# CHAPTER 6. PREVENTION

## 6.1 Effective prevention of substance use disorders

### Tim Stockwell

### Introduction

The use of substances that modify how we feel, perform or behave is evident in all contemporary societies and has been throughout recorded history. In modern times, concerns about adverse effects have increased with the greater efficiency of production, distribution and marketing of an increasing variety of substances. Nineteenth-century tonic wines containing ingredients from the coca plant were supplanted by injectable cocaine in the 20th century and then more recently by crack cocaine. Alcohol can be manufactured from almost any seed, plant or crop. In non-industrial and pre-industrial societies its use was often restricted to harvest celebrations (Jernigan, 1997). Today most countries permit the distribution and intense marketing of thousands of different brands of alcohol of widely differing concentrations at prices to suit every budget and tastes to suit every palate.

The case for governments to be involved in preventing the use of harmful substances and minimizing harms from continued use is a strong one. Chapter 1 of this report makes this case in terms of the extent and severity of the harms involved. In Chapter 6 we see that many WHO Member States have designated, and often government-funded, prevention programmes. It is also clear that there is much variation in response, in terms of the types of drugs focused on, the types of activity (e.g. brief interventions, harm reduction, education), the main target groups and the settings for programme activity (e.g. school, workplace, community). Inevitably, the level of investment in prevention is greatest in higher-income countries.

Local and international agencies can seek to maximize the effectiveness of the overall prevention response by drawing on the growing body of evidence regarding the nature of the problem, what has worked in other places, and how a comprehensive response can be maintained (Babor et al., 2010a, 2010b). The overall effectiveness of a national prevention strategy can be increased by thoughtfully addressing the following questions.

# What are the most prevalent and serious harms caused by substance use – and for which substances?

When budgets are tight, it is important to direct government investment to strategies that address the greatest harm. Alcohol, tobacco and illicitly-sourced drugs collectively contribute to almost 100 preventable causes of death, injury and illness (Buxton, Tu & Stockwell, 2009). The number of preventable deaths across the entire population leads to the conclusion that, in most countries, tobacco is the first priority, followed at a little distance by alcohol, and with the illicit substances some way behind. If one were to focus on younger people (i.e. those under 35 years of age) then clearly alcohol demands the most attention (Toumbourou et al., 2007). Using the metric of DALYs – which take account of death, disability, illness and longevity – then alcohol and tobacco become equal partners in causing between them about 90% of harm from substance use (Rehm & Room, 2005). If one includes harms caused to other people, and social and legal harms, then alcohol

and some illegal drugs come more into the picture – though some of those harms can be caused, perversely, by their legal status (Lenton, 2005).

The pattern of substance use and related harm will vary from country to country, as will cultural values around how the seriousness of these is evaluated. Some effective prevention programmes address only one type of harm (e.g. fetal alcohol spectrum disorder, road trauma, or the transmission of infectious diseases). A comprehensive national strategy needs to address and prioritize the full range of harmful outcomes when making high-level decisions about policy priorities and investment. Furthermore, the principle of the "prevention paradox" (Rose, 1985) suggests that strategies should address not only the substance use of such high-risk groups as pregnant women, sex trade workers and prisoners but also that of many individuals in the general population whose substance use is usually of lower risk (Stockwell et al., 2004). However, it is also important to respond to problems experienced by smaller populations of often marginalized and disadvantaged people experiencing severe health and safety problems, partly as a result of their substance use.

## Should prevention focus mainly on broad spectrum and distal or more specific and proximal causes of harmful substance use?

The prevailing social and economic conditions faced by people in different contexts shape the nature and extent of substance use. For instance, patterns of alcohol use are related to income (Huckle, You & Casswell, 2010), and the extent of illicit drug use has been linked to levels of unemployment (Silverman & Robles, 1999). The physical and psychological well-being of children in their very early years predicts the likelihood of their experiencing a range of behavioural, mental health and substance use disorders in later life (Toumbourou, 2005). Such social, economic and childhood development issues can be considered as distal antecedents of substance use and related harms (Loxley et al., 2004; Toumbourou et al., 2007).

Conversely, preventative interventions may aim to modify the immediate or proximal antecedents of harm caused by substance use (e.g. the sharing of needles in the spread of bloodborne viruses, impaired driving caused by alcohol and/or other substances, violence triggered or exacerbated by drunkenness). In general, the effectiveness of efforts to modify the immediate antecedents of mostly acute problems caused by substance use are easier both to determine and implement than efforts to remedy fundamental social and economic conditions. While governments have a moral imperative to address these latter broad-spectrum issues, it is also vital that prevention strategies are supported which tackle the immediate environmental and situational antecedents of risky substance use and related harms.

