Chapter III.

Psychotropic substances

156. There are currently 125 psychotropic substances[54] under international control pursuant to the 1971 Convention. Most of them are contained in pharmaceutical preparations of medicines that act on the central nervous system, which include stimulants, depressants, analgesics and antidepressants.

157. Psychotropic substances are grouped into four schedules according to their therapeutic usefulness, potential for dependence, and liability to abuse and public health risk. The 1971 Convention provides a different control regime for each schedule. The scope of the controls applied to the substances in the four schedules varies according to their level of hazard or risk.

158. Five psychotropic substances[55] currently under international control are included in the latest WHO Model List of Essential Medicines.[56] The list comprises a core and a complementary list.

159. The World Health Organization defines the core Model List as a list of minimum medicines needed for a basic health-care system. The list includes the most efficacious, safe and cost-effective medicines for priority conditions, which are selected on the basis of current and estimated future public health relevance, and potential for safe and cost-effective treatment. Diazepam, lorazepam, midazolam and phenobarbital are included in the core list. Furthermore, the complementary list presents essential medicines for the treatment of priority diseases for which specialized diagnostic or monitoring facilities and/or specialist training are needed. Buprenorphine is included in the complementary list.

160. The framework of control that the 1971 Convention requires Governments to establish is directed at protecting public health and welfare. The international community, in enacting the Convention, recognized that the abuse of psychotropic substances posed a serious health hazard to the individual and threatened the social and economic fabric of normal life. Only through coordinated national and international measures could the dangers of drug addiction and illicit trafficking be overcome. Disparities in levels of consumption of psychotropic substances among countries and regions are still observed. Inadequate availability and poor access to necessary medical treatments, as well as excessive availability and medically unsound use of psychotropic substances, represent the threats related to the control and use of such substances.

A. Supply of psychotropic substances controlled under the 1971 Convention

161. The World Health Organization definition of rational use of medicines emphasizes that patients need to "receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them

[54] Nine substances were brought under international control (in Schedules I and II of the 1971 Convention) during the fifty-eighth session of the Commission on Narcotic Drugs, in March 2015.

[55] Buprenorphine, diazepam, lorazepam, midazolam and phenobarbital.

[56] World Health Organization, Model List of Essential Medicines, 19th list (April 2015, amended June 2015). Available from www.who.int/medicines/publications/essentialmedicines.

and their community". According to this definition, irrational use of medicines may refer to lack of access to essential medications or to inappropriate use of medications that are accessible and available. Health-care delivery around the world depends heavily on national health-care systems and the availability of adequate resources. According to WHO, 14 per cent of the global burden of diseases is attributable to mental, neurological and substance use disorders, with almost three quarters of this burden occurring in low- and middle-income countries. In those countries, about four out of five people who need services do not receive them. Available resources are insufficient.

162. At the same time, the risk of oversupply and excessive availability of psychotropic substances under international control, combined with weak and/or inadequate regulatory control measures, may result in their misuse and abuse. Excessive availability of psychotropic substances resulting from unregulated supply and inappropriate or non-medical use of controlled drugs is as much of a concern to the Board as inadequate supply.

163. Particularly well-targeted marketing strategies and heavy advertising campaigns by specific companies, and the pharmaceutical industry as a whole, along with the introduction of more competitive products into the market (generics), can contribute to the excessive supply and availability of psychotropic substances. This occurs mainly in developed countries but can also be observed in developing ones. Excess availability often leads to overconsumption, which leads in turn to dependence and to the illicit trafficking of substances.

164. Insufficient resources and expertise required for determining medical needs and adjusting drug supply to meet those needs jeopardize the balance between availability and consumption. Moreover, experience shows that the actual availability of drugs tends to exceed drug requirements in many developed countries. In such countries, societal, cultural and attitudinal factors that influence consumption distort the perception and measurement of real medical needs.

1. Supply of analgesics

165. Buprenorphine, lefetamine and pentazocine are the analgesics controlled under the 1971 Convention. Global manufacture of buprenorphine, an opioid analgesic listed in Schedule III of the 1971 Convention, started to increase gradually in the late 1990s, as the substance began to be used in higher doses for the treatment of pain and opioid addiction. In 2013, global manufacture reached a new record, with almost 9 tons (1.1 billion S-DDD) reported by nine countries. The volume of international trade has increased as well, with over 60 countries reporting imports of the substance in 2013.

166. There was less manufacture of and trade in pentazocine. Global manufacture of that substance fluctuated between a high of 8 tons and a low of 1 ton per year during the past decade. No steady rate of increase in manufacture and trade was discernible.

167. Lefetamine is both a stimulant and an analgesic, with effects similar to codeine. In the 1990s, lefetamine was found to be less effective than buprenorphine in the detoxification of methadone patients. Consequently, manufacture and consumption of lefetamine ceased in the 1990s.

2. Supply of stimulants

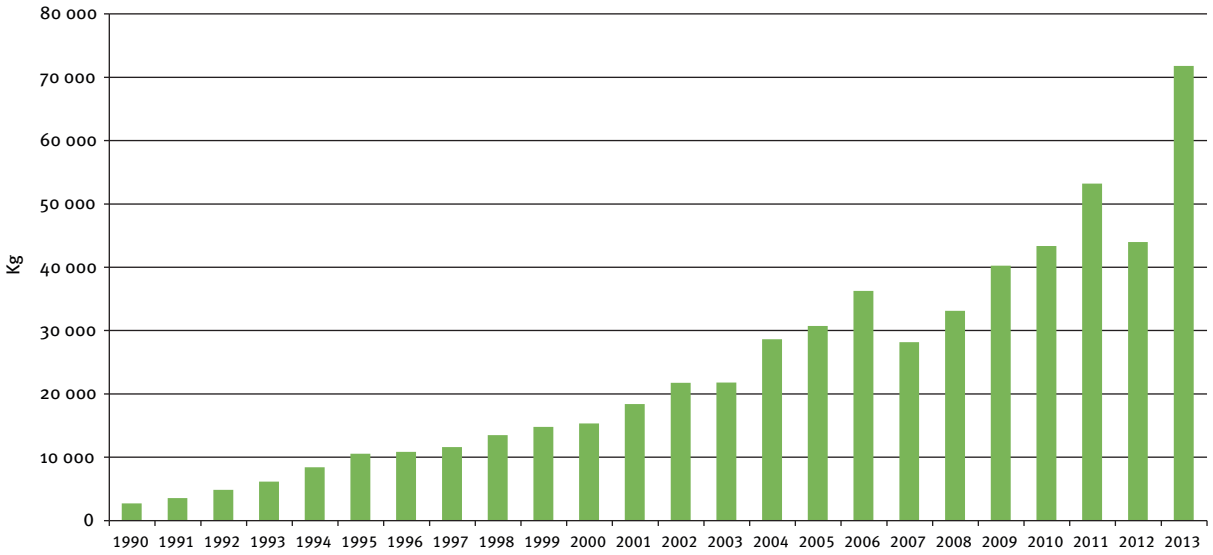
168. In contrast to some other psychotropic substances, none of the central nervous system stimulants controlled under the 1971 Convention are recognized by WHO as part of the minimum requirements for a basic health-care system; therefore, none of them are included in the WHO Model List of Essential Medicines. This would largely explain the quasi-absence of these substances in the markets of low-income and developing countries.

169. Amphetamines and methylphenidate are the only stimulants in Schedule II that are manufactured and traded in large quantities. In particular, they are manufactured in very large quantities in the United States and a few European countries. These substances are mostly used for the treatment of attention-deficit hyperactivity disorder (ADHD) and, in the case of amphetamines, also for industrial processes. During the past 20 years, continual and significant increases in the manufacture of three major substances of the group, namely amfetamine, dexamfetamine and methylphenidate, were observed.

170. While the United States has always been the leading manufacturer of this group of substances, manufacture to meet growing domestic needs also occurs in some European countries, including France, Germany, Hungary and the United Kingdom. Manufacture of amphetamines amounted to 47 tons in 2013, and three countries (United States, Canada and Australia) accounted for 88 per cent of global imports.

171. Global manufacture of methylphenidate has progressively increased in the past 20 years, as shown in figure 39. In 2013, global output of that substance reached a record of nearly 72 tons. The number of countries importing methylphenidate during the past decade was stable, with about 100 reporting imports in quantities ranging from a few grams to a few tons. In 2013, seven countries[57] in Europe and the Americas accounted for more than 70 per cent of global imports.

Figure 39. Quantities of global manufacture of methylphenidate, 1990-2013



Source: International Narcotics Control Board.

172. Global output of the stimulants listed in Schedule IV, which are mainly used in the treatment of obesity as anorectics, remained stable during the past 10 years, averaging 90 tons per year. During the same period, total imports averaged 21 tons yearly. In 2013, five countries in three regions (Americas, Europe and Oceania) accounted for more than 80 per cent of global imports.

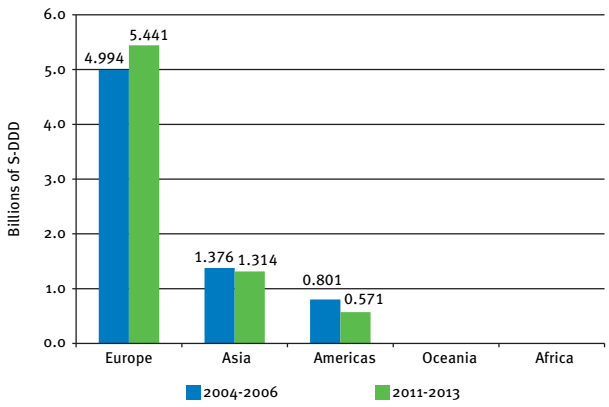
3. Supply of benzodiazepines

173. The 35 benzodiazepines currently under international control are classified as anxiolytics and sedative-hypnotics and are used in medical practice for the short-term management of insomnia and for pre-medication and the induction of general anaesthesia.

(a) Supply of benzodiazepine-type sedative-hypnotics

174. In the past 10 years, manufacture of benzodiazepine-type sedative-hypnotics was reported by between 11 and 16 countries, mainly in Europe (Germany, Italy and Switzerland, which jointly accounted for two thirds of global stocks in 2013), while countries in Asia (China, India and Japan) and in the Americas (Brazil, Canada and the United States) jointly supplied one quarter of global output. Figure 40 demonstrates that, in the past 10 years, the share of this group of substances supplied by Europe has increased, while the share supplied by Asia and the Americas has decreased. Countries in Africa and Oceania did not supply benzodiazepine-type sedative-hypnotics during that period (except for 6 kg of nitrazepam manufactured by New Zealand in 2012).

Figure 40. Total reported manufacture of benzodiazepine-type sedative-hypnotics, by region, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

[57] Switzerland, Germany, Spain, Canada, Brazil, the Netherlands and the United Kingdom (in descending order of amounts imported).

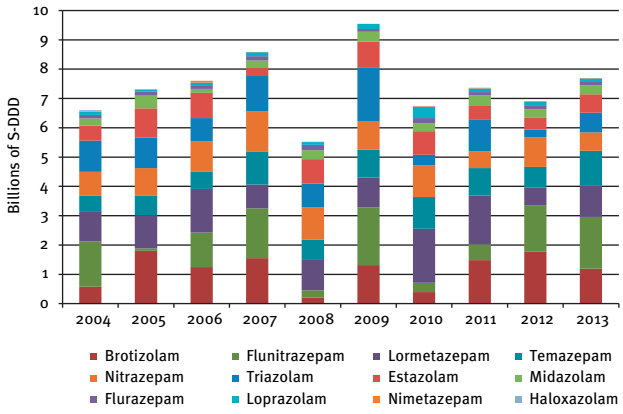
175. In the past 10 years, global reported manufacture of benzodiazepine-type sedative-hypnotics fluctuated around an annual average of 7.4 billion S-DDD (see figure 41). Out of the 12 substances in this group (brotizolam, estazolam, flunitrazepam, flurazepam, haloxazolam, loprazolam, lormetazepam, midazolam, nimetazepam, nitrazepam, temazepam and triazolam), only midazolam is included in the WHO Model List of Essential Medicines. Although midazolam accounted for only 4 per cent of total supply of this group of substances in 2013 (see figure 42), it was the most widely traded and most widely available substance geographically, as 134 countries reported imports of this substance. As demonstrated in figure 43, Europe and Asia remain the net suppliers of midazolam.

(b) Supply of benzodiazepine-type anxiolytics

176. In the past 10 years, between 16 and 20 countries reported manufacture of benzodiazepine-type anxiolytics. Similar to benzodiazepine-type sedative-hypnotics, the supply of this group of substances originated in Europe, Asia and the Americas (see figure 44), with Italy remaining the main manufacturer, accounting for 44 per cent of global output in 2013.

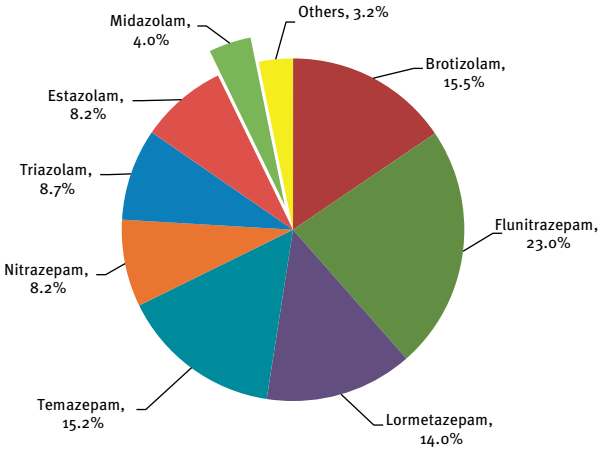
177. In the past 10 years, global reported manufacture of benzodiazepine-type anxiolytics fluctuated between 18.3 and 29.9 billion S-DDD, around an annual average of 22 billion (see figure 45). Twenty-two benzodiazepines

Figure 41. Total reported manufacture of benzodiazepine-type sedative-hypnotics, by substance, 2004-2013



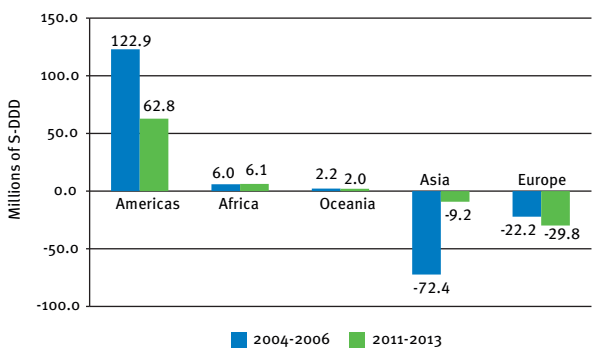
Source: International Narcotics Control Board.

Figure 42. Share of total reported manufacture of benzodiazepine-type sedative-hypnotics, by substance, 2013



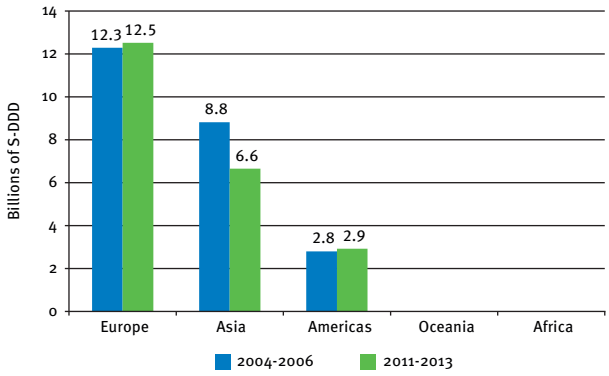
Source: International Narcotics Control Board.

Figure 43. Average annual net imports of midazolam, by region, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

Figure 44. Total reported manufacture of benzodiazepine-type anxiolytics, by region, 2004-2006 and 2011-2013



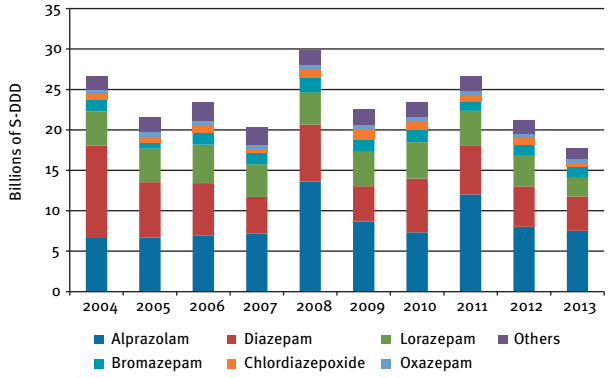
Source: International Narcotics Control Board.

are generally classified as anxiolytics; two of them, diazepam and lorazepam, are included in the WHO Model List of Essential Medicines. During the 2004-2013 period, diazepam and lorazepam accounted for 26 and 18 per cent, respectively, of global supply of this group of substances. The shares of total reported manufacture in 2013 are presented in figure 46. Diazepam, alprazolam and lorazepam are the most widely available substances of this group, as 137, 118 and 102 countries, respectively, report on imports of these substances. The trends in net imports (imports minus exports) of diazepam and lorazepam are presented in figures 47 and 48. Countries in Europe and Asia remain the main suppliers of these two substances. The main changes during the past decade included a notable increase in net imports of diazepam by African countries, and an increase in net imports of lorazepam by countries in the Americas.

4. Supply of anti-epileptics

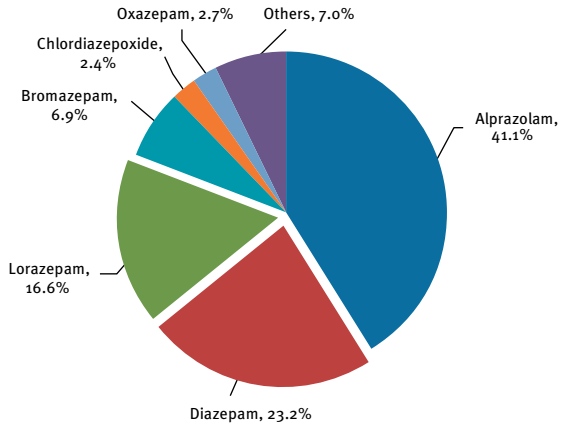
178. There have been divergent patterns in the manufacture and trade of barbiturate-type anti-epileptics (phenobarbital and methylphenobarbital) and benzodiazepine-type anti-epileptics (clonazepam) included in Schedule IV during the past 10 years. Phenobarbital is included in the WHO Model List of Essential Medicines.

Figure 45. Total reported manufacture of benzodiazepine-type anxiolytics, by substance, 2004-2013



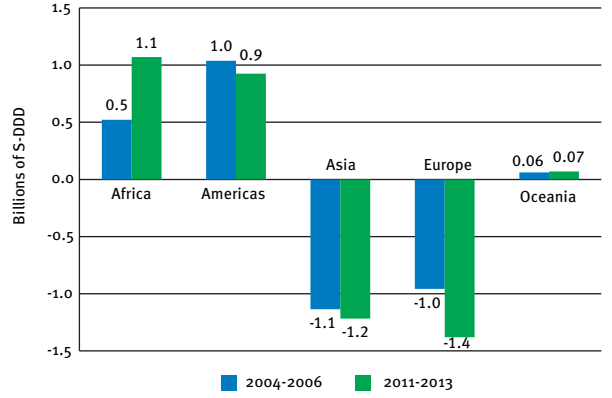
Source: International Narcotics Control Board.

