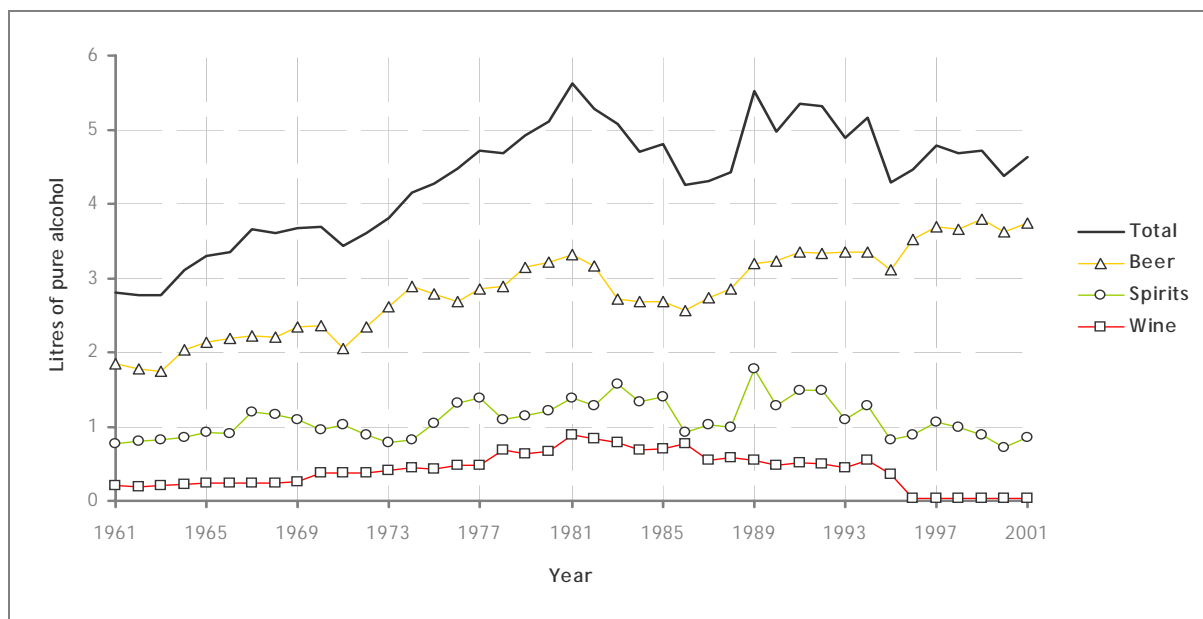


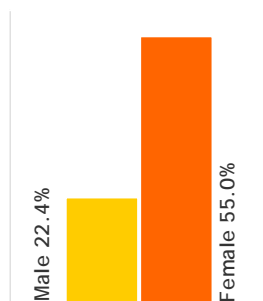
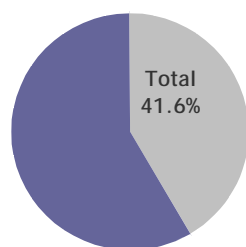
# MEXICO

## Recorded adult per capita consumption (age 15+)



Sources: FAO (Food and Agriculture Organization of the United Nations), World Drink Trends 2003

## Last year abstainers



Data from the WHO GENACIS study. National survey conducted in 1998 (age group 20 to 64 years). Total sample size  $n = 5266$ ; males  $n = 2174$  and females  $n = 3092$ .<sup>1</sup>

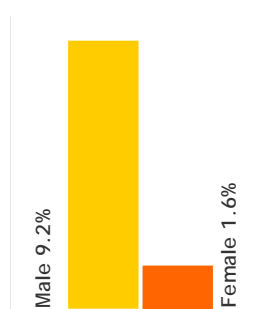
According to a 2000 national survey of both rural and urban populations (males  $n = 11\ 952$  and females  $n = 12\ 147$ ; age group 20 years and above), the rate of current drinkers was 69.4% (males) and 59.5% (females).<sup>2</sup>

According to the 2003 World Health Survey (total sample size  $n = 38\ 745$ , males  $n = 16\ 377$  and females  $n = 22\ 368$ ; sample population aged 18 years and over), the rate of lifetime abstainers was 52.7% (total), 35.6% (males) and 65.2% (females).<sup>3</sup>

According to the 2000–2001 Multi-Country Survey Study (total sample size  $n = 4686$ , males  $n = 1888$  and females  $n = 2798$ ; sample population aged 18 years and over), the rate of last year abstainers was 53.5% (total), 35% (males) and 65.9% (females).<sup>4</sup>