Some areas of prevention activity – particularly those concerned with the regulatory environment – can have an impact on both distal and proximal risk factors for harmful substance use. There is good evidence that the overall degree of availability of alcohol or illicit drugs in a young person's neighbourhood is a risk factor for later problems (e.g. Grube & Nygaard, 2005). Controls on the economic and physical availability of alcohol have also been shown to be among the most effective ways of achieving immediate and long-lasting reductions in alcohol-related harm (Toumbourou et al., 2007; Babor et al., 2010a). In other words, what is healthy for the adult environment will be beneficial for young people too. Attention to the regulatory environment and the immediate antecedents of harmful substance use should not be neglected while pursuing the lofty ideals of better living conditions and stronger families.

### Which strategies have the strongest evidence for effectiveness?

Reviewing the published scientific evidence for the effectiveness of a range of preventive interventions is in itself becoming a science. The material available for review is so extensive that entire monographs (e.g. Loxley et al., 2004) and books have been dedicated to summarizing evidence in relation to alcohol policy (Babor et al., 2010a), illicit drug policy (Babor et al., 2010b) or both (Stockwell et al., 2005). As a general guide, the greatest weight can be given to evidence derived from multiple publications of well designed studies which include some kind of control or comparison population and which are identified through a series of systematic search strategies. Comparable results across multiple studies can be assessed by meta-analysis whereby a formal statistical approach can be used to estimate and compare effect sizes. Beyond that, cost–benefit analysis can be used to compare likely returns from investment in different strategies.

In the prevention of alcohol-related harms the most effective strategies include: managing the real price of alcoholic beverages (e.g. so that it reflects ethanol content, is adjusted with the cost of living and does not fall too low), maintaining and enforcing legal drinking ages, restricting the number of licensed premises (e.g. by way of government alcohol monopolies), random breath-testing and low legal blood–alcohol concentration limits for drivers, plus brief interventions for early-stage problem drinkers. Strategies involving only education and persuasion have the weakest evidence for effectiveness, though there is some dispute as to whether school-based interventions are completely ineffective in relation to alcohol and tobacco (Toumbourou et al., 2007; Babor et al., 2010a). Some prevention experts have also suggested that "community mobilization" that is partly achieved through awareness strategies can be useful in creating the conditions under which more effective environmental prevention strategies can be introduced (Holder, Saltz & Grube, 1997).

Needle exchange schemes and the provision of methadone both have relatively strong evidence of effectiveness – and, once more, there is scant evidence of the effectiveness of education and persuasion strategies in preventing illicit drug use (Babor et al., 2010b). There is some promising evidence in relation to the effectiveness of some early and later childhood interventions (e.g. home visits to support "high risk" mothers before and after birth, preparing preschool children to function in a classroom, strategies to create "good behaviour" in the classroom) (Toumbourou, 2005).

While some effective strategies can be delivered under the authority of government health departments (e.g. provision of clean needles, brief interventions), there are many others which fall under the responsibility of other government departments – such as finance (pricing and taxation), and police and public safety (liquor and drink-driving law enforcement). One of the challenges of a comprehensive strategy is to engage multiple government departments and authorities in the delivery of evidence-based prevention strategies.

### Are effective prevention strategies necessarily unpopular?

Perhaps because alcohol is by far the most widely used psychoactive substance in most modern societies and most strategies supported by evidence would require alcohol to become both more expensive and less convenient to obtain, it appears that the most popular strategies (i.e. education and persuasion) are usually those that are the least effective (Babor et al., 2010a).

A more optimistic perspective is that (i) there is already public support in many countries for a range of effective strategies (e.g. reduced bar trading hours, policing of late-night licensed premises, enforcement of liquor laws, harm reduction services for illicit drug users), (ii) the level of apparent popular support will depend on how policies are described to make them potentially marketable, and (iii) after controversial public policies have been introduced there have been examples of public opinion improving. We are also beginning to know a great deal about the effectiveness of isolated interventions but less about how they operate as part of a comprehensive strategy. Education and persuasion have been part of effective campaigns targeting the prevention of smoking, drinking and driving, and bloodborne viruses (e.g. public awareness campaigns, warning labels, school-based education). In isolation they are ineffective in achieving population-wide behaviour change but they may be crucial ingredients in a national strategy. If governments wish to show leadership not only by listening to public opinion but also by leading it so as to implement effective prevention strategies, they will need to use social marketing techniques. Education and persuasion strategies are essential also for communicating the extent of harm associated with harmful substance use and the evidence for what constitutes effective prevention. An informed community will be more likely to expect comprehensive and effective responses to the problems of substance use from its elected leaders.

