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# Report on Drug Use in the Americas 2011



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# **Table of Contents**

Foreword.	. 1
Executive Summary	. 3
Methods	. 6
Chapter 1 Alcohol	. 8
1.1 Prevalence and Patterns of Alcohol Use	
1.1.1 Prevalence of Alcohol Use among Secondary School Students	. 8
1.1.2 Prevalence of Alcohol Use in the Age Group 14 and Under	. 10
1.1.3 Binge Drinking	. 10
1.1.4 Gender Differences in Alcohol Prevalence among Secondary School	
Students	. 11
1.2 Prevalence of Alcohol Use among the General Population	. 13
1.2.1 Differences in Alcohol Prevalence by Gender among the General	
Population	. 14
1.2.2 Hazardous Drinking or Harmful Use of Alcohol among the General	
Population	. 14
1.3 Patients in Treatment for Alcohol Use	. 15
1.4 Accidents, Injuries and Deaths Related to Alcohol Use	. 16
1.5 Economic Costs Due to Alcohol Abuse	
1.6 Discussion on Alcohol.	. 17
Chapter 2 Marijuana	. 20
2.1 Prevalence and Patterns of Marijuana Use.	
2.1.1 Prevalence of Marijuana Use among Secondary School Students	
2.1.2 Marijuana versus Tobacco Use among Secondary School Students	
2.2. Prevalence of Marijuana use among the General Population	23
2.3. Differences in Marijuana Use by Gender	
2.3.1 Marijuana use by Gender among Secondary School Students	
2.3.2 Marijuana use by Gender among the General Population	25
2.4 Trends in Marijuana Use	
2.5 Treatment for Marijuana Dependence.	
2.6 Discussion on Marijuana.	
Chapter 3 Inhalants.	. 32
3.1 Prevalence and Patterns of Inhalant Use	
3.1.1 Prevalence of Inhalant Use among Secondary School Students	
3.1.2 Inhalant Use by Age among Secondary School Students	
3.2 Inhalant Use by Gender	
3.3 Inhalant Use among University Students	
3.4 Treatment for Inhalant Use	
3.5 Discussion on Inhalants	
S. S	50
Chapter 4 Cocaine HCl, Coca Paste, Cocaine Base and Other Substances	
that Contain Cocaine Alkaloids.	
4.1 Prevalence and Patterns of Cocaine Use	
4.1.1 Prevalence of Cocaine Use among Secondary School Students	
4.2 Prevalence of Cocaine Use among the General Population	. 39

4.3 Cocaine Use by Gender	41
4.4 Prison Population.	44
4.5 Dependency: Data from the South American Subregion	45
4.6 Trends in Cocaine Use	46
4.6.1 Past Year Trends in Cocaine Use among Secondary School	46
Students	
4.6.2 Trends in Cocaine Prevalence among the General Population	49
4.7 CBP Prevalence and Patterns of Use.	50
4.7.1 Prevalence of CBP Use among Secondary School Students	50
4.7.2 CBP Prevalence by Age Group among Secondary School Students	50
4.7.3 Gender Differences among Secondary School Students	51
4.8 Prevalence of CBP Use among the General Population	52
4.9 Trends in CBP Use.	52
4.10 Discussions on Cocaine HCl and CBP	54
Chapter 5 The Non-Medical Use of Pharmaceutical Drugs and Prescription Drugs	56 56
Prescription Drugs	57
Chapter 6 Perception of Risk Associated with Drug Consumption and Availability of Drugs	59
6.1 Perception of Risk Associated with Drug Consumption and Availability of Drugs	59
6.2 Treatment for Drug Use	61
Appendices	63
References	91

# **List of Tables**

Table 1. Highest and Lowest Alcohol Use Prevalence among the Secondary School Population, overall and by Age Group       9
Table 2. Proportion of Secondary School Students who Report Binge Drinking (among past month users).       11
Table 3. Highest and Lowest Past Month Prevalence of Alcohol Use among the General Population age 12-64, overall and by Age Group.       13
Table 4. Past Year Prevalence of Alcohol among the General Population age 12-64, by Gender14
Table 5. Highest and Lowest Prevalence of Marijuana Use among the Secondary School Population,         overall and by Age Group.       21
Table 6. Past Year Prevalence of Marijuana Use among the General Population age 12-64, overall and by Age Group.       23
Table 7. Past Year Prevalence of Marijuana Use among the General Population age 12-64, by         Gender       25
Table 8. Percent of Treatment Admissions that Identify Marijuana as the Primary Substance         for which Treatment is Sought, by Country
Table 9. Highest and Lowest Prevalence of Inhalant Use among the Secondary School Population,         overall and by Age Group.       33
Table 10. Countries where Past Month Prevalence of Inhalants Exceeds Marijuana Prevalence         among Secondary School Students       34
Table 11. Past Year Prevalence of Inhalant Use among University Students in Four Andean Countries      36
Table 12. Highest and Lowest Prevalence of Cocaine Use among the Secondary School Population,         overall and by Age Group
Table 13. Highest and Lowest Prevalence of Cocaine Use among the General Population age 12-64,         overall and by Age Group
Table 14. Past Month Cocaine Prevalence among Secondary School Students, overall and         by Gender       41
Table 15. Past Year Cocaine Prevalence among the General Population age 12-64, overall and by Gender         43
Table 16. Use of Cocaine-type Drugs among the Incarcerated Population.    44
<b>Table 17.</b> Past Year Prevalence of Cocaine Use among the General Population age 12-64 of Six Countries

in South America, and the Proportion of those Cocaine Users who Meet the Criteria of Dependency or Abuse Use, by Age Group	45
Table 18. Prevalence of Cocaine Base Paste Use among the Secondary School Population, overall and by Gender.	50
Table 19. Prevalence of Cocaine Base Paste Use among the General Population age 12-64	52
Table 20. Treatment Admissions for Drug Use, by Drug and Country.	61

# **List of Figures**

School Students
<b>Figure 2.</b> Ratio of the Prevalence Marijuana Use to Tobacco Use During the Past Month among Secondary School Students.
<b>Figure 3.</b> Ratio of Past Year Marijuana Prevalence, Male to Female, among Secondary School Students
<b>Figure 4.</b> Past Year Prevalence of Marijuana Use among Secondary School Students in Argentina, 2001-2009
<b>Figure 5.</b> Past Year Prevalence of Marijuana Use among Secondary School Students in Chile, 2001-2009
<b>Figure 6.</b> Past Year Prevalence of Marijuana Use among Secondary School Students in Costa Rica, 2004-2009
<b>Figure 7.</b> Past Year Prevalence of Marijuana Use among Secondary School Students in Uruguay, 2003-2009
<b>Figure 8.</b> Past Year Prevalence of Marijuana Use among Secondary School Students in the United States, 2000-2009.
<b>Figure 9.</b> Increase in Treatment Admissions with Marijuana as the Primary Substance of Abuse in the United States, Since 1994.
Figure 10. Past Year Prevalence of Inhalant Use among Secondary School Students, by Age Group34
Figure 11. Prevalence of Past Month Inhalant Use among Secondary School Students, by Gender35
Figure 12. Ratio of Past Month Cocaine Prevalence among Secondary School Students, Boys: Girls42
<b>Figure 13.</b> Past Year Prevalence of Cocaine Use among Secondary School Students in Argentina, 2001-2009
<b>Figure 14.</b> Past Year Prevalence of Cocaine Use among Secondary School Students in Chile, 2001-2009.
<b>Figure 15.</b> Past Year Prevalence of Cocaine Use among Secondary School Students in Uruguay, 2003-2009
<b>Figure 16.</b> Past Year Prevalence of Cocaine Use among Secondary School Students in the United States 2000-2009