Figure 46. Share of total reported manufacture of benzodiazepine-type anxiolytics, by substance, 2013



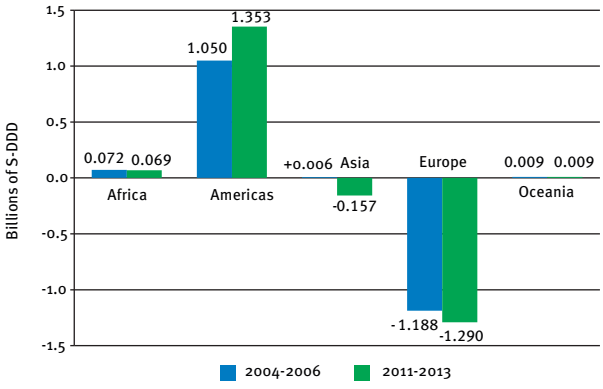
Source: International Narcotics Control Board.

Figure 47. Average annual net imports of diazepam, by region, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

Figure 48. Average annual net imports of lorazepam, by region, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

179. Global manufacture of phenobarbital, which had fluctuated between 7.1 billion S-DDD and 9.7 billion S-DDD during the period 2004-2012, fell to a record low of 3.0 billion S-DDD in 2013. That decrease can be attributed mainly to a substantial decrease in the output of China, the world's leading manufacturer of phenobarbital. Furthermore, the lack of production and production data for 2013 for Hungary and India (two other major manufacturing countries) further exerted downward pressure on reported global supply. As one of the most widely traded psychotropic substances, phenobarbital is traded in an average of 140 countries every year. In 2013, China, Hungary, India and Switzerland (in descending order) together accounted for 89 per cent of total exports, and more than 120 countries reported imports. Major importers included the Russian Federation, Ukraine and the United States.

180. The manufacture of methylphenobarbital, compared with that of phenobarbital, has remained rather limited. During the 2004-2012 period, global manufacture of methylphenobarbital fluctuated considerably, ranging between 0.2 million S-DDD and 438 million S-DDD, mainly because of significant changes in the output reported by India, Switzerland and the United States. In 2013, no manufacture of the substance was reported, and the total volume of international trade remained stable (28.2 million S-DDD).

181. The manufacture and trade of clonazepam, a benzodiazepine that is used mainly as an anti-epileptic, has shown a similar upward pattern over the past 10 years. Global reported manufacture of clonazepam gradually increased from 1.3 billion S-DDD in 2004 to a new record of 3.4 billion S-DDD in 2012, but decreased thereafter to 2.2 billion S-DDD in 2013. That decrease was attributable mainly to the non-reporting of manufacture data for 2013 by India, traditionally a major manufacturer of the substance. While Switzerland was the world's leading manufacturer of clonazepam during the two decades leading up to 2010, Italy took the lead in 2011 and 2012. In 2013, Brazil became the largest manufacturer of the substance, followed by Italy and Switzerland. About 120 countries reported imports of clonazepam in 2013.

B. Availability of psychotropic substances

182. Conclusions based on the calculated consumption of psychotropic substances should be drawn with caution, as data on manufacture, industrial use, stocks and trade reported by Governments may not be complete or may not cover all substances. High levels of consumption may, however, indicate overprescription and/or diversion into illicit channels. The system of control provided for in the 1971 Convention is based largely on the system devised for the control of narcotic drugs under the 1961 Convention. The control measures and obligations set out in the 1971 Convention represent the minimum control requirements that Governments must implement and maintain.

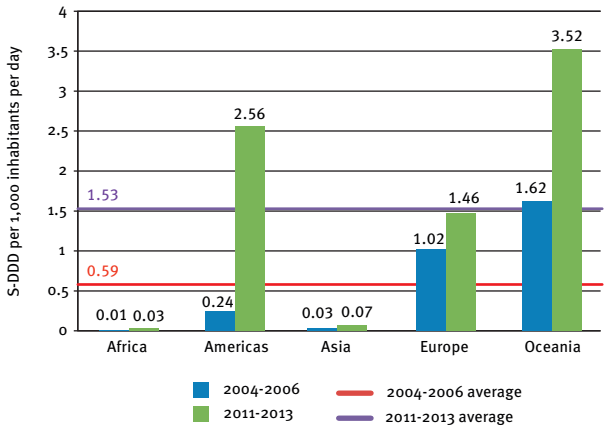
183. The degree of availability of psychotropic substances is approximated in the present report by using measures of calculated consumption of individual substances and groups of substances. The 1971 Convention does not foresee reporting on consumption of psychotropic substances to the Board. Therefore, based on statistics reported by Governments on manufacture, industrial use, stocks and international trade, the rates of consumption, measured in S-DDD per 1,000 inhabitants per day, are calculated by the Board every year. For the purposes of the present report, three-year averages were used, in order to account for the occasional non-submission of annual statistics and in view of the practice by some Governments of intermittent manufacture and importing of psychotropic substances when stocks cover domestic requirements for several years.

184. In addition, instances of elevated calculated use of psychotropic substances could relate to increasing manufacture for export, accompanied by a possible lack of reporting of exports and/or a non-reporting of stocks of manufacturers and/or elevated stocks kept by wholesalers.

185. Pursuant to Commission on Narcotic Drugs resolutions 53/4 and 54/6, on promoting adequate availability of internationally controlled narcotic drugs and psychotropic substances for medical and scientific purposes while preventing their diversion and abuse, Member States are strongly encouraged to provide the Board, on a voluntary basis, with data on the consumption of psychotropic substances, in the same manner as for narcotic drugs. Those data would be essential in enabling the Board to better analyse trends relating to the consumption of psychotropic substances and, ultimately, to promote the adequate availability of such substances for medical and scientific purposes while preventing their diversion and abuse.

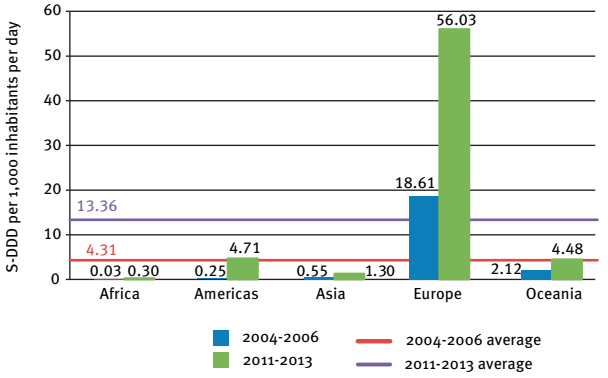
186. Since the adoption of the above-mentioned resolutions, a growing number of Governments have started to submit data on the consumption of psychotropic substances to the Board. However, the total number of Governments supplying the requested information is still too low to be used in lieu of the consumption data as calculated by the Board.

Figure 49. Average consumption of opioid analgesics, by region, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

Figure 50. Average consumption of buprenorphine, by region, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

1. Availability of opioids controlled under the 1971 Convention

187. The number of countries and territories using one or more of the analgesics controlled under the 1971 Convention (buprenorphine, lefetamine[58] and pentazocine) has remained stable at about 100 since 2004. In contrast, the volume of consumption of these opioids increased in all regions of the world between 2004 and 2013 (see figure 49). During the 2004-2006 period, levels of consumption were highest in Europe and Oceania (the high levels of consumption in Oceania are the result of manufacture and calculated consumption in Australia). While consumption continued to increase markedly in Europe by the 2011-2013 period, it increased more than tenfold in the Americas, and almost sixfold in Africa, albeit from a low level.

188. The national per capita level of consumption of opioids controlled under the 1971 Convention during the 2004-2006 and 2011-2013 periods are shown in maps 5 and 6. As can be seen, the majority of countries and territories continue to have a level of consumption below 0.1 S-DDD per 1,000 inhabitants per day. However, there has been a marked increase in the highest level of consumption, of over 1 S-DDD per 1,000 inhabitants per day, in the past 10 years. While during the 2004-2006 period, only four countries had a per capita level of consumption greater than 1 S-DDD per 1,000 inhabitants per day, in the 2011-2013 period 16 countries had attained that level.

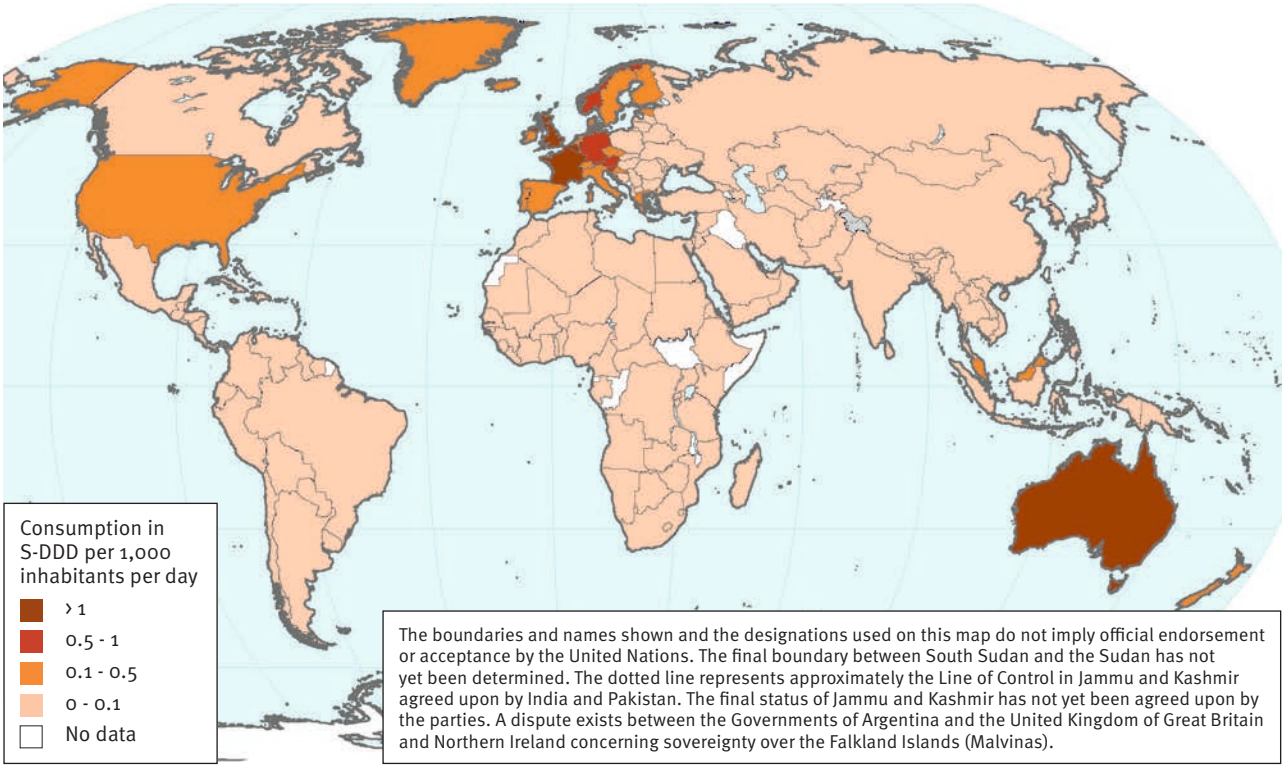
189. The consumption of buprenorphine, which is listed in the Model List of Essential Medicines of WHO (complementary list), accounted on average for 97 per cent of global consumption of opioid analgesics controlled under the 1971 Convention during the 2009-2013 period. Consumption of pentazocine, which has properties and uses similar to those of morphine, accounted for the remainder.

190. Global calculated consumption of buprenorphine has steadily increased since 2000, from less than 1 ton (100 million S-DDD) to a new record of almost 10 tons (1.2 billion S-DDD) in 2013. During the 1990s, buprenorphine was used by no more than 20 countries worldwide, whereas in the 2011-2013 period, buprenorphine was used in about 90 countries and territories, in every region, or about 40 per cent of all countries and territories. That increase in the consumption of buprenorphine is mainly due to its increasing use in higher-dosage forms for the treatment of pain, and for detoxification and substitution treatment for opioid dependence. The countries with the highest levels of consumption for buprenorphine in the period 2011-2013 were Iceland, Belgium, Switzerland, the United Kingdom and the United States, in descending order (see figure 50 and maps 7 and 8).

191. Global consumption of pentazocine has averaged about 5 tons per year during the past decade. The substance is used in approximately 50 countries. Its use, in contrast to that of buprenorphine, is not spreading to other countries. The same 50 countries have been using pentazocine since 2004, with India, Nigeria, Pakistan and the United States accounting for 87 per cent of the global total in the period 2011-2013.

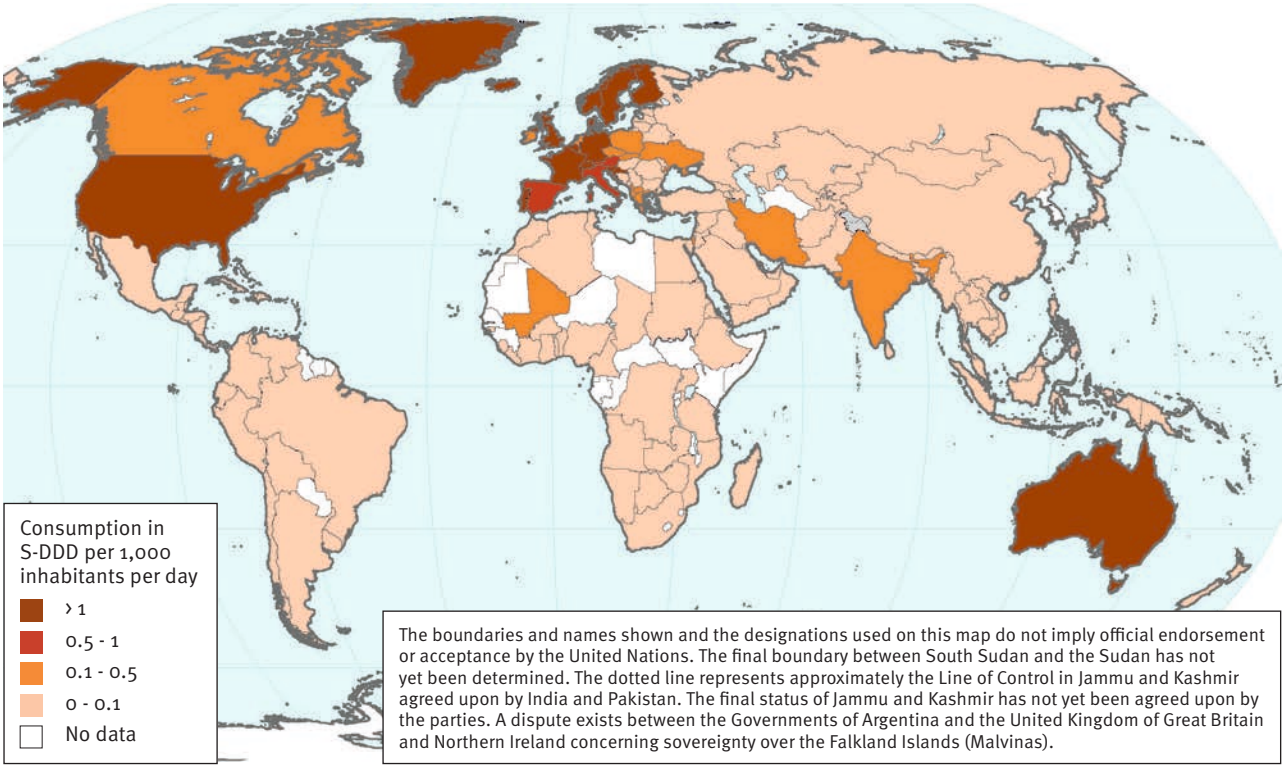
[58] Lefetamine has not been manufactured and consumed since the 1990s (see para. 167).

Map 5. Average national consumption of opioid analgesics, 2004-2006



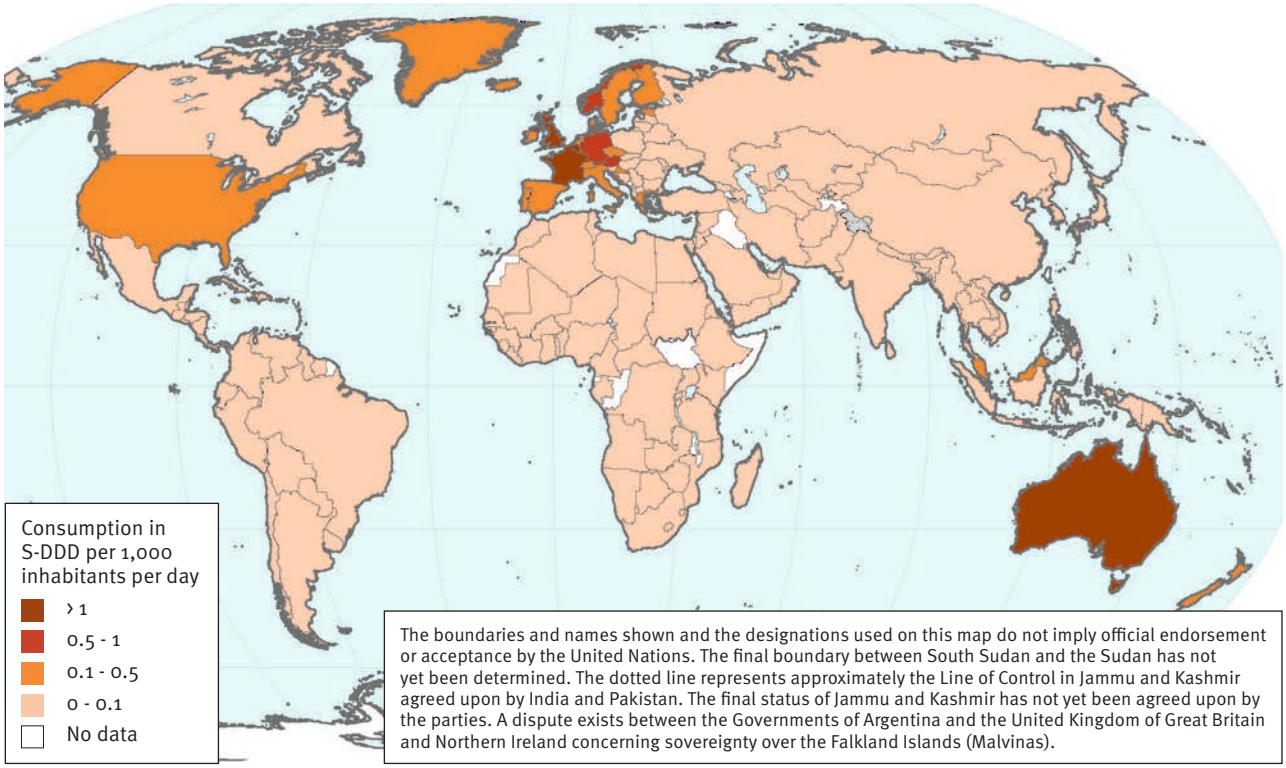
Source: International Narcotics Control Board.