## 6.2 Administration and budget

### (Figures 6.1–6.4)

### Background

- Nominated focal points were asked whether there was a special government unit or government official in their countries with responsibility for the prevention of substance use disorders.
- Focal points were asked about the presence in the annual budget of the government of a specific budget line reserved for the prevention of substance use disorders.

### Salient findings

Government unit for substance use disorder prevention services

- In 72.4% of countries in the survey, one or more government units responsible for the prevention of substance use disorders were reported.
- Across the regions, the highest proportions of countries with government units for the prevention of substance use disorders were reported from the Western Pacific (86.7%), Eastern Mediterranean (85.7%), Americas (80.0%) and South-East Asia (80.0%) regions. Over half of countries in the African Region (53.5%) reported having government units responsible for the prevention of substance use disorders.
- Besides those in the Western Pacific, the majority of countries in Africa, the Americas, Eastern Mediterranean, Europe and South-East Asia reported having government units responsible for both alcohol and drug prevention together. Over half of the countries in the Western Pacific (53.3%) reported having a government unit only for drug prevention. Government units responsible only for the prevention of alcohol use disorders seem to exist in a few African countries.
- There is an effect of increased country income on the presence of government units responsible for prevention of substance use disorders. However, there is no marked difference between the proportion of government units which are present in higher middle-income (82.8%) and high-income (78.8%) countries.

### Budget for prevention services

- Half of the countries in the survey (50.0%) reported having in the annual budget a budget line for the prevention of substance use disorders.
- The highest proportion of countries reporting budget lines for the prevention of substance use disorders was in the Western Pacific Region (93.3%). The lowest proportion of countries reporting budget lines was in the African Region (30.2%).
- Budget lines reserved only for the prevention of drug use disorders appear to be common among countries in the Western Pacific Region, where 47.7% of countries reported having such a budget line. Budget lines for the prevention of drug use disorders only seem to be common in the Eastern Mediterranean (30.0%) and South-East Asia (21.4%) regions. Budget lines reserved only for the prevention of alcohol use disorders were reported from only a few countries in Europe (2.3%).

• There is an effect of country income level on the presence of budget lines for the prevention of substance use disorders. In 33.3% of low-income countries and 69.7% of high-income countries, budget lines for the prevention of substance use disorders were reported. The proportion of countries reporting integrated budget lines (i.e. a budget line which is reserved for mental health, alcohol and drug prevention together) decreases with increasing country income.

### Notes and comments

• The presence of a budget line for the prevention of substance use disorders does not imply anything about the amount of money spent on prevention activities. A question on the amount of the budget line for prevention of substance use disorders was not pursued. The presence of a budget line does, however, provide an interesting insight into the structure of a country's system of prevention, and whether or not the country has the capacity to budget its resources rationally.

- For alcohol and drug use disorders separately
- For drug use disorders only
- For alcohol use disorders only
- For alcohol and drug use disorders together



FIGURE 6.1

PROPORTION OF COUNTRIES WITH A GOVERNMENT UNIT RESPONSIBLE FOR PREVENTION OF SUBSTANCE USE DISORDERS, BY REGION, 2008



FIGURE 6.2 PROPORTION OF COUNTRIES WITH A GOVERNMENT UNIT RESPONSIBLE FOR PREVENTION OF SUBSTANCE USE DISORDERS, BY INCOME GROUP, 2008

- For alcohol and drug use disorders separately
- For drug use disorders only
- For alcohol use disorders only
- For alcohol and drug use disorders together
- For mental health, alcohol and drug use disorders together



FIGURE 6.3 PROPORTION OF COUNTRIES WITH A BUDGET LINE IN THE ANNUAL BUDGET FOR PREVENTION OF SUBSTANCE USE DISORDERS, BY REGION, 2008



FIGURE 6.4 PROPORTION OF COUNTRIES WITH A BUDGET LINE IN THE ANNUAL BUDGET FOR PREVENTION OF SUBSTANCE USE DISORDERS, BY INCOME GROUP, 2008

## 6.3 Availability and coverage of prevention services

### (Figures 6.5-6.10)

### Background

- Nominated focal points were asked whether any prevention activities for substance use disorders were available in their countries, and they were required to indicate the main focus of these prevention activities.
- More specifically, focal points were asked whether programmes for the prevention of substance use disorders such as school-based programmes, community-based programmes or workplace programmes were available in their countries.
- For each of these programmes, focal points were requested to indicate the estimated level of coverage of the population.