Population in Chile, 1994-2008	49
<b>Figure 18.</b> Lifetime and Past Month Trends in Cocaine Prevalence among the General Population in Costa Rica, 1990-2006.	49
<b>Figure 19.</b> Ratio of CBP use Males: Females, among Secondary School Students, by Country and Year.	51
<b>Figure 20.</b> Past Year Prevalence of CBP Use among Secondary School Students in Argentina, 2001-2009	53
<b>Figure 21.</b> Past Year Prevalence of CBP Use among Secondary School Students in Chile, 2001-2009	53
<b>Figure 22.</b> Past Year Prevalence of CBP Use among Secondary School Students in Uruguay, 2003-2009	54
<b>Figure 23.</b> Prevalence of Non-medical Use of Tranquilizers among Secondary School Students in the Americas.	56
<b>Figure 24.</b> Prevalence of Non-medical Use of Stimulants among Secondary School Students in the Americas.	57
<b>Figure 25.</b> Past Year Prevalence of Marijuana Use and Perception of Risk Associated with "Frequent" Marijuana Consumption among the General Population in Argentina, Bolivia, Chile, Ecuador, Peru and Uruguay.	59
<b>Figure 26.</b> Past Year Prevalence of Marijuana and Perceived Ease of Access among the General Population, by country.	60

# **Foreword**

It is our great pleasure to present this first report on Drug Use in the Americas, which was made possible by the information produced by member states of the Organization of American States, through their National Drug Observatories or equivalent bodies. We would like to sincerely thank the governments of each member state, in addition to the team at the Inter-American Observatory on Drugs (OID) who, within the framework of the mission and objectives of the OID, were responsible for gathering and analyzing the information.

The Hemispheric Drug Strategy of 2010 calls for the development of national drug policies that are evidence based, with that evidence allowing wherever possible for the comparison of data across countries. Of equal importance is the dissemination of information at a variety of different levels: political, academic, and the general public, at both national and international levels.

This report was developed using information available from each country and aims to provide a broad overview of drug use in the hemisphere. It has been extensively coordinated with member states and their national drug observatories, which were in close communication with the OID and provided their national data directly to CICAD. A conceptual draft of the report was presented to the CICAD Commission at its 46th Regular Session, in November, 2009 and its final version was presented to the Commission at the 50th Regular Session of CICAD in Buenos Aires, Argentina in November 2011. The presentation of the data from this report provided the technical basis for all the discussions throughout the rest of the 50th Regular Session of CICAD.

This report is organized by chapters and sub-sections, each focused on a specific drug and its related issues. Information on drug use arises from two key populations: the general population (age 12 to 64 years), and high school students (approximately age 13 to 17 years). Each of these population groups is particularly relevant. Studies in the general population provide us with an estimate of the number of users of each drug in the overall population, thus providing an outlook on the magnitude of drug use. Studies in the high school population are considered key because they are the primary recipients of prevention programs. Thus, by understanding the levels of drug use in this population over time, and by linking drug use prevalence to indicators regarding the perception of risk associated with use and other risk factors, we gain understanding of the impact of preventive actions.

The information on drug use in this report is disaggregated by gender and by age. Recognizing the evolution of drug consumption patterns and how they differ by gender allows us to detect changes in patterns of use. For example, in countries where drug use is higher overall, levels of drug use among males

Report Drug Use in the Americas, 2011

and females become more similar over time, especially in the 18-25 year old age group. Analysis of drug use by age group reveals that the greatest levels of drug use are concentrated among young adults between 18 and 25 years of age, indicating the need to monitor this age group closely.

We hope that the information made available through this report can be of use to member states. We are confident that through our Observatory and its network of national observatories and researchers, we will continue contributing to the body of knowledge on drug use with more reports of this type and on a regular basis. It should be noted that in some countries the most recent information available is several years old, highlighting the need for countries to maintain continuity in their drug research programs and continue to gather data on a regular basis.

Finally, we would like to express our thanks to Ambassador James Mack, who led the Inter-American Drug Abuse Control Commission from 2002 to 2011, and whose support made this report possible.

Adam Blackwell Secretary, Secretariat for Multidimensional Security Ambassador Paul E. Simons Executive Secretary, Inter-American Drug Abuse Control Commission

# **Executive Summary**

The Inter-American Observatory on Drugs (OID), under the auspices of the Inter-American Drug Abuse Control Commission (CICAD), has been working to support and promote drug-related research across Latin America and the Caribbean for over ten years. The following report combines information from individual studies carried out in thirty-four countries across the Americas between 2002 and 2009. Although these are individual studies and do not provide time-series data, the collection of information from these member states provides a general assessment of the state of drug consumption in the hemisphere. Information in this report was provided to CICAD by the National Drug Commissions and their National Drug Observatories, or equivalent, within each member state. The data arise principally from studies on drug use in two major populations, secondary school students and the general population. Nations in Latin America and the Caribbean worked hand in hand with CICAD and the OID to produce this analysis.

Perhaps one of the most important observations that can be made from this report is the diversity of the drug problem across the hemisphere. Alcohol use is prevalent across countries; at the same time, alcohol prevalence appears to be unrelated to hazardous drinking behavior, which appears to be most common in countries with relatively low alcohol use. Marijuana is the most ubiquitous illicit drug, but some countries show higher levels of inhalant use among youth. Cocaine use appears to be on the rise in South America while it appears to be declining in North America. Differences can be seen both at the regional level, as well as at the national level. Indeed, if we were to look more deeply within the countries themselves, no doubt we would see significant differences in drug use and patterns at the local level as well.

It is well known that marijuana is the most commonly used illicit drug in the world, and the Americas are no exception. It is estimated by UNODC (2010) that at the worldwide level, between 129 and 191 million people ages 15 to 64 years consumed this drug at some time during the past year, and approximately 25% of those reside in the Americas. North America accounts for nearly 75% of the marijuana consumers in the hemisphere, principally owing to the higher prevalence and large number of inhabitants in the United States and Canada. Nevertheless, in relative terms, the Caribbean region also shows high prevalence of marijuana use (e.g., Dominica, St. Lucia and Grenada). Indeed, in many countries of the Caribbean, high school students smoke marijuana in greater proportion than tobacco. In most of the countries where trend data are available, we are observing increases in marijuana use over time among high school students.

Prevalence of marijuana use is not the only concern. In the few countries that possess data on drug treatment, we see that marijuana accounts for a large share of drug treatment admissions. In the United States, there has been a systematic increase in treatment admissions for marijuana dependency. At the same time, evidence shows a steady increase in the percentage of THC in marijuana.

Hazardous drinking behavior is common across populations in the Americas. Of particular concern is the fact that some of the highest rates of problematic drinking in the general population are found in countries with relatively low prevalence of alcohol use. This implies that the most serious drinking problems may be concentrated in high-risk minority groups. Binge drinking, a phenomenon once associated with North American high school and college students, is now common practice in Latin America and the Caribbean. Although only a few countries have collected information on binge drinking, that data suggest that between 30% and 65% of high school students who report drinking alcohol during the past month have also binged on alcohol recently. This has serious implications for alcohol policy for minors in our member states. Regardless of the pattern, any alcohol consumption among minors should be considered as a problem in and of itself.

Inhalant use may be a growing problem as well, as youth seek out licit and easily available substances. Once considered to be a drug used almost exclusively by street children, the analysis in this report indicates that inhalant use is firmly established among high school students in Latin America and the Caribbean. Unlike the United States and Canada, where inhalant use tends to drop off around age fourteen, high school students in Latin America and some Caribbean countries seem to use inhalants at higher rates as they get older. Work carried out by the Andean Community (Bolivia, Colombia, Ecuador and Peru) indicates that inhalant use is significant among university students, particularly among females. Inhaling volatile solvents can cause a serious impact on physical health and cognition; when consumed in high quantities by teenagers and young adults, inhalant use can have significant long-term health consequences.

Although cocaine is consumed worldwide, its production originates in South America. In the past, the general assumption has been that cocaine was produced largely for export outside the region; we now know this not to necessarily be true. Cocaine use is widespread across Latin America and the Caribbean, in addition to North America. Approximately half the cocaine users in the world are in the American hemisphere; of these, 70% are found in North America, and 27% are found in South America. While cocaine use appears to be decreasing among high school students in the United States, the few countries in South America with trend data indicate that cocaine use among high school students is at best stable. In some South American countries, past year cocaine use has reached levels similar to those found in Europe. Of even greater concern are the rates of past month use, which are now higher in some South American and Caribbean countries than in the United States.

