[139] A similar study from Norway using time series analysis (1957-2001) among manual employees found that a one litre increase in total alcohol consumption was associated with a 13% increase in sickness absence among men, but was not linked to female work absence.[140] Yet, other studies have demonstrated significant effects of alcohol consumption on sickness absence and disability pensions for both men and women.[141] [142] [143]

"High-risk drinkers were up to 22 times more likely to be absent from work compared to low-risk drinkers."

A study conducted at 114 work sites of seven corporations showed an almost linear relationship between increasing average consumption and a summary measure of job performance, finding the strongest associations between consumption and getting to work late, leaving early and doing less work, and only a weak association with missing days of work. Although moderate-heavy and heavy drinkers reported more work performance problems than very light, light, or moderate drinkers, the lower-level-drinking employees, since they were more plentiful, accounted for a larger proportion of work performance problems than did the heavier drinking group.[144]

Negative consequences of other persons drinking, Sweden 2013.*

	Total, %	Total, corresponding number of persons in Sweden 2013, 17-84 years of age	Women, %	Men, %
Have persons nearby that drink too much	30,3	2 300 000	33,5	27,2
Negatively affected by persons nearby	14,6	1 100 000	18,7	10,5
Much affected	3,3	250 000	4,7	1,9
A little affected	10,7	800 000	13,1	8,3
Been hurt or neglected	11,2	840 000	14,9	7,5
Negative impact in a social situation	9,0	680 000	11,1	6,9
Someone failed or not fulfilled something	7,1	540 000	8,8	5,3
Ceased meeting someone	3,7	280 000	4,4	3,1
Someone taken money or valuables	0,8	60 000	0,9	0,7
Exposed to violence	0,6	45 000	0,9	0,3
Forced to sex	0,5	38 000	0,7	0,3
Someone in the household not carried out their part of work in the household	1,6	120 000	2,3	0,8
Avoided friends or family on account of being ashamed of the drinking of someone in the household	1,1	83 000	1,6	0,7
Having less money on account of the drinking of someone in the household	0,7	53 000	1,0	0,5
Been forced to leave home on account of the drinking of someone in the household	0,5	38 000	0,7	0,3

* Respondents 17 to 84 years of age, experienced consequences during last 12 months.

Reference: Ramstedt M, Sundin E, Landberg J, Raninen J. (2014). ANDT-bruket och dess negativa konsekvenser i den svenska befolkningen 2013 (The use of alcohol, narcotics, doping and tobacco (ANDT) in the Swedish population 2013). STADs rapportserie, rapport nr 55. Stockholm: STAD

Seven negative consequences from an intoxicated person (known or unknown), Sweden 2013*

	Total, %	Total, corresponding number of persons in Sweden 2013, 17-84 years of age	Women, %	Men, %
Been afraid in a public place	20,1	1 500 000	25,4	14,9
Kept awake at night	16,5	1 200 000	17,3	15,7
Been offended	14,0	1 100 000	15,8	12,2
Been assailed or troubled in a public place	13,2	1 000 000	14,8	11,7
Been assailed or troubled in private social situation	7,9	600 000	8,8	6,9
Clothes or other belongings ruined	4,4	330 000	4,4	4,3
Physically hurt	2,1	160 000	1,9	2,4

* Respondents 17 to 84 years of age, experienced consequences during last 12 months.

Reference: Ramstedt M, Sundin E, Landberg J, Raninen J. (2014). ANDT-bruket och dess negativa konsekvenser i den svenska befolkningen 2013 (The use of alcohol, narcotics, doping and tobacco (ANDT) in the Swedish population 2013). STADs rapportserie, rapport nr 55. Stockholm: STAD

WHAT TO DO TO PREVENT SECOND-HAND EFFECTS OF ALCOHOL

THE ACCEPTABILITY OF RESTRICTIONS ON ALCOHOL'S AVAILABILITY AND AFFORDABILITY IN THE NORDIC COUNTRIES

There is now a large research literature containing high-quality studies from many countries to inform the development of effective policies to reduce hazardous patterns of drinking and related harms, both to drinkers and nondrinkers.[145] [146] [147] Studies from Sweden and the Nordic countries generally are well represented in this literature and contribute to evidence that restrictions on both the availability and affordability are effective strategies to reduce consumption and related harms.[148] Given that the majority of the Swedish adult population consumes alcohol at least occasionally such restrictions require tolerance and understanding from citizens that they serve the greater good for society as a whole.

"Public support for restrictive policies to reduce alcohol-related harm has even increased in recent years in Scandinavia."

Public opinion surveys in Sweden and Nordic countries generally confirm that the majority of the population supports such measures and sees them as an important means to protect vulnerable members of the community while benefiting society at large. Public support for restrictive policies to reduce alcohol-related harm has even increased in recent years in Scandinavia, as shown by surveys in both Norway and Finland.[149,150] Furthermore, a 2014 Swedish national survey from the University of Gothenburg asked whether the positive consequences of alcohol outweigh the negative, for the respondent personally and for society more generally. While respondents viewed alcohol's effects on themselves personally as more positive than negative, these perceptions were reversed for society as a whole: 75% felt that the negative consequences of alcohol dominated for society and only 9% held the opposite view. In an analysis of the public support for alcohol policies, such as raised alcohol taxes, elimination of the alcohol retail monopoly and more restrictive licensing rules for serving alcohol at restaurants, the view of alcohol as a societal problem was the most important. The view of alcohol as a personal problem was also important for the support of restrictive policies but to a lesser extent. The authors concluded that the Swedish public make entirely different assessments of the




SYSTEM
BOLAGET

consequences of alcohol consumption for themselves personally than for society. The respondents seem to be prepared to put up with economic and practical inconveniences to prevent problems that affect others than themselves, which is probably an important explanation of the longstanding support of relatively restrictive alcohol policies in Sweden.[151] It seems reasonable that to accept or support restrictive political measures, alcohol should be seen as a problem, which is supported by several studies, including a survey from Canada finding that respondents who had experienced harm from others drinking or had been concerned about another's drinking problems were more likely to support restrictive alcohol policy measures.[152] A Finnish study was conducted on public attitudes to a major strike in the monopoly stores in 1973. While respondents were mostly indifferent as to how it affected them personally, most saw it as favourable for their own family and society as a whole. In fact, during the 5-week strike, total alcohol consumption was estimated to have reduced by more than 30%, with substantial reductions in arrests for drunkenness, cases of assault and battery, as well as drunk driving and reported crime rates.[153]

These studies provide an important background for alcohol policies. The policies described in this report all have evidence for reducing harms to others. The challenge to governments is that they all involve restrictions of some kind. Political leaders normally would be hesitant to impose regulations that reduce individual liberties, fearing losing votes. Counter to this, the historic tradition in Sweden has been quite positive to alcohol restrictions. In the only popular referendum on this issue in 1922, the side favouring total prohibition was narrowly defeated by a two per cent margin, 51-49. The winning side instead developed an extensive regulatory system, with rationing of alcohol at its core, as well as monopolies on virtually all aspects of the alcohol trade, e.g., monopolies on production, distribution and retail of alcohol. High taxes on alcohol were introduced to counter the rapid increase in drinking which occurred when the rationing system was abandoned in 1955. Advertising was later banned.

In keeping with a gradual shift in popular opinion, some elements of the Swedish system have become less restrictive over the past 30-40 years. Membership in the European Union 1995 forced an acceleration of this process and a resulting increase in per capita consumption and related harms.[154] [155]In the past decade however public support for some restrictive policies has again risen, as demonstrated by the study from the University of Gothenburg.[156] Here, a gradual increase in the support for Systembolaget's retail monopoly was observed, showing that a majority of Swedes now support the monopoly. Also, support for high taxes on alcohol has increased and those favouring alcohol tax reductions are now a minority.