Map 6. Average national consumption of opioid analgesics, 2011-2013



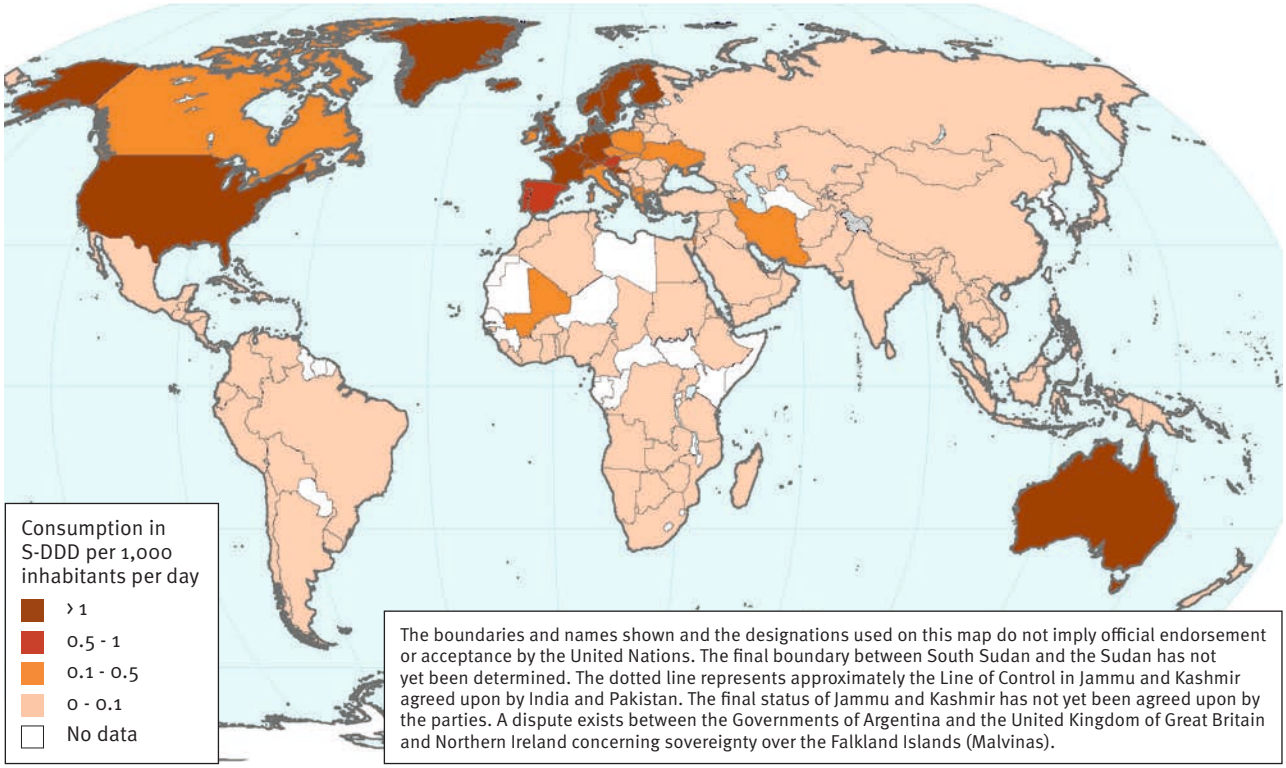
Source: International Narcotics Control Board.

Map 7. Average national consumption of buprenorphine, 2004-2006



Source: International Narcotics Control Board.

Map 8. Average national consumption of buprenorphine, 2011-2013



Source: International Narcotics Control Board.

2. Availability of central nervous system stimulants

192. As mentioned in paragraph 168 above, none of the central nervous system stimulants controlled under the 1971 Convention are included in the WHO Model List of Essential Medicines. This would largely explain the quasi-absence of these substances in the markets of low-income and developing countries.

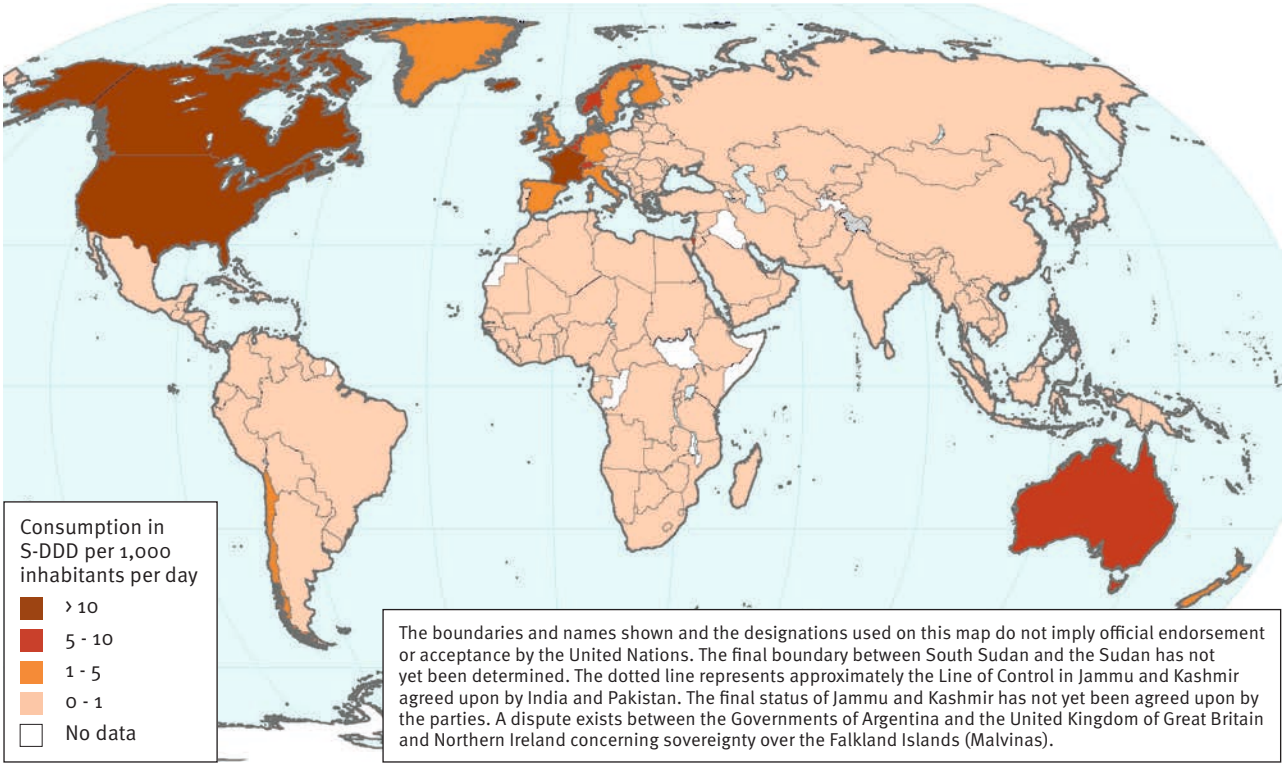
193. Since the early 1990s, the highest per capita calculated consumption of amphetamines has traditionally been in the Americas. The United States remains the major consumer of these substances, mainly for the treatment of ADHD and narcolepsy. These high levels of consumption have increased steadily, and were seven times higher in the late 2000s than in the 1990s.

194. Use of this group of substances was extremely rare in Asia[59] and nearly non-existent in Africa. Consumption rates increased in Oceania, from an average of 0.03 S-DDD per 1,000 inhabitants per day during the 1988-1990 period to 1.31 S-DDD in the 2011-2013 period, mainly due to steadily rising use of dexamfetamine in Australia.

195. In Europe, levels of consumption have been very irregular. Main consuming countries during the past decade included Germany, Hungary and Switzerland. Hungary was a significant consumer of these substances until 2002, when the level of consumption fell drastically.

196. Countries that were the main users of stimulants listed in Schedule II during the 2004-2006 period continued to have the highest levels of consumption during the 2011-2013 period. A marked increase was observed for some countries (mainly in Europe and the Americas), while the vast majority of countries and territories continued to have a level of consumption below 1 S-DDD per 1,000 inhabitants per day (see maps 9 and 10).

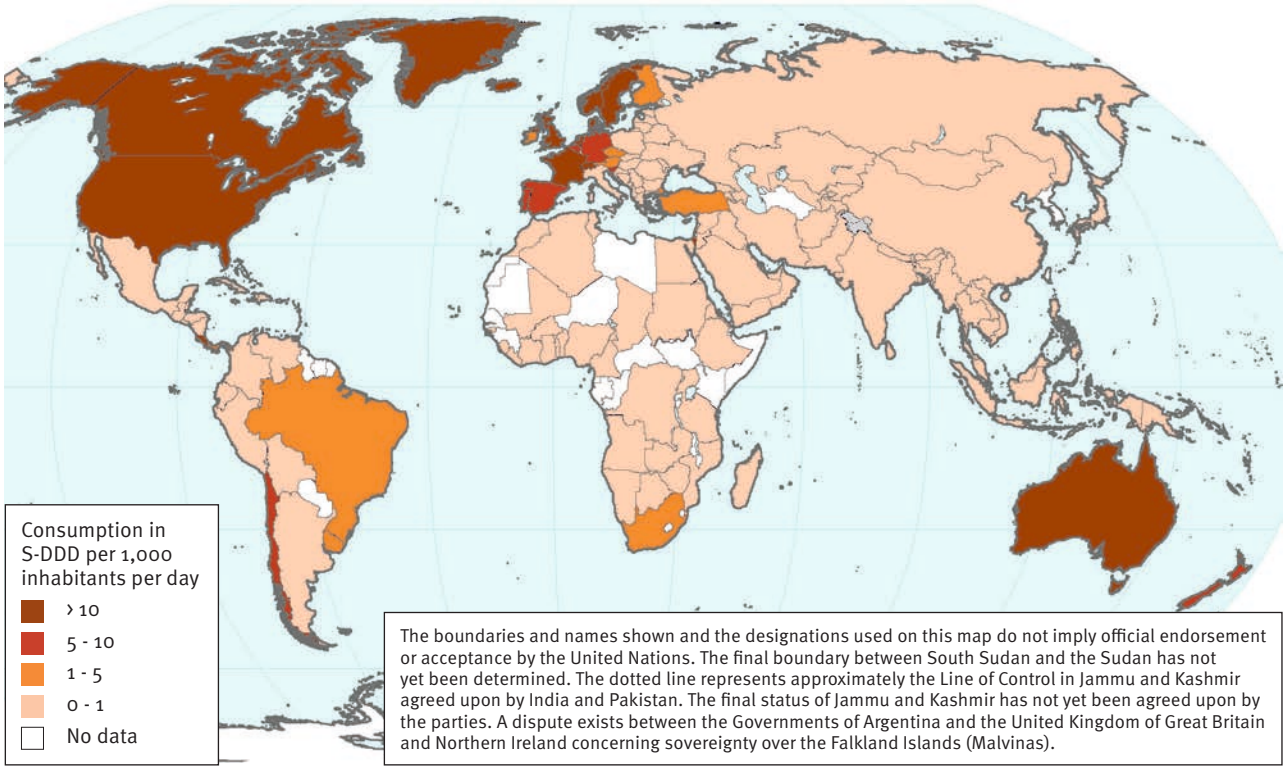
Map 9. Average national consumption of stimulants in Schedule II, 2004-2006



Source: International Narcotics Control Board.

[59] Japan is the only country in the Asia-Pacific region that has had a noticeable rate of use of the substance.

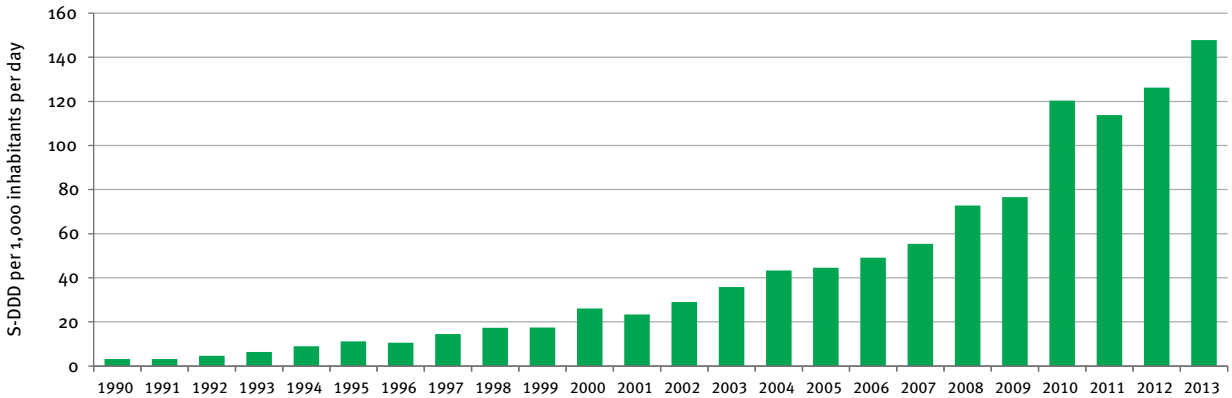
Map 10. Average national consumption of stimulants in Schedule II, 2011-2013



Source: International Narcotics Control Board.

197. Methylphenidate is used for the treatment of various mental and behavioural disorders, in particular of ADHD (primarily in children) and narcolepsy, a sleeping disorder. Use of methylphenidate started to increase noticeably at the beginning of the 1990s (see figure 51). In 1994, for example, global use amounted to more than five times the level of consumption of the early 1980s. This development was mainly due to increasing consumption in the United States, although increasing levels of consumption were also observed in several other countries and parts of the world.

Figure 51. Global consumption of methylphenidate per 1,000 inhabitants per day, 1990-2013

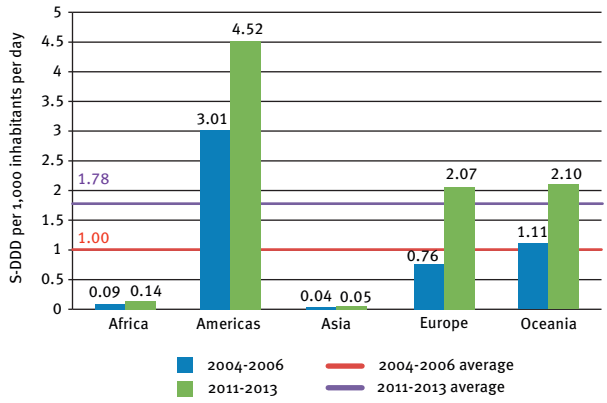


Source: International Narcotics Control Board.

198. While the United States continues to account for more than 80 per cent of the calculated global consumption of methylphenidate, the use of that substance for the treatment of ADHD has also sharply risen in many other countries, in particular those in Oceania and Europe (see figure 52). The prescription levels in most of those countries are still low compared with those in the United States, however. Growth of global consumption of methylphenidate has continued unabated. In 2013, a new record of 2.4 billion S-DDD was attained, with fewer than 20 countries accounting for almost 85 per cent of the total. The countries reporting a significant increase in the

consumption of methylphenidate included Iceland, which has had the highest per capita consumption of the substance in the world for the past several years, as well as Australia, Canada, Germany, Israel, Norway, Spain, Sweden and the United Kingdom. At the same time, the Board is also concerned about the underprescription, and resulting low use, of methylphenidate in other countries.

Figure 52. Consumption of methylphenidate, all regions, 2004-2006 and 2011-2013

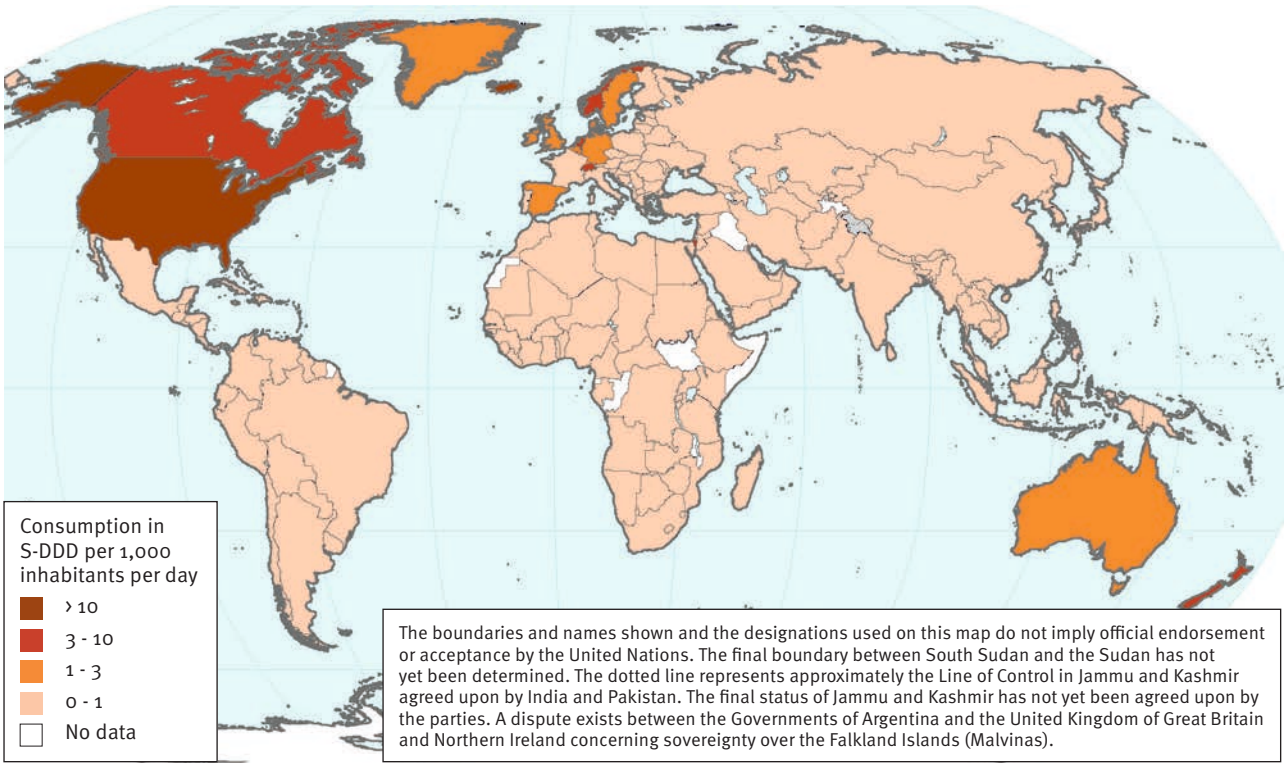


Source: International Narcotics Control Board.

199. National per capita levels of consumption for methylphenidate during the 2004-2006 and 2011-2013 periods, approximated by measures of average annual calculated consumption (in S-DDD per 1,000 inhabitants per day), are shown in maps 11 and 12. As can be seen, the majority of countries and territories continued to have a level of consumption below 1 S-DDD per 1,000 inhabitants per day, while a handful of countries remained the main users of the substance, with a marked increase noted in some countries in the Americas, Europe and Oceania in the 2011-2013 period. While during the 2004-2006 period only five countries had a per capita consumption greater than 5 S-DDD per 1,000 inhabitants per day, by the 2011-2013 period 17 countries had reached that high consumption threshold, including nine countries where consumption was greater than 10 S-DDD per 1,000 inhabitants per day.