Cocaine base paste (CBP) and its variants may be some of the most insidious substances of abuse in the Americas. While the United States and Canada are often the point of comparison for drug use, given that the majority of drug use is viewed as taking place in North America, CBP seems to be the exception to this rule. According to this study, the Southern cone has been particularly hard hit by cocaine base paste, in both the high school and the general population. Studies carried out in South America indicate that CBP is highly addictive and detrimental to health. There is evidence to support the notion that CBP is one of the most addictive and noxious substances used in the Southern Cone. The scant treatment information available tells us that despite the fact that CBP is consumed at relatively low prevalence rates, it is disproportionately represented in drug treatment.

Despite the information available on the negative effects of drug use, evidence indicates that this message is not reaching teenagers in the member states. It has been well established that one of the most important factors associated with drug use among teenagers and young adults is the degree to which they perceive drug use as a high risk activity. Of additional impact is the degree to which youth perceive drugs as easy to obtain. The perception of risk, combined with the perceived ease of access to drugs can be powerful predictors of an increase in drug use. Indeed we can see already that in the countries where teenagers' perception of risk is lowest, and access to drugs is perceived as easy, the prevalence of drug use is highest. The analysis in this report reiterates the articles of the Hemispheric Strategy, mandating that our member states to pay close attention to these changes and take appropriate action.

#### Methods

Unless otherwise cited, data presented in this reported were delivered to CICAD by National Drug Commissions (NDCs) through their National Drug Observatories (NDOs) in each member state. Data from Canada were provided to CICAD by the Office of Research and Surveillance Controlled Substances and Tobacco Directorate of Health Canada. Data from the United States for high school students were obtained from the Monitoring the Future (2009) report.<sup>2</sup> Data from the general population in the United States were calculated from the 2009 National Survey on Drug Use and Health database, obtained from the Substance Abuse and Mental Health Services Administration (SAMHSA).

The majority of data represented in this report arose from CICAD's Inter-American Drug Use Data System, known by its Spanish acronym SIDUC. SIDUC utilizes a series of standardized methodologies created by CICAD's OID and developed through consensus by survey experts and practitioners across the American hemisphere. The main objective of the uniformity of the approach is to allow the direct comparison of cross-sectional data from surveys implemented in different countries and at different times. As a result, the sampling procedures, data collection, questionnaires and data management methods area are standardized across countries.

Data from member states that apply the SIDUC methodologies may be considered highly comparable. Brazil, Chile, Colombia and Mexico use their own national methodologies and instruments, which, although they differ in minor ways, have been harmonized with SIDUC and may be considered comparable systems. The United States and Canada have their own independent systems, which use similar indicators for drug use among secondary school students and the general population. Although their systems differ slightly, their data may be considered sufficiently comparable for the purposes of this report.

In some cases the data used in this analysis were similar to data collected from member states through the Multilateral Evaluation Mechanism (MEM). In such cases, where the year and data were similar, each data point was fact—checked against the MEM data to ensure that there were no inconsistencies between reports. However, in many cases, the data in this report derive from studies that were carried out after the most recent round of the MEM. In these cases the data in this report may be more recent than the information in the MEM National Reports, which would account for any differences in prevalence of drug use between reports.

## **Populations Represented**

The target population for SIDUC school surveys includes students in secondary school (high school) between ages 13 and 17. Data are reported by age group rather than grade due to differences in

school systems across countries. However, these correspond roughly to forms 2, 4 and 6 in the Caribbean nations, and grades 8, 10 and 12 in the United States and Canada.

The target population for the SIDUC general population survey is persons living in households in the respective countries between the ages of 12 and 64 years. In some cases, data from other countries that do not participate in the SIDUC system may correspond to slightly different age groups, as cited. It is important to note that the estimates from the general population in Canada correspond to ages 15-64.

#### **Additional Studies**

The United States and Canada apply their own national drug use surveys. CICAD/OID worked closely with the White House Office of National Drug Control Policy (ONDCP) and the Office of Research and Surveillance at Canada's Controlled Substances and Tobacco Directorate to ensure that the data represented in this report are as comparable as possible to the data obtained from the SIDUC studies represented. For example, the SIDUC methodology for secondary school students was developed based on the indicators from the United States' Monitoring the Future Survey (MTF), and the SIDUC household survey was developed based on the same indicators from the Substance Abuse and Mental Health Service Administration (SAMHSA), National Survey on Drug Use and Health (NSDUH). The indicators for drug use among secondary school students in Canada were taken from the 2006-2007 Youth Smoking Survey (YSS) and data from the general population were taken from the 2008 Canadian Drug Use Monitoring Survey (CADUMS) and were provided to CICAD/OID by the Canada's Controlled Substances and Tobacco Directorate. Additional supplementary information for this report was taken from other existing sources as cited.

#### Limitations

The data in this report are primarily cross-sectional data and only allow us to observe the prevalence of a given point in time. Data from member states do not correspond to the same year, and no statistical adjustments have been made to account for differences between countries in population size or demographics. Analysis of trends is based only on those countries that possess sufficient data through the SIDUC system to describe changes over time, and as a result, trend data are only available for a limited number of countries. Therefore, differences in prevalence rates do not necessarily imply that one country has greater or lesser levels of use today. It is hoped that future reports will be able to provide more indepth data, and more trend analysis. One of the goals of this report is to encourage member states to conduct more frequent, periodic studies with more profound analysis of the drug problem.

# **Chapter 1 Alcohol**

Alcohol is one of the most widely used substances in the Americas. Rates of use vary greatly in the countries, across populations and sociodemographic strata. Although the majority of adults who consume alcohol do not experience negative consequences, the World Health Organization estimates that worldwide alcohol causes 3.2% of all deaths or 1.8 million deaths annually and accounts for 4% of the global disease burden. The majority of these deaths are due to alcohol related accidents and injuries.<sup>3</sup>

Hazardous or harmful drinking disproportionately impacts young adults. Survey data from OAS member states indicate that the highest rates of hazardous or harmful drinking occur in the 18-34 year age group. Data also show that among the proportion of people who use alcohol on a regular basis a large proportion are below the age of 18 and already meet the criteria for hazardous alcohol use. Excessive drinking and dependency are also associated with a wide variety of maladaptive and risky behaviors.<sup>4</sup>

#### 1.1. Prevalence and Patterns of Alcohol Use

# 1.1.1 Prevalence of Alcohol Use among Secondary School Students

The following table displays the ranges of the prevalence estimates of alcohol use among secondary school students in the Americas, corresponding to the ages 13 to 17 years old. The purpose of this table is to display the broad range of drinking behavior that takes place among secondary school students across the American hemisphere, rather than focus on any single country. The table lays out the breadth of use across all the countries for which data are available by lifetime prevalence, past year prevalence and past month prevalence. The rows marked as "lowest prevalence" and "highest prevalence" list the countries with the five highest and lowest rates for each category. This table displays only the aforementioned prevalence across countries, and does not compare clinically defined hazardous or harmful drinking behavior. However, regarding age groups any alcohol consumption among minors may be considered problematic.