EVIDENCE ON SPECIFIC POLICIES THAT AFFECT HARMS TO OTHERS

There are strong reasons to suppose that policies aimed at reducing population consumption and harms to drinkers will also be effective for reducing alcohol's harm to others. Firstly, there is direct evidence linking these same policy measures to second-hand harms e.g. pricing strategies that reduce violence and impaired driving.[157] Secondly, it is well demonstrated that hazardous drinking patterns are related to the total consumption of alcohol[158] and that a great proportion of total population consumption of alcohol is consumed outside low-risk drinking guidelines.[159] It follows that strategies capable of reducing the total consumption of alcohol will also reduce hazardous patterns of drinking which in turn will mean a reduction in secondhand effects or harms to others. These relationships are illustrated in Figure 1 below and are discussed in relation to specific evidence-based alcohol policy measures in the next section.

"Swedish research has shown that, for example, price increases in the cheapest segment of the market result in the greatest reductions of consumption."

Maintaining high alcohol prices

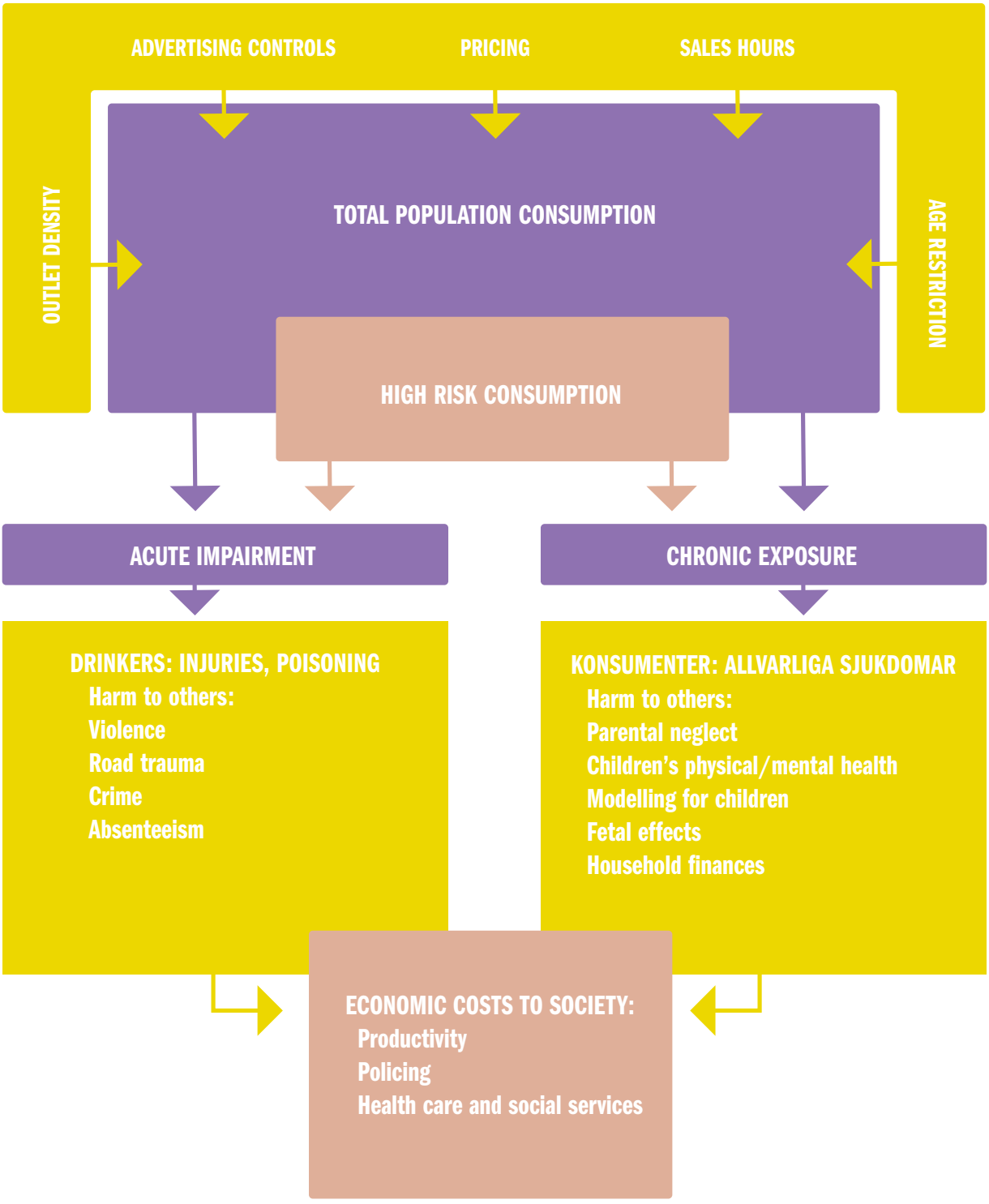
Comprehensive international reviews confirm that price increases reduce population level alcohol consumption[160] [161] [162] and also consumption for heavy or problem drinkers.[163] Taxes are one method of increasing prices and it is known that, in general, increases in alcohol taxes are almost invariably passed on to the consumer[164]. In a monopoly situation such as in Sweden, there can also be direct controls on alcohol prices by regulation. Swedish research has shown that, for example, price increases in the cheapest segment of the market result in the greatest reductions of consumption.[165] This market segment includes a large proportion of heavy drinkers.[166] [167] Recent evidence confirms that increasing prices in the cheapest market segment ("floor" or "minimum" prices) can significantly reduce consumption of high strength beverages[168], impaired driving and violent crime[169], alcohol-related hospital admissions[170] and deaths[171]. These latter studies include outcomes involving harm to others such as alcohol-related road crashes and assaults. On the basis of a comprehensive review of all high quality published studies, Wagenaar and colleagues concluded that a 100% increase in alcohol excise taxes in the US would lead to traffic crash deaths being reduced by 11%, sexually transmitted disease by 6%, violence by 2%, and crime by 1.2%.[172] Maintaining high alcohol prices and taxes with regular adjustments for inflation (for overall and floor prices) and pricing on alcohol content[173] are highly effective strategies to reduce harm to others from alcohol consumption in Sweden.

High age limits for the purchase or possession of alcohol

Laws to increase the age limits for the purchase or possession of alcohol have a very strong evidence base demonstrating that they effectively reduce any alcohol consumption and binge drinking among youth.[174] This suggests that age limits are effective at reducing the second-hand effects of alcohol consumption because: most consumption by youth is in the form of binge drinking[175]; those who drink and binge drink at younger ages are more likely to binge drink as adults[176]; most alcohol-related problems among youth are acute in nature and are associated with second-hand effects (e.g., injuries, sexual violence, unintended pregnancy). In addition, there is direct evidence that the adoption of laws increasing age limits are related to decreases in motor vehicle crashes, homicide and vandalism. [177] [178]






ADVERTISING CONTROLS
PRICING
SALES HOURS
OUTLET DENSITY
TOTAL POPULATION CONSUMPTION
AGE RESTRICTION
HIGH RISK CONSUMPTION
ACUTE IMPAIRMENT
CHRONIC EXPOSURE
DRINKERS: INJURIES, POISONING
Harm to others:
Violence
Road trauma
Crime
Absenteeism
KONSUMENTER: ALLVARLIGA SJUKDOMAR
Harm to others:
Parental neglect
Children's physical/mental health
Modelling for children
Fetal effects
Household finances
ECONOMIC COSTS TO SOCIETY:
Productivity
Policing
Health care and social services