In a study of 2523 emergency room patients in eight hospitals in Mexico City, it was found that 63% had ingested alcoholic beverages, in particular spirits and beer; 58% admitted to having been drunk at least once in the past year.<sup>5</sup>

### Heavy and hazardous drinkers (among drinkers)

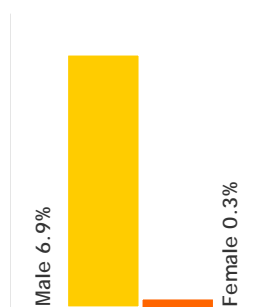
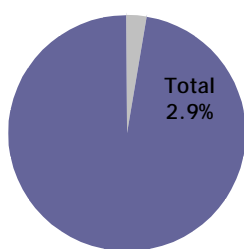


Data from the WHO GENACIS study. National survey conducted in 1998 (age group 20 to 64 years). Total sample size  $n = 5266$ ; males  $n = 2174$  and females  $n = 3092$ . Definition used: average consumption of 40 g or more of pure alcohol a day for males and 20 g or more of pure alcohol a day for females.<sup>1</sup>

According to the 2000–2001 Multi-Country Survey Study (total sample size  $n = 4686$ , males  $n = 1888$  and females  $n = 2798$ ; sample population aged 18 years and over), the rate of high risk drinking was 14.2% (total), 18.1% (males) and 11.6% (females). High risk drinking was defined as average consumption of five or more standard drinks for males and three or more standard drinks for females on a typical drinking day.<sup>4</sup>

According to the 2003 World Health Survey (total sample size  $n = 18\ 364$ ; males  $n = 10\ 541$  and females  $n = 7\ 823$ ), the mean value (in grams) of pure alcohol consumed per day among drinkers was 2.0 (total), 3.0 (males) and 0.6 (females).<sup>3</sup>

### Heavy episodic drinkers

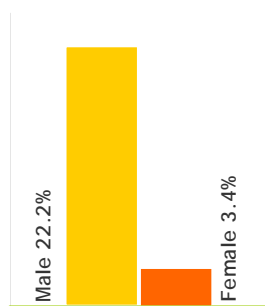
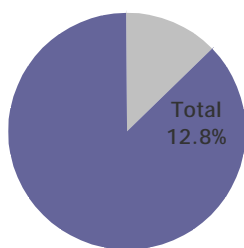


Data from the 2000–2001 Multi-Country Survey Study. Total sample size  $n = 4686$ ; males  $n = 1888$  and females  $n = 2798$ . Population aged 18 years and above. Definition used: at least once a week consumption of six or more standard drinks in one sitting.<sup>4</sup>

According to the 2003 World Health Survey (total sample size  $n = 38\ 745$ , males  $n = 16\ 377$  and females  $n = 22\ 368$ ; sample population aged 18 years and over), the rate of heavy episodic drinking among the total population was 3% (total), 6.3% (males) and 0.7% (females). Heavy episodic drinking was defined as at least once a week consumption of five or more standard drinks in one sitting.<sup>3</sup>

According to the WHO GENACIS Study (1998 survey; total sample size  $n = 5266$ , males  $n = 2174$  and females  $n = 3092$ ; age range 20 to 64 years), the rate of heavy episodic drinking among drinkers was 46.9% for men and 5.8% for women. Heavy episodic drinking was defined as consumption of five or more drinks in one sitting at least once a month in the last year.<sup>1</sup>

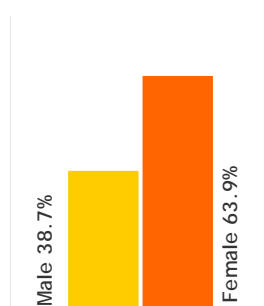
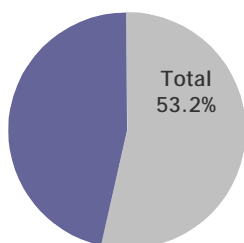
### Problem drinkers among an insured population



To estimate the prevalence of hazardous and harmful alcohol consumption (AUDIT definition) among the insured population of the Mexican Social Security Institute, 45 117 insured subjects from Mexico's 36 political districts were interviewed.<sup>6</sup>

The 1993 National Survey of Addictions (ENA) revealed that 66% of the urban population between 12 and 65 years old consumed alcohol (77.2% of men and 57.5% of women), and among them, 41.6% drank occasionally but in large quantities (five or more glasses per time).<sup>7</sup>