Table 1. Highest and Lowest Alcohol Use Prevalence among the Secondary School Population in the Americas, overall and by Age

Group (%)	G	7	, , ,
Prevalence	Lifetime	Past Year	Past Month
Range	32.50-88.20	20.00 - 77.26	11.50 – 63.77
Lowest Prevalence	El Salvador (2008) 32.50	El Salvador (2008) 20.00	El Salvador (2008) 11.50
Countries	Honduras (2005) 43.38	Honduras (2005) 22.12	Honduras (2005) 12.70
	Peru (2007) 44.90	Peru (2007) 29.90	Peru (2007) 16.10
	Bolivia (2008) 46.50	Venezuela (Bolivarian Republic of)	Venezuela (Bolivarian
	Venezuela (Bolivarian Republic	(2009) 30.10	Republic of) (2009) 17.90
	of) (2009) 47.20	Bolivia (2008) 35.40	Costa Rica (2006) 18.90
Highest Prevalence	Dominica (2006) 80.52	Brazil (2004) 63.30	Trinidad & Tobago (2006)
Countries	Uruguay (2009) 81.50	Dominica (2006) 67.50	49.93
	Trinidad & Tobago (2006) 83.69	Trinidad & Tobago (2006) 69.92	Colombia (2004) 50.30
	Grenada (2005) 84.05	Uruguay (2009) 70.20	Dominica (2006) 52.26
	St. Lucia (2005) 88.20	St. Lucia (2005) 77.26	Uruguay (2009) 52.70
			St. Lucia (2005) 63.77
14 years and Under	Lifetime	Past Year	Past Month
Lowest Prevalence	El Salvador (2008) 19.44	Bolivia (2008) 11.23	Honduras (2005) 5.85
Countries	Bolivia (2008) 20.68	Honduras (2005) 11.68	El Salvador (2008) 6.20
	Honduras (2005) 25.83	El Salvador (2008) 11.99	Bolivia (2008) 6.39
	Nicaragua (2003) 28.40	Panama (2008) 15.94	Panama (2008) 8.55
	Panama (2008) 29.77	Nicaragua (2003) 17.30	Peru (2007) 9.69
Highest Prevalence	Barbados (2006) 68.51	Brazil (2004) 52.15	Brazil (2004) 34.88
Countries	Dominica (2006) 72.68	Uruguay (2009) 53.90	Colombia (2004) 37.61
	Grenada (2005) 76.44	Dominica (2006) 57.95	Trinidad & Tobago (2006)
	Trinidad & Tobago (2006) 79.03	Trinidad & Tobago (2006) 61.72	41.21
	St. Lucia (2005) 83.44	St. Lucia (2005) 70.12	Dominica (2006) 41.34
	× 10 1		St. Lucia (2005) 57.64
Age 15-16 years	Lifetime	Past Year	Past Month
Lowest Prevalence	El Salvador (2008) 38.04	Honduras (2005) 20.69	Honduras (2005) 11.69
Countries	Honduras (2005) 40.36	El Salvador (2008) 24.07	El Salvador (2008) 13.80
	Bolivia (2008) 44.99	Bolivia (2008) 31.40	Bolivia (2008) 18.56
	Guatemala (2002) 50.07	Nicaragua (2003) 33.16	Panama (2008) 20.08
	Nicaragua (2003) 50.26	Guatemala (2002) 35.90	Venezuela (Bolivarian
			Republic of) (2009) 22.98
Highest Prevalence	Colombia (2004) 84.60	Canada* (2006) 74.70	Dominica (2006) 56.63
Countries	Trinidad & Tobago (2006) 86.60	Trinidad & Tobago (2006) 76.61	Colombia (2004) 59.15
Countries	Grenada (2005) 87.46	Brazil (2004) 78.19	Trinidad & Tobago (2006)
	Uruguay (2009) 87.90	Uruguay (2009) 78.19	59.38
	St. Lucia (2005) 91.34	St. Lucia (2005) 80.49	Uruguay (2009) 60.60
	St. Edeld (2003) 71.31	St. Edela (2003) 00. 19	St. Lucia (2005) 64.32
			211 = 211 (= 222) 2 112 =
17 and over	Lifetime	Past Year	Past Month
Lowest Prevalence	Honduras (2005) 50.35	Honduras (2005) 26.73	Honduras (2005) 16.59
Countries	El Salvador (2008) 51.04	El Salvador (2008) 30.48	El Salvador (2008) 19.15
	Guatemala (2002) 54.06	Guatemala (2003) 39.40	Venezuela (Bolivarian
	Venezuela (Bolivarian Republic	Haiti (2009) 39.60	Republic of) (2009) 27.09
	of) (2009) 56.31	Venezuela (Bolivarian Republic of)	Haiti (2009) 27.80
	Nicaragua (2003) 59.49	(2009) 40.58	Peru (2007) 31.32
Highest Prevalence	Trinidad & Tobago (2006) 89.44	Canada* (2006) 79.30	Dominica (2006) 63.88
Countries	Dominica (2006) 89.65	Brazil (2004) 82.09	Argentina (2009) 66.10
	St. Lucia (2005) 90.82	Colombia (2004) 82.92	Colombia (2004) 69.96
	Colombia (2004) 91.11	St. Lucia (2005) 85.17	Uruguay (2009) 72.00
	Uruguay (2009) 94.80	Uruguay (2009) 86.40	St. Lucia (2005) 77.55

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only, age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

Numbers in () indicate year of study.

The past month prevalence of alcohol use for all age groups ranges from about 11.5% to nearly 64% across the American hemisphere. In other words, in the lowest prevalence country a little more than one out of ten students consumed alcohol at least once during the past month, while in the highest prevalence country more than six out of ten students did. Data from OAS member states indicate that the highest rates of alcohol use among secondary school students during the past month exceed 50% in Colombia, Dominica, Uruguay, and St. Lucia. The lowest past month rates are found in Honduras and El Salvador (below 13%).

#### 1.1.2 Prevalence of Alcohol Use in the Age Group 14 and under

Current alcohol use among students age 14 and younger ranges from 5.9% to 57.6%. This represents a very wide range of drinking behaviors measured among the youngest age group within secondary schools across countries. The median (middle value) prevalence of alcohol use during the past month among these countries is roughly 24.5%, with about half the countries in the American hemisphere having higher rates of use among this age group, and about half being below 24.5%. Alcohol use among the youngest population is of particular concern as research evidence suggests that the earlier adolescents use alcohol or any psychoactive substance, the higher the probability of dependence over the long term. <sup>5,6</sup>

#### 1.1.3 Binge Drinking

Only a few countries in the American hemisphere have national studies that examine the phenomenon of binge drinking. Binge dinking is defined in CICAD's secondary school surveys as having consumed five or more alcoholic drinks in a single event at least once during the two weeks prior to the survey. Binge drinkers are not necessarily alcohol dependent. However, binge drinking carries a variety of risks such as unintentional injuries, alcohol poisoning, and violent behavior. Binge drinking is also associated with an increased risk of developing an alcohol-related disorder. In addition, it is associated with risky sexual behavior, which may result in sexually transmitted disease and unintended pregnancy. Binge drinking in any proportion, particularly among adolescents is considered a high-risk behavior. Indeed, as stated previously, although any levels of alcohol use among minors should be considered problematic, regardless of whether alcohol is use experimentally or regularly, binge drinking is an indicator of alcohol use among youth that are already demonstrating potentially harmful drinking habits.

# **Binge Drinking Indicator**CICAD Secondary School Survey

In the past 2 weeks, how many times have you consumed 5 alcoholic drinks or more in one sitting?

- 1. Never
- 2. Only one
- 3. Between 2 and 3 times
- 4. Between 4 and 5 times
- 5. More than 5 time

Table 2. Proportion Secondary S	School Students
who Report Binge Drinking (amo	ng past month
users)	
Argentina (2007)	49.10
Barbados (2006)	43.10
Canada (2006)	35.60
Dominica (2006)	48.50
Ecuador (2005)	64.70
Jamaica (2006)	35.80
Peru (2005)	52.20
St. Lucia (2005)	32.90
Trinidad & Tobago (2006)	31.30
Uruguay (2005)	53.90
Sources: NDCs, NDOs, HC and OID	•

Table 2 presents estimates from ten countries in Latin America and the Caribbean that measured binge drinking in high school surveys.<sup>a</sup> These estimates are based on the proportion of students who have binged on alcohol and are calculated based on the total number of students who have had any alcohol during the past month. CICAD estimates that about between a third and one half of the students surveyed in Table 2 who reported drinking alcohol during the past month also engaged in binge drinking.