The wide scope of alcohol's second-hand effects across multiple domains

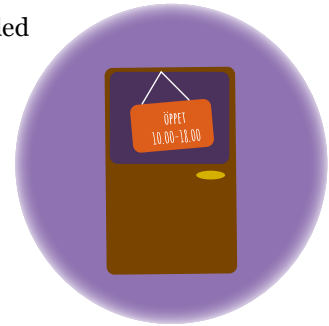
Safety & health	Society	Children & families	Fetal effect
Road crashes	Healthcare costs	Impaired health for children of problem drinkers	Fetal alcohol spectrum disorder (FASD), including fetal alcohol syndrome (FAS)
Pedestrian injuries	Policing costs	Parental neglect	Low birthweight
Assault	Court costs	Poor school grades	Epigenetic effects on future social, physical and cognitive development
Sexual violence	Prison costs	Future mental health and substance use problems	
Homicide	Lost productivity	Domestic violence, including child abuse	
Workplace injuries	Property damage, vandalism	Financial problems	
Fires	Public nuisance	Divorce	
Infectious diseases e.g. AIDS/ HIV, hepatitis, TB and sexually transmitted diseases	Intimidation, other forms of social disruption		

Limits on the number of outlets selling alcohol

There is a well-established association between "densities" of liquor outlets in a population and rates of alcohol consumption and harm[179], though some have questioned whether this is causal[180]. Evidence of a causal relationship is suggested by longitudinal analyses finding that increases in outlet density tend to precede increases in alcohol consumption[181] and also studies of sudden changes in outlet densities. British Columbia in Canada experienced a 40% increase the density of privately owned liquor stores between 2002 and 2006 that was unequally distributed across a large geographic area. Studies of the local area effects of this rapid increase confirmed increased per capita alcohol consumption[182], alcohol-related deaths[183] and hospital admissions[184] in areas with the largest increases in outlet density. It is thought that both increased convenience and cheaper alcohol driven down by competition drive the relationship between outlet density and alcohol consumption[185]. There is also recent evidence that increased density drives alcohol prices downwards, likely through increasing local competition.[186] Again, harm outcomes used in these studies include significant harms to others such as violence (physical and sexual) and other types of trauma. It can be concluded that reductions in outlet density will tend to drive down overall consumption, hazardous drinking patterns and hence all varieties of harm to others. Furthermore, maintaining controls over outlet density, for example through a government-owned liquor monopoly, will similarly help prevent increases in total consumption, hazardous drinking patterns and harms to others.

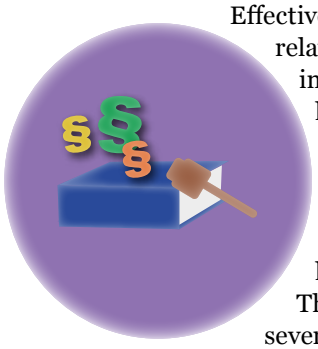
Limits on the hours and days of sale

Limits on hours of sale or limits on days of sale are one of a generally effective group of policies intended to reduce the physical availability of alcohol.[187] Although limits on hours of sale are related to reduced per capita consumption, limits on hours of trade are typically applied late at night or early in the morning. At these times, a larger proportion of the drinks sold are intended for immediate consumption, often by those who are already intoxicated. Limits on hours of sale may be applied to off-site outlets (e.g., liquor stores, super markets), on-site outlets (bars, restaurants), or both. As would be expected, more hours of restriction are more effective than fewer; a systematic review by the U.S. Centers for Disease Control and Prevention concluded that restrictions on hours of sale were more likely to reduce excessive alcohol consumption and related harms when changes were greater than 2 hours.[188] Another comprehensive review[189] found that when the highest quality studies are considered, significant reductions in harm were associated with changes of even just one hour. Since that review, two further high quality studies confirmed that even reductions of a single hour in bar trading hours are associated with significant reductions in violent incidents, one study being from Australia[190] and the other from Scandinavia[191].



Impaired driving laws and their enforcement

Like other economically developed countries, Sweden has extensive controls to deter alcohol impaired driving. There are three key aspects of these controls, (a) the legal limit of Blood Alcohol Concentration (BAC) of the driver such that beyond a certain level, the driver is considered to be drunk or impaired for legal purposes, (b) visible enforcement of the legal limit by stopping drivers and checking the breath of the driver for alcohol, and (c) the sanctions or punishment of drivers with BACs exceeding the legal limit. All three controls have been used in Sweden to limit drinking and driving crashes in Sweden.[192]



Effective strategies for reducing alcohol-related traffic crashes world-wide include increased and highly visible law enforcement, e.g., sobriety checkpoints and random breath testing, and the level of legal blood alcohol concentration at which a driver is considered legally drunk or impaired.[193] [194] The evidence is mixed concerning severe sanctions or punishments for conviction for drinking and driving. In cases when these strategies are shown to have effects, they appear to decay over time which suggests that severe sanctions may lose their effectiveness unless accompanied by renewed enforcement or media efforts.[195] It is clear that the degree of certainty and the swiftness with which penalties are imposed are more powerful deterrents for impaired driving than severity of penalties alone.[196] A recent Canadian study eliminated criminal sanctions for impaired driving at low BACs and replaced these with more certain and immediate sanctions i.e. immediate vehicle impoundment and a small fine.[197] Alcohol related fatalities were estimated to decline by over 40% following the new law.

Server training

Alcohol consumption in bars and restaurants is associated with serious problems in communities worldwide, primarily in the form of violent assaults and traffic crashes. Responsible Beverage Service (RBS) programs aim to reduce these problems, primarily by reducing over-serving and service to under-aged drinkers. RBS programs involve management developing responsible serving policies and allowing their staff to be trained to implement these. To be effective, RBS programs need to combine such training with effective enforcement of laws regarding service to intoxicated and under-age customers.

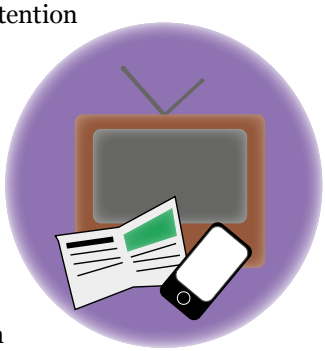
In Sweden RBS programs were initially developed by the STAD project in Stockholm, where studies found significant reductions in police reported assaults in the intervention area compared to the control

area.[198] In the national dissemination of the STAD program, significant effects were also found, albeit with smaller effects than in the initial Stockholm project, likely reflecting less consistent program implementation.[199]

The potential of RBS programs to reduce road crashes was demonstrated in the US state of Oregon. Statistically significant reductions in single-vehicle nighttime traffic crashes were found following the implementation of the compulsory server-training policy.[200] RBS programs have subsequently been incorporated in many community-based efforts to reduce alcohol impaired driving. A systematic review of the effectiveness of multi-component community-based programs that included RBS training, alcohol availability restrictions, sobriety checkpoints, public education and media advocacy, provided strong evidence that these programs are effective in reducing alcohol-related crashes.[201]

Marketing restrictions

The liquor industry invests billions of dollars every year on the advertising and promotion of its many products. Marketing strategies employed by the industry are strategic, sophisticated, and multifaceted and use a range of media. Media include traditional forms such as television, radio, print, and billboards but with rapidly increasing use of broader and often more tailored marketing techniques via digital (e.g. brand web sites, mobile phone apps, internet games) and social media (e.g. Facebook), branding (e.g. clothing), point of sale promotions (e.g. 2 for 1 deals) and sponsorships (e.g. people and events). It is often argued by the liquor industry that the purpose of alcohol advertising is not to encourage drinking or increase the number of new drinkers but to encourage customers to switch brands and/or maintain brand loyalty i.e. the advertiser gains market share while its competitors lose market share.[202] Nevertheless, whether intended or otherwise, a great deal of industry marketing activity, if not most, reaches the attention of youth and the under-aged[203] [204] where it has an influence on attitudes and behavior.[205] At least two systematic reviews have concluded that there is a strong association between adolescent exposure to alcohol advertising and the likelihood of initiating or increasing alcohol use.[206] [207] Of particular note, Smith and Foxcroft point to three longitudinal studies which demonstrated a temporal relationship between exposure and drinking and a dose-response relationship between level of exposure and frequency of drinking. General population exposure and the exposure of young people to alcohol marketing can be reduced by effective independent government regulation with effectively enforced limits on placement, timing, quantity and content



of advertisements. The US Surgeon General, the US National Research Council and Institute of Medicine, and Canada's Alcohol Strategy all recommend limiting exposure to alcohol advertising.[208] [209] [210] As children and young people are potentially most at risk of being influenced by liquor marketing and advertising and repeatedly implicated in our understanding of alcohol-related harms to others, it is reasonable to assume that curtailing industry marketing practices will reduce second-hand impacts of alcohol consumption in society.

