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# Western Pacific Region

## Australia

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### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	14 569 000	16 888 000	18 088 000
Adult (15+)	10 887 000	13 188 000	14 190 000
% Urban	85.8	85.1	84.7
% Rural	14.2	14.9	15.3

### Health status

Life expectancy at birth, 1990-1995 : 74.7 (males), 80.6 (females)

Infant mortality rate in 1990-1995 : 7 per 1000 live births

### Socioeconomic situation

GNP per capita (US\$), 1995 : 18 720, PPP estimate of GNP per capita (current int'l \$) : 18 940

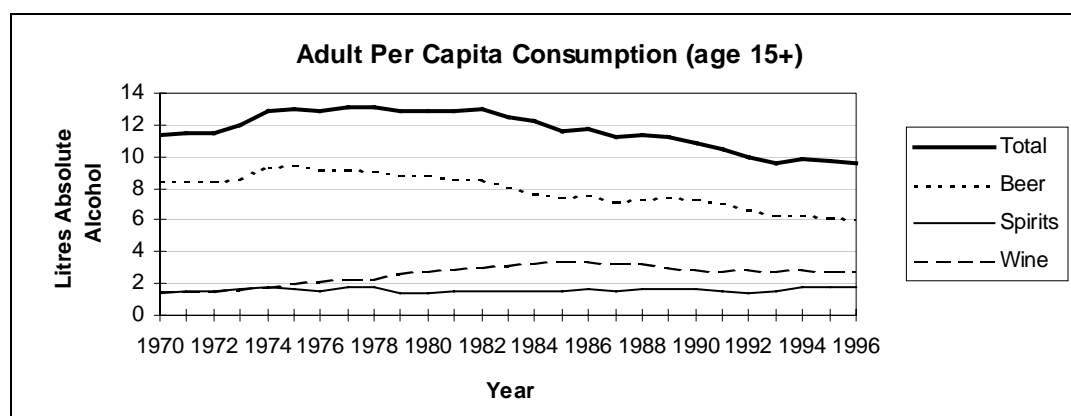
Average distribution of labour force by sector, 1990-1992 : agriculture 6%; industry 24%; services 70%

Adult literacy rate (per cent), 1995 : more than 95

### Alcohol production, trade and industry

Australia's Foster's Brewing Group is the ninth largest brewer in the world. Seventy per cent of Foster's US\$3 601 million total sales in 1995 were outside of Australia. Other leading breweries and wineries include: Castlemaine XXXX (owned by New Zealand's Lion Nathan), Lindemans Wines, Bundaberg Brewed Drinks Ltd. and Orlando Winery.

### Alcohol consumption and prevalence



### Consumption

Beer is the alcoholic beverage of choice among Australians, although there is substantial wine and spirits consumption as well.

***Prevalence***

The 1995 national household survey estimated from 3850 interviews that 76 per cent of the population, aged 14 years or more, were current drinkers, with more than half of these drinking at least weekly. This shows very little change since 1993 when 73 per cent of the population were current drinkers and 45 per cent drank at least weekly. Two thirds of current drinkers reported that they usually drink at low risk levels (no more than 20 grams or less for females or 40 grams or less for males). Again, there is little difference since 1993 on this measure. In the 1995 survey, less than a third of current drinkers had never exceeded the low risk levels over the past year, an improvement compared to 1993.

***Age Patterns***

The 1995 National Household Survey found that males aged 14 to 24 years and females aged 20 to 24 years were more likely to drink to excess than males and females in any other age groups. In 1989, the National Heart Foundation reported that 12 per cent of male drinkers between the ages of 20 and 24 drank nine drinks or more on a drinking day, compared to only 3 per cent of men over 45 years of age. Twenty per cent of women aged 20 to 24 years drank five or more drinks per drinking day, compared to two per cent of women over 50.

In 1997, the University of Queensland Psychology Department conducted a study of 2000 Queensland high school students between Years 8 (13 to 14 years of age) and 11 (16 to 17 years of age). The study found that boys were drinking double the amount of alcohol as girls by the time they reached Year 11, despite consuming equal amounts in Year 8.

A 1992 questionnaire among 9513 students in Years 7 to 11 (12 to 17 years of age) at 126 schools in Victoria showed that 24 per cent of Year 7 students had used alcohol in the last month, as opposed to 71 per cent in Year 11. Males in Year 11 used alcohol most frequently, with 52 per cent describing themselves as weekly users, compared with 12 per cent of males in Year 7. Binge drinking is more common among young people than at older age groups. In a 1989 survey of 10 000 secondary students in Victoria, 35 per cent of seniors stated that they usually drank at least five drinks per drinking occasion, and 9 per cent had consumed five or more drinks more than once in the previous two weeks. Sixty per cent of those in Year 7 (the youngest level) had never consumed alcohol as opposed to 44 per cent in a 1985 survey.

The only available national survey of young drinkers surveyed young people in school Years 7 through 12 in 1990. At age 12, 8 per cent of girls and 13 per cent of boys had had at least one drink in the past week. By age 17, 51 per cent of boys and 46 per cent of girls were drinking weekly. Among the 17 year olds, boys averaged 8.9 drinks per week, and girls 5.7 drinks per week.

Drinking among young people appears to have declined in the 1980s. Among secondary school students, a 1989 survey of students in New South Wales (NSW) aged 12 to 16 years found that 22 per cent of males drank weekly, and 26 per cent had consumed five or more drinks in a row at least once in the previous fortnight. This compared to 34 per cent weekly consumption and 27 per cent binge drinking in 1983. Eighteen per cent of girls drank weekly and 15 per cent were binge drinkers, down from 32 per cent weekly drinkers and 24 per cent binge drinkers in 1983.

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***Alcohol use among population subgroups***

In 1992, of 516 randomly selected Aboriginal men and women over the age of 15 years from the Kimberley region of Western Australia, 52 per cent (67 per cent of men and 38 per cent of women) were drinkers. Of the drinkers, 85 per cent were drinking above the level defined by the National Health and Medical Research Council as harmful. Young men were the group most likely to drink heavily, although the amount of consumption in both sexes decreased with age.

## Economic impact of alcohol

During 1993-1994 Australian households spent a weekly average of \$A 3.76 (US\$ 2.92) on wine, \$A 9.29 (US\$ 7.21) on beer and \$A 3.13 (US\$ 2.43) on spirits, for a total weekly expenditure of \$A 16.18 (US\$ 12.56), 2.9 per cent of annual household income. From 1988-1989 to 1993-1994 there was a 22 per cent increase in weekly expenditure on wine, compared with a 5 per cent over the same period in beer expenditure.

The economic cost of alcohol abuse was estimated to have been \$A 4490 million (US\$ 3087 million) in 1992, which represents approximately 24 per cent of all costs for all drug abuse. Adjusting for inflation, this represents a 0.8 per cent increase between 1988 and 1992. However, there were improvements in data collection, which may account for some or most of this increase. Approximately three per cent of respondents age 14 and over missed at least one day of work or study in the three months prior to the 1995 national household survey due to alcohol.

According to a 1997 report, the alcohol industry generates an estimated \$A 3800 million (US\$ 3024) in revenues for the government annually.

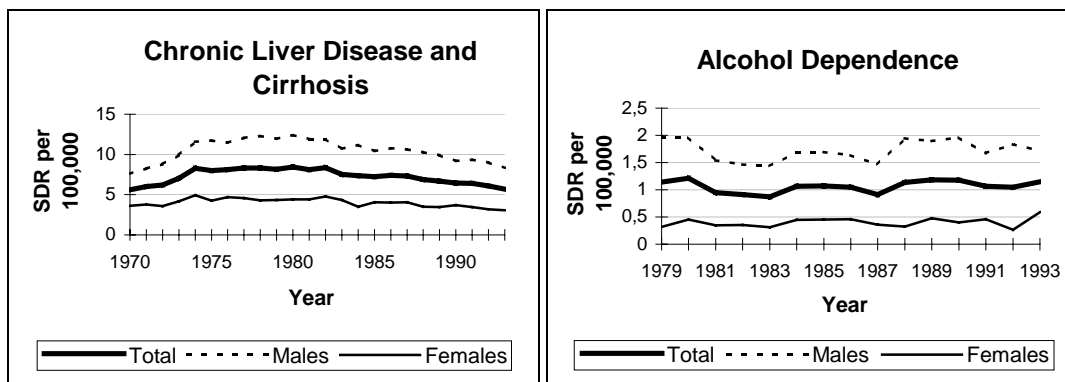
## Mortality, morbidity, health and social problems from alcohol use

### *Alcohol dependence and related disorders*

A 1998 report found that 10 per cent of 18 to 24 year olds had an alcohol use disorder. In a 1994 general population survey of 1272 persons aged 16 years or older in the Perth metropolitan area, one per cent of the respondents showed signs of alcohol dependence syndrome.

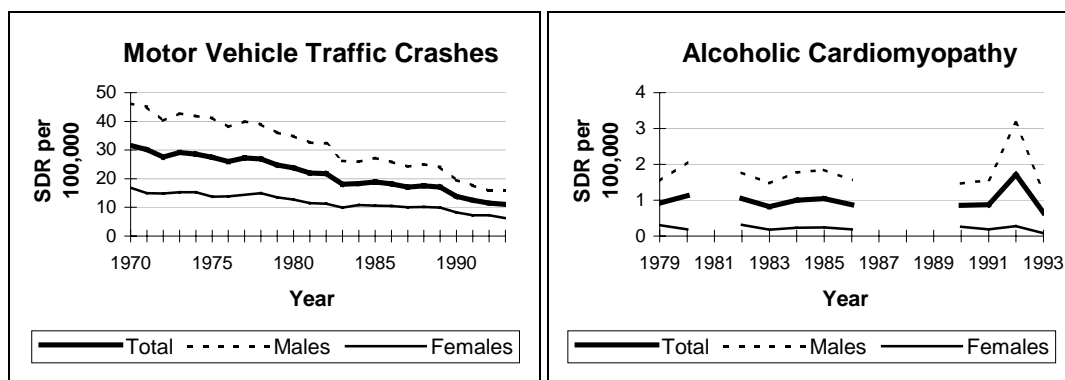
### *Mortality*

The total number of deaths caused by the hazardous or harmful use of alcohol in 1992 was 2521, which represented three per cent of all deaths. In 1995, 30 per cent of all fatally injured drivers or motorcyclists who had been tested registered a BAC of 0.05 g% or more. Among those at this limit, 70 per cent had a BAC of 0.15 g% or higher.



### *Morbidity*

In 1990, 33 per cent of motor vehicle crashes were alcohol-related, down from 44 per cent in 1981.



***Social problems***

In 1998, more than 50 per cent of adult Australians reported having been the victim of alcohol-related abuse or violence in the last 12 months. A random sample of 1186 men and women over the age of 14 years was selected throughout every metropolitan and provincial area of Australia between 12th August and 21st August, 1998. Twenty-eight per cent of males and seven per cent of females said they had been involved in a physical confrontation or fight while under the influence of alcohol. The rate of alcohol-related confrontations or fights was 41 per cent for males under 34 years, compared with 20 per cent for males 35 years and over. In 1995, almost 1 in 10 (nine per cent) of Australians suffered alcohol-related physical assaults. Males were much more likely than females (12 per cent versus 3 per cent) to have been victims of such assaults.

A 1994 police report listed alcohol consumption as a "vulnerability factor" in 17 per cent of all domestic violence incidents. A NSW study found that 40 per cent of domestic violence cases reported to the police were directly related to alcohol misuse.

The NSW Bureau of Crime Statistics and Research undertook a comprehensive assessment of all cases of domestic assault that were handled by 22 courthouses throughout the state between mid April and late June, 1975. In the victims' statements, nearly 60 per cent of the attackers had been drinking before the assault, and in 14.5 per cent of the cases the complainant had also been drinking.

**Alcohol policies*****Control of alcohol products***

An excise duty is levied on beer in excess of 1.15 per cent alcohol by volume, and on most spirits. The wine industry is exempt from duty. Since 1984 wholesale beer price increases have been subject to approval by the Prices Surveillance Authority, a federal government agency. Brewers are required to substantiate their requests for price increases. The price of designer alcoholic drinks is set to increase after federal moves to close a tax loophole. The government presented legislation which changes the definition of "spirits" to ensure that designer drinks were taxed at the same rate as spirits. Drinks with up to five per cent alcohol content will be taxed at the beer rate of \$A 15.89 (US\$ 11.75) per litre of alcohol, and drinks above that will be taxed at the spirit rate of \$A 36.99 (US\$ 27.35) per litre of alcohol. Popular youth market drinks such as Sub Zero, Two Dogs, Vault, Stinger, E-33, XLR8 and DNA are likely to be subject to higher excise taxes which could lead to a price increase of around \$A 0.70 (US\$ 0.52) a bottle. Manufacturers are expected to reduce the alcohol strength to avoid higher excise charges but this could still mean a price rise of about \$A 0.30 (US\$ 0.22).

In each state and territory, a Licensing Court or Licensing Commission administers licensing laws. Throughout most of the country, sales are restricted to defined licensing hours. There are no state monopolies for the manufacturing or sale of alcoholic beverages. Legislation prohibits the sale of alcohol to those under 18 years of age in all states.

In September, 1998, the NSW State government approved a new system of liquor licences which will end the ban on "wining without dining", allowing restaurants to serve drinks to customers who do not wish to eat. NSW is the last State to abandon pre-war protectionist liquor regulations that make it illegal for restaurant patrons to consume alcohol while standing up. In Victoria, liquor laws were liberalised in 1987, with restaurants allowed to set aside 25 per cent of their area for drinks. In Queensland, the laws changed in 1992, allowing 20 per cent of patrons to buy drinks without dining. In South Australia there are no limits.

The Alcoholic Beverages Advertising Code Council which operated as part of the Media Council is now defunct. There are no controls on advertising and there is no avenue for community complaint other than to the industry directly.

***Control of alcohol problems***

In 1985, federal, state and territorial governments began a National Campaign Against Drug Abuse under the Ministerial Council on Drug Strategy, which was composed of ministers responsible for health and law enforcement at all three levels of government. The federal government issued a National Health Policy on alcohol in 1989. A National Alcohol Action Plan guided alcohol policy in the early 1990s. A National Drug Strategy, including alcohol, was in effect from 1993 to 1997.

The maximum BAC is 0.05 g% for car drivers, 0.00 g% for drivers of heavy, dangerous goods and public transport vehicles and 0.00 g% for learners and drivers under 25 years of age for three years following receipt of driving licence. Legislation permits random alcohol breath testing of drivers by police. Penalties (fines, imprisonment or licence suspension) vary in severity according to alcohol levels and previous drink-driving convictions. The National Campaign Against Drug Abuse aims at reducing drug-related harm to the community by public education and research.

The Queensland Liquor Act of 1992 states that a person may be subject to a prohibition order if it appears to a Council that a person endangers, or is likely to endanger, the life, safety or well-being of the person's family or another person in the community. A prohibition order can remain in effect for up to one year.

#### ***Alcohol data collection, research and treatment***

The Australian Bureau of Statistics collects data on alcohol production and consumption. The Commonwealth Department of Health and Family Services commissions the national household survey every two years. The Australian Institute of Health and Welfare produces statistics on morbidity and mortality. The Federal Office of Road Safety produces statistical summaries of fatal road crashes and road fatalities.

There are three national research centres dealing with alcohol: the National Drug and Alcohol Research Centre concentrates on treatment research, the National Centre for the Prevention of Drug Abuse researches prevention issues, and the National Centre for Education and Training on Addiction researches and develops alcohol and drug education and training in collaboration with other organizations.

In 1981, the Australian Medical and Professional Society on Alcohol and Drug-Related Problems was established to provide postgraduate training in alcohol problems to medical practitioners. Recognition that specialist treatment agencies are not sufficient to meet demands for alcohol services has led to increased emphasis on developing the skills and resources of generalist services in communities.