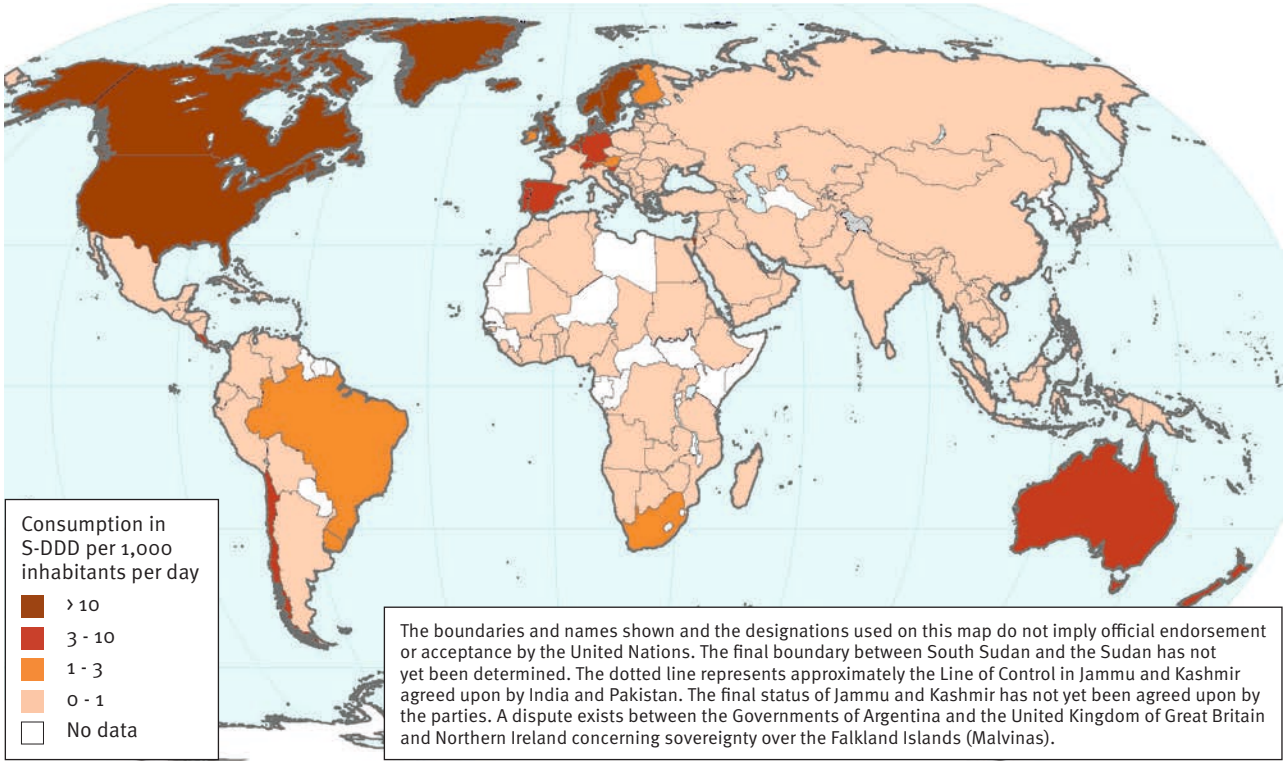
200. The Board has regularly voiced its concern about the possible overdiagnosis of ADHD and the overprescribing of methylphenidate. In 2009, the Board also advised against promotional campaigns for the substance, including advertisements directed at potential consumers. More recently, in its annual report for 2014, the Board considered the use of methylphenidate as a special topic.

Map 11. Average national consumption of methylphenidate, 2004-2006



Source: International Narcotics Control Board.

Map 12. Average national consumption of methylphenidate, 2011-2013



Source: International Narcotics Control Board.

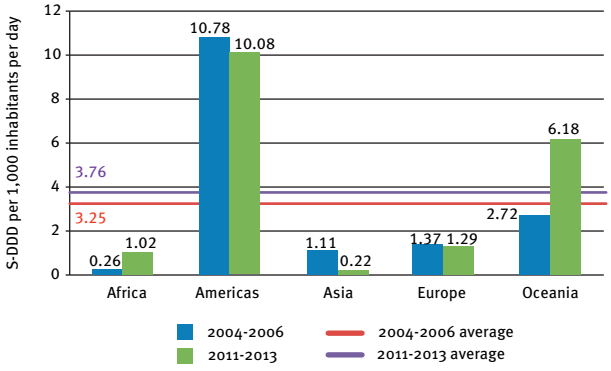
201. Stimulants included in Schedule IV of the 1971 Convention are used as anorectics and, to a lesser extent, for the treatment of ADHD. Their global use has increased steadily since the end of the 1980s. This increase was partly due to high consumption in some Latin American countries (Argentina, Brazil and Chile), in the United States and in some Asian countries and territories (Republic of Korea, Singapore and Hong Kong, China).

202. Since the early 1990s, the highest per capita consumption of stimulants in Schedule IV has always been in the Americas. The decline in the use of phentermine after a peak observed in 1996 in the United States and the adoption of measures against inappropriate use of certain stimulants in some countries of Latin America, such as Brazil, led to some decrease in consumption. However, the levels of consumption in that region remained high in comparison to other regions, except for some countries in Asia.

203. Among the stimulants included in Schedule IV of the 1971 Convention, phentermine has always been the substance comprising the main share of manufacture and consumption, fluctuating between one quarter and two thirds. In 2013, its share of global consumption reached nearly 86 per cent. Reports of misuse of anorectics have been received from several countries in all regions of the world. In recent years, there has been an observed increase in levels of consumption in Africa and Oceania, owing to increased calculated consumption in South Africa and Australia (see figure 53).

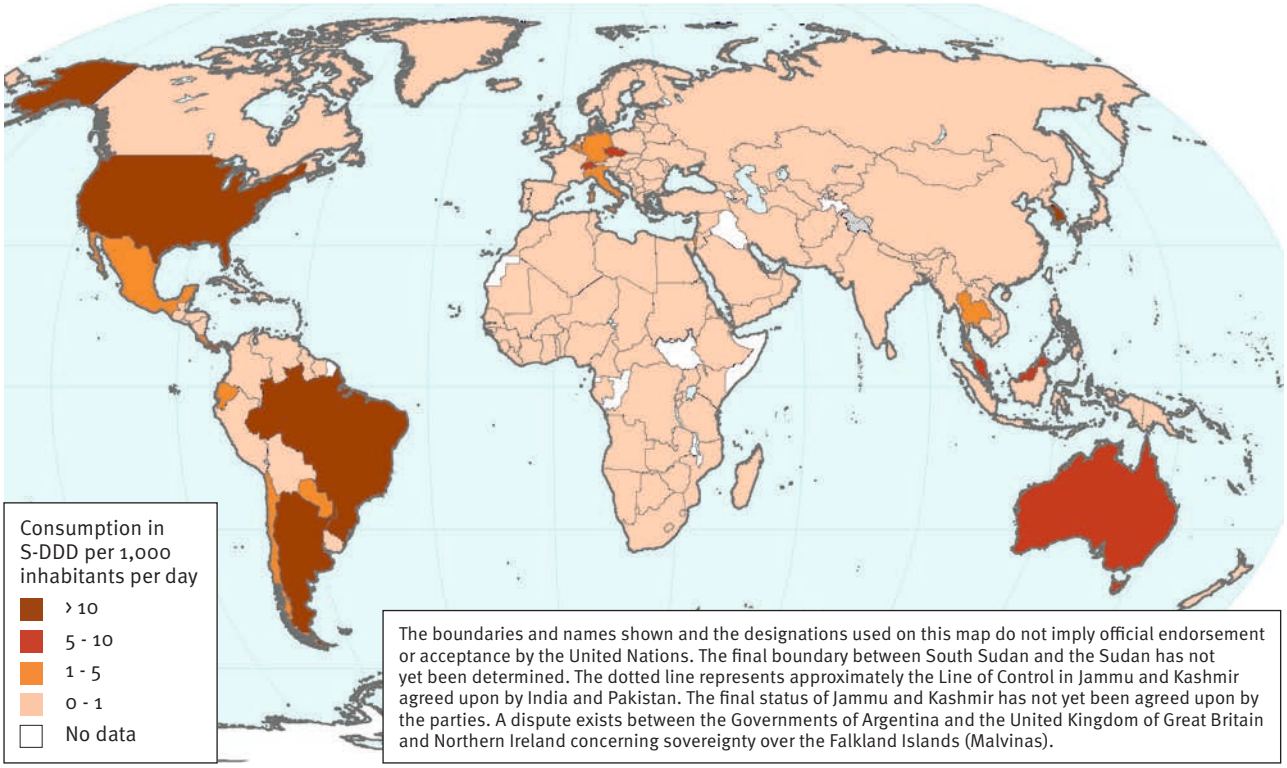
204. Severe restrictions on the use of anorectics and stricter policies regarding their medical use were introduced in a number of countries and were successful in curbing their inappropriate use, thus preventing irrational use and abuse. The changes in consumption of stimulants in Schedule IV by country, approximated by measures of average annual calculated consumption (in S-DDD per 1,000 inhabitants per day) between 2004-2006 and 2011-2013, are presented in maps 13 and 14.

Figure 53. Consumption of stimulants in Schedule IV, all regions, 2004-2006 and 2011-2013



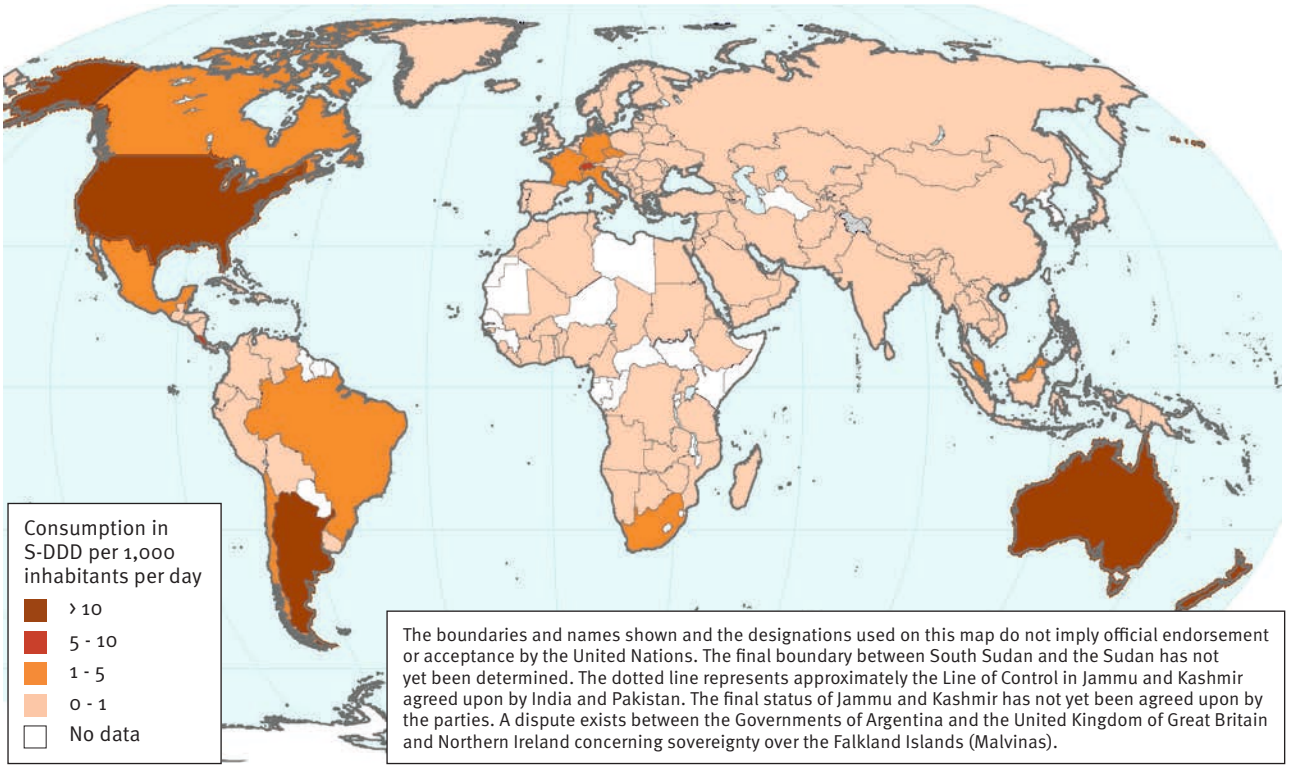
Source: International Narcotics Control Board.

Map 13. Average national consumption of stimulants in Schedule IV, 2004-2006



Source: International Narcotics Control Board.

Map 14. Average national consumption of stimulants in Schedule IV, 2011-2013



Source: International Narcotics Control Board.

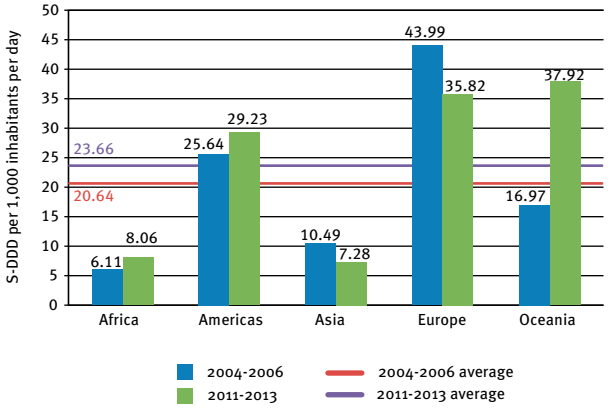
3. Availability of benzodiazepines

205. For the two groups of benzodiazepines, anxiolytics and sedative-hypnotics, the global calculated rate of average annual consumption showed distinct patterns during the 2004-2013 period. While the average annual rate of per capita consumption of benzodiazepine-type anxiolytics showed an upward trend, the global average annual calculated consumption rate of benzodiazepine-type sedative-hypnotics decreased. During that period, practically all countries and territories that reported to INCB manufactured or traded in benzodiazepines, and the reported statistics enabled the Board to calculate consumption rates for over 190 countries and territories. In 2013, alprazolam and diazepam remained the most used substances among anxiolytics (9.2 and 4.4 billion S-DDD, respectively), whereas lormetazepam and brotizolam were the most used sedative-hypnotics (1.4 and 1.3 billion S-DDD, respectively).

(a) Benzodiazepine-type anxiolytics

206. Globally, the average annual rate of per capita consumption of benzodiazepine-type anxiolytics increased somewhat during the 2004-2013 period, from 20.6 to 23.7 S-DDD per 1,000 inhabitants per day. As can be seen in figure 54, in the beginning of the period the rate of average annual consumption for this group of substances was highest in European countries and the Americas, reflecting the fact that benzodiazepines tend to be prescribed frequently for the large cohort of elderly people in those regions. Towards the end of that decade, the highest increases in the rate of average annual consumption were observed in Oceania (123 per cent) and Africa (32 per cent). The consumption rates in Africa and Asia remained below the global average.

Figure 54. Average annual consumption of benzodiazepine-type anxiolytics, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

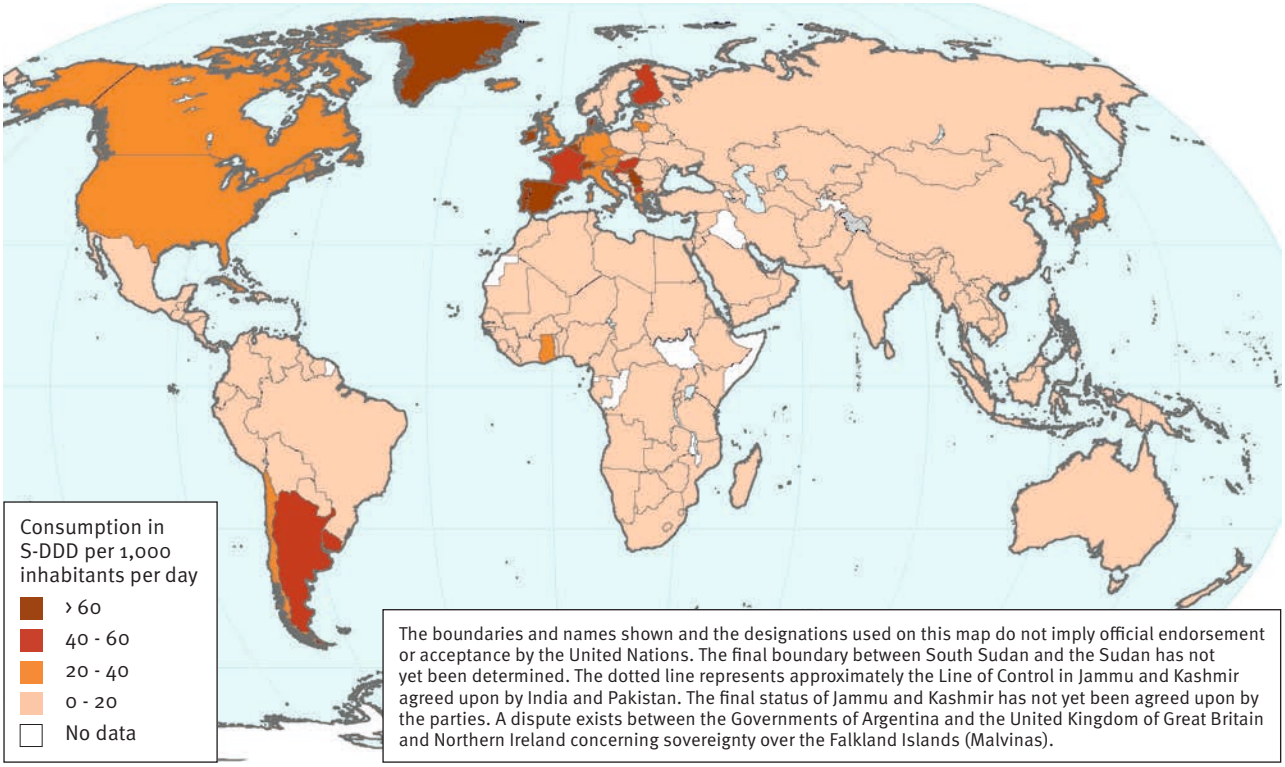
207. During the past decade, the average annual level of consumption in Europe decreased from 43.99 to 35.82 S-DDD per 1,000 inhabitants per day, although an increase in consumption was observed in 23 out of 41 countries in this region that submitted data, in particular in Finland, where there was a 517 per cent increase. The largest decrease in consumption was recorded for Denmark (84 per cent, from 77 to 13 S-DDD per 1,000 inhabitants per day) and Switzerland (73 per cent, from 266 to 72 S-DDD per 1,000 inhabitants per day). During 2011-2013, calculated consumption rates exceeded the regional average in 15 countries; in six countries, the levels were above the global average of 23.7 S-DDD per 1,000 inhabitants per day. The European countries with average levels of consumption below the global average were Iceland, the Czech Republic, the Netherlands, Latvia, Norway, Estonia, Germany, Sweden, Denmark, Poland, Albania, Greece, Romania, the United Kingdom, Bulgaria, the Republic of Moldova, the Russian Federation, Belarus, Ukraine and Cyprus, in descending order.

208. Consumption of this group of anxiolytics averaged 29.2 S-DDD per 1,000 inhabitants per day in the Americas during the 2011-2013 period. Only four countries had rates of consumption that were higher than the regional average: Uruguay (67.9 S-DDD), Argentina (60.1 S-DDD), Canada (55.8 S-DDD) and the United States (42.2 S-DDD). Furthermore, in the Americas significant disparities in levels of consumption of anxiolytics were observed among subregions, with North America having the highest per capita consumption rate during the 2011-2013 period, followed by South America and Central America and the Caribbean (see maps 15 and 16).

209. The regional average in Oceania (37.9 S-DDD per 1,000 inhabitants per day), although much higher than the global average (23.7 S-DDD per 1,000 inhabitants per day), was driven mainly by Australia, which was the only country in the region to have calculated consumption above the global average during 2011-2013. The rates of consumption showed an increase in all countries of the region, except for New Zealand, which saw a decrease of 8 per cent, from 5.1 to 4.6 S-DDD per 1,000 inhabitants per day.