### Salient findings

Presence and focus of substance use disorder prevention activities

- Approximately 95% of countries in the survey reported having some kind of prevention activities for substance use disorders. Countries reporting not having any prevention activities for substance use disorders are in the low-income and lower middle-income groups.
- In approximately 50% of countries in the survey, prevention activities were reported to focus equally on alcohol and drug prevention. Around 13% of countries reported focusing to a larger extent on alcohol prevention, 28% reported focusing to a larger extent on drug prevention, and 4% reported having only drug prevention activities. No country in the survey reported having only alcohol prevention activities.
- The highest proportions of countries reporting prevention programmes focusing to a larger extent on drug prevention were in the Eastern Mediterranean (46.2%), South-East Asia (66.7%) and Western Pacific (35.7%) regions.
- There is no effect of country income level on the presence and focus of prevention activities across different income groups of counties.

### Prevention programmes for substance use disorders and coverage

- School-based programmes, community-based programmes and workplace programmes for the prevention of substance use disorders were reported by 77.9%, 68.5% and 58.6% of countries respectively.
- School-based programmes, community-based programmes and workplace programmes for the prevention of substance use disorders were reported by all regions. The lowest proportion of countries reporting school-based programmes, community-based programmes and workplace programmes were in Africa.

• Coverage of the population in need with school-based programmes, communitybased programmes and workplace programmes for the prevention of substance use disorders appear to be low. For example, over 50% of countries indicated that the coverage of school-based programmes for the prevention of substance use disorders would be provided for less than half of the population in need. Similarly, in only 10% of surveyed countries worldwide, community-based programmes cover as much as 75–100% of the population. Coverage of workplace programmes seems to be lowest, with over 60% of countries reporting less than 25% of the population covered.

- An interesting finding is that the focus of the prevention efforts in the countries in the survey is either on drugs or equally focused on alcohol and drugs, despite the predominance of alcohol-related harm over drug-related harm in all but the Eastern Mediterranean Region. The reasons for this were not examined in this survey.
- It is noteworthy that this question elicited a much higher positive response from countries than the treatment questionnaires, with an almost universal uptake of prevention activities.
- This questionnaire did not distinguish between effective and ineffective prevention activities. Some widely implemented prevention programmes have been found to be ineffective with regard to some key outcome measures.

### ATLAS on substance use (2010) — Resources for the prevention and treatment of substance use disorders

- Focused on drug prevention only
- Focused on alcohol prevention only
- Focused to a larger extent on drug prevention
- Focused to a larger extent on alcohol prevention
- Focused equally on alcohol and drug prevention



FIGURE 6.5 PRESENCE AND FOCUS OF SUBSTANCE ABUSE PREVENTION ACTIVITIES, BY REGION, 2008



FIGURE 6.6 PRESENCE AND FOCUS OF SUBSTANCE ABUSE PREVENTION ACTIVITIES, BY INCOME GROUP, 2008



School-based programmes [n=145]

- Community-based programmes [n=146]
- Work place programmes [n=145]

FIGURE 6.7 PROPORTION OF COUNTRIES WITH PROGRAMMES FOR THE PREVENTION OF SUBSTANCE USE DISORDERS, BY REGION, 2008

Prevention

- Coverge of 75–100% of the population Coverage of 50–74% of the population Coverage of 25–49% of the population
- **Coverage of** < 25% of the population



FIGURE 6.8 ESTIMATED POPULATION COVERAGE OF SCHOOL-BASED PROGRAMMES TO PREVENT SUBSTANCE USE DISORDERS, BY REGION, 2008



FIGURE 6.9 ESTIMATED POPULATION COVERAGE OF COMMUNITY-BASED PROGRAMMES TO PREVENT SUBSTANCE USE DISORDERS BY DECION 200 DISORDERS, BY REGION, 2008



FIGURE 6.10 ESTIMATED POPULATION COVERAGE OF WORK PLACE PROGRAMMES TO PREVENT SUBSTANCE USE DISORDERS, BY REGION, 2008

# 6.4 Prevention services in special populations and harm reduction

### Figures (6.11-6.16)

### Background

- Nominated focal points were required to indicate the presence of prevention programmes for substance use disorders in special populations, namely young people at risk, prisoners, persons living with HIV, pregnant women, commercial sex workers and other minority groups.
- These populations are all particularly important from a public health perspective and are often not well reached by mainstream health services.
- Focal points were required to indicate the presence of harm reduction programmes in their countries. Harm reduction programmes describe policies or programmes that focus directly on reducing the harm resulting from the use of alcohol or drugs, without necessarily affecting the underlying drug use.