## **Brunei Darussalam**

### **Sociodemographic characteristics**

POPULATION	1980	1990	1995
Total	193 000	257 000	285 000
Adult (15+)	120 000	164 000	191 000
% Urban	59.9	57.8	57.8
% Rural	40.1	42.3	42.2

### **Health status**

Life expectancy at birth, 1990-1995 : 72.5 (males), 76.3 (females)

Infant mortality rate in 1990-1995 : 8 per 1000 live births

### **Socioeconomic situation**

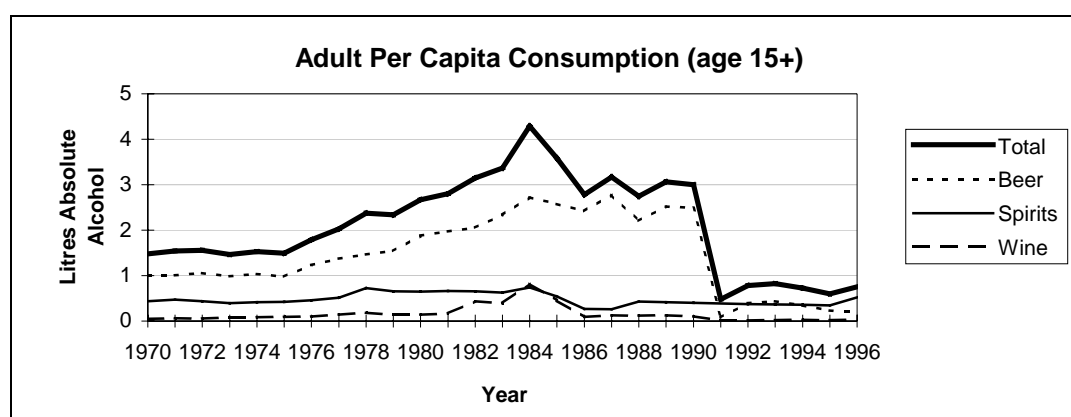
Average distribution of labour force by sector, 1990-1992 : agriculture 0%; industry 0%; services 0%

Adult literacy rate (per cent), 1995 : total 88; male 93; female 83

### **Alcohol production, trade and industry**

Brunei Darussalam does not produce alcoholic beverages for commercial sale.

## Alcohol consumption and prevalence



### Consumption

Imported beer and spirits are the alcoholic beverages of choice in Brunei Darussalam. There is no information available regarding consumption of smuggled or informally- or home-produced alcoholic beverages.

## Cambodia

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	6 498 000	8 841 000	10 251 000
Adult (15+)	3 626 000	5 074 000	5 644 000
% Urban	12.4	17.6	20.7
% Rural	87.6	82.4	79.3

### Health status

Life expectancy at birth, 1990-1995 : 50.1 (males), 52.9 (females)

Infant mortality rate in 1990-1995 : 116 per 1000 live births

### Socioeconomic situation

Average distribution of labour force by sector, 1990-1992 : agriculture 74%; industry 7%; services 19%

Adult literacy rate (per cent), 1995 : 65

### Alcohol production, trade and industry

In 1991 the Singapore-based Cambrew Brewery signed an agreement with the Cambodian government allowing Cambrew to refurbish an abandoned brewery in Kompong Som, providing the first domestic beer production in more than 15 years. The brewery acquired its malt and hops from the Interbrew company. In 1996, Wente Vineyards formed an alliance with United Distributors of Cambodia to import wine products into Cambodia.

## Alcohol consumption and prevalence

### Consumption

In the early 1970s, spirits was the leading alcoholic beverage in Cambodia. There is very little recent information available about alcohol production and consumption in Cambodia.

# China

## Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	998 877 000	1 155305 000	1221 462 000
Adult (15+)	644 244 000	837 940 000	898 953 000
% Urban	19.6	26.2	30.3
% Rural	80.4	73.8	69.8

## Health status

Life expectancy at birth, 1990 : 66.9 (males), 70.5 (females)

Infant mortality rate in 1994 : 33 per 1000 live births

## Socioeconomic situation

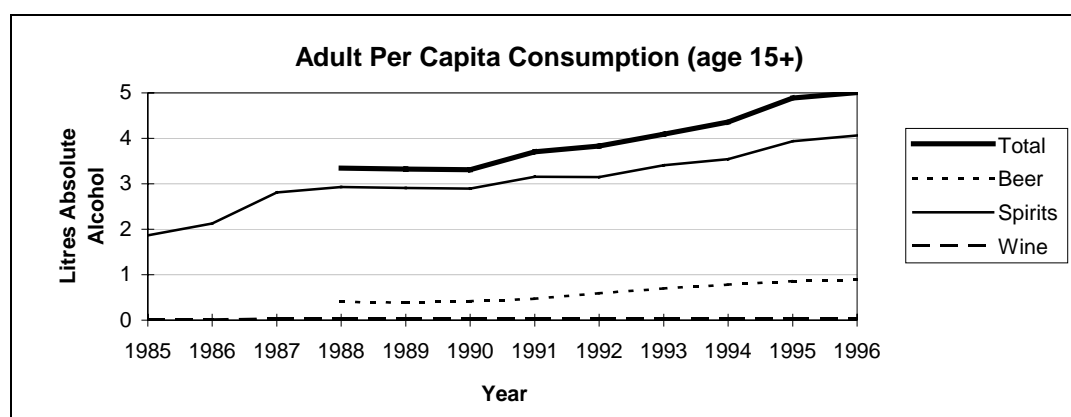
Average distribution of labour force by sector, 1990-1992 : agriculture 73%; industry 14%; services 13%

Adult literacy rate (per cent), 1995 : total 82; male 90; female 73

## Alcohol production, trade and industry

During the four year period between 1977 and 1980, the Chinese government opened the country's economy to foreign trade and investment. Under the guidance of the Chinese Ministries of Light Industry, Commerce, Machinery and Metallurgy and National Defence, breweries were built in almost every province and autonomous region in China, with the exception of Tibet. By 1981, beer output was 91 times the figure produced in 1949. Since 1981, the beer industry has skyrocketed, with the help of the Chinese government, which invested approximately US\$ 800 million in the technology of the country's brewing industry. China is identified as the fastest growing beer market in the world, and is considered ripe for investment. In the late 1990s, alcohol company joint ventures in China number above 50, and include companies such as Anheuser-Busch, Miller, Heineken, Asahi, Kirin, Foster's, San Miguel, Interbrew and Pabst. In terms of gross amounts, China is currently the second largest consumer of beer in the world and the fifth largest consumer of cognac, and is expected to surpass the United States in beer consumption sometime early in the next century. No one brewer appears to have significant control of the market; Tsingtao, the country's largest brewer, had only a 2.3 per cent share of 1993's production.

## Alcohol consumption and prevalence



## Consumption

The above estimates from international sources are higher than those using figures taken directly from the Chinese Bureau of Statistics. Calculating from the amount of alcoholic beverages purchased per

capita in 1995 in cities and towns yields an estimate of 2.7 litres of absolute alcohol per adult (15 years and over). A survey of consumption in five cities found average per capita consumption to be 3.62 litres. Rural consumption of alcoholic beverages is 6.53 litres per capita, but this does not reflect pure alcohol, and the proportion of different alcoholic beverages included in this figure is unavailable.

Spirits are the most commonly used alcoholic beverage in China. Beer consumption has also been rising steadily during the 1990s. Home made alcoholic beverages, with alcohol content ranging from 10 to 18 per cent absolute alcohol, are popular in the rural areas in southern China.

### ***Prevalence***

Alcohol consumption varies by region. However, throughout the country women tend to drink much less alcohol than men. Recent surveys of drinking in five cities found a range of annual adult per capita consumption between 2.22 and 5.49 litres of absolute alcohol. A 1993 study gathered data on more than 14 000 respondents between the ages of 15 and 65 in rural and urban areas of Hunan, Heilongjiang and Jiangsu provinces. Drinking rates ranged from 58.3 to 82.6 per cent for men, and 0.1 to 20.5 per cent for women. Most of the drinkers were light drinkers. A study of foreign Chinese students found that those from Hong Kong or Taiwan drank more than those from mainland China, suggesting the influence of Chinese culture on alcohol consumption.

By cluster sampling, 26 121 community household residents (18 to 65 years old) were assessed with data collected by trained psychiatrists using structured questionnaires. The statistics were based on two dimensions: gender and different populations (general population versus specific population, this being individuals with specific occupations which may link with drinking such as miners, heavy manual labourers, workers in wineries, etc ). The male, female and total drinking rates were 87.3 per cent, 31.5 per cent and 61.1 per cent in the general population, respectively. In this study, a "drinker" is a respondent who reported consumption of any alcohol in the 12 months preceding the interview. Overall, male drinking rates and frequency were higher than those of females, and many more drinkers in the specific population than in the general population were frequent users of alcoholic beverages. More than half of the male drinkers and almost all of the female drinkers used alcohol once a week or less. More than 10 per cent of male drinkers and approximately one per cent of female drinkers drank once a day or more. The males reported a greater amount of alcohol consumed per session, and participants in the specific population reported heavier drinking than those in the general population.

In these same studies, the per capita consumption of pure alcohol per year was 3.62 litres in the general population and 6.13 litres in the specific population, with males consuming 17.7 and 12.9 times more alcohol than females in the general and specific populations respectively. Generally, males had notably higher rates of alcohol-related problems than females. The male, female and total alcohol dependence rates in the general population were 6.2 per cent, 0.04 per cent, and 3.2 per cent respectively. In the specific population, rates were 10 per cent, 2.2 per cent and 7.4 per cent for males, females and total, respectively. High risk factors for alcohol dependence were: males aged 41 to 51, Korean nationality, smokers, divorced or separated marital status, low education level and some specific occupations.

### ***Age patterns***

A study of alcohol use among sixth, eighth and tenth grade adolescents (spanning the ages roughly from 11 to 16) found that by 10th grade, more than 80 per cent of the students had tried alcohol. A large percentage began using alcohol prior to sixth grade (age 11 or 12). Alcohol use increased with age. More males reported use than females in every category. Sixty-three per cent of the students had tried beer, 54 per cent had drunk wine, and 11 per cent had consumed distilled spirits.

Questionnaires about alcohol use administered to a sample of 190 students at two universities in Nanning revealed that men consumed more and were more likely to report alcohol-related problems than women. Beer was the alcoholic beverage of choice for both genders.

A study of 18 244 men between the ages of 45 and 64 conducted between 1986 and 1989 in four small communities in Shanghai found that 57 per cent had never drunk alcohol regularly, 41 per cent currently drank, and two per cent were former drinkers. Among the drinkers, 45 per cent drank beer, 56 per cent drank wine, and 48 per cent drank spirits.



## Mortality, morbidity, health and social problems from alcohol use

### *Alcohol dependence and related disorders*

As the table below shows, studies conducted nationally and regionally since 1982 have found rising prevalence of alcohol-related disorders. The vast majority of those diagnosed with alcohol dependence are male. A 1989 nationwide epidemiological survey of 44 920 participants found that 5.7 per cent of men, 0.01 per cent of women and 3.7 per cent of the entire sample were alcohol dependent. A nationwide survey in 1993 sampled more than 14 000 people in urban and rural areas in Heilongjiang, Hunan and Jiangsu provinces. Alcohol dependence rates ranged from 1.4 per cent to 6.5 per cent. The percentage of patients discharged from 17 psychiatric hospitals with a diagnosis of an alcohol disorder grew from 1.8 per cent in 1991 to 2.2 per cent in 1993.

YEAR	AREA	N	TOTAL ALCOHOL-RELATED DISORDERS	CRITERIA
1982	National	38 136	0.0184	ICD-9
1984	Shandong	88 822	0.0360	ICD-9
1985	Chongqin	3 700	0.4550	ICD-9
1986	Hubei	4 968	0.4227	ICD-9
1987	Henan	5 550	0.7636	ICD-9
1989	National	44 920	3.7267	ICD-10
1990	Jiangsu	13 892	2.3632	ICD-10
1993	Hunan	2 029	1.38	DSM-III-R
1993	Heilongjiang	5 993	4.2883	DSM-III-R
1993	Jiangsu	6 012	6.5036	DSM-III-R

### *Mortality*

A prospective study of 18 244 men aged 45 to 64 years in Shanghai found that the relative risk of death among those drinking 14 or fewer drinks per week was 0.8 per cent, while those drinking 43 or more drinks a week had a 30 per cent excess risk of death. Biographical reconstructive interviews conducted for 116 consecutive suicides in Taiwan found that the most prevalent precursor mental illnesses were depression and alcohol dependence.

### *Morbidity*

Alcoholic cirrhosis was present in about five per cent of all liver cirrhosis cases in 1993. Case control studies have found significant relationships between alcohol use and oral cancer, hypertension, stomach cancer (mainly with spirits consumption), and oesophageal cancer, after controlling for other factors including smoking.

### *Social problems*

A 1992 study examining 1674 patients diagnosed with alcohol dependence, found that 11.2 per cent had a history of family violence, 1.1 per cent had been divorced, 7.4 per cent reported cautions and arrests for public drunkenness and 25.5 per cent reported alcohol-related absenteeism and accidents at work.

## Alcohol policies

### *Control of alcohol products*

There are no legislative controls directed at licensing of outlets or licensing hours. There is no regulation of alcohol promotion such as advertising or sponsorships. There is no legislative definition of the minimum legal drinking age. There is no taxation on home-produced alcohol if the alcohol is not sold.

### *Control of alcohol problems*

Drunk driving is punishable by a fine of 50 to 2000 RMB (US\$ 6.03 to US\$ 241.50) and/or suspension or withdrawal of drivers licence. In some severe cases, drunk drivers can be detained for 10 to 15 days. There are some public education and prevention activities on alcohol use and problems, especially in the mass media. Some health education and mass media institutions are involved in the prevention of drinking-related problems, but no nationwide, systematic prevention programmes are conducted in China at present.

***Alcohol data collection, research and treatment***

Treatment agencies for alcohol-related diseases are mainly located in psychiatric hospitals or internal medicine departments of general hospitals. Monitoring, research and professional training concerning prevention, treatment and rehabilitation are only available in university research centres in major cities such as Hunan, Yunnan and Beijing. Self-help organizations are only available in northern areas, where alcohol-related problems are more severe.

## Cook Islands

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**Sociodemographic characteristics**

POPULATION	1980	1990	1995
Total	N/A	18 000	19 000
Adult (15+)	N/A	N/A	N/A
% Urban	54.8	57.7	60.4
% Rural	45.2	42.3	39.6

**Alcohol consumption and prevalence**

It is generally believed that home brewing is common in the Cook Islands. However, there are no statistics available on the production or per capita consumption of alcoholic beverages in the Cook Islands.

**Mortality, morbidity, health and social problems from alcohol use*****Social problems***

The number of incidents of police assistance (as opposed to arrest) for public drunkenness rose from 49 in 1993 to 54 in 1994, and fell to 40 in 1995.

**Alcohol policies*****Control of alcohol products***

Locally-produced beer is subject to a domestic excise tax of A\$ 0.20 (US\$ 0.15) per litre, imported beer is subject to an import duty of A\$ 8.36 (US\$ 6.21) per litre pure alcohol (A\$ 0.42/US\$ 0.31 per litre of beer), and imported spirits are subject to an import duty of A\$ 11.65 (US\$ 8.66) per litre of spirits. The price of imported beer is 20 per cent higher than the domestic product, but imported spirits cost the consumer less than those locally produced.

The Liquor Licensing Division of the General Licensing Authority controls the availability of alcoholic beverages through the licensing system. In October 1995 there were 6.6 licences per thousand total population. Communities may collaboratively decide on lodging objections against granting of licences. Trading hours are liberal and the police are responsible for their enforcement. It is an offence for a licensee or manager of licensed premises to sell alcoholic beverages to an intoxicated person, but prosecutions for this offence are rare. It is an offence to sell or supply alcoholic beverages to persons under the age of 18 years. There is a ban on the advertising of alcoholic beverages on television, but no other restrictions. Domestically produced and imported beverages are required to carry alcohol content labels (per cent by volume).

***Control of alcohol problems***

There is no legislation specifying BAC, and no testing facilities for BAC are available. Health education is carried out primarily through the Health Education Unit of the Public Health Department. School pupils receive a small amount of education on alcohol through the standard curriculum and youth organizations, which have included alcohol education in activities.