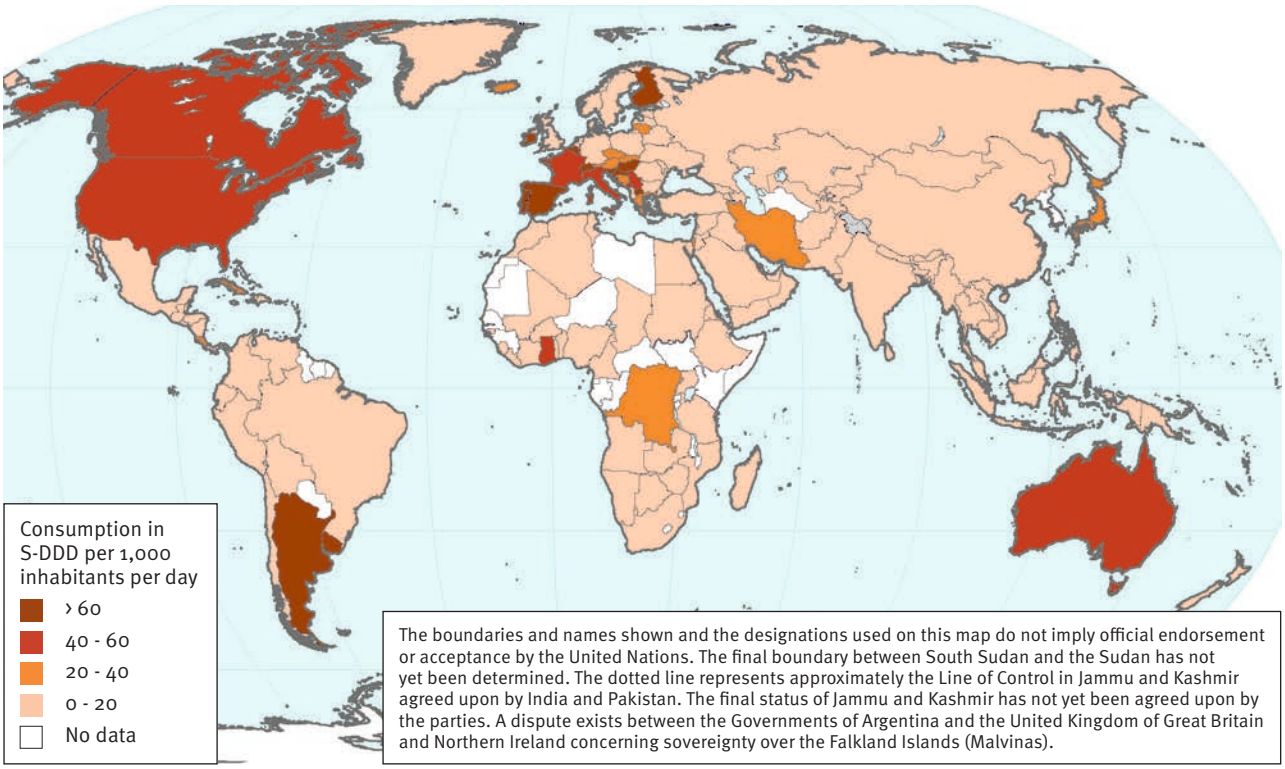
210. In Asia, all but 1 of the 48 countries that submitted data had rates of consumption below the global average. Israel (27.9 S-DDD per 1,000 inhabitants per day), Iran (Islamic Republic of) (22.3 S-DDD), Japan (21.1 S-DDD) and an additional three countries (Jordan, Lebanon and Thailand) had calculated rates of consumption above the regional average of 7.3 S-DDD per 1,000 inhabitants per day during the 2011-2013 period.

Map 15. Average national consumption of benzodiazepine anxiolytics, 2004-2006



Source: International Narcotics Control Board.

Map 16. Average national consumption of benzodiazepine anxiolytics, 2011-2013



Source: International Narcotics Control Board.

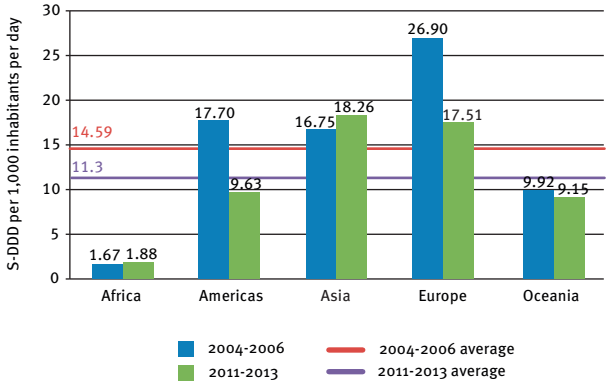
211. In Africa, the average annual rate of consumption of benzodiazepine-type anxiolytics increased from 6.1 S-DDD to 8.6 S-DDD per 1,000 inhabitants per day between the 2004-2006 and the 2011-2013 periods. The average calculated consumption rate increased in 19 African countries or territories, most notably in Saint Helena (by a factor of nearly seven, from 1.3 to 9 S-DDD per 1,000 inhabitants per day), and Namibia and the Democratic Republic of the Congo (both by a factor of more than 4.5, from 4.9 to 22.5 S-DDD). Ghana remained the country with the highest consumption rate in the region (and seventeenth highest in the world), with an increase of 146 per cent between the 2004-2006 and 2011-2013 periods, from 21.3 to 52.3 S-DDD. Next came the Democratic Republic of the Congo, with 22.5 S-DDD per 1,000 inhabitants per day, which remained slightly below the global average of 23.7 S-DDD. At the same time, there were more than 16 countries that consumed less than 1 S-DDD per 1,000 inhabitants per day during 2011-2013, and more than 10 countries recorded a decrease in the rate of consumption. The biggest decrease in the average annual rate of calculated consumption was recorded for Cabo Verde (from 6.5 to 0.7 S-DDD), Sierra Leone (from 0.6 to 0.1 S-DDD), Eritrea (from 0.1 to 0.02 S-DDD), the United Republic of Tanzania (from 2 to 0.7 S-DDD) and Botswana (from 1.4 to 0.7 S-DDD).

(b) Benzodiazepine-type sedative-hypnotics

212. The global average annual calculated consumption rate of benzodiazepine-type sedative-hypnotics, when measured in S-DDD per 1,000 inhabitants per day, decreased by more than 22 per cent between the 2004-2006 and 2011-2013 periods, from 14.6 S-DDD to 11.3 S-DDD per 1,000 inhabitants per day. Consumption was consistently highest in Europe, while decreases were observed in the Americas, Europe and Oceania, and increases in Africa and Asia (see figure 55).

213. In Europe, the average annual rate of calculated consumption decreased by 35 per cent between the 2004-2006 and 2011-2013 periods, from 26.9 S-DDD to 17.5 S-DDD per 1,000 inhabitants per day. A decrease in consumption rates was observed in 29 countries in this region, including Cyprus (from 20.5 S-DDD per 1,000 inhabitants per day to almost zero), the Republic of Moldova (from 0.15 to 0.003 S-DDD), the United Kingdom (from 47.3 to 4 S-DDD) and Switzerland (from 42.6 to 11.4 S-DDD), reflecting a possible change in the types of benzodiazepine that were prescribed in medical practice. An increase was observed in 12 countries, most notably in Andorra (365 per cent), Croatia (300 per cent) and Slovakia (244 per cent). During the 2011-2013 period, five countries had rates of average annual consumption above the regional average of 17.5 S-DDD per 1,000 inhabitants per day and an additional six countries had rates of consumption above the global average of 11.3 S-DDD.

Figure 55. Average annual consumption of benzodiazepine-type sedative-hypnotics, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

214. The average annual consumption rate of benzodiazepine-type sedative-hypnotics in Oceania, also decreased between the 2004-2006 and 2011-2013 periods, from 9.9 S-DDD to 9.1 S-DDD per 1,000 inhabitants per day. Although their consumption rates decreased by 20 and 22 per cent, respectively, Australia and New Zealand remained the two countries in the region with the highest average calculated consumption rates. Micronesia (Federated States of), New Caledonia and Wallis and Futuna Islands showed increases in average annual consumption rates, albeit from low levels. Except for Australia, New Zealand, New Caledonia and French Polynesia, the rest of the countries and territories of this region had rates of average annual consumption for this group of substances below 0.1 S-DDD per 1,000 inhabitants per day.

215. In the Americas, the average annual rate of calculated consumption decreased by 45 per cent between the 2004-2006 period and the 2011-2013 period, from 17.7 S-DDD to 9.8 S-DDD per 1,000 inhabitants per day. However, there was a great disparity between subregions. As consumption rates increased in countries of North America and Central America and the Caribbean, they decreased in South America. Only three countries in the Americas had consumption rates above the regional average of 9.8 S-DDD per 1,000 inhabitants per day: Cuba (30.1 S-DDD), Uruguay (23.3 S-DDD) and Canada (14.6 S-DDD). The consumption rates of 33 countries and territories were below the global average, including

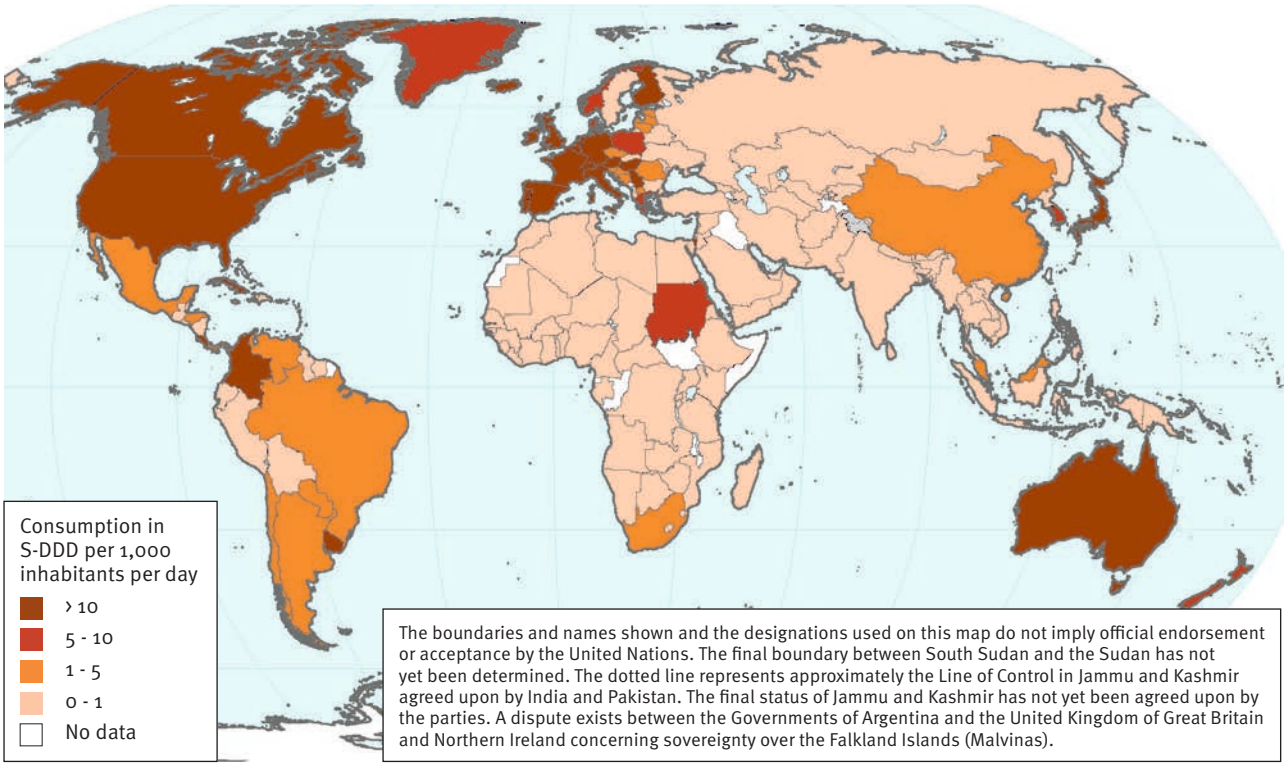
24 countries with rates below 1 S-DDD and 11 countries with rates below 0.1 S-DDD per 1,000 inhabitants per day.

216. In Asia, the rate of consumption of benzodiazepine-type sedative-hypnotics increased, from an average annual rate of 16.8 S-DDD per 1,000 inhabitants per day during the 2004-2006 period to 18.3 S-DDD per 1,000 inhabitants per day during the 2011-2013 period. During the latter period, Japan (54.2 S-DDD), Israel (9.5 S-DDD), Macao, China (2.6 S-DDD), Hong Kong, China (1.3 S-DDD) and Bangladesh (1.2 S-DDD) were the only countries or territories with average annual rates of calculated consumption above 1 S-DDD per 1,000 inhabitants per day. The high rates in Japan and Israel have traditionally been attributed to their large cohorts of elderly people. During the 2011-2013 period, 37 countries in Asia had average annual consumption rates of benzodiazepine-type sedative-hypnotics below 1 S-DDD per 1,000 inhabitants per day, including 22 countries with rates of consumption below 0.1 S-DDD.

217. In Africa, during the 2011-2013 period, only South Africa (2 S-DDD) had an average rate of annual calculated consumption above the regional average of 1.9 S-DDD per 1,000 inhabitants per day. That country was followed by Nigeria (1.1 S-DDD) and Namibia (0.6 S-DDD). Twenty-one countries had rates of consumption below 0.1 S-DDD, including 14 countries with rates below 0.01 S-DDD.

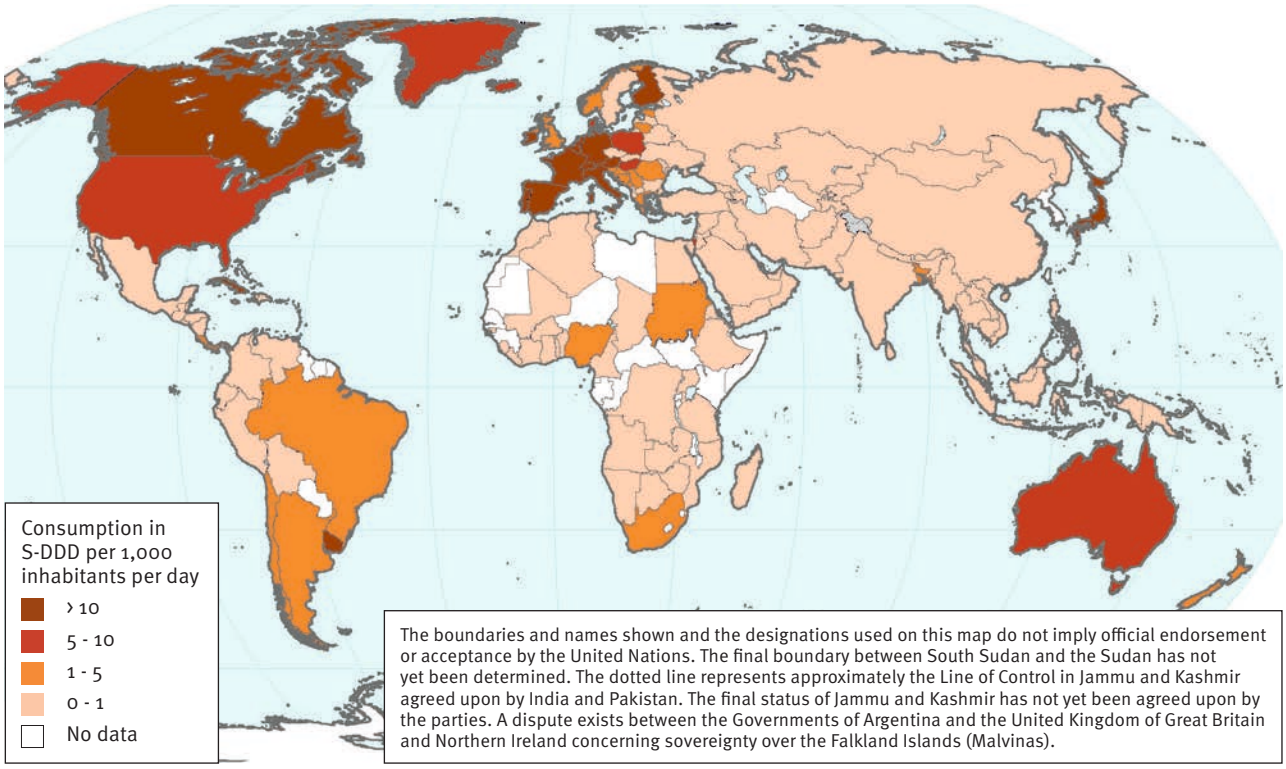
218. The changes in consumption of benzodiazepine-type sedative-hypnotics by country, approximated by measures of average annual calculated consumption (in S-DDD per 1,000 inhabitants per day) between 2004-2006 and 2011-2013 are presented in maps 17 and 18.

Map 17. Average national consumption of benzodiazepine sedative-hypnotics, 2004-2006



Source: International Narcotics Control Board.

Map 18. Average national consumption of benzodiazepine sedative-hypnotics, 2011-2013



Source: International Narcotics Control Board.

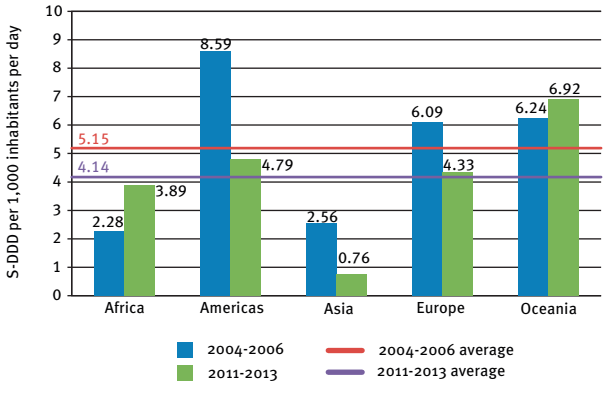
(c) Essential medicines containing benzodiazepines

219. Three benzodiazepine substances are included in the WHO Model List of Essential Medicines: diazepam and lorazepam (anxiolytics) and midazolam (sedative-hypnotic).

Diazepam

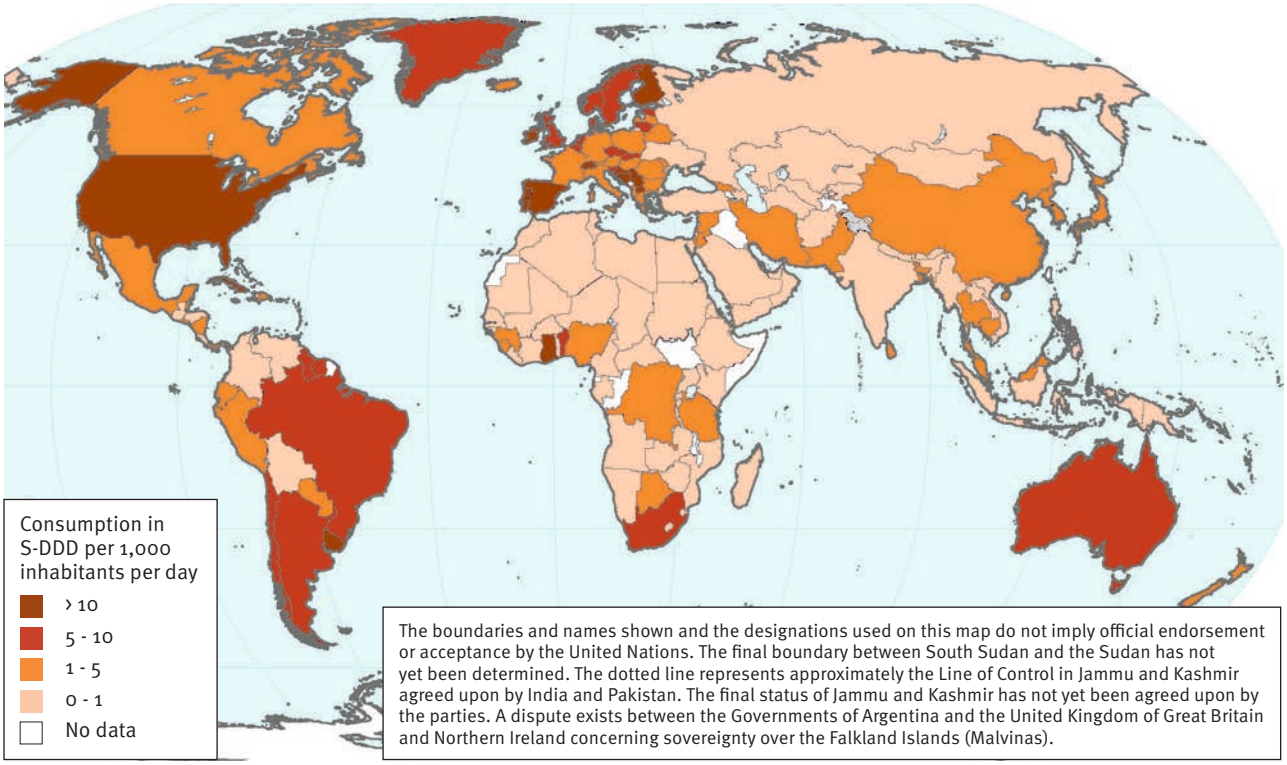
220. The global average annual consumption rate of diazepam decreased by 20 per cent between the 2004-2006 and 2011-2013 periods, from 5.2 S-DDD to 4.1 S-DDD per 1,000 inhabitants per day (see figure 56). The biggest decreases in average consumption were observed in Asia (70 per cent) and the Americas (44 per cent). By contrast, Africa and Oceania were the regions where the average annual consumption rate increased (by 70 per cent and 11 per cent, respectively). Significant increases in Africa were mainly the result of increases in the calculated consumption for the Democratic Republic of the Congo and Ghana. Globally, during 2011-2013, out of 164 countries on record, the consumption rates of 37 countries were above the global average, with Ghana (50.5 S-DDD), the former Yugoslav Republic of Macedonia (26.1 S-DDD) and Croatia (25.9 S-DDD) having the highest rates. At the bottom end, about 90 countries had consumption rates below 1 S-DDD per 1,000 inhabitants per day, with 22 countries consuming at a rate below 0.1 S-DDD) (see maps 19 and 20).