Screening, brief intervention and referral (SBIRT)- brief interventions

Randomized controlled trials conducted in several countries, including Sweden, have confirmed that screening of patients attending health centers or hospitals and delivering brief interventions to those identified as early-stage problem drinkers (lasting typically 5 to 15 minutes) by trained healthcare providers (e.g. GPs, community nurses) can result in significantly reduced consumption. [211] Recent systematic reviews of the large international literature on this topic confirm that SBIRT in health care settings effectively reduces alcohol use and related harms, particularly with less severe alcohol use disorders. [212] [213] [214] [215] SBIRT is effective for men, women[216], adolescents and adults[217]. It has been estimated that a 70% uptake of SBIRT by GPs would result in $1.6 billion of savings annually in Canadian health, crime and productivity costs. [218] Uptake by GPs and health care providers has, however, mostly been quite low but literature is emerging on strategies which are more effective at increasing uptake.[219] It can be concluded that SBIRT could be one contributing component to an overarching strategy to reduce hazardous drinking patterns and related harms to others.

Health messaging on alcohol containers - warning labels

The WHO Global Alcohol Strategy calls for the broad dissemination of information on alcohol-related harms as part of a comprehensive strategy.[220] Although in isolation there is limited evidence for effective behaviour change from alcohol labeling, US alcohol labelling raised awareness of health risks, increased conversations about these and was associated with less impaired driving.[221] [222] [223] Health messaging can address limited awareness of the link between alcohol use and serious diseases such as cancer.[224] One study of the US alcohol warning label indicated that awareness of the message regarding drinking during pregnancy was associated with reduced consumption by pregnant mothers[225]. Giesbrecht has argued for a re-conceptualisation of the role of education around alcohol from direct behaviour change to creating more informed public



debate to favour the introduction of other evidence-based policies.[226] One advantage of container labelling is that messages are more likely to be recalled by those who drink the most i.e. one of the key target audiences.[227] [228] [229] Alcohol container labelling may have some limited direct impacts on drinking behaviours leading to harm to others (e.g. impaired driving, drinking during pregnancy) and may create an environment favouring informed public debate and support for evidence-based policies.

Maintenance of alcohol monopolies

A state monopoly on alcohol retail provides an opportunity to exercise stronger control on a number of factors that contribute to alcohol sales, consumption and harm, including controls on the number of outlets, hours of sale, enforcement of drinking age laws, marketing and pricing. A number of studies have examined the effects of monopolies, usually the effects of abandoning retail monopolies and shifting sales to grocery and other stores. The general conclusion from these studies is that alcohol consumption increases with privatization.[230] In the latest study of the Swedish retail monopoly, Systembolaget, total alcohol consumption was projected to increase by 37.4% if alcohol was sold in grocery stores.[231] The study also estimated the effects of increasing consumption on a number of harms. These were mostly harms to drinkers, but assaults were also estimated to increase by 24%."

One important function of retail monopolies is to reduce the availability of alcohol to young people. Increased drinking among young people can be associated with unplanned pregnancies and more children with fetal alcohol impairments. This was illustrated by the 1967-1968 policy experiment described above involving strong beer (5.6 % alcohol by volume) being sold in grocery stores instead of monopoly stores in two counties in western Sweden. The experiment was ended prematurely in July 1968 due to a sharp increase in alcohol consumption in the experimental counties, particularly among youth and a range of other social problems experienced by children of mothers who were pregnant during the experiment.[232]

Another important consequence of increased drinking among young people is increased traffic crashes. In a study comparing states in the US with a retail monopoly over spirits or wine and spirits, an average of 14.5% fewer high school students reported drinking alcohol in the past 30 days and 16.7% fewer reported binge drinking in the past 30 days than high school students in non-monopoly states. Lower consumption rates in monopoly states, in turn, were associated with a 9.3% lower alcohol-impaired driving death rate under age 21 in monopoly states versus non-monopoly states.[233]

SUMMARY AND CONCLUSIONS

This report summarizes current evidence on the harm caused by alcohol to people other than the drinker. It reviews the different aspects and magnitudes of the problem, and effective ways to reduce it. In contrast to other risk factors, alcohol consumption leads to more harm to others than to the drinker. Without the benefit of modern scientific methods, this has been recognized for well over a century and has led most countries in the world to adopt legislation to limit alcohol's harm. Until recently most alcohol research has been focused on individual drinkers, with research devoted to indirect and social effects mostly neglected. In the last two decades however, there has been an increased interest in this field, with the publication of a number of new research reports.

A striking feature of this literature is the vastness of the secondary effects, affecting, in principle, all major parts of society, from fetal alcohol effects to supporter violence at football matches. In this regard the secondary effects of alcohol are similar to the biological effects, where the toxic effects of alcohol cause harm to virtually all tissues and organs of the human body. These pervasive social effects can all be traced to physiological and psychological effects of alcohol on human behavior. Indeed, one study of expert opinion suggested that when second-hand consequences are considered, the burden of harm from alcohol is about double that from tobacco.

Heavy drinking occasions are the key determinant of harms to others. Because of the well-established relationship between average per capita consumption and binge drinking, interventions that reduce per capita consumption can be expected to reduce second-hand effects. As reviewed above, there are also studies demonstrating how such policies (e.g. pricing and availability restrictions) directly reduce harms to others such as from violence or road crashes. It should be understood that most instances of heavy sessional drinking occur among people who otherwise are moderate drinkers. Even if their individual risk is small, most problems in a population would come from this group. This is a strong argument for alcohol policies that effect the whole population, foremost policies that reduce the economic and physical availability of alcohol.

This review of second-hand effects included four main domains:

Children and families
The influence of alcohol consumption, most often male drinking, on the family was one of the driving forces behind demands for alcohol control in the 19th and early 20th century.

Unintentional and intentional injuries and mortality
The risk of harm associated with drinking extends beyond the family into the local environment including driving, public drinking, and violent crime.

Crime, property damage and societal costs
Rates of violent crime, theft, robbery and burglary and vandalism are affected by levels of drinking in the community.

Adverse economic effects
Losses in economic productivity or increases in alcohol-related costs to society constitute second-hand effects of alcohol consumption. The global costs of alcohol have been estimated to 210-665 billion USD in 2002.

What then can be done to reduce alcohol related harm to others?

There is good evidence that a number of policies are effective in reducing drinking that is harmful both to drinkers as well as to others. These include:

- Increased alcohol prices
- Increased age limits for the purchase or possession of alcohol
- Limiting the number of outlets selling alcohol
- Limits on the hours and days of sale
- State run alcohol retail monopolies
- Impaired driving laws
- Server training
- Marketing restrictions
- Screening, brief intervention and referral to Treatment (SBIRT)
- Warning labels

Historically, Swedes have held quite positive attitudes towards alcohol restrictions, supporting extensive, public health motivated alcohol policies. Some of this support was eroded when Sweden joined the European Union 1995. In the last decade however public support for restrictive policies has again risen. A large majority in Sweden now supports Systembolaget's retail monopoly. Also, the support for high taxes on alcohol has increased, where those favoring reduced taxes now are a minority. These shifts in popular opinion should be viewed against the background of increasing concerns about the negative societal effects of alcohol.