**Alcohol data collection, research and treatment**

The Statistics Office maintains data on imports of alcoholic beverages. There is no formal alcohol-specific treatment programme, but nongovernmental organizations (including three counselling agencies and the Alcoholics Anonymous group on Rarotonga) provide treatment-focused services.

**Fiji****Sociodemographic characteristics**

POPULATION	1980	1990	1995
Total	634 000	726 000	784 000
Adult (15+)	385 000	451 000	512 000
% Urban	37.8	39.3	40.7
% Rural	62.2	60.7	59.3

**Health status**

Life expectancy at birth, 1990-1995 : 69.5 (males), 73.7 (females)

Infant mortality rate in 1990-1995 : 23 per 1000 live births

**Socioeconomic situation**

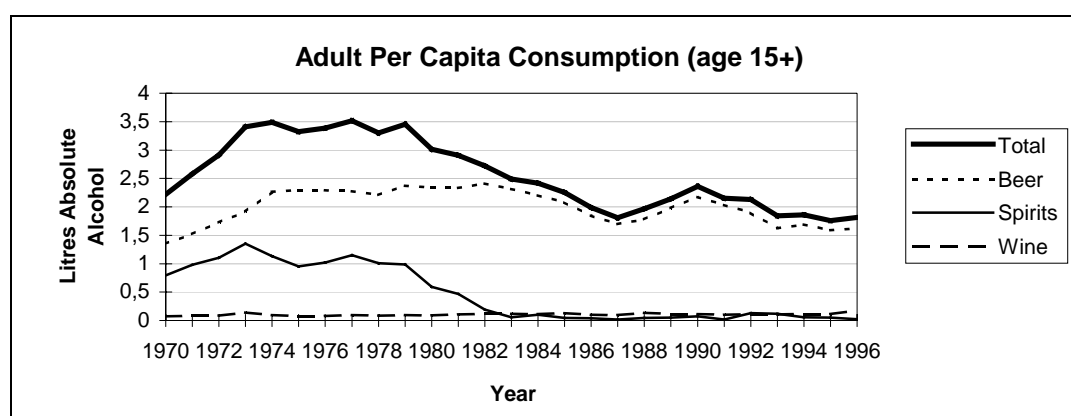
GNP per capita (US\$), 1995 : 2440, PPP estimate of GNP per capita (current int'l \$) : 5780

Average distribution of labour force by sector, 1990-1992 : agriculture 44%; industry 20%; services 36%

Adult literacy rate (per cent), 1995 : total 92; male 94; female 89

**Alcohol production, trade and industry**

Fiji produces spirits and beer for commercial sale. South Pacific Distillery was established in 1981. Carlton Breweries Fiji is the leading alcohol advertiser. In 1984, 30 per cent of the shares of Carlton Brewery were acquired by the Fijian Development Corporation, a subsidiary of the Native Land Development Corporation. Wines and spirits are imported.

**Alcohol consumption and prevalence****Consumption**

Beer is the alcoholic beverage of choice in Fiji. Since 1983, spirits consumption decreased to the low levels that wine drinking had remained at since the 1970s.

**Prevalence**

A 1993 survey of persons aged 18 years and over showed that 13.7 per cent had drunk alcohol in the week prior to the survey. Of these, 11.4 per cent had drunk alcohol one or two days in the past week,

1.3 per cent had drunk alcohol between three and six days and 1 per cent drank every day of the previous week. Approximately 25.7 per cent of the males sampled were current drinkers, compared with 2.5 per cent of females.

### **Economic impact of alcohol**

During 1994/1995 Carlton Breweries Ltd paid US\$ 13.7 million in excise on its beer production.

### **Mortality, morbidity, health and social problems from alcohol use**

#### ***Morbidity***

In 1995 33 per cent of all admissions to Suva's Colonial War Memorial Hospital's Accident and Emergency Unit and 74 per cent of admissions for injury were alcohol-related.

#### ***Social problems***

During the first nine months of 1995 in Suva, there were 27 people legally charged with "drunk and disorderly" and 16 people charged with "drunk and incapable". The total number of drunk driving convictions in Fiji fell from 214 to 185 between 1992 and 1994.

### **Alcohol policies**

#### ***Control of alcohol products***

No price controls exist on any alcoholic beverages. All alcoholic beverages are subject to the 10 per cent value added tax imposed on all goods and services. Locally-produced beer is taxed a domestic excise of \$F 0.90 (US\$ 0.44) per litre; locally-produced spirits: \$F16.50 (US\$8.14) per litre; imported beer: import duty of \$F 1.55 (US\$ 0.76) per litre; spirits: \$F 25.75 (US\$ 12.71) per litre.

Licence applications are heard by Tribunals at the District level. Trading hours are controlled by legislation and licence provisions. Liquor licence fees are set by the Liquor Act.

It is an offence for a person under 18 years of age to possess or consume alcohol on licensed premises or in any other public place.

No specific restrictions apply to alcohol advertising. Locally-produced beverages are not required to display alcohol content on their labels.

#### ***Control of alcohol problems***

There is no single alcohol programme or agency responsible for the formulation of alcohol policy. Alcohol-related problems are addressed, however, through Government agencies such as Education, Health and Police, and alcohol industry matters by Customs and the Central Liquor Board and District Tribunals. In addition, non-governmental organizations are involved in the broad context of social welfare and social development initiatives and, to a lesser degree, in alcohol education and treatment. No formal diversionary systems operate in the criminal justice system.

Breath testing machines capable of estimating BAC were introduced in 1992 and two units were operating in October 1995. Some 549 alcohol breath tests were conducted in 1994, some on a random basis but most on drivers suspected to be under the influence of alcohol. The minimum BAC level is 0.08 g%.

#### ***Alcohol data collection, research and treatment***

A new national data collection system on minor offences (including Liquor Act offences) is being established by the Police Force. The health system does not have any alcohol-specific treatment programmes and treatment services for alcohol-related problems are limited. The Alcohol Awareness and Family Recovery Programme in Suva is a nongovernmental organization which provides counselling for people with alcohol-related problems and their families. It also sponsors Alcoholics Anonymous groups in Suva and on Viti Levu.

# Japan

## Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	116 807 000	123 537 000	125 095 000
Adult (15+)	89 295 000	100 807 000	104 780 000
% Urban	76.2	77.2	77.6
% Rural	23.8	22.8	22.4

## Health status

Life expectancy at birth, 1990-1995 : 76.4 (males), 82.5 (females)

Infant mortality rate in 1990-1995 : 4 per 1000 live births

## Socioeconomic situation

GNP per capita (US\$), 1995 : \$39 640, PPP estimate of GNP per capita (current int'l \$) : \$22 110

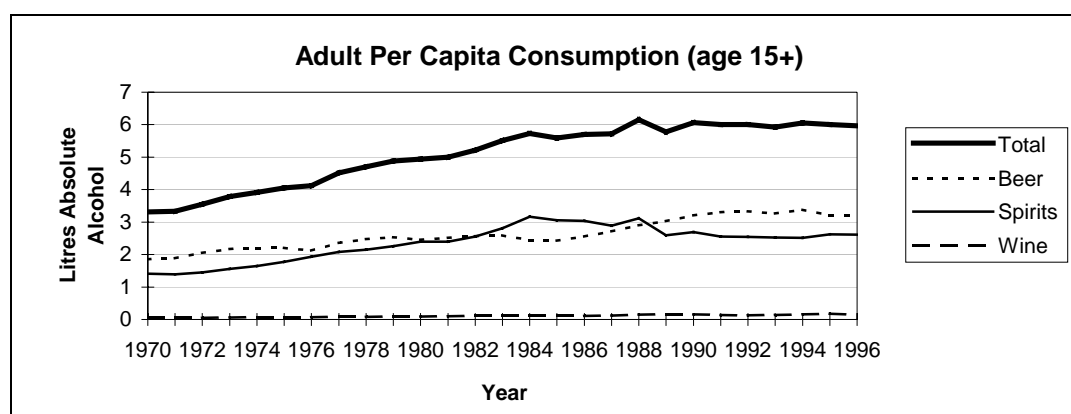
Average distribution of labour force by sector, 1990-1992 : agriculture 7%; industry 34%; services 59%

Adult literacy rate (per cent), 1995 : 95

## Alcohol production, trade and industry

Japan is a significant producer of beer, distilled spirits and wine products, both for its domestic market and for export. Japan's four biggest brewers are Asahi Breweries Ltd., Kirin Brewery Co. Ltd., Sapporo Breweries Ltd. and Suntory Ltd. Suntory is the world's eighth largest spirits producer while Kirin is the seventh largest beer producer in the world. Japan's beer market is the fourth largest in the world, and the largest foreign market for American beer. Japan's beer brewers are looking to the world market for expansion opportunities because of increased competition in Japan due to retailing deregulation. Many leading alcohol companies have established joint ventures in Japan, including Anheuser-Busch, Guinness and Coors.

## Alcohol consumption and prevalence



### Consumption

Alcohol consumption in Japan rose steadily until 1988, and has levelled off since then. Beer has gradually caught up with spirits as the alcoholic beverage of choice. *Sake* (rice wine) is included with wine in the chart above.

### Prevalence

In 1992, 69 per cent of the adult population were consumers of alcoholic beverages. In a recent 10-year period, the number of male drinkers rose from 76 per cent to 85 per cent and the number of female drinkers rose from 18 per cent to 53 per cent. A 1989 survey of 1225 people in, or near, the

cities of Sapporo, Shizuoka, Suita and Kochi found that 91 per cent of males and 61 per cent of females were current alcohol drinkers, with 62 per cent of males drinking three to four times a week, compared with 21 per cent of women. Males between 30 and 39 tended to consume the most alcohol.

### *Age Patterns*

In a 1993 national survey, it was estimated that over 80 per cent of schoolchildren between 13 and 17 were current drinkers, 55 per cent of them to intoxication or unconsciousness. A 1990 survey of 1062 students of second year high school found that 24 per cent of males and 17 per cent of females abstained from alcohol.

### *Alcohol use among population subgroups*

A survey of 1098 employees 20 years or older at a computer factory in a suburb outside of Tokyo was conducted in 1985. Approximately 81 per cent of males and 67 per cent of females were current drinkers. Another survey of computer employees was conducted in 1992. Out of a sample of 2581 employees aged 20 years or older, 1098 male and 265 female alcohol drinkers were analysed. Fifteen per cent and six per cent of the male and female drinkers, respectively, were classified as having alcohol-related problems on the basis of the KAST (Kurihama Alcoholism Screening Test) score (13 per cent and 4 per cent of the entire sample respectively). In both surveys, alcohol problems were more prevalent among the less formally educated, in managers, and in those who reported high alcohol consumption.

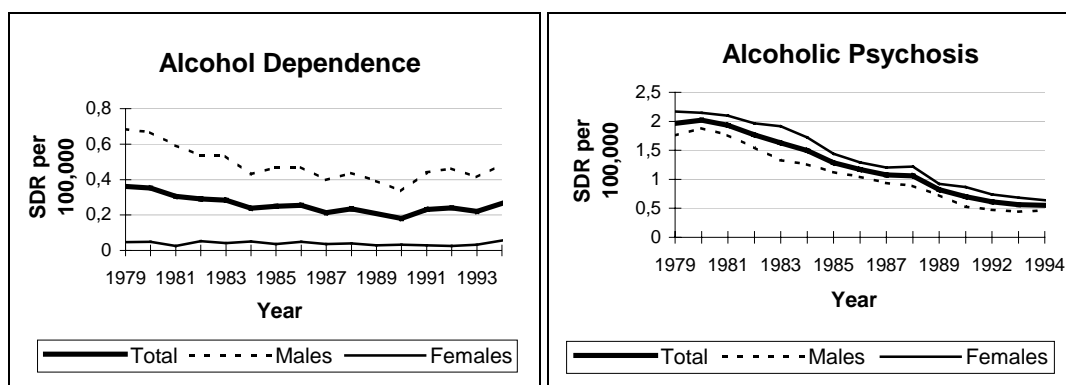
### **Economic impact of alcohol**

In 1981 it was estimated that about 2.7 million persons were employed in the alcohol trade, amounting to about five per cent of the working population. The total cost of alcohol abuse in 1987 was estimated as representing 1.9 per cent of the gross national product that year. The alcohol-attributable costs of medical care in 1987 were an estimated 6.9 per cent of the total national medical expenditure.

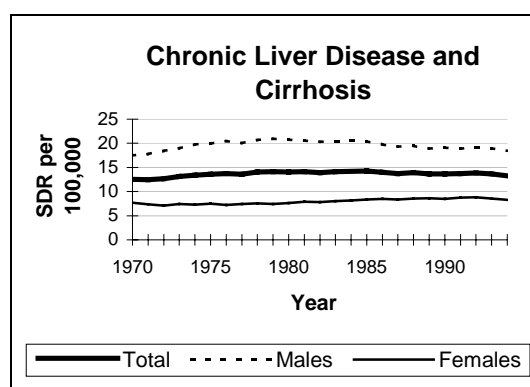
### **Mortality, morbidity, health and social problems from alcohol use**

#### *Alcohol dependence and related disorders*

The number of cases of alcohol dependence rose from 13 000 to 19 600 between 1968 and 1987. However, the death rate per 100 000 population has remained fairly stable at a low level, while death rates attributable to alcoholic psychosis have fallen during the early 1990s.



## Mortality



### Social problems

In 1983, 20 per cent of child abuse cases were attributed to alcohol dependent parents. In 1982, heavy drinking was declared as the reason for divorce by 18 per cent of wives and two per cent of husbands.

### Alcohol policies

#### Control of alcohol products

There are no price controls on alcoholic beverages. No official subsidy is given to the domestic alcohol trade except in the form of the import tariffs imposed on foreign alcoholic beverages. After pressure from spirits importers and a negative ruling by the World Trade Organization, Japan agreed in principle to raise taxes more than 150 per cent on locally produced *shochu*, and lower taxes 58 per cent for imported whisky during the next two years. A consumption or value added tax of three per cent on alcoholic beverages was introduced as part of the Tax Reforms of 1989. The tax per litre of absolute alcohol for beer is US\$ 31.19; for whiskey and brandy is US\$ 16.80; and for *sake* is US\$ 8.92.

There is no limit on the production of alcoholic beverages, although a licence is required. The production and sale of alcoholic beverages are regulated by the Liquor Tax Law. No liquor licence is necessary for on-premise outlets. For off-premise consumption, there are eight kinds of licences. The closing hour for on-premise establishments is 23:00 hours. Minors (younger than 20 years of age) are prohibited from drinking alcoholic beverages, and retailers are prohibited from serving them. There are no legal advertising restrictions, but a self-imposed industry code has been developed in response to criticism.

#### Control of alcohol problems

Driving under the influence of alcohol is prohibited by law. There is no upper legal BAC limit. The presence of any alcohol in the blood may result in loss of licence or fines.

#### Alcohol data collection, research and treatment

The Mental Health Division of the Ministry of Health and Welfare publishes annual reports on the number of inpatients with alcohol dependence. The Statistics and Information Division of the Ministry of Health and Welfare also reports on patients with alcohol dependence.

The National Institute on Alcoholism is a government organization under the control of the Ministry of Health and Welfare that offers training courses for doctors and social workers. There is a legal provision for enforcement of treatment in hospital of any person diagnosed by at least two psychiatrists as alcohol dependent. There are some 76 specialized treatment units in hospitals, offering approximately 3000 beds. Mental health centres in 45 of the country's 47 prefectures offer counselling for problem drinkers, alcohol dependents and their families. In 1985 there were 20 treatment wards, 11 treatment rooms, 5 treatment clinics and 7 halfway houses. These facilities were concentrated in cities, mostly privately operated, and in many cases associated with psychiatric departments. Few treatment facilities were available for female alcohol dependents. Emphasis is shifting from inpatient to outpatient treatment.

Danshukai is the most powerful self-help group and has 47 000 alcohol dependent members. Alcoholics Anonymous (AA) has spread, mainly in big cities, and now has 3000 to 5000 members. Temperance societies collaborate with Danshukai or AA.