Figure 56. Average annual consumption of diazepam, 2004-2006 and 2011-2013



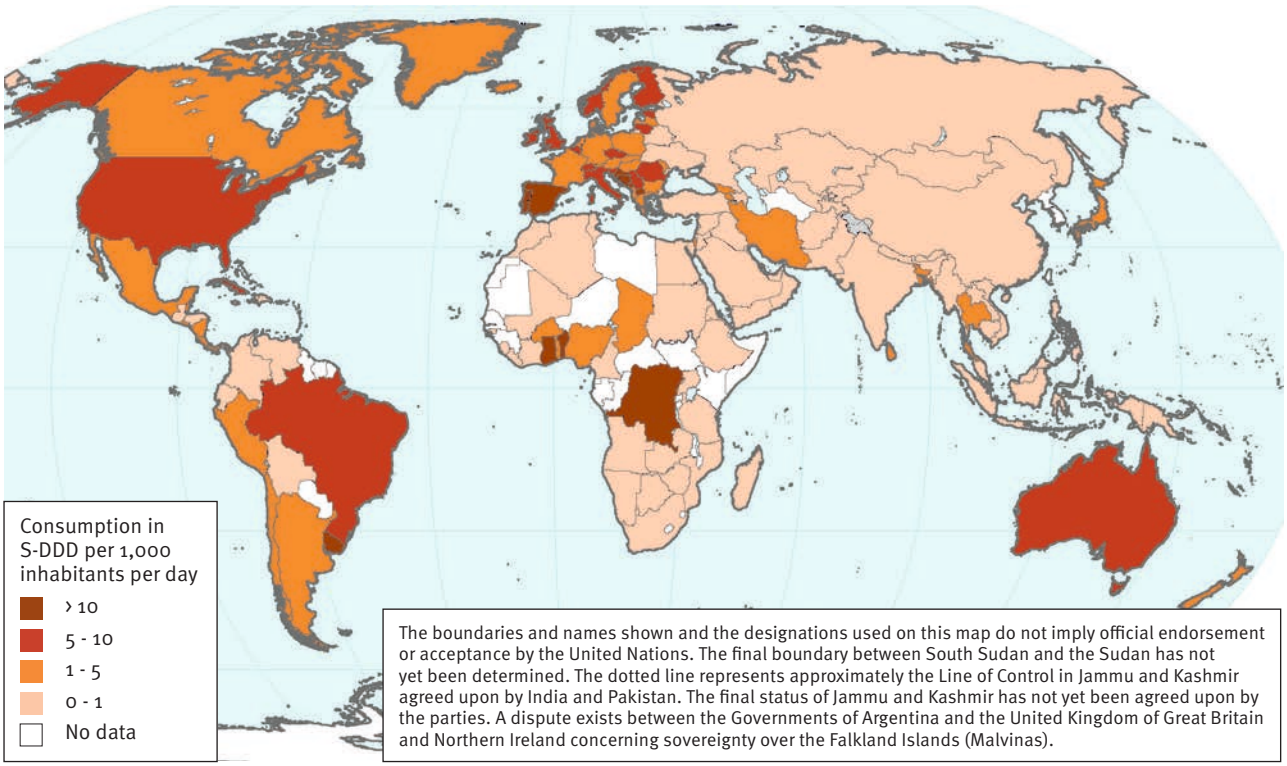
Source: International Narcotics Control Board.

Map 19. Average national consumption of diazepam, 2004-2006



Source: International Narcotics Control Board.

Map 20. Average national consumption of diazepam, 2011-2013

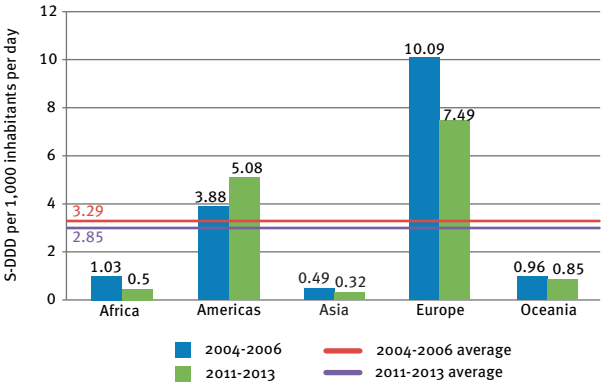


Source: International Narcotics Control Board.

Lorazepam

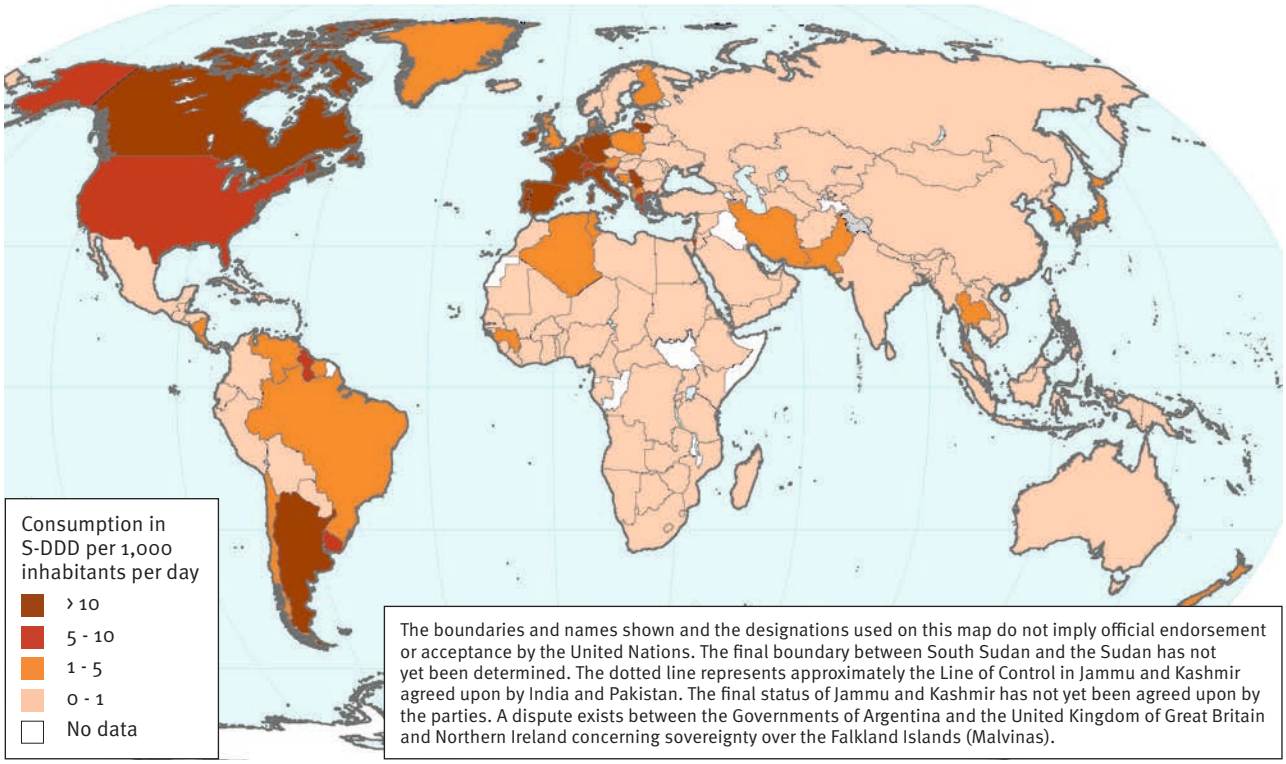
221. As presented in figure 57, the global average annual consumption rate of lorazepam also decreased between 2004-2006 and 2011-2013, from 3.3 S-DDD to 2.8 S-DDD per 1,000 inhabitants per day. However, this relatively small (13.4 per cent) decrease was the result of significant volatility in different regions. During that period, average annual consumption rates increased in the Americas by 31 per cent while decreasing in all other regions, with the highest declines observed in Africa (51.4 per cent), Asia (34.5 per cent), and Europe (25.8 per cent). Out of 134 countries that submitted statistics during the 2011-2013 period, 31 countries had average annual calculated consumption rates above the global average. The highest rates were observed in Europe, led by Ireland (85.9 S-DDD), Portugal (27.7 S-DDD) and Spain (27.2 S-DDD). Eighty-three countries had average annual consumption rates below 1 S-DDD per 1,000 inhabitants per day, including 44 countries with rates below 0.1 S-DDD, most notably Bhutan, Chad and Papua New Guinea, which had rates below 0.02 S-DDD. Changes in the consumption of lorazepam by country are presented in maps 21 and 22 below.

Figure 57. Average annual consumption of lorazepam, 2004-2006 and 2011-2013



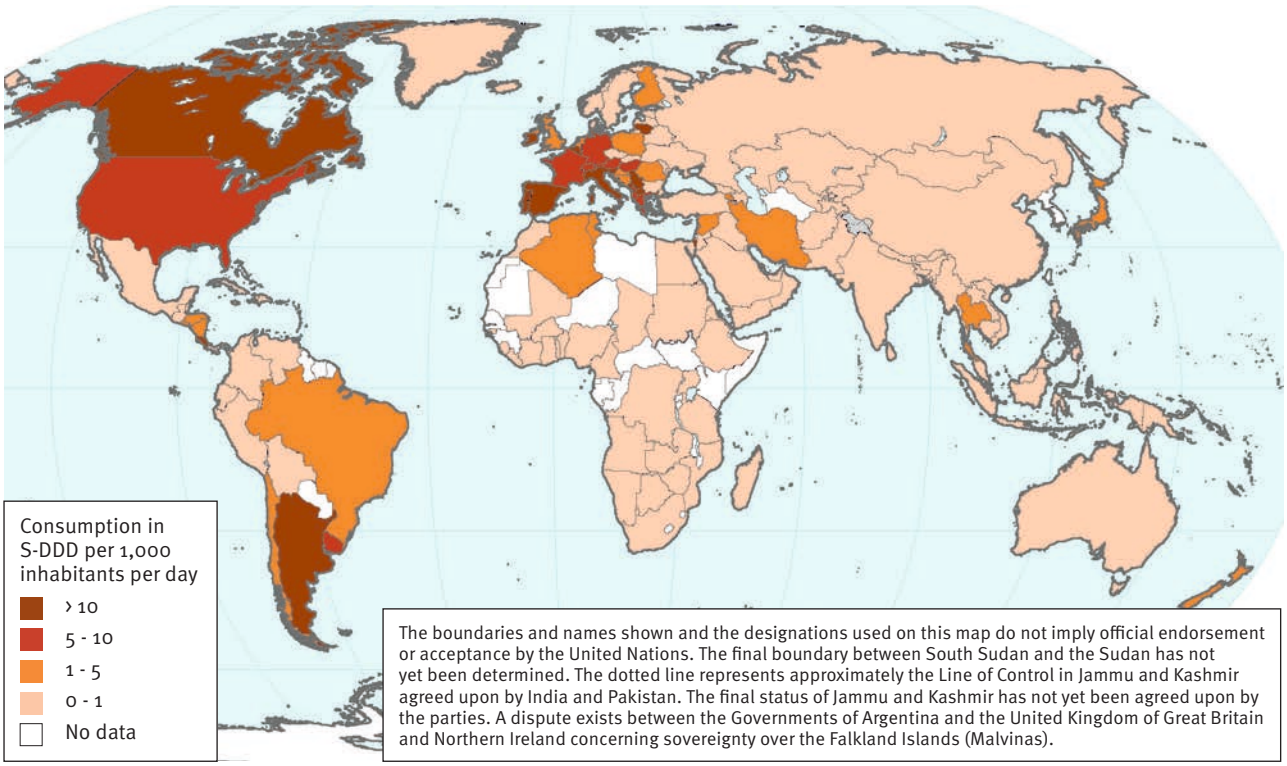
Source: International Narcotics Control Board.

Map 21. Average national consumption of lorazepam, 2004-2006



Source: International Narcotics Control Board.

Map 22. Average national consumption of lorazepam, 2011-2013

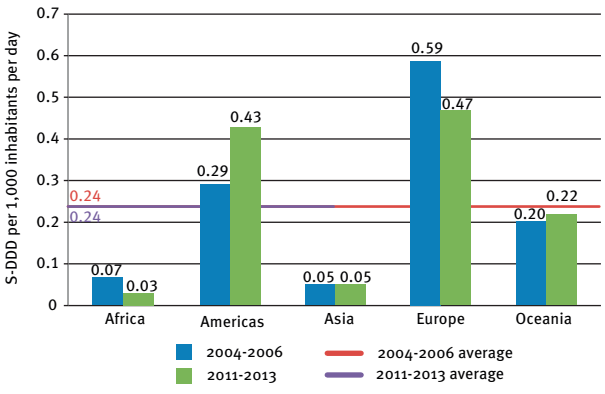


Source: International Narcotics Control Board.

Midazolam

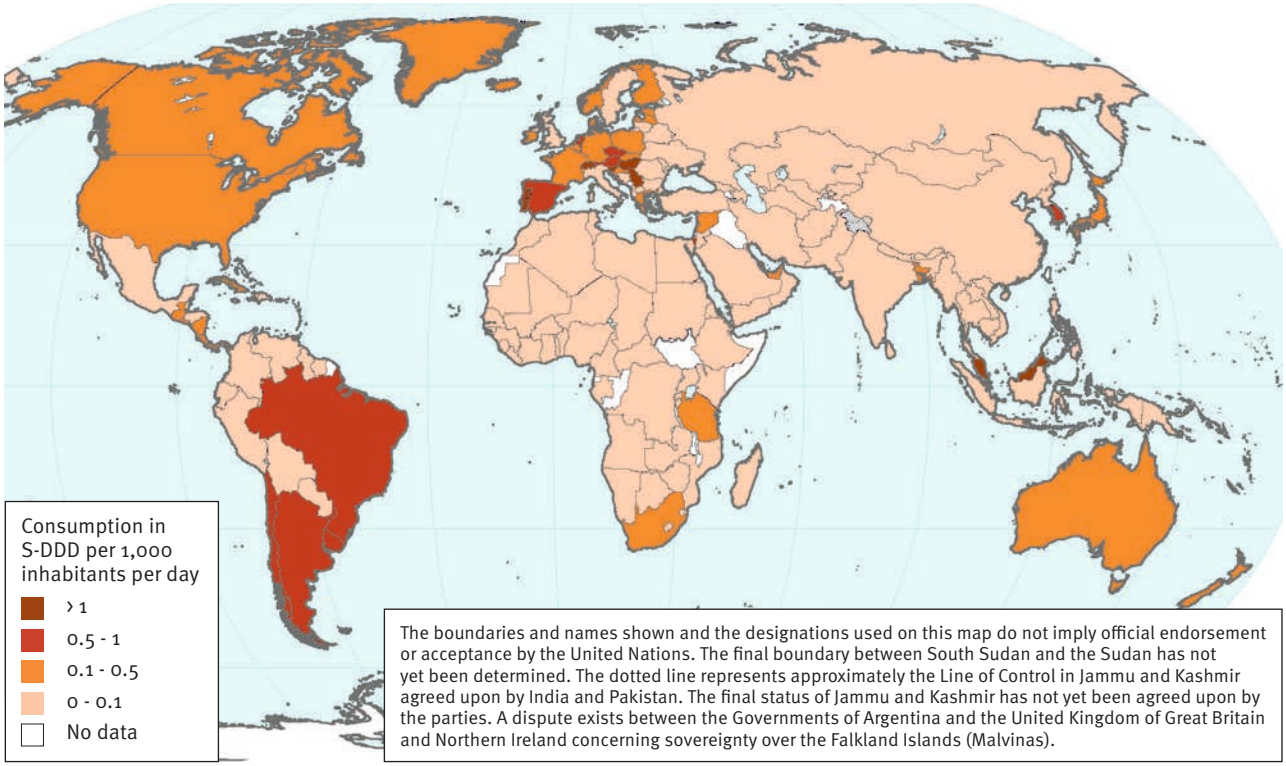
222. The global average annual rate of calculated consumption of midazolam decreased by 0.4 per cent between the 2004-2006 period and the 2011-2013 period, from 0.238 S-DDD to 0.237 S-DDD per 1,000 inhabitants per day (see figure 58). Europe and the Americas have traditionally had the highest rates of consumption of midazolam. During the past decade, the most significant increases in average consumption rates were observed in the Americas (47.2 per cent). At the same time, consumption rates decreased in Africa (by 56 per cent), Europe (20 per cent) and Asia (10 per cent). During the 2011-2013 period, only eight countries and territories had average annual calculated consumption rates above 1 S-DDD per 1,000 inhabitants per day: Switzerland (5 S-DDD), Sint Maarten (2.7), Portugal (1.9), Curaçao (1.6), Uruguay (1.5), Hungary (1.4), Costa Rica (1.1) and the United Kingdom (1), while 37 countries and territories had consumption rates above the global average of 0.237 S-DDD. Among the countries and territories having consumption rates below the global average, 89 of them had rates below 0.1 S-DDD, including 51 with rates below 0.01 S-DDD. The changes in consumption of midazolam by country between 2004-2006 and 2011-2013 are presented in maps 23 and 24.