Other countries in the American hemisphere apply their own measures to estimate binge drinking, utilizing different methodologies. Data from the Canadian YSS 2006-2007 survey indicate that 35.6% of secondary school students who consumed alcohol in the 30 days prior to the survey reported binge drinking at some point during the past year.<sup>8</sup>

According to the MTF 2010 report<sup>9</sup>, binge drinking among high school students in the United States has been in a steady decline since the 1980s. Among 12<sup>th</sup> graders in 1983, 41% reported binge drinking in the two weeks prior to the survey, by 1992 this number had decreased to 28% and by 2009 about 25% of 12<sup>th</sup> graders in the USA reported binge drinking.<sup>b</sup>

# 1.1.4 Gender Differences in Alcohol Prevalence among Secondary School Students

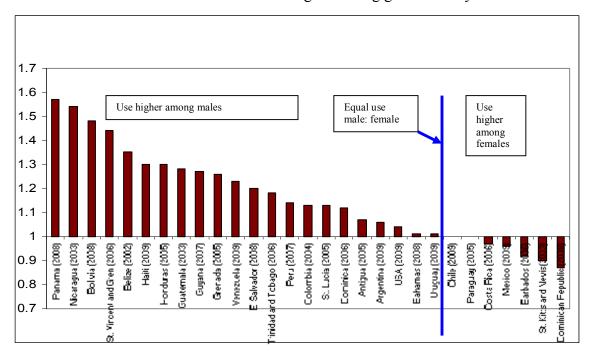
Differences in alcohol and drug consumption between males and females are important to understand. Studies have shown that there may be significant differences in behaviors between boys and girls, which may pose different risks to boys and girls. Studies by PAHO and WHO<sup>10</sup> have demonstrated drinking patterns, such as frequency and intensity of alcohol use among males and females is quite different. At the same time, research indicates that differences in drinking prevalence among males and females become more similar over time.<sup>11</sup> Drinking among high school girls increases the risk of unwanted

<sup>&</sup>lt;sup>a</sup> Data may not be from most recent survey

<sup>&</sup>lt;sup>b</sup> Binge drinking is defined in the MTF as 5+ drinks in a row during the prior 2-week interval at least once.

pregnancy, and poses further risks to the health of unborn children if drinking is continued during pregnancy. Recent research shows that parental monitoring can be an important factor in reducing drinking among high schools students, and even translating into lower drinking levels among college students. It is therefore important for parents to understand the risks that drinking my pose their sons and daughters.

Figure 1 depicts the ratio of past month alcohol consumption between male and female secondary school students, across the American hemisphere. The horizontal line in the middle, marked as 1 on the y-axis indicates a ratio of 1, meaning that alcohol consumption is equal among boys and girls. The bars reaching above line 1 indicate a higher level of alcohol consumption among boys than girls, and bars that fall below line 1 indicate that alcohol use is higher among girls than boys.



**Figure 1.** Ratio of Boys to Girls who Consumed Alcohol during the Past Month among Secondary School Students from Latin American and Caribbean countries

Sources: NDOs and NDCs in member states.

Note: Databases were not available for Canada and USA. Figure displays data available from individual countries that provided databases to the CICAD/OID for analysis. Some countries may not be represented.

In each of the countries in Figure 1, the ratio of past month alcohol consumption among high school students by gender is approximately 1.5:1 or below. Alcohol use in Panama, Nicaragua and Bolivia is about 50% higher among males than females. On the opposite end of the spectrum, Barbados, Saint Kitts and Nevis, and the Dominican Republic show past month alcohol consumption that is slightly higher among female students. Although not shown in Figure 1, studies from the United States (Johnston 2010) and Canada (YSS 2006-2007) surveys show alcohol prevalence that are fairly equal among high school boys and girls.

# 1.2. Prevalence of Alcohol Use in the General Population

<b>Table 3.</b> Highest and L and by Age Group (%)	owest Past Month Prevalence of Alcohol Use among the General Population age 12-64, overall
una by rige Group (70)	General Population, Age 12-64 years
Range	10.11 – 66.70
J	Past Month Prevalence %
Lowest Prevalence	El Salvador (2005) 10.11
Countries	Guatemala (2005) 11.39
	Nicaragua (2006) 18.14
	Mexico (2009) 22.90
	Belize (2005) 27.10
Highest Prevalence	Argentina (2008) 47.03
Countries	Chile (2008) 49.81
	Uruguay (2006) 50.10
	United States (2009)† 51.90
	Canada (2008)* 66.70
10.17	Age Groups, highest five rates available
12-17 years	Paraguay (2003) 20.34
Highest Prevalence Countries	Argentina (2008) 22.41
Countries	Chile (2008) 22.46
	Uruguay (2006) 35.09
	Canada (2008) * 43.5
18-34 years	Argentina (2008) 56.7
Highest Prevalence	Chile (2008) 59.70
Countries	Uruguay (2006) 61.14
	United States (2009)† 63.11
	Canada (2008)* 69.2
35 - 64 years	Argentina (2008) 46.89
Highest Prevalence	Uruguay (2006) 47.11
Countries	Chile (2008) 49.83
	United States (2009)† 57.01
	Canada (2008)* 67.50
	Callada (2008) 67.30

Sources: NDCs and NDOs in member states HC and MEM. †NSDUH

2009 database \*HC, Data for Canada refer to population age 15 -65. Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. \*Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older- The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution. questions looking at stimulants or tranquilizers were for "use to get high past year." †Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over.

There is a broad range of alcohol drinking rates across the American hemisphere within the general population (Table 3). Looking at current alcohol consumption, defined as use within the past thirty days, the prevalence ranges from around 10% in El Salvador to nearly 67% in Canada. Canada, the United States and Uruguay, each had prevalence exceeding 50%, indicating that in each of these countries, at least half of the general population consumed alcohol during the thirty days prior to the survey. Rates of past month alcohol prevalence below 20% can be seen in El Salvador (10.1%), Guatemala (11.4%) and Nicaragua (18.1%). The next lowest rate was found in Mexico (22.9%) followed by Belize at 27.1%.

1.2.1 Differences in Alcohol Prevalence by Gender among the General Population

Country	Past Year	Male Past year	Female Past year	Ratio Male: Female
Argentina (2008)	58.06	67.93	48.31	1.41
Barbados (2006)	53.38	68.88	43.10	1.60
Belize (2005)	36.58	39.59	33.57	1.18
Bolivia (2007)	59.09	64.56	54.85	1.18
Brazil (2005)	49.80	60.10	42.50	1.41
Chile (2008)	68.49	75.62	61.56	1.23
Colombia (2008)	61.18	71.95	51.72	1.39
Ecuador (2007)	54.02	69.87	42.00	1.66
El Salvador (2005)	18.61	29.78	9.13	3.29
Guatemala (2005)	23.66	35.18	16.00	2.20
Mexico (2008)	36.40	33.80	12.70	2.66
Nicaragua (2006)	35.13	50.64	23.27	2.18
Panama (2003)	44.90	59.94	35.83	1.67
Paraguay (2003)	65.29	77.36	55.83	1.39
Peru (2006)	61.95	71.27	54.73	1.30
Suriname (2007)	47.84	62.26	37.67	1.65
Uruguay (2006)	64.26	72.00	57.20	1.26
USA (2009)	66.80	70.60	63.10	1.12

Sources: NDCs, NDOs and MEM

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Complete prevalence

tables can be found in appendices.

Differences in prevalence between males and females can be seen in the general population as well. In the majority of countries the prevalence among men is 30% to 70% higher than among women. As can be found in Table 4, countries with relatively higher prevalence of alcohol use overall tend to show smaller differences in prevalence between males and females, while countries with lower prevalence of alcohol use tend to have higher prevalence rates among males. El Salvador, Guatemala, Mexico and Nicaragua, which have some of the lowest past year prevalence overall, also display some of the largest differences in prevalence of use between males and females. In some cases prevalence of alcohol use among males is two or three times higher than among females.