### Salient findings

## Programmes for the prevention of substance use disorders in special populations

- Programmes for the prevention of substance use disorders in special populations vary across countries. Prevention programmes for children and families at risk were most often reported by countries (45.2%), followed by prevention programmes for prisoners (43.2%), for people living with HIV/AIDS (41.1%), for pregnant women (32.2%), for commercial sex workers (29.5%) and for minority groups (17.8%).
- The highest proportion of countries reporting programmes for the prevention of substance use disorders in prisoners was in the Americas (66.7%). The European (65.1%), Americas (57.1%) and Western Pacific (53.3%) regions have the highest proportions of countries with programmes for children and families at risk. No country in the Eastern Mediterranean Region reported having programmes for the prevention of substance use disorders in pregnant women.
- There is no effect of country income level on the presence of prevention programmes in special populations across different income groups of countries. For example, programmes for the prevention of substance use disorders in pregnant women were more often reported among low-income countries (33.3%) than among lower middle-income countries (9.8%). Also, the proportion of countries reporting prevention programmes for substance use disorders in minority groups decreases from low-income countries (11.9%) to higher middle-income countries (3.4%) before increasing to 52.9% in high-income countries.

### Harm reduction programmes

- The presence of needle/syringe exchange programmes differs within countries. In 41.1% of countries, community-based needle/syringe exchange programmes were reported. In all, 6.6% of countries reported having syringe exchange programmes in prisons.
- The highest proportions of countries reporting community-based needle exchange programmes were in Europe (88.6%), Eastern Mediterranean (41.7%) and Western Pacific (42.9%). No country in Africa, the Americas, South-East Asia or Western Pacific reported having syringe exchange programmes in prisons.
- There is no effect of country income level on the availability of harm reduction programmes across different income groups of countries.

- In the context of this report, children and families at risk comprise street children and children in families with alcohol, drugs and mental health problems.
- Many countries, although still the minority, have developed special programmes for these hard-to-reach and most at-risk populations. This model could potentially be expanded as an alternative approach to scaling up treatment for substance use disorders.
- The presence of prevention programmes in special populations does not indicate that there is information about access to the programmes or coverage of the population in need.
- Community needle and syringe programmes are recommended in WHO guidelines (WHO, 2010). On the basis of the data here, there would appear to be significant scope to increase efforts to make sterile injecting equipment available.

PROPORTION OF COUNTRIES WITH PROGRAMMES FOR THE PREVENTION OF SUBSTANCE USE DISORDERS IN SPECIAL POPULATIONS, BY REGION, 2008



PROPORTION OF COUNTRIES WITH PROGRAMMES FOR THE PREVENTION OF SUBSTANCE USE DISORDERS IN SPECIAL POPULATIONS, BY INCOME GROUP, 2008



People living with HIV/AIDS [n=146]

FIGURE 6.13





45.2%

World

Community-based needle/syringe exchange programme [n=141]
In-prison needle/syringe exchange programme [n=136]



FIGURE 6.15 PROPORTION OF COUNTRIES WITH NEEDLE/SYRINGE EXCHANGE PROGRAMMES, BY REGION, 2008



FIGURE 6.16 PROPORTION OF COUNTRIES WITH NEEDLE/SYRINGE EXCHANGE PROGRAMMES, BY INCOME GROUP, 2008

## 6.5 Screening and brief intervention programmes

(Figures 6.17-6.20)

### Background

• Focal points were asked about the availability of screening and brief intervention programmes implemented in primary health care for alcohol and drug use disorders.

### Salient findings

- Screening and brief interventions for harmful alcohol and drug use implemented in primary health care were reported by 47.9% and 46.2% of countries respectively.
- The Americas and Western Pacific regions reported the highest proportions of countries with screening and brief interventions for harmful alcohol use (76.2% and 69.2% respectively) and drug use (65.0% and 71.4% respectively). The lowest proportions of countries with screening and brief interventions for harmful alcohol and drug use were reported in Africa (30.2%), Eastern Mediterranean (21.4%), and South-East Asia (30.0% for alcohol use and 40% for drug use).
- There is an effect of country income level on the availability of screening and brief interventions for harmful alcohol and drug use. A higher proportion of countries in the higher income groups reported having screening and brief interventions for harmful alcohol and drug use implemented in primary health care compared to countries in the low-income group.
- The majority of countries, however, reported using screening and brief interventions for alcohol and drug use only rarely. This also applied to high-income countries. For example, approximately 43% of high-income countries reported using screening and brief interventions for harmful and hazardous alcohol use disorders only rarely, with approximately 25% of high-income countries reporting using these approaches on a routine basis.