## Kiribati

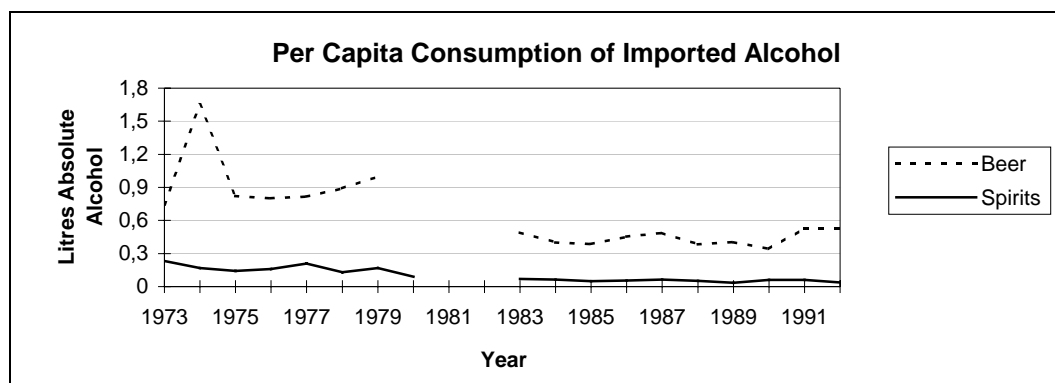
### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	N/A	72 000	79 000
Adult (15+)	N/A	N/A	N/A
% Urban	31.7	34.6	35.7
% Rural	68.3	65.4	64.3

### Socioeconomic situation

GNP per capita (US\$), 1995 : 18 720

### Alcohol consumption and prevalence



### Consumption

There is no information on domestic production of alcohol. Beer is the beverage of choice among imported alcoholic beverages.

## Lao People's Democratic Republic (the)

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	3 205 000	4 202 000	4 882 000
Adult (15+)	1 861 000	2 369 000	2 697 000
% Urban	13.4	18.6	21.7
% Rural	86.6	81.4	78.3

### Health status

Life expectancy at birth, 1990-1995 : 49.5 (males), 52.5 (females)

Infant mortality rate in 1990-1995 : 97 per 1000 live births

### Socioeconomic situation

GNP per capita (US\$), 1995 : 350



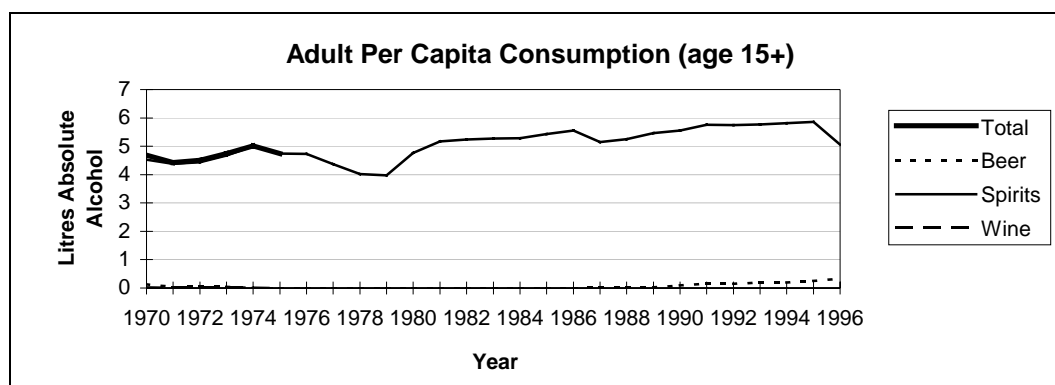
Average distribution of labour force by sector, 1990-1992 : agriculture 76%; industry 7%; services 17%

Adult literacy rate (per cent), 1995 : total 57; male 69; female 44

### Alcohol production, trade and industry

The Lao People's Democratic Republic produces beer and distilled spirits.

### Alcohol consumption and prevalence



#### Consumption

The alcoholic beverage of choice is distilled spirits. There are no data available on wine consumption after 1975. Beer consumption is very low, but has risen slightly since the early 1990s. There is no information on the consumption of smuggled or home- or informally-produced alcoholic beverages.

## Malaysia

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	13 745 000	17 557 000	20 689 000
Adult (15+)	10 446 000	13 351 000	13 282 000
% Urban	34.1	50.6	54.7
% Rural	65.9	49.4	45.3

### Health status

Life expectancy at birth, 1994 : 69.4 (males), 74.0 (females)

Infant mortality rate in 1995 : 10.3 per 1000 live births

### Socioeconomic situation

GNP per capita (US\$), 1995 : 3890, PPP estimate of GNP per capita (current int'l \$) : 9020

Average distribution of labour force by sector, 1990-1992 : agriculture 26%; industry 28%; services 46%

Adult literacy rate (per cent), 1995 : total 84; male 89; female 78

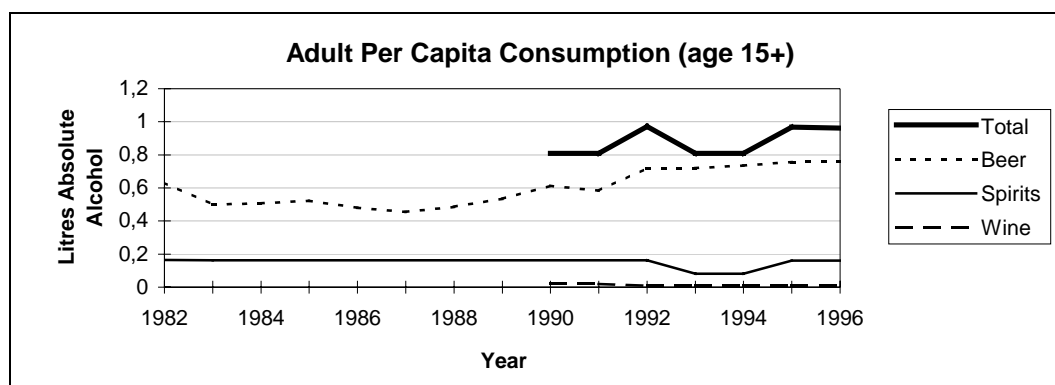
### Alcohol production, trade and industry

There are two main breweries in Malaysia, both located in or near the capital city of Kuala Lumpur. Guinness Anchor Berhad is a joint venture between Guinness and Asia Pacific Breweries of Singapore, itself a joint venture between Heineken and a local soft drink company. The largest shares of Carlsberg Brewery Malaysia Berhad are controlled by Carlsberg AS of Denmark, by a large

Malaysian plantation holding company, and by a holding company controlled by the Armed Forces Co-operative Society. Importation of spirits, and in particular cognac, is a substantial business. The leading spirits importer is controlled by the holding company dominated by the Armed Forces Co-operative Society, in alliance with a joint venture between Diageo and Moët Hennessey.

A leading NGO, the Consumers Association of Penang, estimates that the local spirits industry produces approximately R180 million (US\$ 43.4 million) worth of “*samsu*”, the generic title for cheap local spirits products, per year. These drinks average 38 per cent alcohol, and are widely available illegally from outlets such as sundry shops and private residences. The smallest bottle of *samsu* cost RM 1.50 (US\$ 0.36) in 1996, the equivalent of a bar of chocolate.

### Alcohol consumption and prevalence



#### Consumption

Using production and import data, limiting the population to those between the ages of 15 and 69, and excluding all but 20 per cent of women, Kroll et al., (1988) and his colleagues estimated per capita consumption in 1984 at 1.86 litres. Jernigan and Indran (forthcoming 1999) estimated consumption among drinking adults (adults excluding 80 per cent of women and 80 per cent of Malays) at 4.3 litres.

#### Prevalence

The national government has determined that asking questions about alcohol use in large population-based national surveys would be insensitive to the beliefs of the country's Malay majority, and so national prevalence figures are unavailable.

Small population and hospital-based studies have identified alcohol drinkers in each of the three major ethnic groups. A small population-based survey found in 1980 that men are far more likely to drink than women. Indian men are the most likely to drink daily and to consume three or more drinks per occasion. A study of all hospital admissions in the late 1980s found that 52 per cent of Chinese, 38 per cent of Indians, and 24 per cent of Malays were current drinkers, while a study published in 1994 of consecutive attendees at a general practice in Kuala Lumpur identified 70 per cent of the Chinese, 11 per cent of Malays and 42 per cent of Indians as current drinkers.

Another study estimated that five per cent of rural Malays consume alcohol, while nearly a third of indigenous people drink, usually *samsu* in conjunction with festivals.

#### Age Patterns

A 1988 study of 614 secondary school pupils aged 13 to 15 found that the vast majority never drank alcohol, 1 per cent drank daily, an additional 1.3 per cent drank weekly, and 9 per cent drank less than once a month.

In 1991, a sample of approximately 1000 elderly people from Peninsular Malaysia found alcohol consumption low, but more common among men (15 per cent) than women (7 per cent). Of those who drank, almost half thought they were drinking too much, and 40 per cent of the men and 2 per cent of the women said their families had complained they were drinking too much.

## **Economic impact of alcohol**

Alcohol excise and import duties earned the national government more than RM 601 million (US\$ 145.2 million) in 1994.

## **Mortality, morbidity, health and social problems from alcohol use**

### ***Alcohol dependence and related disorders***

A study in the late 1980s established prevalence of alcohol abuse or dependence among patients admitted to the medical, orthopaedic or surgical wards of the General Hospital in Kuala Lumpur at 12 per cent of all patients, and 25 per cent of the drinking population. Fourteen per cent of Chinese drinkers and nine per cent of all Chinese were abusers or dependents. Similar figures for Indians were 37 per cent and 22 per cent, and for Malays 20 per cent and six per cent, respectively. All abusers/dependents were male, and the mean age was 54, while the mean age of the sample was 44. The study report speculated that lower social classes were over-represented because they were more likely to seek treatment at the general hospital, rather than at private centres. A 1988 study in the psychiatric ward of the same hospital found alcohol dependence accounted for just over one per cent of male admissions. However, the report attributed this lower number to severe overcrowding on the ward, leading to admission only of the most disturbed patients.

### ***Mortality***

Blood samples from 155 consecutive cases from various causes of death undergoing post-mortem examination at the forensic section of the General Hospital Kuala Lumpur from August 1988 to mid-September 1989 were analysed. Of these 59 (38 per cent) were from fatal road traffic crashes. Thirteen of these (22 per cent) had BAC greater than 0.05 g%. Of these, one case was Malay (7.7 per cent), five were Chinese (38.5 per cent) and seven (53.8 per cent) were Indian. Nearly all were male (91.5 per cent, 54 out of 59).

### ***Morbidity***

Of 877 patients with head injuries presenting at the casualty ward of the general hospital in Kuala Lumpur, 31 per cent had blood alcohol levels greater than 0.05 g%. Ninety-one per cent of these patients were male. Forty-one per cent were Chinese, 39 per cent were Indian, and 18 per cent were Malay. Two thirds had received their head injury in motor vehicle crashes.

Prevalence of alcohol as aetiology in a sample of persons over age 12 presenting with chronic liver disease cases between 1982 and 1988 was 36 per cent. Male to female ratio among the alcohol-related cases was 13.5:1, with Indians being significantly over-represented.

### ***Health problems***

Reports of ethanol and methanol poisoning have decreased since the government established licensing of *samsu* production in 1986. Of 14 such cases studied in 1977, only nine admitted to taking any alcoholic drinks prior to being admitted to hospital, illustrating a common tendency toward denial of drinking alcohol.

A pilot study in 1986 attempted to establish prevalence of drink-driving. Testing of 480 randomly-selected drivers of cars, motorbikes and vans during a 24-hour period revealed that 4.8 per cent of drivers had BAC in excess of 0.08 g%. Proportions of intoxicated drivers were highest between 01:00 hours and 02:00 hours (55 per cent) and between 02:00 hours and 03:00 hours (41 per cent).

### ***Social problems***

Survey Research Malaysia conducted a survey on the causes of domestic violence. According the Woman Aids Organization, an NGO, Chinese and Indian respondents listed "influence of alcohol" as the leading reason for battery, while across all ethnic groups "influence of alcohol" ranked second, behind "jealousy."

## **Alcohol policies**

### ***Control of alcohol products***

In most of the country, outlets are supposed to be licensed by licensing boards established by the state, that rarely turn down applications. Industry sources estimate there are 35 000 licensed outlets

nationwide. In addition, smaller outlets such as coffee shops, while not permitted to sell beer for on-premises consumption, will routinely provide the customer with a beer bottle and an opener. The law permits small purveyors without alcohol sales licences to maintain unlimited amounts of alcohol for personal consumption, which is sometimes sold to the public.

In the state of Kelantan, the State Government controls the sale of alcohol more tightly by limiting the issue of licences for sale of alcohol. Alcohol can be purchased from a small number of supermarkets, retail shops, hotels and restaurants.

Taxes on beer were increased in 1991, 1992 and 1993, and overall duties and taxes on alcohol are fairly high, resulting in comparatively high alcohol prices. Taxes are flat rates and do not rise with inflation. In addition to duties and excise taxes, the government levies a 15 per cent sales tax on alcohol at the retail level.

Direct alcohol advertising is forbidden on broadcast media, and on billboards except in the east Malaysian state of Sabah. Alcohol advertising is permitted in cinemas and on video cassettes, as well as in print media.

### ***Control of alcohol problems***

The Ministry of Health formulated an alcohol abuse prevention programme in 1996. The strategies for the programme include health promotion activities aiming to create awareness among adolescents and the general public on the hazards associated with the consumption of alcohol, amending or formulating legislation for stricter control of alcohol consumption among those under 18, and restricting direct and indirect advertising. Other strategies include strengthening treatment and rehabilitation centres, and follow-up.

At present, there is no law that forbids alcohol drinking by minors (those under 18 years of age). However, the legal sale of alcohol to minors is in the process of being amended under the Food Regulations 1985. In 1996, the government passed a strict new drinking-driving law, setting the legal limit for driving at 0.08 g%, and prescribing a penalty of RM 2000 (US\$ 800) or six months in jail or both for the first offence along with loss of licence. Drivers have 24 hours within which to report a crash, causing a likely under-reporting of drunk driving crashes.

There is no requirement for alcohol education in the schools, although it is sometimes covered in a general substance abuse curriculum.

### ***Alcohol data collection, research and treatment***

The Centre for Drug Research at the Universiti Sains Malaysia in Penang conducts periodic surveys of alcohol and other drug use among schoolchildren, teacher training school and university students, and drug offenders. This information is made available for use by the Ministry of Health for programme planning.

General practitioners and doctors in hospitals are often the first contact persons for individuals with alcohol problems. Some hospitals offer counselling to alcohol dependent patients in their psychiatric wards. Those suffering from alcohol dependence and other alcohol problems may be admitted to psychiatric hospitals for treatment and counselling. Psychiatric hospitals often house alcohol-dependents for long periods of time. Social nongovernmental organizations such as Malaysian Care, Sentul Help Centre, and Shelter look into the needs of alcohol dependents but are unprepared to treat people. The indigenous healer (*bomoh*) and other religious authorities are used by many Malaysian families to heal alcohol and other drug-dependent persons using a ritual ceremony or prayer. The success rate from this form of treatment is unknown. A chapter of Alcoholics Anonymous has met in Kuala Lumpur for 20 years, but has not spread widely, perhaps due to its religious basis and the fact that meetings are often in churches and other Christian centres.

A forthcoming publication of WHO (Riley and Marshal [ed.] *Alcohol and public health in eight developing countries*, 1999) includes an in-depth case study from Malaysia.

## Marshall Islands (the)

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	31 000	47 000	57 000
Adult (15+)	15 000	23 000	28 000
% Urban	59.6	67	68.3
% Rural	40.4	33	31.7

### Alcohol consumption and prevalence

According to data supplied by the Marshall Islands government, the value of alcohol trade has grown from US\$ 17 155 in 1980 to US\$ 75 054 694 in 1995. Between 1990 and 1995, the volume of alcohol sold increased dramatically from 401 748 litres to 1 823 453 litres. It is not possible to compute per capita consumption because alcoholic strength is not clear from the figures provided. (If these figures were for beer only, which is the most conservative assumption, then adult per capita consumption of absolute alcohol would have increased from 0.9 to 3.2 litres between 1990 and 1995.)