CONCLUSIONS

While support for restrictive policies on alcohol in Sweden has long been driven by concern about the second-hand effects of alcohol, scientific study of second-hand effects has only recently been a priority. Swedes are currently mostly prepared to put up with economic and practical inconveniences of restrictive policies to prevent alcohol's harm to others though till recently this has been more "received wisdom" or perception. The evidence reviewed in this report confirms the substantial nature of alcohol's harms to others and adds further weight to the need for retaining and strengthening effective alcohol policies. Attention should be paid in particular to placing greater restrictions on cross-border and internet alcohol sales so as not to further undermine the role and effectiveness of Systembolaget and greater restrictions on alcohol promotions across all media.

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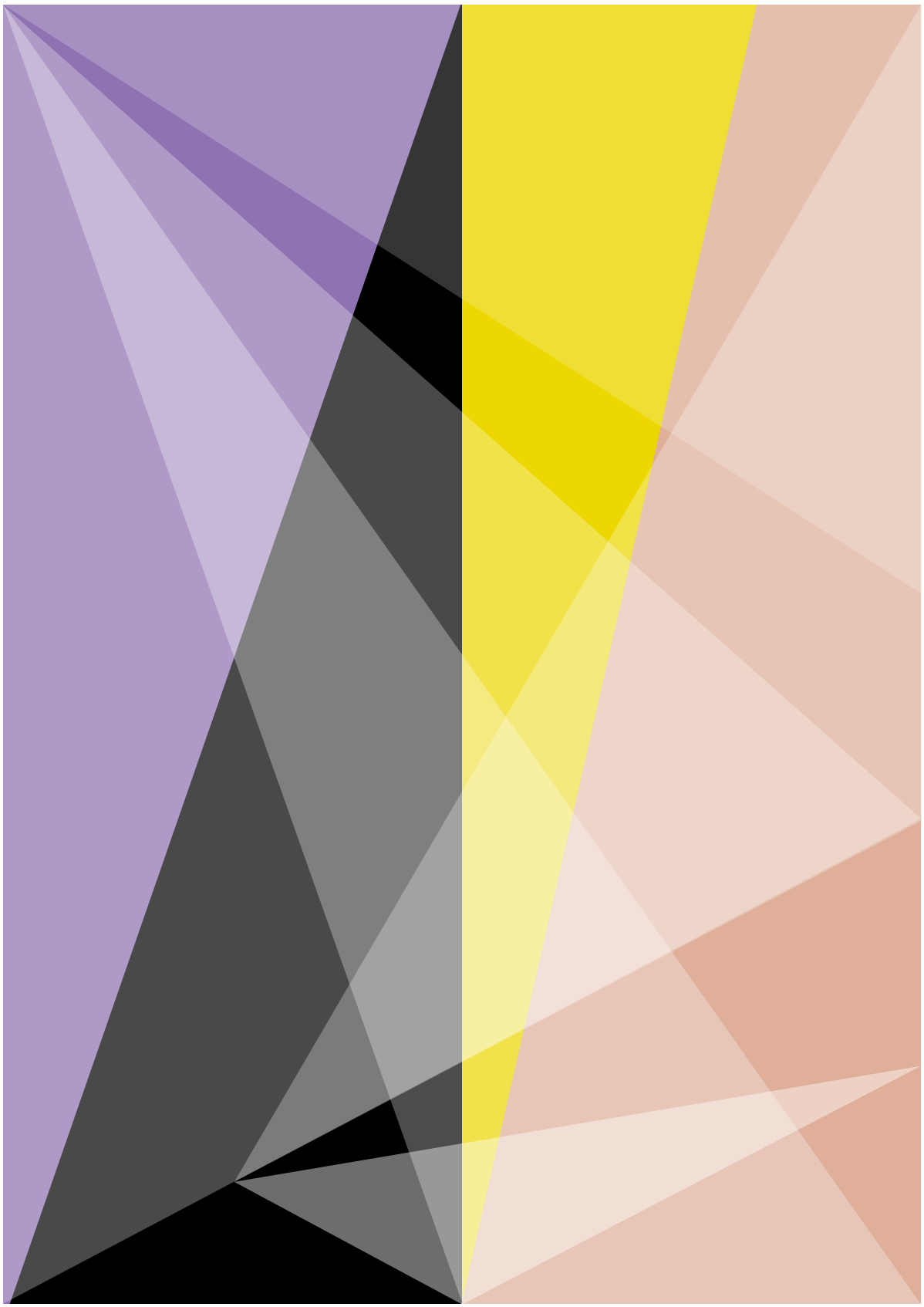

APPENDIX

A NOTE ON METHODS USED TO ORGANIZE THIS REPORT AND SELECT CITED PUBLICATIONS

This report is based on a narrative review drawing on existing systematic and comprehensive reviews published in peer-reviewed journals, major international (e.g. WHO, UN, World Bank) and government reports, plus Sweden-specific data on prevalence of relevant harms. The topic of harm to others or second-hand effects is a very broad area of concern as the types of harm to "others" spring from a great number of sources. A total of 52 types of harm to others were identified during the preparatory work for the report, spanning 12 wide domains (e.g. road safety, crime, parenting, fetal and infant development, absenteeism and societal economic costs). The literature searches conducted to identify these materials were exhaustive. The topic of harms to others from alcohol use has only been a major focus of research in the past 10 years and we are confident we have identified the major works relevant for consideration.

Narrative reviews are appropriate for cross-cutting reports that aim to synthesize findings and generate conclusions from multiple areas of related research. Of note, it was not feasible to conduct multiple systematic reviews on each of these areas. Furthermore, scientific papers for each of these outcomes typically focus on the entire outcome, rather than those outcomes that affect those other than the drinker him or herself.

The main scholarly database searched for peer reviewed articles was PubMed. Google Scholar was also employed to identify potentially relevant government reports. The search terms were created from 30 of the 52 categories of types of harm to others identified as priority areas. For each type of harm, up to 200 (if available) of the most recently added items were examined for relevance and potential inclusion. Reviews and quantitative studies of broad relevance to the topic of alcohol's harm to others were selected. A total of 445 relevant articles/books/reports were initially identified which were circulated and discussed by the team to further narrow the list down to 167 most relevant articles. The research team was also able to identify from their own collections and knowledge a further 25 items for inclusion.

The process for synthesising material involved the preparation of an organised summary draft covering the major identified areas of harm to others, listing the relevant findings from the identified studies. This first draft was circulated to team members as a basis for preparing the shorter summary consensus report. This was prepared through an intensive four-day meeting in which topics were discussed by the group, drafts of individual sections created, edited and debated until there was consensus on the final document. Our aim was to clearly summarize and synthesise available evidence and make this both accessible and relevant to a Swedish audience of non-specialists.

This kind of narrative, expert review is important as a means of providing a large overview of a rapidly emerging and potentially controversial field. We are a group of independent scientists, but we worked hard to achieve a consensus in the interpretation of the available data on the chosen topic. We did exercise judgement in our selection of the material and in our weighting of the different types of studies and evidence.

"BEING TRAPPED BY GRIEF IS LIVING A HALF-LIFE"

Åsa Jinder's childhood memories are tinged with sorrow, but her life today is enriched by experiences that have given her a strength of will, and brought success and wisdom. With an alcoholic mother, she was forced to build up her own secure foundation and she refuses to see herself as a victim.

TEXT: CAROLINE FISCHER, PHOTO: ANNA LEDIN WIRÉN

Åsa Jinder's summer talks on the P1 radio channel grab your attention from the moment she begins to talk. She talks of a time when, early one autumn morning, when the seasonal chill demanded a woolly hat, a warm coat and boots, the 3 year old Åsa took her tricycle and left her home and its insecurity, barefoot and dressed in a thin nightdress. She sat in a sandbox and shivered until a neighbour saw her, picked her up, and carried her home.

Over a coffee in the Stockholm suburb of Midsommarkransen, Åsa reminisces about the recurring rough times at home with an alcoholic mother, about when she took an Alsatian dog that was tied up outside a grocery store because she wanted some company when she went to the lake for a swim. The dog bit her, so there was no swim that day...

"It's hard, receiving no confirmation when you're growing up, not learning that you're worthwhile, not having any foundation of love. It forces you to build your own ground on which to stand."