# 1.2.2 Hazardous Drinking or Harmful Use of Alcohol in the General Population

Hazardous drinking may be defined as a pattern of alcohol consumption that increases the risk of harm for the users or others. Harmful use refers to a pattern of consumption that produces consequences to the mental or physical health of the consumer (WHO, 2007).

Only a few countries in Latin America and the Caribbean currently apply measures of hazardous or harmful use of drinking in their national household surveys. For example, studies in Argentina, Bolivia, Chile, Ecuador, Peru, Uruguay, and the Caribbean countries have applied the *Escala Breve del Bebedor Anormal de Alcohol (EBBA)*, while more recent studies in these same countries have applied DSM-IV 14

Criteria. In Colombia, the Alcohol Use Disorder Identification Test (AUDIT) was applied. Data from the United States correspond to the DSM-IV criteria for substance abuse. Although the scales are similar in many ways, attempts to draw direct comparisons regarding levels of problem drinking across countries should be done with extreme caution.

Despite differences in measurement scales, some general conclusions may be drawn. According to the CICAD/UNODC 2008 study, countries with higher prevalence rates of alcohol use in the general population do not necessarily have higher rates of problem drinking or dependence among those who report any alcohol use during their lifetime.

On the contrary, some countries with low rates of alcohol prevalence in the general population show higher rates of dependency among the proportion of the population who drink regularly, or even who have consumed alcohol at any time in their lives. General population studies from Argentina, Barbados, Canada, Chile, Colombia, Peru and Uruguay show rates of problem drinking among the population that regularly consumes alcohol that are twice as high or more as in the general population in many countries. <sup>14-23</sup>

The Substance Abuse and Mental Health Services Administration (SAMHSA) of the United States estimated that in 2009, 3.2 million people age 12 or over met the criteria for dependence or abuse of both alcohol and illicit drugs, and 15.5 million were dependent or abused alcohol alone. In addition, nearly 19 million people age 12 and over demonstrated criteria for alcohol abuse or dependence, equaling about 7.4% of the total US population.

#### 1.3. Patients in Treatment for Alcohol Use

There are very few current studies on treatment of patients in Latin America. Argentina carried out a study in 2007 that demonstrated that among patients in treatment for drug use, 43.8% of them began substance use with alcohol, and over 75% reported that alcohol was either the first or second substance they used in their lifetime. Although the average age of first use of any substance was sixteen years, more than half of all patients began using alcohol prior to age fourteen. Among those patients in treatment whose first substance of use was alcohol, 35.4% of them reported that they consumed alcohol at least once a day, and an additional 6.7% reported using alcohol multiple times daily.<sup>23</sup>

The SISVEA 2006 study in Mexico<sup>24</sup> demonstrated that among patients receiving treatment for substance addiction, over 27% entered treatment primarily for alcohol use, more than for any other psychoactive substance. Similarly, a Paraguayan study on patients in drug treatment carried out in 2005 showed that over half of all patients in treatment entered because of alcohol problems as opposed to illicit drug use. Nearly 70% of patients in treatment reported that alcohol was the first substance they ever used, and 46% of those had begun using alcohol by age fourteen.<sup>25</sup>

In the United States, a total of 2.7 million people 12 year of age and older received treatment for alcohol abuse during 2007. <sup>26</sup> This figure represents 1.1% of the total population age twelve and over in the country, and also represents around 70% of the total number of people receiving treatment for illicit drugs and alcohol combined.

# 1.4. Accidents, Injuries and Deaths Related to Alcohol Use

Evidence suggests that alcohol misuse and abuse is responsible for a large proportion of death, disease and injuries worldwide. The World Health Organization estimates that alcohol is the cause of approximately 1.8 million deaths worldwide annually, and that about half of these deaths are the result of injury (WHO, 2007). Studies carried out in other countries support this view. A study carried out in Canada in 2006 estimated that deaths associated with alcohol use rose from 3.4% of all deaths in 1992 to 4.1% of all deaths in 2002 (Rehm, 2006). In addition, the Canadian study estimated that alcohol abuse accounted for over 7% of all acute care hospital days during 2002, a significant increase from their 1992 study. The United States Center for Disease Control and Prevention estimates that there are approximately 75,000 deaths attributable to excessive alcohol use each year, making it the third leading cause of death.<sup>27</sup>

Regarding alcohol-related morbidity and mortality in Latin America and the Caribbean, there is far less information. In 2007, Argentina carried out an emergency center study that showed that 16.9% of persons being admitted to emergency rooms had consumed alcohol in the six hours prior to admission. Of those 16.9%, close to half were reported as related to alcohol, according to the impression of the attending physician. The majority of these cases were traffic accidents, and the results of violence (SEDRONAR, 2007). A PAHO report on alcohol use in the Americas noted that alcohol consumption is one of the major risk factors for morbidity and mortality in the hemisphere, and was responsible for approximately 323,000 deaths during 2002 (PAHO, 2007).

#### 1.5. Economic Costs Due to Alcohol Abuse

Studies on the costs associated with alcohol use consistently place alcohol as one of the substances that incurs the largest costs to society. The majority of these costs are due to lost productivity as a result of death and disability attributable to alcohol use. The World Health Organization (WHO) identified alcohol as one of the most important risk factors for the global burden of disease.<sup>28</sup>

Argentina carried out a comprehensive cost study on the economic impact of both licit and illicit substances. According to their estimates, alcohol consumption cost Argentina over 26 million US dollars in 2004. Approximately half of these costs were due to lost productivity as a result of death and disability attributed to alcohol (SEDRONAR, 2007). Canada estimated that the costs for alcohol abuse during 2002

were CA\$14.6 billion. The largest economic cost was attributed to the lost productivity due to illness and premature death (approximately CA\$7.1 billion). Other social costs of alcohol identified in this study accounted for CA\$3.3 billion in direct health care costs and CA\$3.1 billion in law enforcement costs (Rehm, 2006). A study of alcohol-related costs conducted in the United States in 2000, estimated that in 1998, the abuse of alcohol cost the United States US\$184.6 billion dollars.<sup>29</sup>

The majority of the costs in the US study were the result of specialty services (such as treatment for alcohol abuse), healthcare, and lost productivity due to illness and death related to alcohol. About US\$16 billion were related to crime, and criminal justices costs related to alcohol use and abuse. Lost productivity due to morbidity, that is to say, lost wages and earnings as a result of illness related to alcohol was estimated to be \$87.6 billion dollars, while lost future earnings due to alcohol-related premature death, such as motor vehicle accidents, was estimated at \$36.4 billion dollars. Although these costs are estimated in economic terms, we must keep in mind that they actually represent a social cost as well, particularly when we look at the health care, crime and lost productivity costs that affect all of a nation.

#### 1.6. Discussion on Alcohol

Although alcohol use is common across the Americas, the variations in prevalence of alcohol consumption across countries make it difficult to identify clear patterns by region. We can say that alcohol represents the most prevalent drug of abuse, with most nations reporting higher rates of alcohol abuse among males than among females. However, it also appears that alcohol use and associated negative consequences are broad and varied across the hemisphere.

With regard to alcohol use among high school students, although any level of alcohol use among high school students is a matter of concern, binge drinking is the behavior most likely to have a long-term negative impact. Since only a few countries in the American hemisphere have any data on binge drinking, and none of the Latin American countries possess trend data on binge drinking, it is difficult to know if this is a behavior that has grown or changed over time. Nevertheless, binge drinking is a high-risk behavior and is associated both with harmful behavior among adolescents and problem drinking behavior in adulthood. It may be important for countries to note, as they prepare national policies and interventions, that levels of binge drinking do not necessarily correlate with overall alcohol prevalence. For example, countries with low prevalence of alcohol use among adolescents do not necessarily have low rates of binge drinking.

It may be important to look at the experiences of countries that have been measuring binge drinking over time and have developed policies to reduce it. The decrease in binge drinking among United States high school students noted in the MTF coincide with an analysis carried out by Gruzca et al (2009), which pointed to the increase in drinking age to 21 years (the National Minimum Drinking Age Act passed in

1984), as the most significant factor in the decline of binge drinking among youth. Gruzca cited a small effect due to zero tolerance by law enforcement as well.<sup>30</sup> It may be helpful for countries with higher rates of binge drinking to consider policies to reduce excessive alcohol use that take into account experiences that have been successful in other countries.