- Brief interventions have been shown to be effective ways to reduce alcohol and drug use, substance use disorders and associated harms, and are recommended in WHO guidelines (WHO, 2010). The adoption of this strategy in a significant proportion of countries demonstrates its feasibility in multiple settings. The lack of use of brief interventions in the remaining countries, and the low rates of uptake within countries that do have some brief intervention programmes, demonstrates significant potential for this strategy to be scaled up.
- It is interesting that the use of brief interventions appears to apply more to drugs than to alcohol, despite the fact that the greater burden of disease is due to alcohol and the impact on alcohol use and related harm is stronger. The reasons for this cannot be determined by this survey.





### FIGURE 6.17

PROPORTION OF COUNTRIES IMPLEMENTING SCREENING AND BRIEF INTERVENTIONS FOR HARMFUL AND HAZARDOUS ALCOHOL USE IN PRIMARY HEALTH CARE, BY **REGION**, 2008



FIGURE 6.18 PROPORTION OF COUNTRIES IMPLEMENTING SCREENING AND BRIEF INTERVENTIONS FOR HARMFUL AND HAZARDOUS ALCOHOL USE IN PRIMARY HEALTH CARE, BY INCOME GROUP, 2008



FIGURE 6.19 PROPORTION OF COUNTRIES IMPLEMENTING SCREENING AND BRIEF INTERVENTIONS FOR HARMFUL DRUG USE IN PRIMARY HEALTH CARE, BY **REGION**, 2008



FIGURE 6.20 PROPORTION OF COUNTRIES IMPLEMENTING SCREENING AND BRIEF INTERVENTIONS FOR HARMFUL DRUG USE IN PRIMARY HEALTH CARE, BY INCOME GROUP, 2008

# 6.6 Groups and agencies involved in prevention of substance use disorders

(Figures 6.21-6.24)

### Background

 Nominated focal points were asked to indicate groups and agencies which are involved in the prevention of psychoactive substance use and substance use disorders in their countries.

### Salient findings

- Different groups and agencies appear to be involved in the prevention of substance use disorders in countries.
- In 78.1% of countries, schools are involved in the prevention of substance use disorders, followed by community groups (49.3%) and employers (29.5%).
- The involvement of law enforcement agencies in the prevention of substance use disorders was reported by 68.5% of countries. Involvement of international organizations in the prevention of substance use disorders was reported by 56.8% of countries, followed by the involvement of labour organizations (19.2%).
- A higher proportion of countries in the higher income groups reported the involvement of schools, community groups and employers in substance abuse prevention activities than countries in the lower income groups.
- Conversely, there was no observable effect of country income level on the involvement of labour organizations, law enforcement agencies and international organizations in substance abuse prevention activities.

- Broadly speaking, these data show that most countries have some activities to prevent substance use and related harms, and that there is considerable variability as to which organizations carry out the prevention activities and in which settings these prevention activities take place.
- A particularly high proportion of countries report the engagement of schools in the prevention of substance use problems. Although perhaps counter-intuitive, not all school-based prevention programmes have proven effective, and some have the potential to raise the level of interest among their adolescent targets in the consumption of alcohol and drugs. The ATLAS questionnaire did not distinguish between those school-based programmes that were evaluated and proved their effectiveness and those that were not, so it is difficult to conclude from these data whether the most value is being obtained from such prevention efforts.



FIGURE 6.21 GROUPS INVOLVED IN THE PREVENTION OF SUBSTANCE USE DISORDERS, BY REGION, 2008



FIGURE 6.22 GROUPS INVOLVED IN THE PREVENTION OF SUBSTANCE USE DISORDERS, BY INCOME GROUP, 2008 ATLAS on substance use (2010) — Resources for the prevention and treatment of substance use disorders



FIGURE 6.23 AGENCIES INVOLVED IN THE PREVENTION OF SUBSTANCE USE DISORDERS, BY REGION, 2008



FIGURE 6.24 AGENCIES INVOLVED IN THE PREVENTION OF SUBSTANCE USE DISORDERS, BY INCOME GROUP, 2008