"The older I get and the more distance I have to my childhood, the more the images that come to mind. When I see that little 3 year old in the cold, I want to shout," What on earth is that child doing out here at this time of the morning and why isn't she dressed?!"

Children are always the losers with substance abuse

Åsa Jinder learned quickly to be happy with the situation, not to expect anything to change, and to avoid dreaming about how things could be different.

"I always had this internal dialogue that said I preferred to be happy, without necessarily being constantly happy. I've always been kind and forgiving with myself. I've affirmed my strengths and known that there is another life, a better life – one that I can create."

In a room full of people, Åsa can always tell the people with similar experiences to hers.

"I don't really know how, but many of those who've grown up with substance abuse radiate some sort of feeling of betrayal and loneliness, of strength and social competence."

The main common denominator amongst adult children is precisely that – a sense of betrayal and a lack of trust. The feeling of having come second to alcohol. In Åsa's case, the lack of trust meant that she always wanted to do everything herself, wanted everything to be on her terms. She ran her projects with an iron fist and no one in her team was allowed to work independently.

"I was bolshie and unnecessarily decisive, acting as if other people were trying to take something away from me. I never considered that they were trying to give me something. It was very much as though something had been excised from me so that I found it hard to handle situations that should really have been about collaboration and compromise."

On the plus side, Åsa's experiences have given her clear vision and the ability to complete a course of action, once she's decided on it. She compares herself with her daughter, Josefine, Little Jinder, who also very single-mindedly goes her own way but who has a core sense of security that gives her a natural



ability to work with others. Nowadays, Åsa has learned to slacken the reins a little and to see what happens when she allows other people to participate in the decision-making process.

Seeing substance abuse as a disease

After the publication of her collection of poems entitled "Bli min mamma igen" [Be my mother again], Åsa began giving public talks about her experiences and about people's preconceptions about adult children. She also spent a lot of time thinking about all those people who stop drinking and how they manage. And about why not everyone can do this.

"In those days, I just couldn't see alcoholism as a disease: I saw it as a choice and I was heavily criticised for that viewpoint. Nowadays, I have a greater understanding of the fact that some people come to life with that first drink. It's chemical."

She wonders how things would have worked out if she'd been shy and withdrawn. Would it maybe have been easier for her to be trapped by addiction, too?

"I've never been addicted to alcohol, but that's nothing to brag about because I know just how easy it is to lose yourself in the bottle. It doesn't have to be about depression or about developing alcoholism because you've been drinking heavily for a long time."

"Nowadays, I have a greater understanding of the fact that some people come to life with that first drink. It's chemical."

Åsa didn't have a real relationship with her mother during her childhood, but she did have one with her father, Curt Einar, who lent her a typewriter and bought her her first Swedish hurdy-gurdy.

"All I felt from that non-existent relationship with my mother was betrayal, and that overshadowed everything else. I saw her as the biggest problem in my life." This lack of a mother-daughter relationship reared its head when Åsa saw her female friends and their mothers, and felt the lack of someone to talk to and ask questions. And when Åsa had her own children, her mother, Astrid, wanted to get involved and be a grandmother. And Åsa let her do it.

"She was good at being a grandmother and it was a huge help to me, seeing my mother in a new light, as a person. It looked so lovely – we were playing with my son in the park and so many people were charmed by her."

Alcohol is a sensitive subject

Talking about alcohol is still more or less a taboo subject, precisely because alcohol has such a given role in all types of social get-togethers. The inability to handle alcohol is seen as shameful. And questioning the self-evident place that alcohol has in society also arouses strong feelings. Åsa explains

"She was good at being a grandmother and it was a huge help to me, seeing my mother in a new light, as a person."

this by saying that people quite simply want to be able to enjoy a drink in peace.

"For many people, alcohol is their comfort blanket. It calms them down and shuts down uncomfortable feelings. Alcohol makes people feel positive, and that's the problem. It's not until you're hooked that it's regarded as a problem."

Some years ago, Åsa and her husband, Jonas Otter, attended a show put on by eighth graders for their parents. The children had produced a play about young people who drank, and once it was over, there was a general discussion.

"It was very clear just how uncomfortable a subject this was for many of the adults there. When I mentioned that I don't drink alcohol when my children are out because I want to be able to pick them up if necessary, one of the mothers exclaimed, 'So when am I supposed to drink my wine, then?!'"

Moving on

For Åsa, it's been important not to get trapped in a sense of grief over having been betrayed, and she does not want to be a victim. She wouldn't change her experiences though, because it is these experiences that have made her who she is today. She sees the fact that she can handle so much by herself as a gift that came from something that was initially so wrong.

"As a child, you're a victim and have no right to choose, but once you've reached a certain age, it's






time to take responsibility for your life and realise that a different way is possible."

Children from dysfunctional families fail to acquire certain fundamental abilities. Åsa says that she has had to learn to love herself and other people as an adult, and that she had to learn how to put up Christmas decorations.

The feeling of being an outsider has never bothered her.

"I've grown as a person by being confirmed in my difference, on the path I've chosen for myself."

Åsa has no time for the idea of finding oneself and completing oneself.

"If you face up to your problems, have the courage to recognise them, you can move on in life, but constantly telling ourselves that we can make ourselves into finished products only leads to unhappiness. We are so complex and we are constantly developing. We're finished products when we die."

About Åsa

In 1979, she became Sweden's youngest "National Folk Musician" on the Swedish hurdy-gurdy.

She also works as a composer, producer, lyricist, author and public speaker.

She has won the Eurovision Song Contest with the Norwegian entry, "Nocturne: Secret Garden".

In the same year, she co-wrote the lyrics of the World Cup song for Sweden's women's football team.

"Av längtan till dig" was the Song of the Year on the "Svensktoppen" record chart.

Åsa has been awarded gold and platinum records and has won three Grammys.

She has toured the world and played at the Nobel Prize Banquet.

"OUR ALCOHOL NORMS BECOME OUR CHILDREN'S NORMS"

Here in Sweden, we have a strong alcohol norm, whereby alcoholic drinks have more of a given place in numerous contexts than alcohol-free ones nowadays. The continental habits that we are so keen to adopt are nowadays being combined with the more traditionally Nordic romance with spirits. Louise Hallin, a psychotherapist specialising in children, says that the constant presence of alcohol in the lives of children has consequences that follow these children into adult life.

TEXT: CAROLINE FISCHER. PHOTO: JOHNÉR BILDBYRÅ, ANNA LEDIN WIRÉN

Louise Hallin, a psychotherapist and midwife, doesn't mince her words when it comes to alcohol consumption by parents of small children in Sweden, and she is very concerned about the development of the alcohol norm. She talks about

"I'm worried that we're going to see a significantly worse harm scenario in the generation that is growing up now."

a social dependence that ensures alcohol is present in the majority of contexts. Opinion surveys commissioned from YouGov by the insurance company, If, show that 23% of parents think that it is OK to drink to intoxication in front of their children.

"When did someone last invite you round for a coffee? The constant presence of alcohol obviously affects our children, and all this normalisation of alcohol consumption normalises it for the children, too. I'm worried that we're going to see a significantly worse harm scenario in the generation that is growing up now. We are taking a massive risk with this social habituation."

Alcohol steals the mental bond with the parent

Louise only used to ask parents about their alcohol consumption if she saw signs that something wasn't quite right. Nowadays, she raises the issue at all of her therapeutic sessions with parents.

"Many parents are unaware that their consumption affects their children, so they're quite happy to give



me the uncensored details of how much they drink during the course of a week. They see it as normal. When I tell them about the effects that alcohol consumption has on their children, it comes as quite a surprise to them, so I let them go home and think about it before their defence mechanisms kick in."

According to Louise, the vast majority of these parents come back and want to know more about it, and when it comes to those parents who opt not to continue with their therapy after the discussion, Louise can only hope that she has planted a seed that will get them thinking.