## Micronesia (Federated States of)

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	N/A	N/A	N/A
Adult (15+)	N/A	N/A	N/A
% Urban	25.0	26.4	28.0
% Rural	75.0	73.7	72.0

### Alcohol consumption and prevalence

#### *Consumption*

Beer has traditionally been the beverage of choice of residents of Micronesia. One consequence of prohibition on the island of Weene in the state of Chuuk is that beverage preference has shifted from beer to distilled spirits. There is no further information available on adult per capita alcohol consumption in the country as a whole.

#### *Prevalence*

Interviews with 1000 people aged 15 years or over, in a sample stratified by age, gender and residential location, in the community of Weene during June 1985 revealed that 22.6 per cent of the respondents were current drinkers, another 22.6 per cent were former drinkers and 54.8 per cent were non-drinkers. Only 0.6 per cent of the women were current drinkers, and only 2.3 per cent were current or former drinkers. In contrast, 85.5 per cent of the men were current or former drinkers. Half of all current drinkers consumed 10 or more drinks per session, and 61.5 per cent consumed 7 or more drinks per session.

#### *Age patterns*

Over half of 15 to 19 year olds do not drink, but in the age cohort from 20 to 24, the great majority drink.

### Economic impact of alcohol

In the 1985 general population survey, 12 per cent reported spending "all their money" on alcohol at least once.

**Mortality, morbidity, health and social problems from alcohol use*****Alcohol dependence and related disorders***

Substantial portions of the drinkers in the 1985 sample could be classified as problem drinkers; just over two-thirds reported drinking until they became so ill they could not walk without assistance or drinking to unconsciousness, and slightly over 40 per cent reported getting into fights while intoxicated or having been arrested by the police for drunk and disorderly behaviour.

***Social Problems***

From the 1985 general population, 41.5 per cent of drinkers had entered into a fight when drinking, and 41 per cent had been arrested by the police. Six per cent of drinkers had been involved in a vehicle crash while drinking alcohol.

**Alcohol policies*****Control of alcohol products***

Prohibition of alcoholic beverages was implemented in 1921 and lasted until 1959. A new prohibition of alcohol on the island now known as Weene was introduced in 1978 (following a referendum) and was still in place in 1990.

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**Mongolia**

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**Sociodemographic characteristics**

POPULATION	1980	1990	1995
Total	1 663 000	2 177 000	2 410 000
Adult (15+)	947 000	1 287 000	1 493 000
% Urban	52.1	58.0	60.9
% Rural	47.9	42.0	39.1

**Health status**

Life expectancy at birth, 1990-1995 : 62.3 (males), 65.0 (females)

Infant mortality rate in 1990-1995 : 60 per 1000 live births

**Socioeconomic situation**

GNP per capita (US\$), 1995: 310, PPP estimates of GNP per capita (current int'l \$), 1995: 1950 .

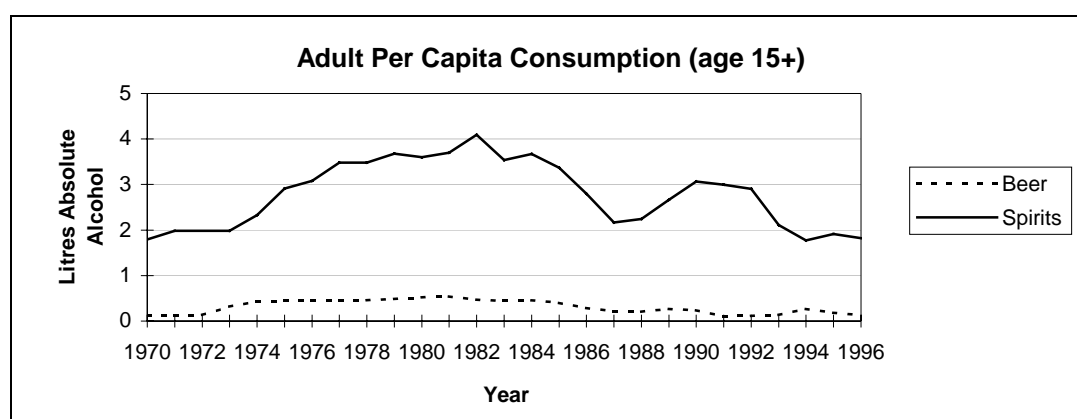
Average distribution of labour force by sector, 1990-1992 : agriculture 40%; industry 21%; services 39%

Adult literacy rate (per cent), 1995 : total 83; male 89; female 77

**Alcohol production, trade and industry**

Mongolia produces beer and distilled spirits. There is no information available on Mongolia's imports or exports of alcoholic beverages.

## Alcohol consumption and prevalence



### Consumption

Distilled spirits are the alcoholic beverage of choice in Mongolia, although spirits consumption diminished substantially, along with a smaller decrease for beer, in latter half of the 1980s and again in the mid 1990s.

## New Zealand

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	3 113 000	3 360 000	3 575 000
Adult (15+)	2 280 000	2 577 000	2 740 000
% Urban	83.4	84.8	86.1
% Rural	16.6	15.2	13.9

### Health status

Life expectancy at birth, 1990-1995 : 72.5 (males), 78.6 (females)

Infant mortality rate in 1990-1995 : 9 per 1000 live births

### Socioeconomic situation

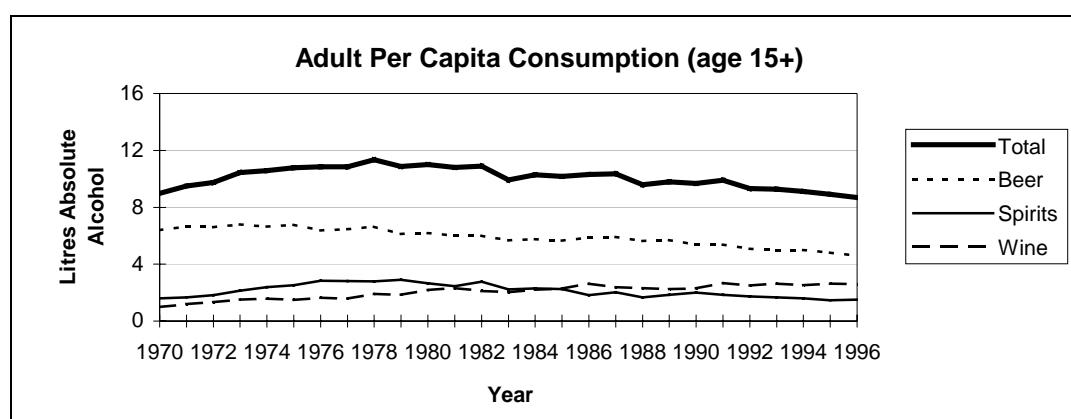
GNP per capita (US\$), 1995: 14 340, PPP estimates of GNP per capita (current int'l \$), 1995: 16 360. Average distribution of labour force by sector, 1990-1992 : agriculture 11%; industry 23%; services 66%

Adult literacy rate (per cent), 1995 : 95

### Alcohol production, trade and industry

New Zealand produces beer, wine and distilled spirits products. The beer market is dominated by Lion Nathan and DB Group. Lion Nathan is the country's largest brewer, brewing and marketing foreign brands such as Coors as well as its own brands, namely Castlemaine XXXX, Steinlager and Lion Red. In April, 1998, Japan's Kirin Beverage Company forged an alliance with Lion Nathan by purchasing 45 per cent of its shares. The spirit trade is overwhelmingly concentrated in the hands of two companies - New Zealand Wines & Spirits and Allied Liquor Merchants - which produced 9 of the top 10 brands between them in 1993.

## Alcohol consumption and prevalence



### Consumption

The amount of alcohol available for consumption is calculated by the government body, Statistics New Zealand, from producers for domestic consumption, incorporating imports and exports. It does not include consumption of home-brewed alcohol. In 1995, home production of alcohol was estimated at three per cent of the total alcohol available. Alcohol available for each person aged 15 years and over is calculated using these data and Statistics New Zealand's quarterly population estimates. The most recent data are for 1996, when 8.7 litres of alcohol was available for consumption per person aged 15 years and over. This is a 28 per cent decline in consumption since 1978. A key factor in the decline of alcohol consumption has been taxation, with price being a major determinant of alcohol consumption in New Zealand. Drink-driving legislation and enforcement together with changing social attitudes have also contributed to the decrease in alcohol consumption and alcohol-related harm during the 1990s. Increased enforcement of other non-alcohol related legislation is likely also to have contributed to lower levels of alcohol consumption. Domestic violence programmes, including media campaigns, linked to legislation such as the Domestic Violence Protection Act are an example of these initiatives.

### Prevalence

A 1995 survey of 4232 people 14 to 65 years of age found that 89 per cent of men and 85 per cent of women were drinkers of alcohol. Nineteen per cent of male drinkers and 10 per cent of female drinkers reported drinking every day. The top 10 per cent of drinkers were predominantly male (83 per cent) and drank almost half of the total alcohol consumed, on average, the equivalent of 31 cans of beer per week (about 403 grams of alcohol).

In 1992, a health survey among 5800 persons aged 15 years and over showed that almost one quarter had never drunk alcoholic beverages. About 64 per cent were likely to have drunk alcohol during the previous week, 60 per cent of whom were males.

### Age Patterns

In 1997, The Alcohol Advisory Council of New Zealand studied the drinking habits of teenagers. In a survey of 500 New Zealanders between the ages of 14 and 18, it was found that 28 per cent reported binge drinking (five or more drinks in a row) in the past fortnight. Thirty-four per cent reported binge drinking the last time they drank.

In the 1995 survey, males aged 18 to 24 years were over-represented in the heaviest drinking 10 per cent, comprising 33 per cent of the heaviest drinkers but only 9 per cent of the total survey. Fifty per cent of females who drank heavily (in the top 10 per cent) were also in the 18 to 24 age group.

A 1994 report reviewed findings from a cohort of 965 Christchurch children studied annually from birth. At the age of 15, a questionnaire revealed that 28.4 per cent did not drink during the previous year, 23.9 per cent drank once or twice during the previous year, 20.4 per cent drank once a month and 6.7 per cent drank at least once a week. Over half the respondents said that a typical drinking session involved the consumption at least 30 grams of pure alcohol.



### *Alcohol use among population subgroups*

A study of 4286 children, based on a random sample of children born between 2 July, 1990 and 30 June, 1991, and the drinking habits of their mothers, found that 41.6 per cent of the women sampled consumed alcohol during pregnancy. Pregnant alcohol users tended to be older, better educated, and have higher socioeconomic status than their abstaining counterparts. Of those women who consumed alcohol, the frequency was between one and three times during pregnancy in 13.6 per cent of cases, less than weekly in 67.7 per cent of cases and more than once a week in 18.7 per cent of cases.

### **Economic impact of alcohol**

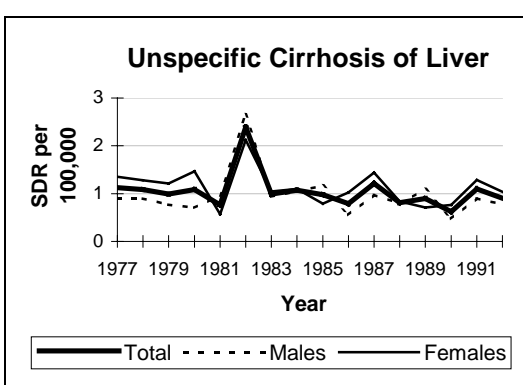
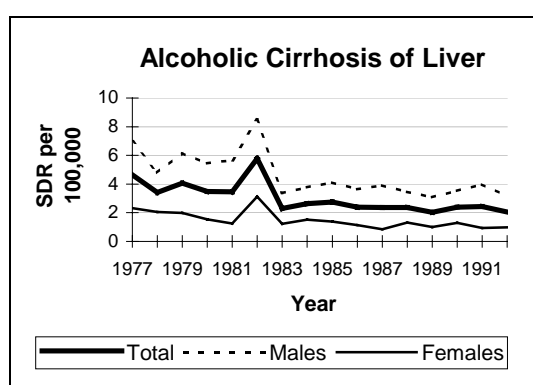
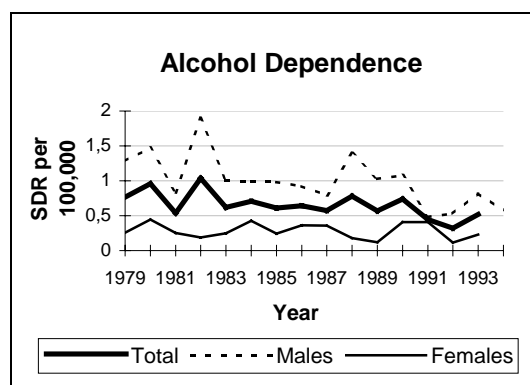
Government revenue from alcohol in 1994/1995 was NZ\$ 563 million (US\$ 289.1 million), accounting for 1.8 per cent of the total government budget of NZ\$ 30 840 million (US\$ 15 840 million). External costs of alcohol, based on lost production from premature death and sickness, reduced working efficiency and excess unemployment, and direct costs such as hospital costs, injury compensation payments, and police and justice system costs, were estimated at between NZ\$ 1045 million (US\$ 536.6 million) and NZ\$ 4005 million (US\$ 2057 million) in 1991, the most recent year for which such an estimate is available.

### **Mortality, morbidity, health and social problems from alcohol use**

#### *Alcohol dependence and related disorders*

In 1990, a study of 930 individuals at age 18 found alcohol dependence among 10.4 per cent of the sample. Psychiatric first admission rates per 100 000 population for alcohol dependence in 1993 were 71.8 for males and 26.3 for females.

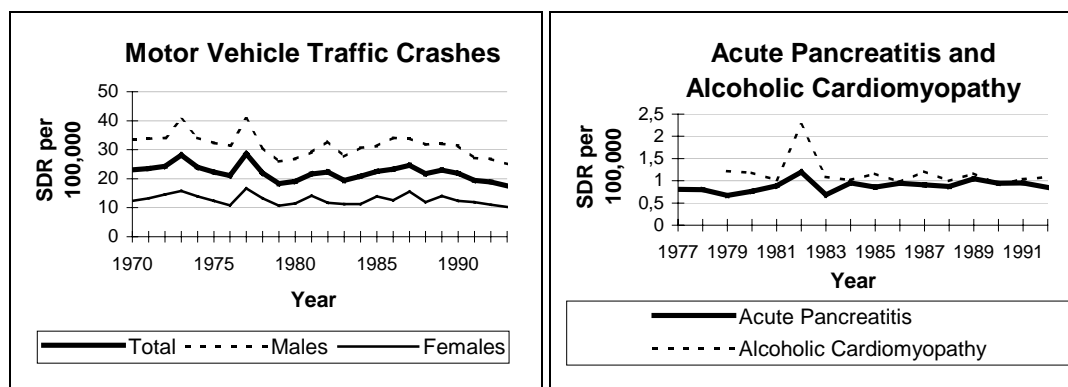
In the 1994 report on a cohort of children in Christchurch, approximately 4.9 per cent of the sample met diagnostic criteria for alcohol abuse. Another examination of a birth cohort of 953 16 year olds in 1995 found that 9.3 per cent were drinking at abusive or hazardous levels. In both studies, indicators of "abuse" included: drinking alcohol at least once a week; reporting that the typical amount consumed on a single occasion exceeded 90 ml of pure alcohol; reporting having consumed the equivalent of at least 180 ml of pure alcohol on one occasion in the last three months and reporting five or more alcohol-related problems in the last year.



### **Mortality**

In 1994, an estimated 142 people died from alcohol-related diseases such as alcohol dependence, alcoholic liver disease and cirrhosis, alcohol poisoning, alcoholic psychoses and alcohol abuse. This figure does not include the contribution of alcohol to deaths from road traffic injuries, other injuries, cancer, cardiovascular diseases and other conditions. It is estimated that in 1996, 30 per cent of all drinkers killed in motor vehicle crashes had alcohol levels above the legal limit.

Alcohol-related mortality rates declined 30 per cent between 1980 and 1994, probably reflecting the decline in overall per capita alcohol consumption over that period.



### **Alcohol policies**

#### **Control of alcohol products**

A price freeze on beer was applied from 1982-1984. After the control was lifted, prices became subject to surveillance. Since the mid-1980s, it has been the policy of the government to link the price of alcohol to inflation as a revenue and a public health measure.