#### Youth drinking (last year abstainers)



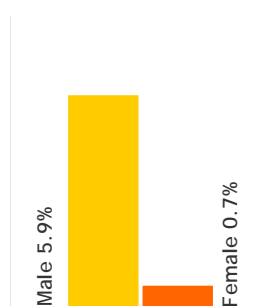
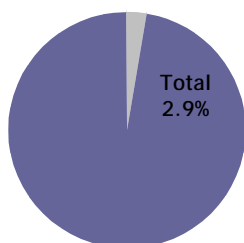
Data from the 2000–2001 Multi-Country Survey Study. Total sample size  $n = 720$ ; males  $n = 306$  and females  $n = 414$ . Population aged 18 to 24 years. For the age group 15 to 19 years (subsample  $n = 208$ ), the rate of last year abstainers was 60.1% (total), 43.5% (males) and 71.5% (females).<sup>4</sup>

According to the 2003 World Health Survey (total sample size  $n = 6616$ , males  $n = 2712$  and females  $n = 3904$ ; sample population aged 18 to 24 years), the rate of lifetime abstainers was 56.2% (total), 42.9% (males) and 65.4% (females).<sup>3</sup>

A 2000 survey of 10 578 students from the Federal District of Mexico City found that the lifetime prevalence of alcohol consumption was 61.4% (total), 62.6% (males) and 60.2% (females).<sup>8</sup>

Data derived from a 1996 representative survey of 1929 students in junior high and high schools in the city of Pachuca, Hidalgo, Mexico found that 47.9% of the sample have tried alcohol and 12.6% had drunk large quantities – five drinks or more per sitting – during the month prior to the survey.<sup>9</sup>

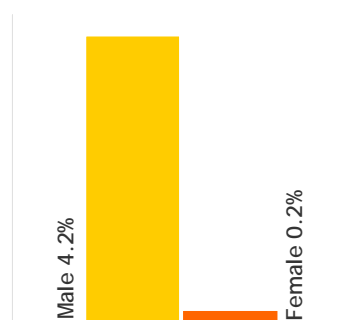
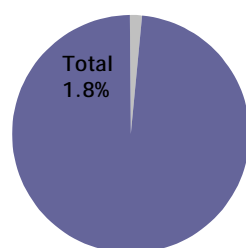
#### Youth drinking (heavy episodic drinkers)



Data from the 2000–2001 Multi-Country Survey Study. Total sample size  $n = 720$ ; males  $n = 306$  and females  $n = 414$ . Population aged 18 to 24 years old. For the age group 15 to 19 years (subsample  $n = 208$ ), the rate of heavy episodic drinkers was 1.5% (total), 2.5% (males) and 0.8% (females). Definition used: at least once a week consumption of six or more standard drinks in one sitting.<sup>4</sup>

According to the 2003 World Health Survey (total sample size  $n = 6616$ , males  $n = 2712$  and females  $n = 3904$ ; sample population aged 18 to 24 years), the rate of heavy episodic drinking among the total population was 3.1% (total), 6.3% (males) and 0.8% (females). Heavy episodic drinking was defined as at least once a week consumption of five or more standard drinks in one sitting.<sup>3</sup>

## Alcohol dependence (last year)



Data from the 2000–2001 Multi-Country Survey Study. Total sample size  $n = 4811$ . Population aged 15 years and above. Alcohol dependence was measured using ICD-10 criteria.<sup>4</sup>

Note: These are preliminary, early-release, unpublished data from WHO's Multi-Country Survey Study and World Health Survey made available exclusively for this report. Some estimates may change in the final analyses of these data.

In a sample ( $n = 8890$ ) drawn from a 1988 national survey on addictions in Mexico City's urban population, the rate of last year alcohol dependence was found to be 4.9% (total), 9.9% (males) and 0.6% (females).<sup>10</sup>

## Traditional alcoholic beverages

*Pulque* is the national drink in Mexico, where it is claimed, it originated with the early Aztecs. *Pulque* is a milky, slightly foamy, and acidic beverage. It is obtained by fermentation of aguamiel, which is the name given to the juices of various cacti, notably *Agave atrovirens* and *A. americana* which are often called the 'Century Plant' in English. *Pulque* contains between 6% and 7% alcohol.<sup>11</sup> *Pulque* is the beverage of choice among rural localities. The average weekly intake per household in these areas has been estimated to be 6.4 litres compared to only 3.7 litres of beer.<sup>12</sup>

*Aguardientes* are local beverages with high concentrations of alcohol.<sup>12</sup>