Figure 58. Average annual consumption of midazolam, 2004-2006 and 2011-2013



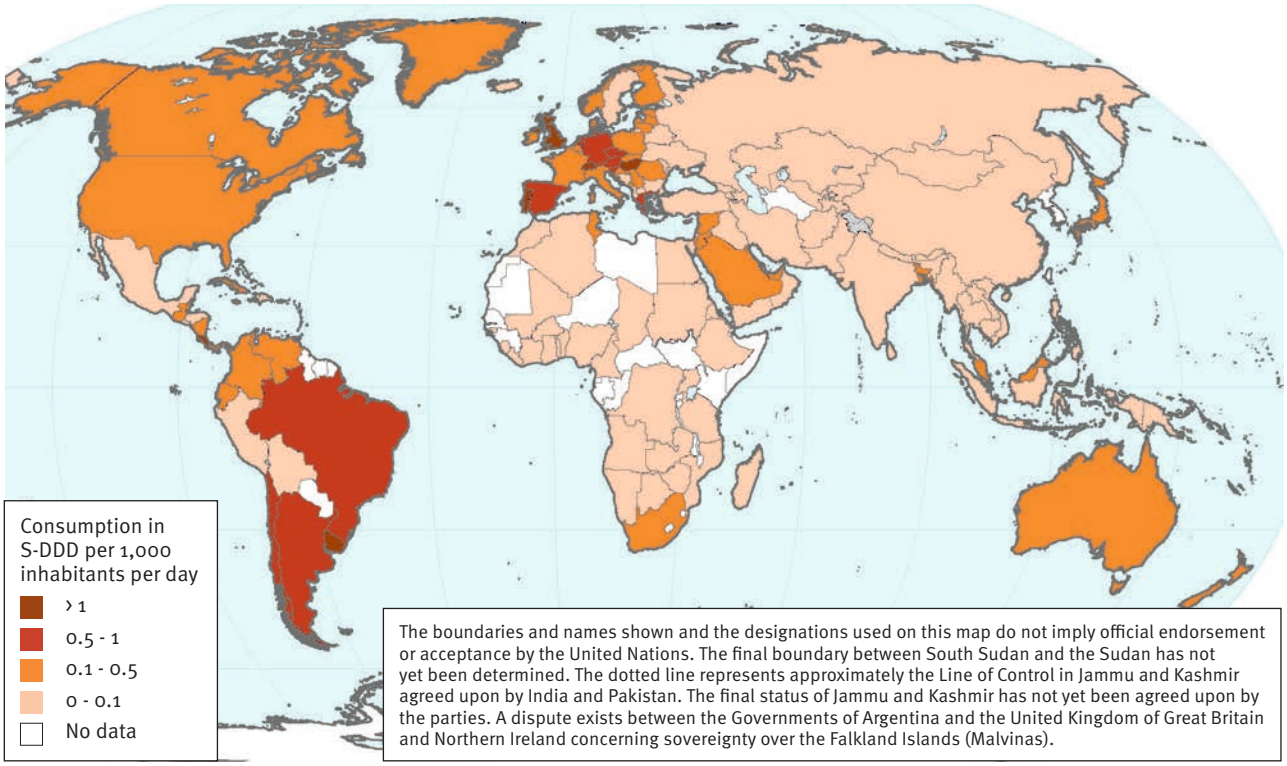
Source: International Narcotics Control Board.

Map 23. Average national consumption of midazolam, 2004-2006



Source: International Narcotics Control Board.

Map 24. Average national consumption of midazolam, 2011-2013



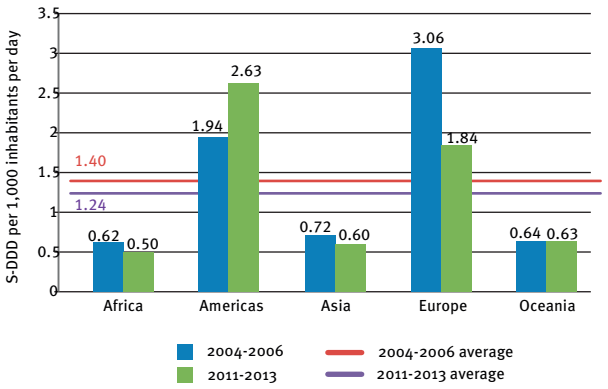
Source: International Narcotics Control Board.

(d) Availability of anti-epileptics

223. Both barbiturate-type anti-epileptics (phenobarbital and methylphenobarbital) and benzodiazepine-type anti-epileptics (clonazepam) are included in Schedule IV of the 1971 Convention. In addition to being used for the treatment of epilepsy, these substances are also used to induce sleep. As one of the substances on the WHO Model List of Essential Medicines, phenobarbital accounted for almost all of global consumption of anti-epileptics during the 2004-2013 period.

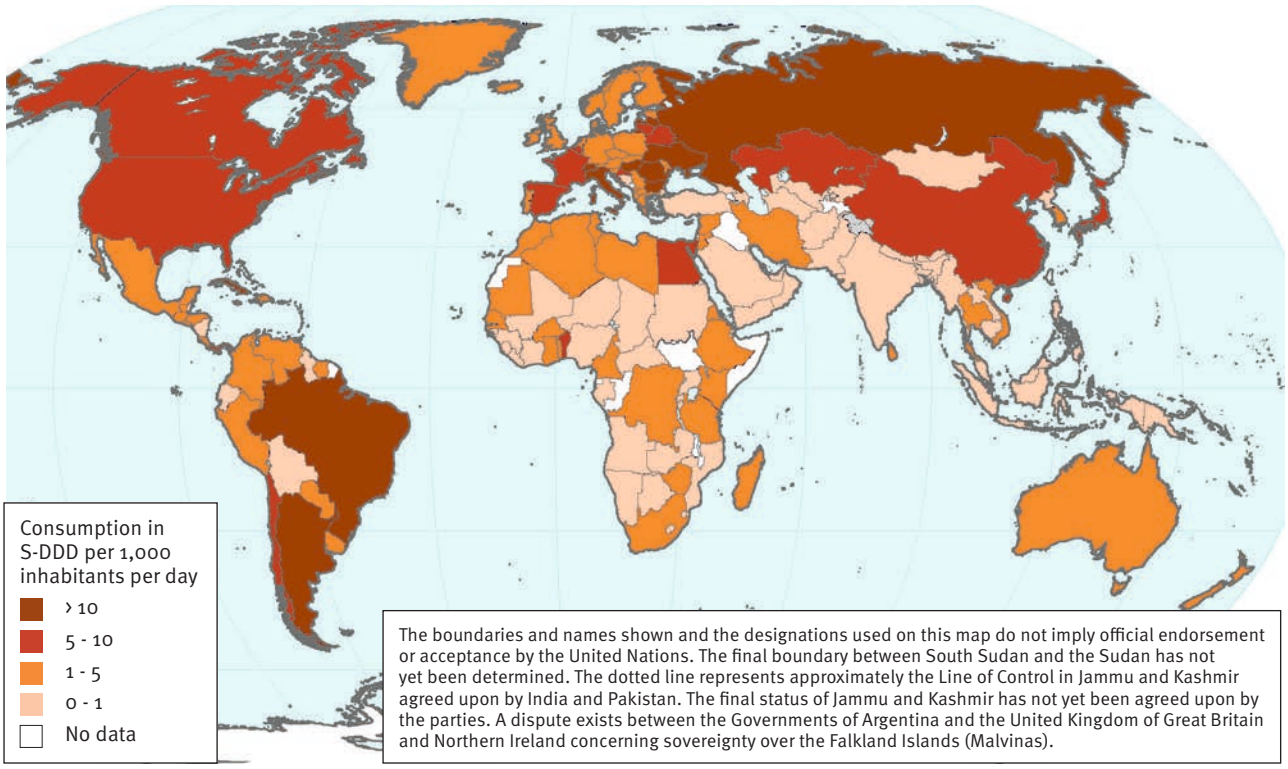
224. During that time, the global consumption of anti-epileptics decreased in all regions except the Americas. In particular, the largest reductions were found in Europe (40 per cent), Africa (20 per cent) and Asia (16 per cent). At the same time, the rate of consumption of anti-epileptics in Oceania remained roughly the same, but that in the Americas has increased by 35 per cent (see figure 59). The changes in consumption of anti-epileptics by country are presented in maps 25 and 26 below.

Figure 59. Consumption of anti-epileptics, all regions, 2004-2006 and 2011-2013



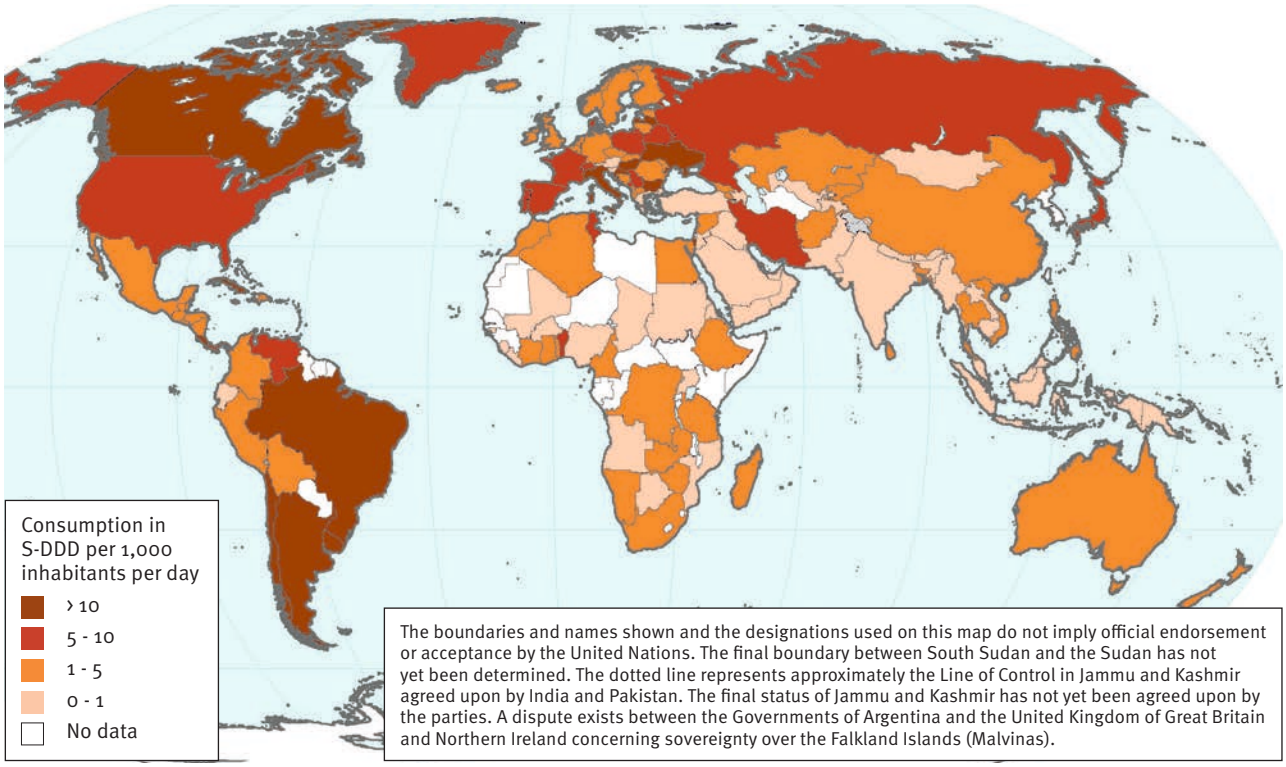
Source: International Narcotics Control Board.

Map 25. Average national consumption of anti-epileptics, 2004-2006



Source: International Narcotics Control Board.

Map 26. Average national consumption of anti-epileptics, 2011-2013

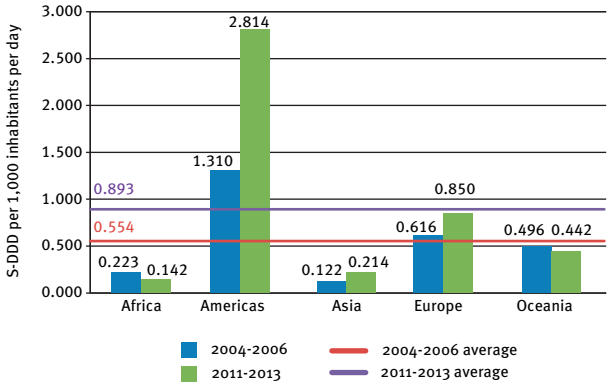


Source: International Narcotics Control Board.

(e) Benzodiazepine-type anti-epileptics (clonazepam)

225. The significant increases in consumption of anti-epileptics in the Americas were mainly driven by higher consumption of benzodiazepine-type anti-epileptics (clonazepam) in Brazil, Costa Rica, Nicaragua and Panama. Contrary to the overall trend in the consumption of anti-epileptics, consumption of benzodiazepine-type anti-epileptics (clonazepam) increased in most parts of the world during the 2004-2013 period (see figure 60). The rise was greatest in the Americas (115 per cent), Asia (75 per cent) and Europe (38 per cent). Meanwhile, the consumption of clonazepam in Africa and Oceania decreased moderately, by 36 per cent and 11 per cent, respectively. Regardless of the changes observed in different regions, the regional distribution of the consumption of clonazepam has stayed the same—with the highest levels of consumption found in the Americas, followed by Europe, Oceania, Asia and Africa.

Figure 60. Consumption of clonazepam, all regions, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

(f) Barbiturate-type anti-epileptics

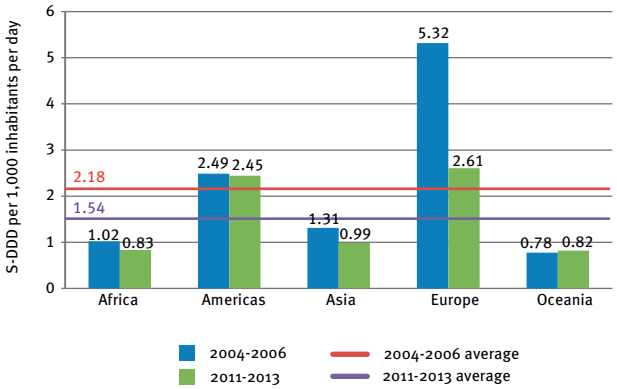
226. Global consumption of barbiturate-type anti-epileptics (phenobarbital and methylphenobarbital) dropped

substantially during the 2004-2013 period. While the consumption of such substances fell by 95 per cent in Europe, it also declined in Asia and Africa, by 33 per cent and 20 per cent, respectively. The regional pattern of consumption of barbiturate-type anti-epileptics remained the same, with Europe and the Americas having the highest levels of consumption, followed by Asia, Africa and Oceania. As consumption of phenobarbital accounted for almost all of global consumption of barbiturate-type anti-epileptics, the consumption trend relating to this type of anti-epileptic has been very similar to that of phenobarbital.

Phenobarbital

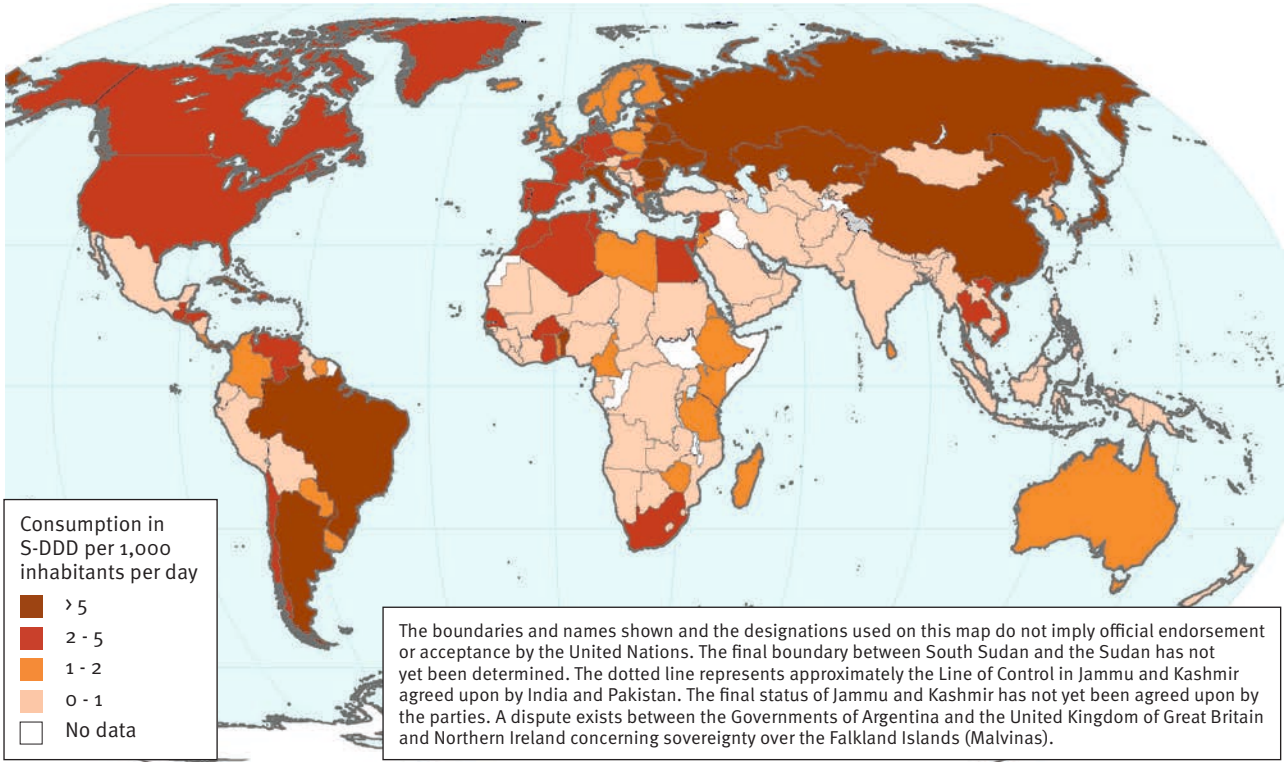
227. Between 2004 and 2013, global consumption of phenobarbital, calculated in S-DDD per 1,000 inhabitants per day, declined by nearly 30 per cent,[60] with rather significant regional differences (see figure 61). While both Europe and the Americas had higher levels of consumption than the rest of the world, the consumption of phenobarbital in Europe fell by 51 per cent while that in the Americas only edged down by 2 per cent. Among all European countries, the largest reductions were in Lithuania, Hungary and Greece, in that order. Meanwhile, the consumption of phenobarbital in Asia and Africa also shrank, by 25 per cent and 18 per cent respectively, while that in Oceania went up by 6 per cent. Despite these differences in trends, the regional distribution of the global consumption of phenobarbital remained the same throughout the 2004-2013 period, with Europe and the Americas being the two regions with the highest average levels of consumption, followed by Asia, Africa and Oceania. The changes in consumption of phenobarbital by country, approximated by measures of average annual calculated consumption (in S-DDD per 1,000 inhabitants per day) between 2004-2006 and 2011-2013, are presented in maps 27 and 28 below.

Figure 61. Consumption of phenobarbital, all regions, 2004-2006 and 2011-2013



Source: International Narcotics Control Board.