As a form of local community control, a system of licensing trusts was developed in the 1940s and adopted by electors in parts of New Zealand as an alternative to normal licensing in former “dry” areas. In 1999, just three “dry” areas remained, and the trusts’ monopoly of local public drinking markets was likely to be removed.

In general, sales of alcoholic beverages are controlled via a licensing system. The 1990 Sale of Liquor Act greatly simplified and liberalized the licensing system, removing restrictions on trading hours, placing greater regulatory responsibility on local authorities and increasing penalties for offences. There are now four different kinds of licences - on, off, club, and special - as opposed to 29 previously. Applications for all new licences and uncontested renewals are initially processed locally for ultimate decision by a national Liquor Licensing Authority. These decisions may be appealed to the civil courts. Renewals and special licences are decided by District Licensing Agencies. Hours of trading are specified on each licence, and 24 hour licences are available.

The Sale of Liquor Act was reviewed in early 1997 by an Advisory Committee to the Department of Justice to determine whether the Act was meeting its objective of establishing a reasonable system of control over the sale and supply of liquor to the public with the aim of contributing to the reduction of alcohol abuse. The review recommended a number of changes to the Act, and these proposed changes may be considered by Parliament in 1998/1999.

Industry advertising practices are controlled by self-regulation. As of 1992 alcohol brand advertising is allowed on television and radio after 21:00 hours and before 06:00 hours, subject to the voluntary code of practice, which includes not associating alcohol with aggressive or unduly masculine themes or behaviour or with vehicles, boats or hazardous activities, and not appealing to minors by referring to heroes or heroines of the young. Advertisements are subject to previewing for approval to air. Complaints are directed to the Advertising Standards Authority Complaints Board.

The alcohol industry recently adopted a voluntary code of practice concerning the marketing, packaging and sale of alcoholic drinks that may appeal to younger people (e.g. alcoholic sodas).

### ***Control of alcohol problems***

The Alcohol Advisory Council of New Zealand (ALAC), appointed by the Minister of Health with a secretariat of 18 and a budget of NZ\$ 6 million (US\$ 3 million) funded by alcohol taxes, is charged by statute with promoting moderation and preventing misuse of alcohol. The Ministry of Health published a National Drug Policy on Tobacco and Alcohol in 1996 that takes a harm reduction perspective, setting the priority for alcohol on reducing hazardous and excessive consumption and associated injuries, violence and other harm in a number of settings. Key target groups include young people, the *Maori* community, people with alcohol and other mental health disorders, poly-drug users, and pregnant women.

The legal blood alcohol limit for drivers is 0.08 g% for adults, and 0.03 g% for persons under 20 years of age. Penalties for exceeding these limits include fines of up to NZ\$ 4500 (US\$ 2311), imprisonment not exceeding three months, and mandatory disqualification from driving for up to six months. For causing death or injury, penalties include a fine of up to NZ\$ 6000 (US\$ 3081), imprisonment of up to five years and mandatory disqualification for at least a year. In a small number of cases, impaired drivers causing death have been charged with manslaughter. The penalty for exceeding 0.02 g% by a person previously convicted within five years of the first offence is mandatory suspension of the driver's licence. These laws are enforced by the police who began an aggressive programme of random alcohol breath testing in 1993 as a deterrence policy.

The legal minimum age for purchase, sale and supply of alcohol is 20, but exemptions regarding types of premises, service of alcohol with a meal, and the presence of responsible relatives create situations where 18 and 19 year olds and children may legally drink on licensed premises. These exemptions make the drinking age difficult to police, but violations may be prosecuted by the police and jeopardize licence renewal. There is no age restriction for possession or consumption of alcohol in public or in private.

The Sale of Liquor Act 1989 required provision of food and non-alcoholic drinks on all on-licensed premises, but low alcohol beverages are not promoted extensively and there is no favourable taxation policy to make such beverages cheaper. ALAC has promoted a host responsibility training programme since the early 1990s, aimed at improving serving practices to avoid intoxication and drink-drive related injuries. This is aimed at both licensed premises and private hosts, and includes a programme for use in *Maori* communities.

Media campaigns to promote moderation and host responsibility or to reduce impaired driving are sponsored mainly by ALAC and the Land Transport Safety Authority. ALAC is the largest funder of public campaigns to reduce alcohol-related problems and to promote host responsibility. ALAC has published maximum drinking guidelines for men and for women. Health and education agencies have developed school curriculum education packages. Other NGOs also run educational initiatives about alcohol, sponsored by fees, private enterprise and grants. Regional Health Authorities employ alcohol health promotion workers to facilitate community action on alcohol issues, which includes developing local policies and mechanisms for such entities as police, local government, and health agencies to reduce alcohol-related harm. Community action programmes on reducing drink driving or other alcohol-related harm are also run in geographical and *Maori* settings.

The agreement to permit alcohol brand advertising also mandated NZ\$ 1.5 million (US\$ 770 300) per year to be allocated by broadcast media industries for moderation and other public health-oriented advertisements.

### ***Alcohol data collection, research and treatment***

ALAC is New Zealand's largest funder of alcohol research. A national Alcohol Research and Public Health Research Unit is established at the University of Auckland, and carries out a range of policy-related research including monitoring drinking behaviour. A Public Health Group within the Ministry of Health has targets related to alcohol, and reports regularly on data relevant to those targets, including alcohol production and trade figures, and health-related statistics collected by the Health Information Service.

The Health Research Council (HRC), the prime funder of medical and public health research in New Zealand, peer reviews alcohol-related research grants submitted to it. Research training fellowships or scholarships are organized through the HRC and ALAC.

Crown health enterprises provide publicly funded treatment and some health promotion programmes. Many treatment services operate support services for families as well, and Alcoholics Anonymous groups are active in most population centres.

## Palau

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### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	12 116 000	15 122 000	17 225 000
Adult (15+)	7 282 000	10 546 000	12 385 000
% Urban	63.0	60.0	71.0
% Rural	37.0	40.0	29.0

### Alcohol consumption and prevalence

#### *Consumption*

Because import and taxation information regarding alcohol is not reliable, consumption rates cannot be calculated.

#### *Prevalence*

Several indicators including results of a substance abuse needs assessment conducted in 1997 show that alcohol is the most widely used substance in Palau, second to tobacco. Preliminary data from the needs assessment show that the 12 month prevalence rate of alcohol use for persons 10 years or older was almost 40 per cent. For males, this rate was 53 per cent.

### Economic impact of alcohol

Palau's first household expenditure study, conducted in 1991, found that the mean income for households was US\$ 8000, of which an average of US\$ 669.90 (8.4 per cent) was spent on alcohol.

### Mortality, morbidity, health and social problems from alcohol use

#### *Alcohol dependence and related disorders*

The client utilization profile from Palau's sole treatment provider for November 1997 revealed that there were 45 clients receiving services for substance abuse disorders and, of these, 31 were alcohol-dependent only, while another 4 were using alcohol in combination with other drugs. Only 7 of the 45 clients were female.

#### *Morbidity*

In 1985, 75 per cent of all emergency room admissions at Palau's only hospital were alcohol-related.

#### *Social problems*

Alcohol-related traffic crashes comprised 27 per cent, 26 per cent, and 23 per cent of all traffic crashes recorded in 1994, 1995, and 1996, respectively. Alcohol-related traffic violations remained near seven per cent in all three years. The rate per 1000 population of arrests for driving under the influence of alcohol were 3.5, 2.8 and 3.6 for 1994, 1995 and 1996, respectively.

In 1995, the leading unlawful offence was for drunk and disorderly conduct. In 1996, 348 such citations were issued, second only to grand larceny and malicious mischief.

### Alcohol policies

#### *Control of alcohol products*

Excise tax increases scheduled to go into effect on 1 January, 1998 doubled the tax on beer to US\$ 0.30 per ounce, increased spirits taxes from US\$ 0.13 to US\$ 0.30 per ounce, and raised wine taxes from US\$ 0.10 to US\$ 0.20 per ounce.

Since 1990, the overall number of alcohol vendor licenses issued throughout Palau has more than doubled from 95 to 199. This increase also reflects a doubling of the number of retail licences per capita in the past ten years, demonstrating that alcohol availability has greatly expanded.

### **Control of alcohol problems**

The legal limit on blood alcohol concentration for all licensed drivers is 0.10 g%.

### **Alcohol data collection, research and treatment**

The Behavioural Health Division of the Ministry of Health is the sole provider of a continuum of treatment programmes in Palau. Both inpatient and outpatient services are provided from detoxification to individual, group and family counselling, case management and aftercare.

## **Papua New Guinea**

### **Sociodemographic characteristics**

POPULATION	1980	1990	1995
Total	3,086	3,839	4,302
Adult (15+)	1,760	2,290	2,600
% Urban	13.1	15.0	16.0
% Rural	86.9	85.0	83.9

### **Health status**

Life expectancy at birth, 1990-1995 : 55.2 (males), 56.7 (females)

Infant mortality rate in 1990-1995 : 68 per 1000 live births

### **Socioeconomic situation**

GNP per capita (US\$), 1995: 1160, PPP estimates of GNP per capita (current int'l \$), 1995: 2440.

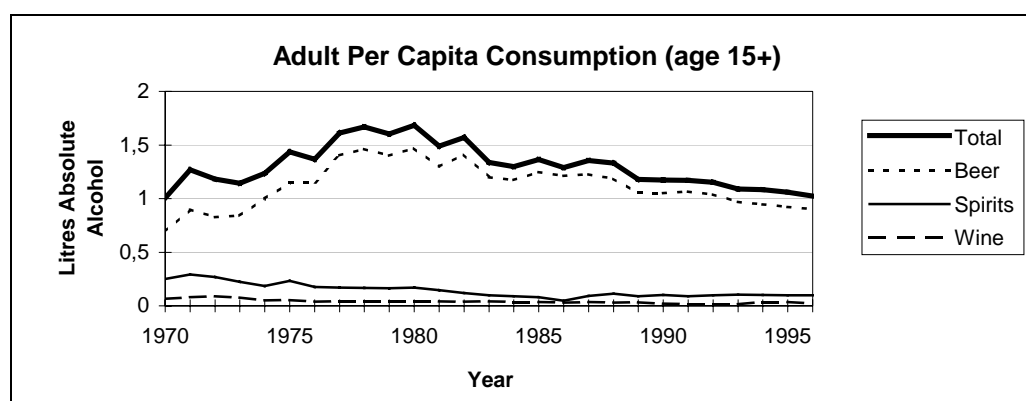
Average distribution of labour force by sector, 1990-1992 : agriculture 76%; industry 10%; services 14%

Adult literacy rate (per cent), 1995 : total 72; male 81; female 63

### **Alcohol production, trade and industry**

South Pacific Brewery is the sole domestic industrial producer of beer, selling beer under its own SP brand as well as brewing and selling San Miguel beer under license to the eponymous Filipino beer producer. Eighty per cent of the shares of the South Pacific Brewery in Papua New Guinea are owned by Asia Pacific Breweries, a joint venture between Heineken, a Netherlands-based brewer, and a Singapore-based soft drink company. Fairdeal Liquors became the first domestic producer of distilled spirits, importing raw materials in order to circumvent high import duties on finished spirits products. Despite an increase in government duty on the imported raw ingredients by 1200 per cent in 1986, Fairdeal by 1990 was still selling its products at roughly half the cost of imports.

### **Alcohol consumption and prevalence**



***Consumption***

The alcoholic beverage of choice in Papua New Guinea is beer. Recorded spirits and wine consumption comes entirely from imports. There are no data available on the consumption of smuggled or home- or informally-produced alcoholic beverages.

***Prevalence***

Men are far more likely to drink than women: 86.5 per cent of the women for whom survey data is available reported that they do not drink, as opposed to 22 per cent of men. Males typically drink beer in groups of other men, beginning this practise in their mid to late teens. They do not drink every day, but when they drink weekly or fortnightly, their goal is to get drunk, drink until the alcohol runs out or they pass out. Sizeable quantities of beer (12 or more bottles) are drunk at a sitting.

***Age patterns***

A survey of the drinking histories and consumption habits of 677 Papua New Guinea high school students with an average age of 16 years found that 39 per cent of males and only 14 per cent of females had tried drinking.

**Economic impact of alcohol**

Alcohol-related road traffic crashes cost the country K5.6 million in 1988, with a strong probability of a greater amount in 1989.

**Mortality, morbidity, health and social problems from alcohol use*****Mortality***

Post-mortem records from Port Moresby General Hospital for the years 1976 to 1980 revealed evidence of alcohol ingestion in 85 per cent of drivers involved in traffic crashes. Of these, 86 per cent were male and 82 per cent were below age 35. Another study estimated that in 1979 alcohol consumption was a factor in at least 20 per cent of road traffic fatalities.

Non-traffic fatalities are also often linked to alcohol; the post-mortem study also found that 20 per cent of the non-traffic fatalities had a BAC of greater than 0.08g%. These included 21 per cent of those who died from axe or stab wounds, and nearly 20 per cent of blunt injury victims.

***Health problems***

Health problems also arise from drinking methylated spirits used to fortify alcohol products sold on the illicit market: at least 11 persons were killed and 13 blinded or otherwise permanently impaired from drinking methylated spirits between 1983 and 1990.

***Social problems***

Several studies have found a strong relationship between alcohol use and violence. In a 1989 study carried out in the Highlands province of Simbu, violence was observed to be more likely during disputes if drinking had taken place. About 68 per cent of the disputes where alcohol was involved became violent. A Papua New Guinea Report on Law and Order estimated that in 1983, 60 per cent of assault cases were attributable to beer consumption.

A 1981-1982 ten-week survey of 94 victims presenting at Angau Memorial Hospital in Lae due to spouse beating found that 30 per cent of the cases were alcohol-related.

**Alcohol policies*****Control of alcohol products***

There are 19 provinces in Papua New Guinea, each with its own provincial government, and most of these establish and enforce the laws pertaining to the availability and control of alcoholic beverages. Local licensing regimes have not prevented an explosion in alcohol outlets; from less than 200 licensed premises in 1960, the number of licensed outlets grew to 2100 by 1980 and 2500 by 1990. Numerous unlicensed outlets also exist in many parts of Papua New Guinea where purchases may be made outside of existing hours of sale or in defiance of periodic liquor bans.

Papua New Guinea has banned alcohol advertising in newspapers and other print media, on radio and on television since 1977. Legal advertising is restricted to licensed premises and to officially-

sanctioned sponsorships of sporting events and athletic teams. In response, the brewers have established widely recognized colours and designs for their products. With no mention of beer, these colours advertise the different brands in a universally recognizable way, and bedeck the majority of licensed premises in the country.

### ***Control of alcohol problems***

A major means for intervention in alcohol-related problems has been the imposition of temporary liquor bans by both national and provincial governments. Bans have ranged from single or a few days duration to three years in one province. Despite causing an increase in black market activity, liquor bans in some Highland provinces have resulted in a decrease in alcohol-related traffic crashes compared to provinces without such bans.

### ***Alcohol data collection, research and treatment***

The government operated an Alcohol Rehabilitation Centre outside of Port Moresby for several years, but closed it in 1987 for lack of funds. There are currently no facilities in Papua New Guinea for the treatment of chronic alcohol dependence.

A forthcoming publication of WHO (Riley and Marshal [ed.] *Alcohol and public health in eight developing countries*, 1999) includes an in-depth case study from Papua New Guinea.

## **Philippines (the)**

### **Sociodemographic characteristics**

POPULATION	1980	1990	1995
Total	48 317 000	60 779 000	67 581 000
Adult (15+)	28 076 000	36 663 000	41 711 000
% Urban	37.5	48.8	54.2
% Rural	62.5	51.2	45.8

### **Health status**

Life expectancy at birth, 1990-1995 : 64.5 (males), 68.2 (females)

Infant mortality rate in 1990-1995 : 44 per 1000 live births

### **Socioeconomic situation**

GNP per capita (US\$), 1995: 1050, PPP estimates of GNP per capita (current int'l \$), 1995: 2850.