She believes that adults' consumption of alcohol in front of children gives rise to unease and insecurity in the children that escalates in line with the amount of alcohol consumed. Because even when a small amount of alcohol has been consumed, some of the mental bond with their parents disappears, and this makes the child feel uncomfortable.

And even if both parents are not drinking, it's common for one of the parents to try and convince the child that the fact that Mummy or Daddy is drunk isn't a problem, that everything's perfectly normal because this is a party, and that everything will be back to normal tomorrow. This is of little help to the child, according to Louise, and simply gives rise to confusion because what the parent is saying clashes with what the child is feeling. "Children simply don't just go up to their parent and say, 'I don't like it when you're strange like this.' They expect parents to stay the same at all times," says Louise.

Co-dependent children perform less well at school

When alcohol consumption becomes alcohol abuse,

the consequences are obviously worse. 380,000 children in Sweden are living with a parent with risky levels of alcohol consumption, according to a nationwide survey from 2007. And Swedish data gathered from over 600,000 children show that children whose parents have been diagnosed as substance abusers were more likely to leave compulsory school without the grades necessary for upper secondary education.

"Children who live with substance abuse carry a burden of worry inside them – and that takes away their focus from their studies. Plus keeping a secret like that demands a lot of energy. The alcohol abuse is a massive source of shame for them and the majority of children become co-dependent, never speaking about what life is like at home. It becomes all-consuming, leaving them very little time for their own, personal development and their opportunities for simply being kids and acting their age are very limited."

Louise also says that children's imaginations are inhibited by the constant tension and that many of the children who live with substance abusers have psychosomatic problems.

"Children simply don't just go up to their parent and say, 'I don't like it when you're strange like this.'"

"In these families, it's usually the oldest children who take responsibility for their parents, their siblings, their pets and their home, and this, coupled with never knowing what things will be like when they come home from school, has a massively inhibitory effect on their development. Children of substance abusers become hyperaware of their surroundings, they listen for footsteps and for how they sound when their substance abusing mother or father comes home."

In the longer term, people who have grown up with substance abuse in their home are less well-equipped to handle setbacks later in life.

"If these children go through some kind of crisis, once they have grown into adulthood, they're often hit by a whole avalanche of emotions and experiences that make the crises so much worse. Their self-image is poor, as is their self-awareness, and they often put themselves in situations where they're trying to save someone else."

Signs of substance abuse in the family

There are a number of signs that outsiders can look out for in children of substance abusers – so-called "adult children":

"They're often worried and scared. Girls are more likely to become introverted than boys, and are more likely to go in for self-harm and self-destructive behaviour, whereas boys tend to display aggressive, outward-orientated behaviours. They can develop tics, such as scratching themselves, hair pulling, and being immeasurably sad when something goes wrong." Louise says that these children are also more likely to be absent from kindergarten and school, and that there may be signs of neglect at home, e.g. the children are not wearing winter boots when the temperature falls.

Louises tips till föräldrar

- Don't drink alcohol in the presence of your children. Think about whether it's really a good idea to put out a bottle of wine for your babysitter.
- Make it clear to your children that they are allowed no alcohol whatsoever until they are 18 years old. This makes crossing that boundary something out of the ordinary and much more difficult.
- If you're throwing a party or going to one, and intend to drink alcohol, get a babysitter for 24 hours – you're likely to be a bit down and/or irritated the day after the party, and that's no fun for your child.

Photo: Anna Ledin Wirén



Louise Hallin, psychotherapist and midwife.

380,000 children in Sweden are living with a parent with risky levels of alcohol consumption.

Children whose parents have been diagnosed as substance abusers were more likely to leave compulsory school without the grades necessary for upper secondary education.

The academic results of children who have grown up with substance abusers and who do complete upper secondary education are 20% lower than those of other children.

3% of children grow up in families in which at least one of their parents has been diagnosed with substance abuse. These children are between 4 and 7 times more likely to become substance abusers themselves and are 3 times more likely to die before the age of 35.

Children whose parents have been diagnosed with substance abuse receive 4 times as much support from the social services, while in adulthood, these children require greater economic support due to chronic diseases.

ALCOHOL IS THE FIFTH LEADING CAUSE OF DEATH AND DISABILITY

Alcohol imposes a large economic burden which can be difficult to get an overview of. The most effective policies to reduce costs and harm are counselling in primary health care, raised prices and regulation of the promotion of alcohol.

TEXT: PER LEIMAR

In May 2015 OECD released a report, "Tackling Harmful Alcohol Use - Economics and Public Health Policy". In a speech launching the report, Angel Gurría, OECD Secretary-General, said that harm from alcohol consumption takes a devastating toll on society.

"Every 10 seconds somebody dies from a problem related to alcohol and many more develop an alcohol-related disease."

- Alcohol is linked with more than 200 diseases including cancers, injuries and neurological problems. Harmful alcohol use is the fifth leading cause of death and disability worldwide, up from 8th in 1990. Every 10 seconds somebody dies from a problem related to alcohol and many more develop an alcohol-related disease.

He said further that heavy drinking also harms people other than drinkers themselves through traffic injuries and fatalities, violence and anti-social behaviour, as well as increased foetal development disorders when alcohol is absorbed during pregnancy.

- Alcohol imposes an economic burden on countries both through direct healthcare expenditure and through productivity losses.

The results from the OECD report point to a clear conclusion: a comprehensive prevention strategy, combining regulation with medical intervention and price strategies, could reduce harmful consumption of alcohol towards the 10% reduction target. In particular, counselling by physicians in primary health care, a tighter enforcement of regulations to prevent drinking-and-driving and alcohol-related violence, price policies and regulation of the promotion of alcohol together provide an effective, affordable and cost-effective solution

Increase in risky drinking

The report describes that many countries have experienced a significant increase in risky drinking behaviours, particularly among young people and women. Emerging economies have also seen a major relative increase in alcohol consumption. The trends are seen as worrying as some of the harms typically associated with heavy drinking in young age often affect people other than drinkers themselves and increases the burden of disease related to alcohol.

The harms caused to people other than drinkers themselves, including the victims of traffic accidents

OECD, Organisation for Economic Co-operation and Development, has 34 member countries worldwide, and works to promote policies for economic growth, employment and rising standard of living in the member countries. OECD is today also interested in health and note that improving health care is vital to economic growth. But as the costs of health care are increasing, OECD has identified prevention and public health campaigns as a way to improve value for money and note that only a small fraction of OECD government health budgets are spent on public health and prevention.

and violence, but also children born with foetal alcohol spectrum disorders, are the most visible face of those social consequences. Health care and crime costs, and lost productivity, are further important dimensions. These provide a strong rationale for governments to take action against harmful alcohol use.

According to OECD estimates, approximately four in five drinkers would reduce their risk of death from any causes if they cut their alcohol intake by one unit per week. There is hence wide scope for improving the welfare of drinkers and society as a whole. Based on a simulation model, OECD analyses show that several alcohol policies have the potential to reduce rates of heavy drinking, regular or episodic, and alcohol dependence, in three countries, by 5% to 10%. This would take those countries a long way towards achieving the voluntary target of reducing harmful alcohol use by 10% by 2025, a target adopted by the World Health Assembly in 2013 as part of the NCD Global Monitoring Framework.

On policies the report finds that alcohol brief interventions can generate large health gains. Combining policies in a coherent prevention strategy would have greater impact. Policies against drinking and driving are found to be important as is workplace programmes, raising alcohol prices and regulating the promotion of alcoholic beverages. Policies in health care are the most expensive followed by enforcements of drink-drive restrictions and workplace programmes. Price and other regulatory policies are substantially less expensive. But even the most expensive alcohol policies are found to be very cost-effective in health terms.

The report states that harms to others, addiction, and consumers' inaccurate perception of risk provide strong justification for government action in addressing the problem of harmful alcohol use.