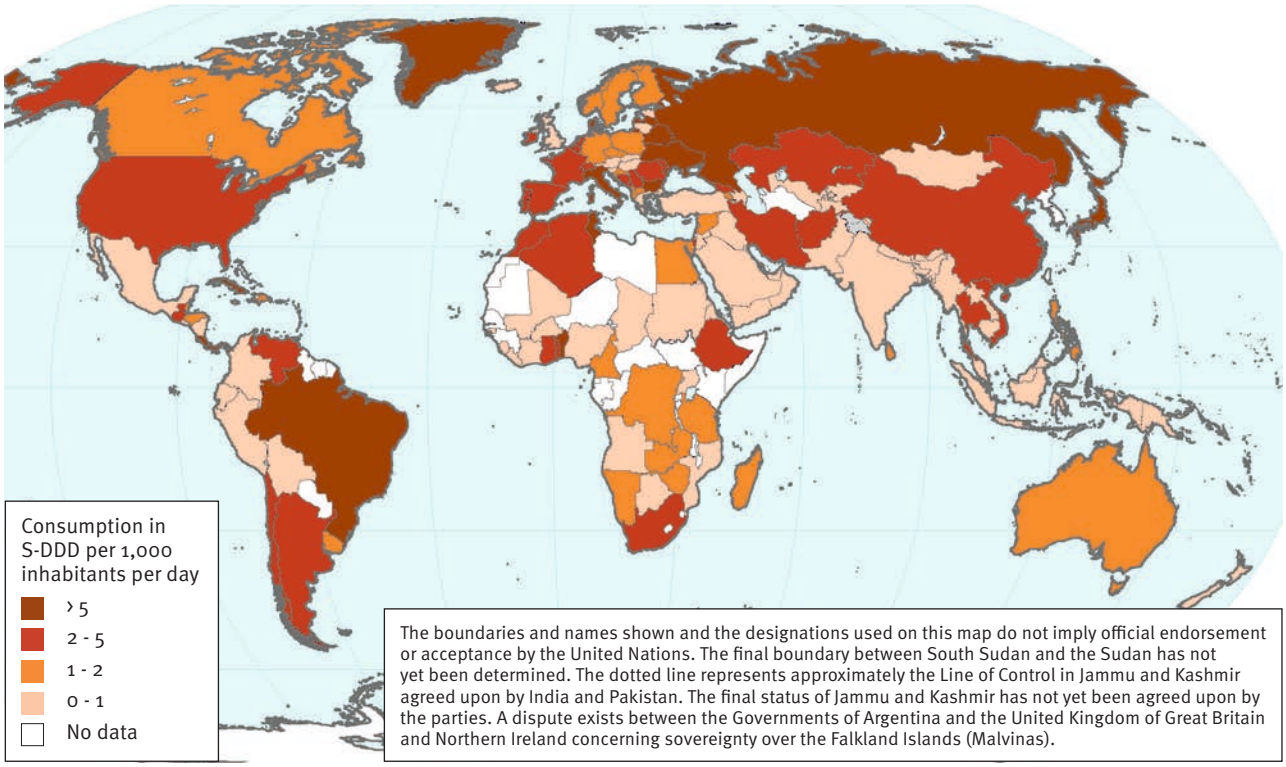
Map 27. Average national consumption of phenobarbital, 2004-2006



Source: International Narcotics Control Board.

[60] The calculation is based on a comparison between the three-year averages of 2004-2006 and 2011-2013.

Map 28. Average national consumption of phenobarbital, 2011-2013



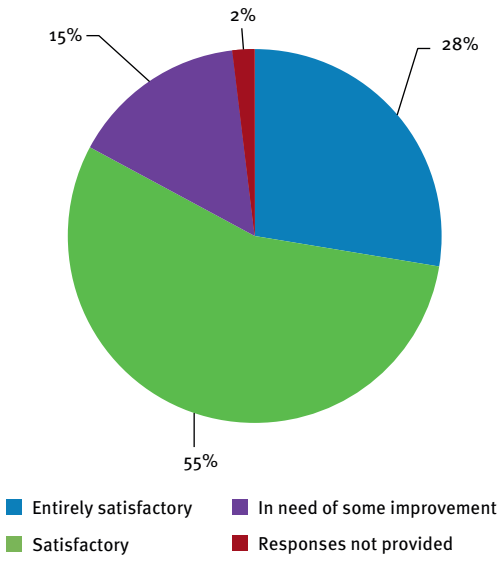
Source: International Narcotics Control Board.

C. Impediments to the availability of psychotropic substances

228. The availability of psychotropic substances is influenced by various social and economic factors, including *(a)* the structure and capacity of health-care systems; *(b)* the degree of priority given by the authorities to the relief of pain and suffering; and *(c)* social attitudes towards health care and medical therapies, as well as related laws and regulations. In fact, the availability of controlled substances does not necessarily imply that they are accessible to all patients who need them. In reality, further criteria and conditions determine the accessibility of the drugs and have an impact on the relief of patients.

229. According to the second survey on the availability of controlled substances, carried out by the Board in 2014, to which 107 countries responded, the vast majority of Governments evaluated the situation in their countries as satisfactory. As shown in figure 62, more than three quarters of countries considered their situation to be satisfactory or entirely satisfactory (55 and 28 per cent, respectively), while others (15 per cent) indicated that the availability of those substances in their countries was in need of some improvement. Nevertheless, the Board wishes to interpret this assessment with a certain amount of caution.

Figure 62. Availability of psychotropic substances, as evaluated by countries themselves, 2014



Source: International Narcotics Control Board survey 2014.

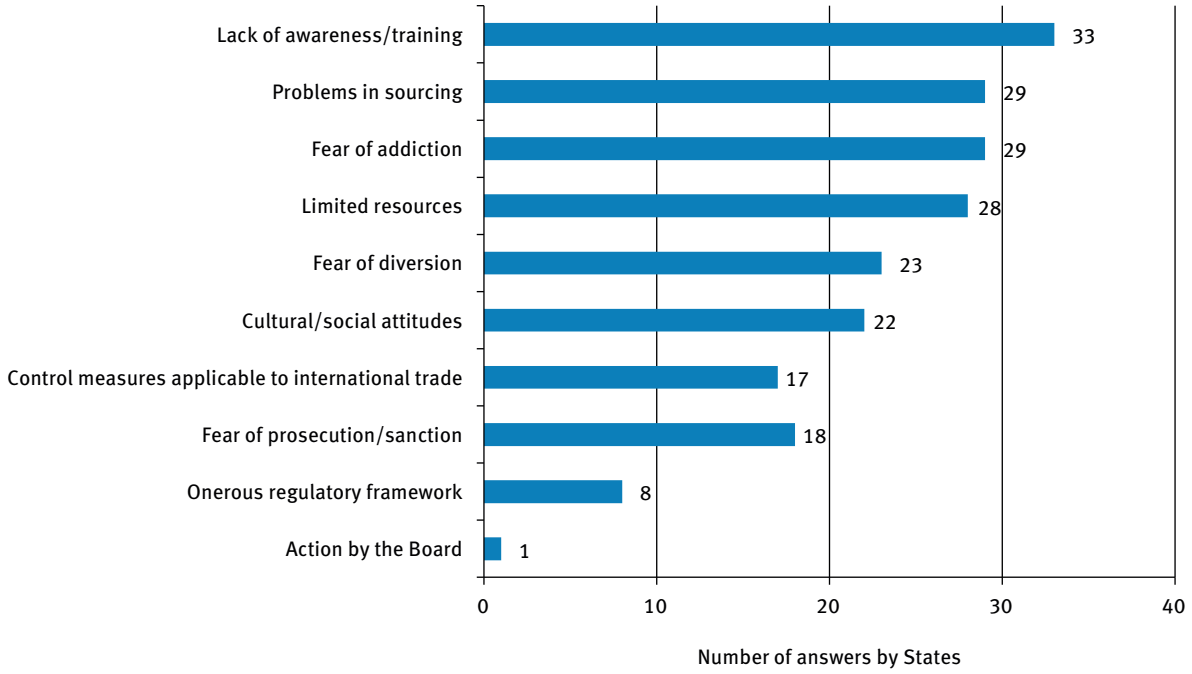
230. Furthermore, the availability of controlled substances in a country is not always a pertinent factor in determining the accessibility of such substances. Many aspects must be taken into account and addressed in order to achieve a fair and balanced distribution across the entire geographical area of a country and among its entire population.

231. The extent of medical use of drugs depends on many factors. For instance, prescribers will select treatments according to their established therapeutic effectiveness, their availability and, importantly, the stability of their supply, which would entail a good awareness and knowledge of the market situation. The availability and accessibility of psychotropic substances have a direct impact on the level of consumption of such substances, but they do not automatically imply the existence of such a level of consumption, given that prescribers may select different protocols of treatment that will result in the prescription of other substances (for example, non-controlled or cheaper substances). In such cases, access by patients to treatment is ensured, but it does not involve controlled substances and may result in the artificially low availability of such substances.

232. As figure 63 shows, the Board's 2014 survey on the availability of controlled substances revealed the major impediments to the availability of such substances under international control as perceived by Governments.

233. With the exception of the fear of diversion, which was cited more frequently in relation to narcotic drugs than psychotropic substances, the main impediment to the availability of psychotropic substances, as was the case with regard to narcotic drugs, was inappropriate knowledge and lack of awareness among health-care professionals regarding rational use of those substances. Moreover, the survey also showed that the impediment least frequently cited by responding countries was action by the Board, with regard to the availability of both narcotic drugs and psychotropic substances. This is a positive and encouraging finding that shows that the Board is not perceived as a contributor to unduly limited availability of controlled substances, but rather the opposite.

Figure 63. Impediments to the availability of psychotropic substances, 2014



Source: International Narcotics Control Board survey 2014.

234. The environment surrounding a patient may hinder access to treatment, for example, if the necessary health structures (hospitals, clinics or pharmacies) are lacking in certain areas of a country or, as is unfortunately common in the rural communities of some developing countries, the closest health facilities are too far to be reached. The capacity of health systems to reach patients affects the accessibility of controlled substances without influencing their availability (if sufficient stocks are available in distant regions). The emergence of parallel markets and counterfeit products, with the health hazard they represent, is the result when

proper and timely access to safe medicines is not possible.

235. In developing countries where the availability of medicines is determined by economic factors rather than by real medical needs, mental health care might not be given the priority it deserves. Furthermore, cultural attitudes vis-à-vis mental disorders and illnesses and the fear of addiction were also indicated as impediments to the consumption of psychotropic substances. A low level of prescription by health-care providers is a deterrent to their manufacture and/or import.

236. In some cases, misinformation and misconception concerning controlled substances, added to a fear of prosecution for storing these substances, often force distributors to refrain from holding large stocks.

237. The most often cited impediment was a lack of awareness among health-care professionals about the concept of rational use of psychotropic substances. Such an impediment may result from a lack of training and knowledge on the matter and will contribute greatly to low levels of prescription of these substances.

238. In several countries, a lack of knowledge among health-care professionals may result in non-justified concerns about the prescription, use and dependence potential of such substances. As is the case for narcotic drugs, insufficient attention to the rational prescription and use of psychotropic substances in the curricula of medical schools may also be a factor. Consequently, doctors may instead prescribe substances with which they are more familiar, in particular, substances that are not under international control.

239. According to the answers to the Board's survey, the curriculum for medical practitioners in 66 countries includes rational prescription and use of psychotropic substances. In addition, 58 countries reported implementing awareness-raising measures among health-care professionals regarding best prescription practices for psychotropic substances.

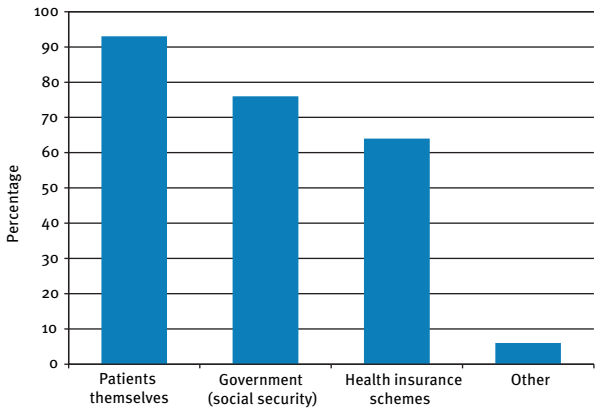
240. Furthermore, among responding countries, 39 per cent (29 countries) identified fear of addiction as an impediment to the availability of psychotropic substances, making it one of the most frequently mentioned impediments in the 2014 survey.

241. As was observed in the case of narcotic drugs, the fear of addiction to psychotropic substances seems to be related to a lack of awareness and training of health-care professionals, as well as cultural attitudes and misconceptions.

242. Clearly, one of the main impediments to access to a particular medical treatment is its cost; hence, such a treatment might be available but not accessible to those who need it most. Furthermore, access to medicines, provided that they are available, may depend on other factors, such as the health-care structure itself. Twenty-eight countries (37 per cent) identified financial aspects as a potential impediment to the availability of psychotropic substances. Indeed, limited available financial resources can have an impact on the choice of which medicines to purchase, and priority might be given to substances that are perceived as essential (such as antibiotics).

243. Furthermore, the availability of psychotropic substances is also dependent on their affordability for patients. In this context, the presence of social security or national health insurance schemes plays a crucial role. In the responses to the question about who pays for medical treatments containing psychotropic substances prescribed, patients were mentioned the most often (89 per cent), followed by the government (73 per cent) and health insurance schemes (62 per cent) (see figure 64).

Figure 64. Who bears the cost of prescribed psychotropic substances, 2014

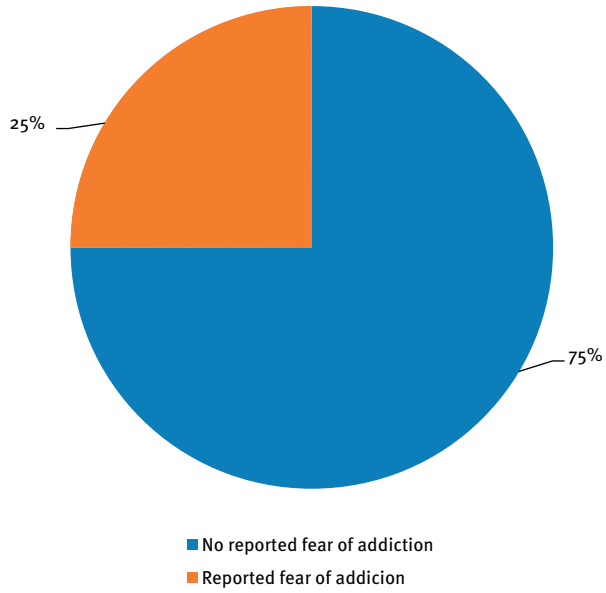


Source: International Narcotics Control Board survey 2014.

244. Cultural and social attitudes regarding the use of psychotropic substances were also recognized as playing a major role in contributing to restrictions on the use of such substances.

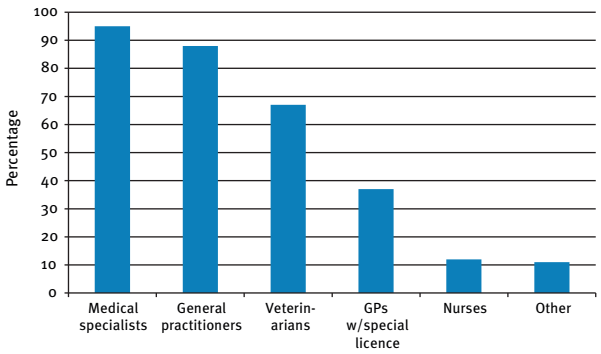
245. A better awareness of rational use and prescription of psychotropic substances among health-care professionals can greatly contribute to overcoming restrictions on use that result from fear of addiction. The Board survey shows that, out of 58 countries that had implemented awareness-raising measures among health-care

Figure 65. Reports of fear of addiction among countries that have implemented awareness-raising measures, 2014



Source: International Narcotics Control Board survey 2014.

Figure 66. Prescribers of psychotropic substances, 2014



Source: International Narcotics Control Board survey 2014.

professionals, a large proportion (75 per cent) did not report the fear of addiction as an impediment to the availability of psychotropic substances (see figure 65).

246. Countries may refrain from the manufacture and/or import of controlled substances in order to avoid their diversion into illicit traffic and abuse networks. Out of 75 responding countries, 26 reported fear of diversion of psychotropic substances as an impediment to the availability of such substances. Furthermore, the emergence of unregulated and parallel markets for psychotropic substances can also greatly contribute to the fear of diversion. Patients may sometimes refuse a treatment that contains psychotropic substances, as they may be concerned about possible side effects and also worry about the stigma associated with the use of such substances.

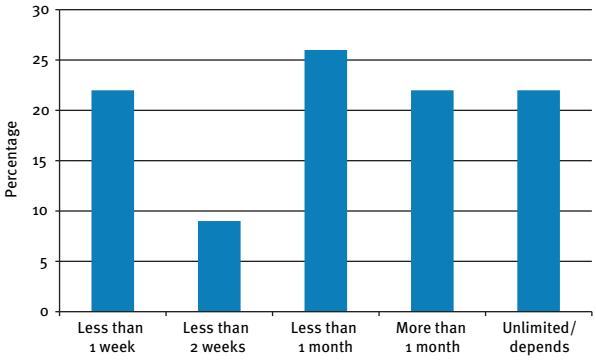
247. Other major impediments perceived by responding countries included the burden imposed by some internal administrative frameworks for regulating the use of controlled substances and the various rules and regulations regarding international trade in those substances, as well as the fear of prosecution and/or sanction associated with dealing with controlled substances. These measures may concern international trade in psychotropic substances and domestic distribution networks (prescription and dispensing). The survey found that, out of 37 countries that reported having taken legislative or regulatory action in the previous 10 years to increase the availability of psychotropic substances for medical purposes, 35 countries had observed an increase in consumption expressed in S-DDD since the 2007-2009 period. However, out of 83 responding countries, 75 reported the existence of penalties for inadequate record-keeping.

248. Of 102 responding countries, 66 per cent legally required prescribers to keep records of prescriptions for psychotropic substances. This may discourage the stocking of such substances, owing to costs and time-consuming procedures, and possibly because of fear of prosecution and sanctions.

249. As illustrated in figure 66, general practitioners and specialized doctors have a nearly identical degree of authority in terms of prescribing psychotropic substances. In a large proportion of responding countries, nurses were not allowed to prescribe psychotropic substances, which may be an impediment to availability, especially in rural areas with basic health-care systems and infrastructure.

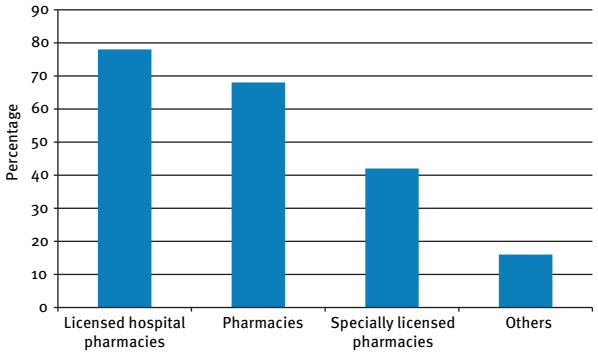
250. Lower levels of access to psychotropic substances could also result from overly restrictive rules concerning distribution networks and dispensing protocols. The validity period of a medical prescription that contains psychotropic substances, as well as constraints on or inflexibility regarding a prescription's refill, could also play a role, especially since treatment that includes psychotropic substances can very often last for years. In this context, 26 per cent of countries reported prescriptions to be valid for one month or less. The second most

Figure 67. Maximum validity period of medical prescriptions that contain psychotropic substances, 2014



Source: International Narcotics Control Board survey 2014.

Figure 68. Facilities where prescriptions for psychotropic substances can be dispensed. 2014



Source: International Narcotics Control Board survey 2014.

frequently reported validity period was up to one week (22 per cent) (see figure 67).

251. Member States reported that psychotropic substances were dispensed mostly in licensed hospital pharmacies or in regular pharmacies. Less than half of responding countries reported that psychotropic substances could be dispensed in specially licensed pharmacies (see figure 68).

252. Restrictions on the number of pharmacies that are allowed to dispense psychotropic substances, although not as stringent as those observed for the dispensing of narcotic drugs, may still reduce the availability of such drugs.

253. Finally, in only one country was action by the Board identified as an obstacle to the availability of psychotropic substances. While the large majority of countries are familiar with the procedures for establishing, submitting and modifying assessments of their medical requirements for psychotropic substances (98 per cent), and furthermore more than 80 per cent of responding countries were using the INCB training materials, as well as the joint INCB/WHO guidelines on the preparation of estimates, some responding authorities proposed actions that could be taken by the Board that could contribute to the improvement of the availability of psychotropic substances, including the training of and the provision of information to competent national authorities.