Alcohol use patterns vary by gender, although this is to a lesser degree among the secondary school students than among the general population. We are seeing relatively equal rates of consumption among boys and girls in the secondary school population. Current estimates in the adult populations show that males tend to use alcohol more than females. As the adolescents age, we would expect drinking behaviors between boys and girls to remain relatively similar as they reach adulthood. Alcohol use within the general population shows far greater variability by gender than among secondary school students. Previous studies have shown that substance use behavior among males and females tends to become more similar over time.

In the countries with the highest rates of problem drinking, a larger proportion of problem drinking in the general population among those who had ever used alcohol were men. In some cases, upwards of 40% of the men who drank alcohol in the past 30 days also met the criteria for problem drinking. However, those same studies found that although the overall prevalence of alcohol use among men and women were different, rates of hazardous drinking were similar among men and women who reported any alcohol use during the past month. In other words, harmful drinking behavior was similar among the men and women who consumed alcohol regularly. Problematic drinking patterns exist in multiple populations that consume alcohol and this must be taken into account when creating interventions to reduce problem drinking.

The highest rates of problem drinking were found in the population ages 18-34 years. This was true not only among current drinkers (past thirty days), but also among the general population as a whole and was consistent across nearly all of the countries. An important issue to keep in mind regarding this age group is that it is very likely that a large proportion of these problem drinkers began consuming alcohol at an early age. This information highlights the importance of early intervention to prevent long-term drinking behavior. A sizeable population that meets the criteria for problem drinking should be a matter of concern for any country.

An important issue regarding alcohol policy in the American hemisphere is that a number of countries in Latin America and the Caribbean have economies that are highly reliant on alcohol production. South America is renowned for its fine wines and has a cultural tradition of wine craft. Other regions and countries have long traditions distilling spirits such as in Central America and the Caribbean, which are renowned for their high quality rum. According to research by Rehm et al in 2006, wine-producing

countries generally show higher rates of consumption while other countries show higher rates of abstention.<sup>31</sup>

There appears to be supporting evidence for this in the OAS member states. The countries in the American hemisphere with the highest rates of alcohol consumption in general, are wine-producing countries. However, higher prevalence does not necessarily correspond with higher rates of problem drinking. Countries in the American hemisphere with the highest problem drinking rates are not necessarily producers of alcohol. This raises an important issue regarding policy formulation. Member states need to examine substance use beyond the measures of mere prevalence. Prevalence is necessary for understanding the magnitude of the problem, but do not always provide sufficient information toward understanding the acuteness of the problem. To gain more understanding of alcohol-related problems, countries should develop better measures of risk behaviors, such as binge drinking, as part of their ongoing surveys of drug use and consequences.

This can also be seen through the economic impact associated with alcohol use. Although alcohol represents an important economic aspect in many countries in the American hemisphere, the social costs associated with alcohol misuse also have a major economic impact. Studies in the American hemisphere and in other parts of the world on economic costs of substance abuse have shown that the costs associated with alcohol alone exceed the combined economic impact of illicit substances. Ultimately, it is the responsibility of the individual countries to develop national policies and decide how to respond to the misuse and dependence on alcohol in their societies, and make choices on the actions they take to mitigate those consequences.

# Chapter 2 Marijuana

Marijuana is the most widely used illicit drug in the American hemisphere. It is estimated that worldwide, between 129 and 191 million people between the ages of 15 and 65 have used marijuana during the past year, amounting to between 2.9% and 4.3% of the population. In the Americas, around 40 million adults have used marijuana during the past year.<sup>32</sup> In the Caribbean, which has some of the highest rates of marijuana use, marijuana consumption exceeds tobacco use in some populations.

# 2.1. Prevalence and Patterns of Marijuana Use

# 2.1.1 Prevalence of Marijuana Use among Secondary School Students

Table 5 displays the prevalence of marijuana use among secondary school students in OAS member states and the rates by age group using the variables lifetime, past year and past month. The countries with the lowest past year prevalence of marijuana use in secondary schools are Peru (1.9%), Honduras (1%), the Dominican Republic (1%), Venezuela (0.9%) and Haiti (0.7%). The highest rates of past year marijuana use among secondary school students is found in Canada, where past year prevalence exceeds 24% followed by the United States at 23%. The past year prevalence among secondary school students was 15% or higher in St Lucia, Dominica and Grenada.

Current use of marijuana among secondary school students, defined as use during the past thirty days, ranges from 0.4% to 13.8%. The highest rates of past month marijuana use among students, 11% or over, were found in the United States and Dominica and exceeded 8% in several other Caribbean countries. The lowest past month prevalence among secondary school students hovered around 0.4% in the Dominican Republic, Haiti and Honduras. The data show that marijuana prevalence rises with each successive age group. This pattern appears to be consistent in the majority of secondary school students in the American hemisphere.

**Table 5.** Highest and Lowest Prevalence of Marijuana Use among the Secondary School Population, overall and by Age Group (%)

Age Group (%)	T:0:: 0/	D (37 0/	D (10)
Prevalence	Lifetime %	Past Year %	Past Month %
Range	1.70 - 30.10	0.70 - 24.40	0.40 - 13.80
Lowest Five Prevalence	Dominican Republic (2008) 1.70	Haiti (2009) 0.70	Haiti (2009) 0.40
Countries	Venezuela (Bolivarian Republic	Venezuela (Bolivarian	Honduras (2005) 0.41
	of) (2009) 1.70	Republic of) (2009) 0.90	Dominican Republic (2008) 0.40
	Haiti (2009) 2.00	Dominican Republic (2008)	Venezuela (Bolivarian Republic
	Honduras (2005) 2.86	1.00	of) (2009) 0.60
	Peru (2007) 3.10	Honduras (2005) 1.06	Peru (2007) 0.90
		Peru (2007) 1.90	
Highest Five	St. Lucia (2005) 25.56	Grenada (2005) 15.74	Antigua (2005) 8.53
Prevalence Countries	Grenada (2005) 27.28	St. Lucia (2005) 16.03	Grenada (2005) 8.58
	United States† (2009) 29.0	Dominica (2006) 18.07	St. Lucia (2005) 8.98
	Dominica (2006) 29.59	United States† (2009) 22.90	Dominica (2006) 11.93
	Canada* (2006) 30.10	Canada* (2006) 24.40	United States† (2009) 13.80
	Age	e Groups	
	Lifetime %	Past Year %	Past Month %
14 years and Under	Grenada (2005) 15.98	St. Lucia (2005) 7.73	Antigua & Barbuda (2005) 4.29
Highest five	Canada* (2006) 16.90	Jamaica (2006) 9.19	St. Kitts and Nevis (2003) 4.63
	St. Lucia (2005) 16.90	Dominica (2006) 10.94	Jamaica (2006) 5.04
	Antigua (2005) 17.22	United States† (2009) 11.80	United States† (2009) 6.50
	Dominica (2006) 20.58	Canada* (2006) 13.60	Dominica (2006) 6.79
		,	
15-16 years	Grenada (2005) 29.65	St. Lucia (2005) 18.45	St. Lucia (2005) 9.81
Highest five	Dominica (2006) 30.88	St. Kitts and Nevis (2003)	Grenada (2005) 10.18
	United States† (2009) 32.30	18.50	Antigua & Barbuda (2005) 10.77
	St. Kitts and Nevis (2003) 32.40	Dominica (2006) 19.94	Dominica (2006) 12.45
	Canada* (2006) 41.40	United States† (2009) 26.70	United States† (2009) 15.90
	,	Canada* (2006) 34.30	
		, ,	
17 and over	St. Lucia (2005) 41.84	Grenada (2005) 25.19	Antigua (2005) 13.04
Highest five	United States† (2009) 42.00	Dominica (2006) 27.65	Grenada (2005) 14.74
	Grenada (2005) 42.44	St. Lucia (2005) 30.66	St. Lucia (2005) 20.07
	Dominica (2006) 43.75	United States† (2009) 32.8	Dominica (2006) 20.56
	Canada* (2006) 47.50	Canada* (2006) 37.10	United States† (2009) 20.60
	(2000) 17.50	(200) 37.10	2 11104 2 11105   (2005) 20.00

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

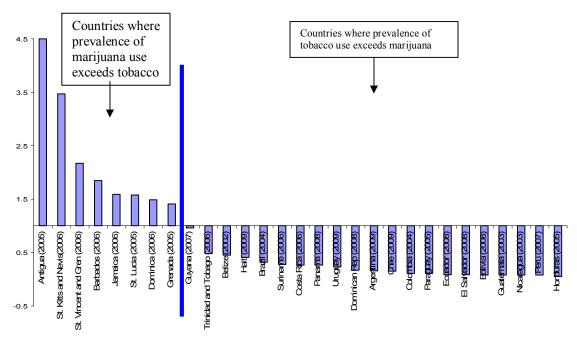
Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

<sup>\*</sup>Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only, age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12. †Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12. Numbers in () indicate year of study.