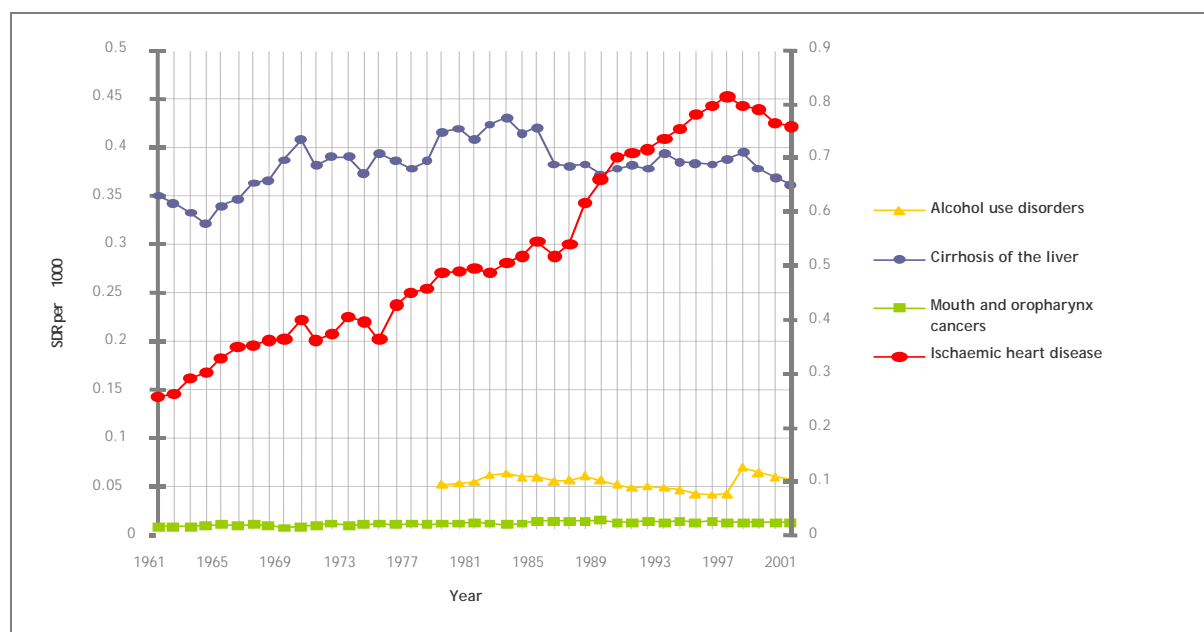
## Unrecorded alcohol consumption

The unrecorded alcohol consumption in Mexico is estimated to be 3.0 litres pure alcohol per capita for population older than 15 for the years after 1995 (estimated by a group of key alcohol experts).<sup>13</sup>

## Mortality rates from selected death causes where alcohol is one of the underlying risk factors

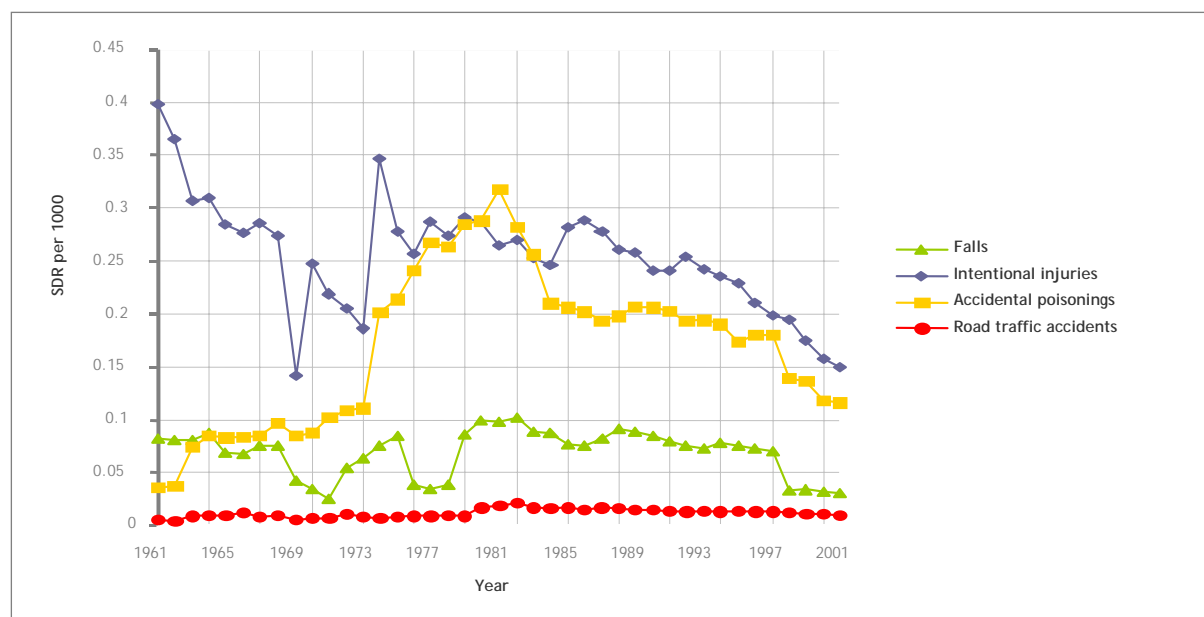
The data represent all the deaths occurring in a country irrespective of whether alcohol was a direct or indirect contributor.