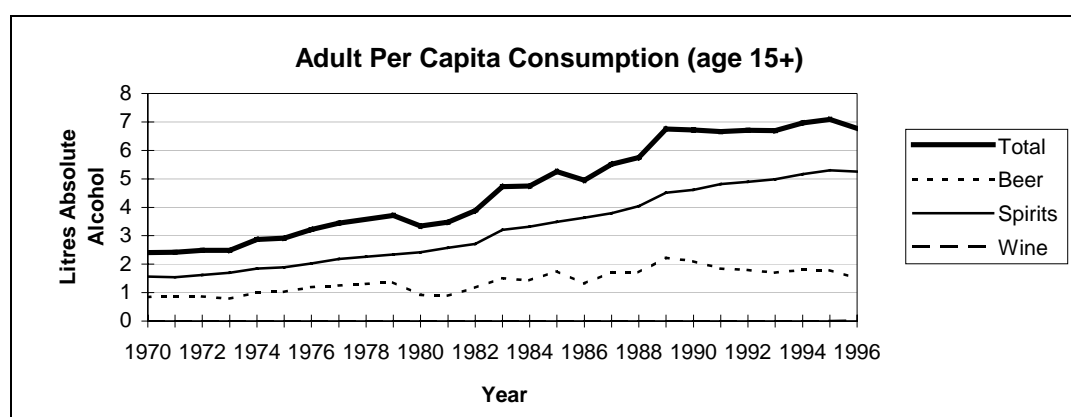
Average distribution of labour force by sector, 1990-1992 : agriculture 45%; industry 16%; services 39%

Adult literacy rate (per cent), 1995 : total 95; male 95; female 94

### **Alcohol production, trade and industry**

The Philippines produces beer and distilled spirits, and imports a small amount of wine. The Philippines beer market is dominated by two companies: San Miguel Corporation, which controls 80 per cent of the market, and Asia Brewery, which controls the remaining 20 per cent. In 1994, the Seagram Company set up a sales, marketing and distribution company in the Philippines, and in 1996, Anheuser-Busch announced a joint venture with Asia Brewery to brew, sell and distribute Budweiser in the Philippines. That same year, Miller Brewing, a US-based subsidiary of the Phillip Morris Companies, announced licensing agreements with San Miguel. Domestic beer sales totalled an estimated 30 billion pesos (US\$ 1.15 billion) in 1995.

## Alcohol consumption and prevalence



### Consumption

Driven by increases in both beer and distilled spirits consumption, adult consumption of pure alcohol has risen steadily since 1970. Distilled spirits is the alcoholic beverage of choice. There are no data available on consumption of smuggled or home- or informally-produced alcoholic beverages.

### Age patterns

From 1989 to 1990, a nationwide survey among 15 082 high school and first and second year college students from the 13 regions of the country was conducted by the Dangerous Drug Board and the University of the Philippines College of Public Health. About 36 per cent of high school students and 34.9 per cent of college students had used alcohol in their lifetime. Of high school students, 2.3 per cent had used alcohol that same day, 5.6 per cent had used alcohol in the past 2 to 7 days, 5 per cent had used alcohol in the past 8 to 30 days, 5.7 per cent had used alcohol in the past 31 to 365 days, and 11.2 per cent had used alcohol more than a year ago. Of college students, 3.7 per cent had used alcohol that same day, 16.2 per cent had used alcohol in the past 2 to 7 days, 14 per cent had used alcohol in the past 8 to 30 days, 10.6 per cent had used alcohol in the past 31 to 365 days, and 18.4 per cent had used alcohol more than a year ago. Urban high school students showed a slightly higher lifetime prevalence of alcohol use than rural students (37.8 per cent compared with 34.5 per cent). Among college students, however, 51.3 per cent of rural students had ever used alcohol, compared with 30.8 per cent of urban students. Male and female lifetime prevalence rates were identical among high school students. Among college students, female lifetime prevalence rates were 35.6 per cent compared with 34.3 per cent for males.

## Republic of Korea (the)

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	38 124 000	42 869 000	44 995 000
Adult (15+)	25 163 000	31 792 000	34 375 000
% Urban	56.9	73.8	81.3
% Rural	43.1	26.1	18.7

### Health status

Life expectancy at birth, 1990-1995 : 67.3 (males), 74.9 (females)

Infant mortality rate in 1990-1995 : 11 per 1000 live births

### Socioeconomic situation

GNP per capita (US\$), 1995: 9700, PPP estimates of GNP per capita (current int'l \$), 1995: 11 450.



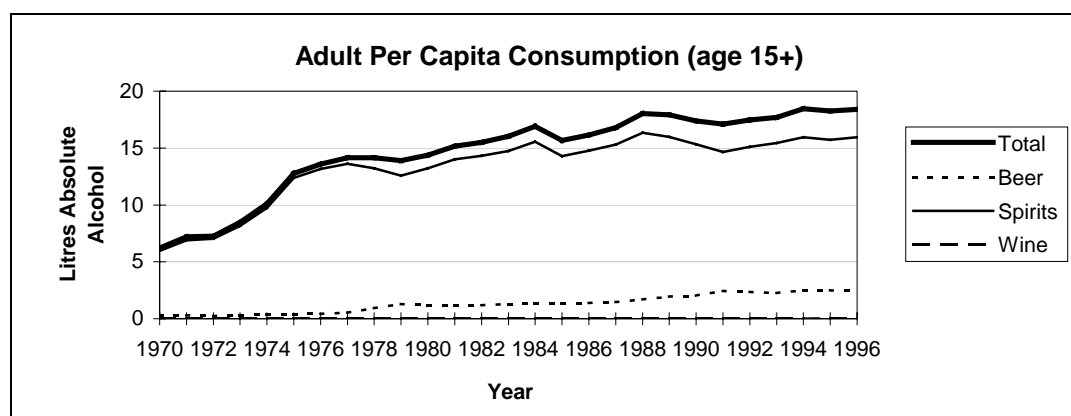
Average distribution of labour force by sector, 1990-1992 : agriculture 17%; industry 36%; services 47%

Adult literacy rate (per cent), 1995 : total 98; male 99; female 97

### Alcohol production, trade and industry

South Korea's beer market is controlled by three companies: Jinro-Coors (a joint venture between Coors and Jinro Ltd.), Chosun Brewery Co., and Oriental Brewery Co. Ltd., which has dominated the beer market for decades and currently produces and sells two-thirds of the nation's beer. Oriental markets its own products as well as Budweiser, produced under licence from Anheuser-Busch. South Korea's beer market is valued at US\$ 247 billion, and is expected to grow by 10 to 15 per cent annually. Jinro is also the leading producer of the country's leading distilled spirits product, *soju*, commanding roughly half the market.

### Alcohol consumption and prevalence



#### Consumption

Alcohol consumption in the Republic of Korea has risen steadily and sharply since the 1970s. In 1996 alcohol production increased by 1.3 per cent. Estimated adult per capita consumption of alcohol in 1996 was 13.1 litres of pure alcohol. *Soju* accounted for more than half of pure alcohol consumption, followed by spirits and beer.

#### Prevalence

Prevalence of drinking alcohol has risen steadily over the last decade. In 1995, one-month prevalence of alcohol drinking was 63.1 per cent (83 per cent for men and 44.6 per cent for women) among adults 20 years or older. Twelve per cent of men and two per cent of women were daily drinkers.

A 1992 survey of a random sample of household heads and their spouses from 989 households in an urban and a rural area found the prevalence of use of alcoholic drinks was 79.8 per cent for men and 26 per cent for women. More drinking was associated with a younger age and a higher level of education.

In 1986, alcohol drinkers comprised an estimated 41 per cent of the total population over 14 years (68 per cent of the male population and 17 per cent of females). Nine per cent of males and 0.8 per cent of females reported drinking daily, and 17 per cent of males and 1.2 per cent of females had two to four drinking episodes in a typical week.

#### Age patterns

Alcohol drinking among adolescents has increased steadily. In 1995, one-month prevalence of drinking was 7.2 per cent among elementary school students, 11.7 per cent among middle school students and 26.9 per cent among high school students.

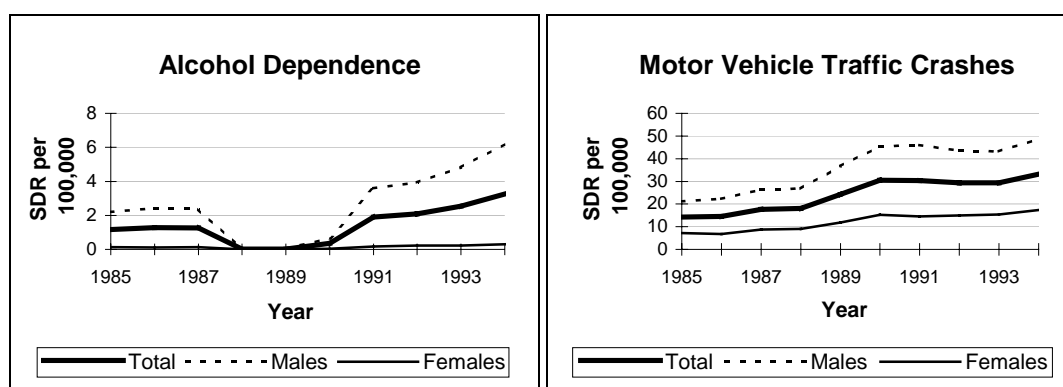
## Mortality, morbidity, health and social problems from alcohol use

### *Alcohol dependence and related disorders*

A nationwide epidemiological study conducted in 1986 found lifetime prevalence of alcohol dependence or abuse to be 23 per cent (43 per cent for men and 2 per cent for women). Alcohol dependent persons constituted between seven and eight per cent of psychiatric hospital inpatients in 1986. The male to female ratio was approximately 20 to 1. The SDR per 100 000 population from alcohol dependence has risen rapidly since 1990.

### *Mortality*

In 1995, 18 378 deaths (20 per cent of all deaths) were attributed to alcohol use.



### *Morbidity*

Approximately 18 per cent of total traffic crashes in 1980 occurred because of drunk driving.

## Alcohol policies

### *Control of alcohol problems*

Alcohol problems are controlled mainly through punishment for drunk driving, prevention of heavy drinking, and treatment of patients with alcohol dependence. The punishment for drunk driving is sentencing to a correctional house. The Korean government has tried to develop a community prevention and rehabilitation service network for alcohol problems.

# Saint Kitts and Nevis

## Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	N/A	42 000	41 000
Adult (15+)	N/A	N/A	N/A
% Urban	35.9	39.6	42.4
% Rural	64.1	60.4	57.6

## Socioeconomic Situation

GNP per capita (US\$), 1995: 5170, PPP estimates of GNP per capita (current int'l \$), 1995: 9410

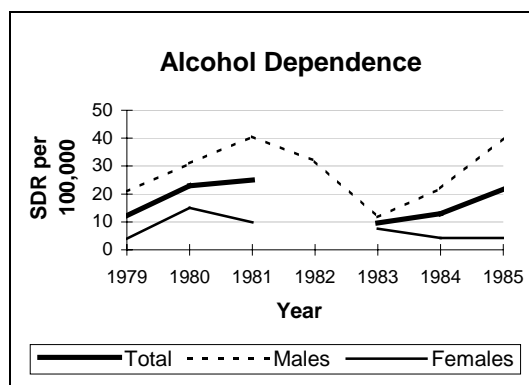
## Alcohol production, trade and industry

Saint Kitts and Nevis produce beer, and import spirits and wine.

## Mortality, morbidity, health and social problems from alcohol use

### *Alcohol dependence and related disorders*

In 1985, St. Kitts and Nevis reported one of the highest standardized death rates from alcohol dependence in the world. However, it is not known how many of these deaths were full-time residents and how many were from the islands' substantial tourist population. No data are available after 1985.



## Samoa

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	159 000	162 000	171 000
Adult (15+)	86 000	95 000	102 000
% Urban	21.2	21.0	21.0
% Rural	78.8	79.0	79.0

### Health status

Life expectancy at birth, 1990-1995 : 66 (males), 69.2 (females)

Infant mortality rate in 1990-1995 : 64 per 1000 live births

### Alcohol production, trade and industry

The Western Samoa Brewery was established in 1978. The Western Samoa government, which originally held 75 per cent of the brewery's shares, held only 52 per cent by 1984, with 36 per cent held by overseas interests. In the 1980s the brewery acquired the rights to produce San Miguel beer under license.

### Alcohol consumption and prevalence

#### *Consumption*

Although Samoa produces beer, there are no production figures available.

### Economic impact of alcohol

In 1993/1994, Western Samoa Breweries Ltd paid US\$ 3.3 million in excise on its beer production (at the rate of 45 per cent; this increased to 55 per cent from July 1995). Imported alcoholic beverages contributed US\$ 0.5 million in duty and excise that same year totalling to approximately four per cent of all import duties levied. Income tax revenue from liquor sales by hotels, clubs and licensed stores totalled US\$ 1.1 million.

## **Mortality, morbidity, health and social problems from alcohol use**

Alcohol-attributable diseases such as alcohol dependence, alcoholic cardiomyopathy or alcoholic liver cirrhosis did not rank among the leading causes of death or hospital admission in 1992.

### **Alcohol policies**

#### ***Control of alcohol products***

Locally-produced beer is taxed a domestic excise of 55 per cent, imported beer is subject to duty and excise taxes totalling 115 per cent and spirits are taxed at a rate of 120 per cent. All alcoholic beverages are subject to the 10 per cent value added tax which is imposed on all goods and services. Price controls exist on locally-produced beer, but not on imported beer.

Trading hours are controlled by law, through licence provisions set by local authorities. It is an offence for a person under 21 years of age to possess or consume alcohol on licensed premises or in any other public place. There are no specific restrictions on alcohol advertising. Both local and imported alcoholic beverages carry the health warning label mandated by the USA, reflecting the fact that they are also sold in American Samoa. Both domestically-produced and imported beverages carry alcohol content labelling stating the percentage of alcohol by volume.

#### ***Control of alcohol problems***

There is no single alcohol programme or policy agency. Alcohol is dealt with briefly in the draft government policy on food and nutrition. Alcohol-related problems are addressed through government agencies such as Health and Police, and alcohol industry matters are dealt with by Customs, Internal Revenue and the Liquor Control Board. In addition, nongovernmental organizations are involved in the broad context of social welfare and social development initiatives.

In the absence of any legislation specifying a maximum BAC for driving, intoxication is determined by behaviour. Preventive services and health education are primarily the work of health personnel, usually in the context of the National Non-Communicable Diseases initiatives and potentially through the Healthy Schools programme.

#### ***Alcohol data collection, research and treatment***

With the exception of Alcoholics Anonymous which meets in the capital, Apia, and has a mostly expatriate membership, there are no alcohol-specific treatment programmes.

## **Singapore**

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### **Sociodemographic characteristics**

POPULATION	1980	1990	1995
Total	2,415	2,705	2,848
Adult (15+)	1,761	2,080	2,203
% Urban	100.0	100.0	100.0
% Rural	0.0	0.0	0.0

### **Health status**

Life expectancy at birth, 1990-1995 : 72.4 (males), 77.4 (females)

Infant mortality rate in 1990-1995 : 6 per 1000 live births

### **Socioeconomic situation**

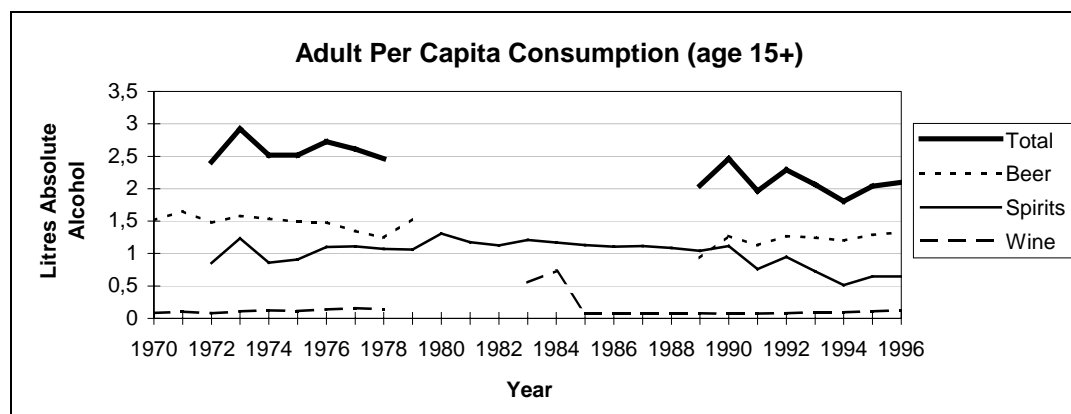
GNP per capita (US\$), 1995: 26 730, PPP estimates of GNP per capita (current int'l \$), 1995: 22 770. Average distribution of labour force by sector, 1990-1992 : agriculture 0%; industry 35%; services 65%

Adult literacy rate (percent), 1995 : total 91; male 96; female 86

## Alcohol production, trade and industry

Fraser and Neave Ltd. started as a soft drinks company in Singapore in the late 1800s. In 1930 it formed Asia-Pacific Breweries (APB) with Heineken NV. The company established its first brewery in Singapore in 1931 and has been producing Tiger Beer since then. Today, Tiger Beer is the domestic market leader in Singapore, and is a significant export, present in more than 50 countries. Anchor Beer was added to APB's portfolio in 1941 following the acquisition of Archipelago Brewery Company in Singapore. In 1955 the company acquired South Pacific Brewery in Papua New Guinea, which merged with the PNG holdings of San Miguel Brewery in 1983. APB has several joint ventures with Heineken, Guinness and Coca-Cola.