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ALCOHOL AND PUBLIC HEALTH IN EMERGING ECONOMIES

An expanding global market for alcohol leads to increased alcohol consumption in emerging economies. Here alcohol policies are often weak and recourses for preventive work often insufficient which increases the harm from alcohol consumption.

TEXT: PER LEIMAR FOTO: MARIA BERGQVIST

Most of the population in Africa do not drink alcohol but the total consumption is expected to increase in the coming years, among other reasons from an increase in potential new consumers, especially young people and women. At the same time alcohol is a leading risk factor for death and disability in Africa. The increase in alcohol consumption is often occurring in countries with few methods of prevention, control or treatment. Increased heavy episodic drinking increases the risks of road traffic accidents, for drivers as well as passengers and pedestrians. It also threatens the progress being made against HIV.

The role of the alcohol industry in this development is explored in several recent academic articles. The industry, as any consumer goods industry, does marketing campaigns and designs new products, but also develop industry-civil society partnerships and engage in lobbying, information dissemination and legal action to thwart effective public health measures. The industry e.g. funds 'social aspects' and public relations organizations, outwardly established to reduce alcohol-related harms but at the same time the organisations promote industry-favourable policies. Generally, the industry defines alcohol-related problems in terms of personal irresponsibility and promotes 'responsible drinking' without this concept being clearly defined.

Examples of marketing activities include sponsoring local football matches and pageants such as Miss World Kenya, and running advertisements promoting 'female empowerment'. Diageo has



championed the local passion for football by sponsoring national teams and matches and Guinness has become the official sponsor of Ghana's national team. At the same time the industry is promoting a policy of self-regulation of marketing as an alternative to government regulations.

"Examples of marketing activities include sponsoring local football matches and pageants such as Miss World Kenya, and running advertisements promoting 'female empowerment"

Introduction of cheap and targeted product lines

New product lines have also been introduced. Diageo have introduced small bottles of spirits, which are less expensive to purchase, as well as Snapp, an apple-flavoured drink targeting the 'growing wave of independent women' in their 20s. Sales of small plastic alcohol sachets have been reported in a number of countries, such as Zambia, Malawi, Tanzania and Uganda. Affordable to almost everyone, liquor sachets are not only being sold by licensed retailers, but also by informal street traders. Their use have been reported to be related to problems among adolescents especially.

Lobbying, legal action and political donations are also activities carried out by the alcohol industry. In 2012 South Africa was considering a new law that among other measures would restrict alcohol advertising, raise the minimum drinking age to 21, and raise alcohol taxes. The alcohol industry representatives argued that increased taxes would lead to more sales of illicit and potentially dangerous alcohol. Instead some alcohol companies advocated a strategy that combines education and self-regulation and penalizing drinking and driving. One producer has recently confirmed that it would donate 9 million rand (approximately 6.5 million Swedish krona or USD 730 000) to political parties for the 2014 elections, almost double of what the company donated the previous three elections. Alcohol companies similarly lobbied against new alcohol legislation in Kenya and an alcohol levy in Botswana. After the sale of liquor sachets was banned in Malawi in 2010, the producer obtained a court injunction restraining the enforcement. The producer then donated K4.5 million [approximately

USD 18 000] to the police for undisclosed activities designed to minimize drug and alcohol abuse.

Rising populations and income and the rapid pace of urbanization make Africa very attractive to the global alcohol industry, and industry leaders have identified Africa as a key area for growth. Weak alcohol policy environments may be compromised further in terms of public health protections by alcohol industry opposition to effective measures such as marketing regulations, availability controls and taxation.

A review of what alcohol control policies were used in 46 African countries found that 39 of the countries had alcohol taxes for all alcoholic beverages, but only 9 adjusted the spirit tax rates for inflation and 12 countries did so for beer. Forty-one countries had licensing of retail sales for beer, but only 10 had restrictions on density and 17 on hours of sales. Twelve countries had no age limits for retail sales. Thirty-one had age limits between 16 and 18 years of age. The majority of countries (32 countries, 70 per cent) had no legally binding regulations for alcohol marketing. Only seven of the countries had restrictions on alcohol sponsorship and six had retail sales promotion restrictions.

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ALCOHOL INDUSTRY ACTIONS TO INFLUENCE ALCOHOL POLICY MAKING

An increasing number of academic studies on alcohol industry activities to influence alcohol policy have been made in the last few years. One subject in these articles concerns so called social aspect/public relations organisations that present arguments that favours a liberalised alcohol market.

TEXT: PER LEIMAR

Large corporations invest heavily in activities that foster policy environments favourable to their interests. One channel for such activities of the alcohol industry is so called social aspect/public relations organisations (SAPROs) that that typically divert attention away from population-level policies that limit availability or increase prices, thus threatening corporate profits, towards policies focused on personal responsibility. Alcohol industry SAPROs are now operating in at least 27 countries.

This phenomenon is described in an academic article using Drinkaware, a UK SAPRO set up and funded by the alcohol industry, as an example. Drinkaware is registered as a charity. Charities exists to pursue a public benefit and must, according to UK legislation, have a charitable purpose, such as the advancement of health. Research has shown that prevention campaigns funded by the industry, such as Drinkaware, tend to lead to positive views on alcohol and the alcohol industry. And an evaluation of a Drinkaware poster campaign found that it seemed to have the opposite result to that which is intended, with participants drinking more when the Drinkaware posters were on display.

"The organisations typically divert attention away from population-level policies that can threaten corporate profits, towards policies focused on personal responsibility."

The authors note that the alcohol industry retains a respectability that big tobacco has lost. But there are examples when representatives of the alcohol



The turnover of the global market for alcohol beverages is around 1 000 billion US dollars per year, of which 40 per cent is controlled by only 10 producers.

industry seem sensitive to critical views and react in a similar way as the tobacco industry has done before. When 57 health experts and scientist in Australia published a letter declaring that they would not accept funding from an Australian SAPRO, Drinkwise, established by the alcohol industry, the organisation responded by writing individually to persons that had signed the letter suggesting that it was defamatory and implying possible litigation, in a similar way as the tobacco industry has done against it critics.

In a comment to the article on Drinkaware two tobacco researchers underline that the issue of alcohol industry involvement in health policy is also a global challenge. World Health Organization (WHO) Director General, Margaret Chan, has in a published letter stated that 'the alcohol industry has no role in the formulation of alcohol policies, which must be protected from distortion by commercial or vested interests'. However, at the World Health Assembly 2013, Chan drew a clear distinction between a pariah tobacco industry and 'other industries that have a role to play in reducing the risks for NCDs'. On the topic of organisations to involve in the work with reducing the global burden of NCDs the WHO anticipates continuing 'dialogue with the private sector on how they can best contribute to the reduction of alcohol-related harm'. And when discussing WHO's engagement with non-state actors, the practice of excluding the tobacco industry is reiterated, but the relevant discussion paper makes no reference to alcohol.

In another comment on the article on Drinkaware an Australian researcher state that "there is no doubt that the industry and its accompanying industries (retailers, advertisers, public relations firms and sponsored organizations such as premium national and global sporting teams) have learned much from the negative public perceptions of the tobacco industry. By insinuation and lobbying through social aspects/public relations organizations (SAPROs) and other industry representative bodies, they insist that they are part of the solution, rather than part of the problem, and that they have a legitimate part to play in the determination of alcohol policy."

In a review on how the alcohol industry attempt to influence marketing regulations the authors find five main political strategies. The alcohol industry argues against marketing regulation by emphasising industry responsibility and the effectiveness of self-regulation, questioning the effectiveness of statutory regulation, and by focussing on individual responsibility. The authors find that the industry conveys its arguments through manipulating the evidence base and by promoting ineffective voluntary codes and non-regulatory initiatives and note that industry's political activity is more varied than existing models of corporate political activity suggest. The authors conclude that there are considerable commonalities between tobacco and alcohol industry political activity, with differences potentially due to differences in policy contexts and perceived industry legitimacy.

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