### Chronic mortality



Note: Chronic mortality time-series measured on two axes, ischaemic heart disease on right axis and the other causes on the left.

### Acute mortality



Source: WHO Mortality Database

### Morbidity, health and social problems from alcohol use

A study reported that 24.1% of men and 5.6% of women who drink daily or almost daily have been involved in a car accident before. This was also true for 21.2% and 2.5% respectively of men and women drinking significant amounts weekly or more often.<sup>12</sup>

A study 112 patients attending emergency rooms due to injuries caused by car accidents found that 13.4% of the patients had positive alcohol concentrations in their blood, and 14.6% of the cases admitted that they had consumed alcohol six hours prior to the accident.<sup>14</sup>

A study conducted among patients attending an emergency room in a public health hospital in Pachuca, Mexico found that alcohol consumption was higher in those attending for accidents or violence than in medical patients. Positive blood alcohol levels were found in 17.7% of injured patients and 15.8% reported alcohol consumption six hours prior to the accident. According to the CAGE, 9.2% of the patients were alcohol-dependent and 10.9% were heavy drinkers according to the AUDIT.<sup>15</sup>

A study conducted in Pachuca, Mexico found that there was a significant relationship between habitual alcohol consumption and Emergency Room (ER) injuries. Injured patients in the ER sample were significantly more likely to report high frequency/high quantity of drinking during the last 12 months than the general population and to report drinking within six hours before the injury.<sup>16</sup>

A study in 2002 looking at 705 injury patients from a hospital emergency department in Mexico City found that the estimated relative risk of injury for patients who reported having consumed alcohol within six hours prior to injury (17% of the sample) was 3.97. This increase in the relative risk was concentrated within the first two hours after drinking; there was a positive association of increasing risk with increasing number of drinks consumed.<sup>17</sup>

A study looking at male drinking and violence-related injury in the emergency room found that alcohol consumption prior to injury was a more important risk factor than usual drinking for injuries resulting from violence, while quantity of usual alcohol consumption was more predictive of violence-related injuries than frequency of drinking.<sup>18</sup>

A sample of women patients seen at emergency services (ES) of the Mexican city of Pachuca, Hidalgo over the age of 18 was selected using ES forms and interviewed. Thirty-six women (5.2%) out of 717 of the total number of women were found to be heavy drinkers according to the TWEAK scale. This group of women had 2.3 times the risk of becoming depressed, 2.87 times the risk of taking other drugs, 1.95 times the likelihood of having been sexually abused and 1.57 times the risk of displaying suicidal ideation.<sup>19</sup>

A study which was part of the National School Survey on drug use by high school students found that more antisocial acts were perpetrated by alcohol users than by nonusers. In a logistic regression model, it was found that using alcohol was one of the main risk factors for perpetrating antisocial acts.<sup>20</sup>

26% of women seeking counselling services in the urban areas of Mexico reported that their partner's abusive behaviours were fueled by intoxication.<sup>21</sup>

In Mexico, liver cirrhosis is one of the top 10 causes of death among the country's population, and it is the most common cause of death among males between 35 and 54 years of age. The mortality rate due to alcohol has increased from 7.8/100 000 persons in 1970 to 12/100 000 persons in 1995 within the population 15 years of age and older.<sup>22</sup>

### Country background information

<b>Total population 2003</b>	103 457 000	<b>Life expectancy at birth (2002)</b>	Male	71.7
Adult (15+)	70 350 760		Female	76.9
% under 15	32	<b>Probability of dying under age 5 per 1000 (2002)</b>	Male	30
<b>Population distribution 2001 (%)</b>			Female	24
Urban	75	<b>Gross National Income per capita 2002</b>	US\$	5910
Rural	25			

Sources: Population and Statistics Division of the United Nations Secretariat, World Bank World Development Indicators database, The World Health Report 2004

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