## Alcohol consumption and prevalence



### Consumption

Singaporeans drink more beer than spirits, and very little wine. Imported beverages are popular in all three beverage categories.

### Prevalence

A 1990 survey of 2143 households found that men were far more likely to drink than women. For men, the vast majority of respondents (86.8 per cent of Chinese, 98.9 per cent of Malays, 79.1 per cent of Indians), drank once or twice per month or less, or on special occasions only, or abstained. Very small numbers of people habitually drank six drinks or more per occasion daily or most days (heavy drinking): 0.6 per cent Chinese, 1.3 per cent Indians, and no Malays. Falling into either heavy or moderate drinking categories (drinking daily or most days but less than six drinks per occasion) were 5.5 per cent of Chinese, 0.7 per cent of Malays, and 3.6 per cent of Indians. Light drinkers consuming alcohol once or twice a week but less than six drinks per occasion were 7.7 per cent of Chinese, 0.4 per cent of Malays, and 17.3 per cent of Indians.

### Age patterns

In the highest drinking age group, males aged 50 to 59, who were heavy or moderate drinkers, comprised 10.1 per cent of Chinese and 7.7 per cent of Indian respondents.

## Mortality, morbidity, health and social problems from alcohol use

### Mortality/Morbidity

Between 1987 and 1989 there were approximately 5000 cases of fatal and injury-sustained road traffic crashes, of which between 2.3 and 3.0 per cent were alcohol-related (BAC greater than the legal limit of 0.08 g% ethanol).

## Alcohol policies

### Control of alcohol problems

In 1985 the government amended the Road Traffic Act, lowering the legal blood ethanol level for drivers from 0.11 g% to 0.08 g%, and at the same time empowered law enforcement to carry out blood

alcohol measurements. In 1990, the law was further amended to include fines of up to US\$ 5330 and imprisonment for no more than 12 months. The law also provided for immediate suspension of driver's licence, pending trial.

## Solomon Islands

### Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	227 000	320 000	378 000
Adult (15+)	119 000	175 000	210 000
% Urban	10.5	14.6	17.1
% Rural	89.5	85.4	82.9

### Health status

GNP per capita (US\$), 1995: 910, PPP estimates of GNP per capita (current int'l \$), 1995: 2190.

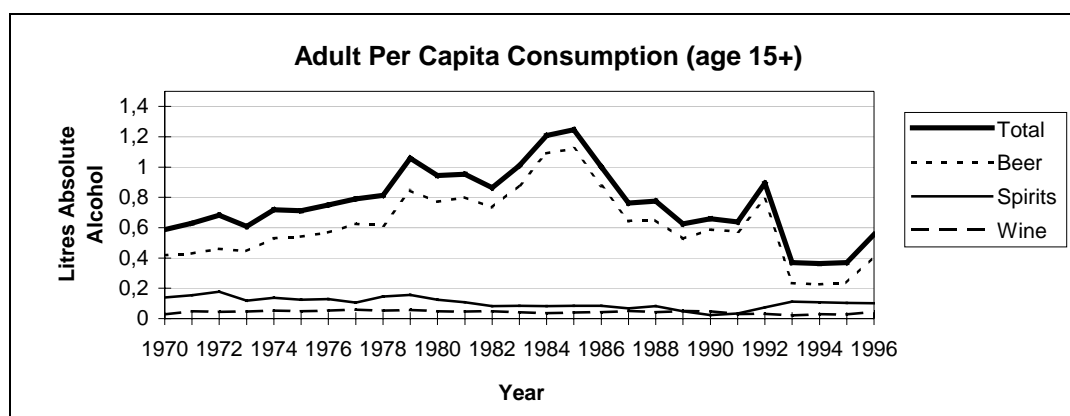
Life expectancy at birth, 1995 : 63 (males), 65 (females)

Infant mortality rate in 1990-1995 : 27 per 1000 live births

### Alcohol production, trade and industry

Prior to 1993 all alcohol consumed in the Solomon Islands was imported. A local brewery began production of beer in mid-1993.

### Alcohol consumption and prevalence



### Consumption

Beer is the alcoholic beverage of choice. It is generally believed that the unlawful production of alcoholic beverages (homebrew, *toddy* and *kaleve*) is not uncommon, but there are no data available regarding the quantity of production and consumption.

### Economic impact of alcohol

Import duties from alcoholic beverages totalled US\$ 2.6 million in 1994. In the same year, locally-produced beer earned tax revenues for the government estimated at US\$ 2.35 million.

### Mortality, morbidity, health and social problems from alcohol use

#### Morbidity

The number of alcohol-related road traffic crashes decreased from 25 to 13 between 1991 and 1995.

***Social problems***

In 1989 alcohol was involved in 27 out of 37 reported rapes. This figure fell to 26 out of 35 in 1990, to 25 out of 33 in 1991 and to 19 out of 26 in 1992. The number of drunk and disorderly offences rose from 557 to 724 between 1989 and 1991, and then fell to 433 in 1992. In 1992 there were 320 family violence offences reported, 32 per cent of which were classified as alcohol-related.

**Alcohol policies*****Control of alcohol products***

There is a 10 per cent tax imposed on all goods and services, which defines the level of import duty on the raw materials for local beer production. Locally-produced beer is taxed a domestic excise of approximately US\$ 0.92 per litre, imported light beer (three per cent alcohol by volume or lower) is taxed an import duty of about US\$ 1.57 per litre, and imported non-light beer (more than three per cent alcohol by volume) is subject to an import duty of around US\$ 3.14. A 50 per cent concession has been provided, for a period, to the dominant beer importer. Imported spirits of all types are taxed an import duty of approximately US\$ 26.20 per litre, and wine carries an import duty of a tenth of that.

The 1969 colonial-era Liquor Act was amended in a number of respects in 1988. Provisions for the manufacture of alcoholic beverages were introduced with the aim of allowing the Government to better regulate alcohol availability through, for example, controlling the alcohol content of beer. In addition, the provincial Liquor Licensing Boards were established with the aim of enabling local communities, churches and authorities to increase control of liquor availability in their areas by having substantial input into the licensing process. To this end, the Liquor Act has a provision for the lodging of objections against the granting or renewal of a licence.

The minimum legal drinking age is 21 years, having been raised from 18 years in 1988, and it is an offence to sell or otherwise supply liquor to a person under 21 years of age. No specific restrictions apply on alcohol advertising, and alcohol labels do not carry health warnings. Both domestically-produced and imported beverages carry alcohol content labelling providing the per cent of alcohol by volume.

***Control of alcohol problems***

Legislation specifying a maximum BAC for driving has not been enacted. No alcohol breath testing facilities are available, and police assess intoxication levels behaviourally. There is no single alcohol programme or agency responsible for alcohol policy.

Alcohol-related problems are addressed, however, through Government agencies such as the Ministry of Health & Medical Services, the Ministry of Education & Human Resource Development and the Royal Solomon Islands Police Force. In addition, the churches and a small number of community organizations (especially non-governmental organizations dealing with women's and youth issues, including the National Council of Women and the National Youth Congress) are involved in the broad context of social welfare and social development initiatives.

School education relating to health issues is supported by both pre-service and in-service teacher training. Health education and promotion activities are carried out by health personnel, primarily through the Health Education Unit of the Ministry of Health & Medical Services. Alcohol does not have a high priority in this area, and precedence seems to be given to other areas of health concern, such as nutrition and malaria. Road safety campaigns are conducted, however, and include drunk driving as a key risk factor for road crashes. Primary school students receive alcohol education in Standards Five and Six, as part of the basic curriculum.

***Alcohol data collection, research and treatment***

There are no formal alcohol-specific treatment programmes. It is rare that either the psychiatric or social welfare staff of the Ministry of Health & Medical Services receive referrals of patients with alcohol-related problems. The newly-formed Family Support Centre is expected to assist families in which alcohol-related problems are prominent.

# Tonga

## Sociodemographic characteristics

POPULATION	1980	1990	1995
Total	N/A	96 000	98 000
Adult (15+)	N/A	N/A	N/A
% Urban	23.7	35.1	41.1
% Rural	76.3	64.9	58.9

## Socioeconomic situation

GNP per capita (US\$), 1995: 1630.

## Alcohol production, trade and industry

In 1994, 104 cases of home brewing were reported to police. Illicit production of alcohol is estimated to be very common.

## Economic impact of alcohol

In 1994, alcoholic beverages contributed US\$ 1.8 million in customs duty, equalling approximately 14 per cent of all import duty paid. It was estimated that Royal Beer paid about US\$ 500 000 in excise during the same year. Liquor licence fees for Tongatapu contributed US\$ 20 950 to national revenue.

## Mortality, morbidity, health and social problems from alcohol use

### *Social problems*

The number of recorded instances of public drunkenness rose from 1126 to 1510 between 1990 and 1992, and then fell to 1047 in 1994.

## Alcohol policies

### *Control of alcohol products*

Locally-produced beer is taxed a domestic excise of US\$ 0.75 per litre, and imported beer is subject to a customs duty of US\$ 2.40 per litre, or 200 per cent (whichever is greater). Imported spirits are taxed US\$ 20.00 per litre or 200 per cent.

There is no central liquor licensing body. Decisions on licensing matters are made by the police and the government. Trading hours are controlled by law via license provisions, and the police are responsible for their enforcement. There are no specific restrictions on alcohol advertising. Both domestically-produced and imported beverages carry alcohol content labelling giving per cent of alcohol by volume. The labels on alcoholic beverages do not carry health warnings.

### *Control of alcohol problems*

The minimum legal drinking age is 18 years, and it is an offence for a person under 18 years of age to possess or consume alcohol on licensed premises or in any other public place. Legislation specifying a maximum BAC for driving has not been enacted. No alcohol breath testing facilities are available. Intoxication is determined through assessment by medical officers.

Alcohol is dealt with as part of the National Food and Nutrition Plan which is implemented under the aegis of the National Food and Nutrition Committee. No specific national policy-making processes or structures are in place specific to alcohol. Alcohol-related problems are addressed through Government agencies such as Health, Education and the Police, and alcohol industry matters are addressed by the Ministry of Labour, Commerce and Industries. In addition, churches (especially the Free Wesleyan Church) are involved in the broad context of social welfare and social development initiatives and alcohol education, emphasising the goal of total abstinence. School students receive a small amount of education on alcohol in the health and science curricula.



**Alcohol data collection, research and treatment**

The Minister of Health is empowered to provide services for the treatment, prevention and rehabilitation of alcohol-dependent persons.

**Viet Nam****Sociodemographic characteristics**

POPULATION	1980	1990	1995
Total	53 711 000	66 689 000	74 545 000
Adult (15+)	30 861 000	40 807 000	46 623 000
% Urban	19.3	19.9	20.8
% Rural	80.8	80.1	79.2

**Health status**

Life expectancy at birth, 1990-1995 : 62.9 (males), 67.3 (females)

Infant mortality rate in 1990-1995 : 42 per 1000 live births

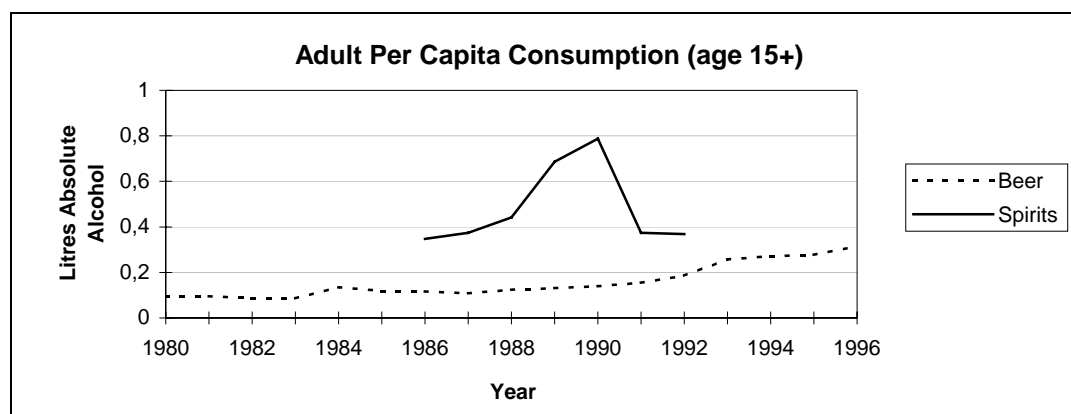
**Socioeconomic situation**

Average distribution of labour force by sector, 1990-1992 : agriculture 67%; industry 12%; services 21%

Adult literacy rate (per cent), 1995 : total 94; male 96; female 91

**Alcohol production, trade and industry**

Viet Nam has many small local breweries, which produce beer in small quantities very cheaply. In the early 1990s, as it became clear that the United States would eventually lift its trade embargo (it did so in 1994), a number of foreign brewers established joint ventures with local breweries. Companies currently involved in joint ventures in Viet Nam include Guinness, Heineken (through Asia Pacific Breweries), Carlsberg, Stroh and San Miguel. In addition, Viet Nam's Hue Brewery has begun marketing Hue Beer in the United States. Local development agencies such as the Viet Nam Investment and Development Bank, as well as foreign agencies such as the Danish Industrialization Fund for Developing Countries, have assisted in modernizing breweries and promoting joint ventures.

**Alcohol consumption and prevalence****Consumption**

Data are only available regarding spirits and beer production. Survey data indicate that wine is the alcoholic beverage of choice, but there are no data available regarding wine production or trade.

### ***Prevalence***

Epidemiological surveys have been carried out in 21 sites, including rural, urban and mountainous areas covering a total population of 80 892. Most of those who eventually abuse or become dependent on alcohol began drinking between the ages of 21 and 30. Initiation in adolescence is rare. White wine is the most commonly used beverage, followed by beer. Abusers tend to drink frequently; from 50 to 100 per cent reported drinking daily, and most reported drinking with evening meals.

### **Mortality, morbidity, health and social problems from alcohol use**

#### ***Alcohol dependence and related disorders***

The percentage of alcohol abuse in cities (between 5 and 10.4 per cent of the population) and in mountainous areas (between 7 and 9.7 per cent of the population) is much higher than that in rural areas (between 0.57 and 1.2 per cent). The ratio of alcohol dependent people is also higher in urban (1.16 to 3.61 per cent) and mountainous (2.34 per cent) than rural areas (0.14 to 0.42 per cent). Alcohol dependence and abuse among women is much lower than among men.

#### ***Social problems***

In the epidemiological surveys, between 10 and 80 per cent of users reported fighting after drinking. From 8.4 to 18 per cent reported family break-ups as a result of alcohol use. In one study, 31.8 per cent of users reported losing a job due to their drinking.

### **Alcohol policies**

#### ***Control of alcohol products***

There are no limits on free sampling, billboard or broadcast advertising, or sporting or social event sponsorships in order to market beer. The government announced in March 1994 that it would limit further foreign investment in beer production until the year 2000.