## 2.1.2 Marijuana versus Tobacco Use among Secondary School Students

Throughout the world marijuana is the most commonly used illicit substance, while tobacco is the fastest growing licit substance used in developing countries.<sup>33</sup> Based on previous studies it is estimated that the prevalence of tobacco use worldwide is approximately seven times higher than marijuana use.<sup>c</sup>

Ratio of Tobacco to Marijuana Use Worldwide 7:1



**Figure 2.** Ratio of the Prevalence Marijuana Use to Tobacco Use During the Past Month among Secondary School Students Note: Figure displays data available from individual countries. Countries without comparable data may not be represented.

Figure 2 depicts the ratio of marijuana to tobacco use among secondary school students in the American hemisphere. The majority of countries follow the global pattern, which is that prevalence of tobacco use outstrips marijuana. However, a number of Caribbean countries indicate that the prevalence of marijuana use surpasses tobacco use in the school population. In Antigua, for example, the rate of past month marijuana use is 4.5 times higher than the rate of past month tobacco use. Antigua, St. Kitts, St. Vincent and Grenadines, Barbados, Jamaica, St. Lucia, Dominica and Grenada also follow this pattern of higher past month marijuana use to tobacco use (Figure 2). The high ratio of marijuana to tobacco use in these eight Caribbean countries suggests that there may be a sizable population that uses marijuana exclusively (although these data are not found in the report). The MTF 2010 survey from the United States

<sup>&</sup>lt;sup>c</sup> Estimate based on data from Guindon, 2003, and from the UNODC World Drug Report 2009. Guindon estimates that there are approximately 1.3 billion tobacco smokers worldwide. The WDR estimates that between 142 and 190 million people used marijuana in 2009.

found that the past month prevalence of marijuana use among high school students (14.8%) outstripped cigarette use (12.8%) (Johnston et al, 2010).

## 2.2. Prevalence of Marijuana use in the General Population

(%)			P	Past Year by age		
Country	Past Month	Past Year	12-17	18-34	35-64	
Argentina (2008)	2.30	3.70	1.58	7.83	1.21	
Barbados (2006)	6.60	8.30	4.07	13.65	4.39	
Belize (2005)	6.90	8.45	5.28	13.25	5.03	
Bolivia (2007)	0.45	4.53	0.79	9.26	0.77	
Brazil (2005)	1.92	2.60	-	-	-	
Canada (2008)**	9.30	13.60	25.20	24.00	7.10	
Chile (2008)	3.53	6.44	7.93	12.17	2.66	
Colombia (2008)	1.60	2.27	2.72	4.01	0.56	
Costa Rica (2006)	0.60	1.00	-	-	-	
Ecuador (2007)	0.40	0.70	-	-	-	
El Salvador (2005)	0.26	0.35	-	-	-	
Guatemala (2005)	0.06	0.13	-	-	-	
Nicaragua (2006)	0.41	1.06	_	-	-	
Mexico (2008)	0.70	1.03	1.18	1.40	0.58	
Panama (2003)	2.85	3.64	2.22	4.68	3.01	
Paraguay (2003)	0.33	0.51	0.84	0.78	0.10	
Peru (2006)	0.37	0.66	0.80	1.01	0.30	
Uruguay (2006)	3.26	5.17	3.50	11.11	1.79	
United States (2009)†	6.64	11.33	13.56	23.36	7.43	

Sources: NDCs, NDOs, \*HC, †NSDUH 2009

Recent data on marijuana use in the general population (age 12 to 64 years) are scarcer. The majority of information on drug use in the general population comes from household surveys. Unfortunately, not every country in the American hemisphere has data from the general population at this time.

Table 6 depicts the prevalence of past year marijuana use available from the general population in nineteen countries that have carried out household surveys. The data available in these countries suggest that there is variability in marijuana prevalence among the general population. Past year prevalence ranges from around 0.35% to 13.6% among the general population.

Likewise, there is variability across countries for past month marijuana use in the general population. Among the countries for which data are available, the higher rates of past month use are found

<sup>\*</sup>Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Populations from Canada and the United States differ slightly, see notes below.

<sup>\*\*</sup> Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older. The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution.

<sup>†</sup>Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over.

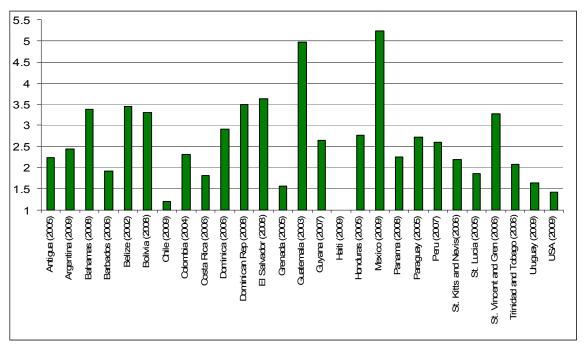
in Canada<sup>d</sup>, Belize, the United States, and Barbados. Conversely Guatemala, Mexico, El Salvador, Paraguay and Peru have the lower rates of past month marijuana use in the general population, all of which are below 0.4%.

## 2.3. Differences in Marijuana Use by Gender

In Latin America patterns of marijuana use among males and females differ broadly across countries, both within the general population as well as among secondary school students.

#### 2.3.1. Marijuana use by gender among secondary school students

Figure 3 represents the ratio of past year marijuana use between males and females. Countries with a ratio of 1, such as Haiti, indicate that prevalence rates between boys and girls in secondary school are the same. Ratios above 1 indicate that marijuana prevalence among secondary school boys is higher than among secondary school girls.



**Figure 3.** Ratio of Past Year Marijuana Prevalence, Male to Female, among Secondary School Students Note: Figure displays data available from individual countries. Countries without equivalent data may not be represented.

The differences in past year prevalence of marijuana use range from a ratio of about 1 (no difference between males and females) in Haiti, to about 5.2 (use among males is 5.2 times greater than

24

<sup>&</sup>lt;sup>d</sup> General population data from Canada refer to the age group 15-64 years of age. This difference in age group may account, at least in part, for the higher prevalence in the general population.

among females) in Mexico. None of the countries for which data are available show higher rate of marijuana use among girls.

# 2.3.2. Marijuana use by gender in the general population

Table 7 displays past year prevalence of marijuana use in the general population. As can be seen in table 7, rates of past year use are higher among males than among females in the general population in the majority of countries. These differences range from just over one and a half times higher among males in Canada to almost 38 times higher among males in El Salvador.

Country	Male	Female	Ratio Male: Female
Argentina (2008)	5.38	2.07	2.59
Barbados (2006)	14.80	3.50	4.23
Belize (2005)	10.59	6.31	1.68
Bolivia (2007)	8.90	1.14	7.81
Brazil (2005)	4.20	1.50	2.80
Canada (2008)*	16.90	10.40	1.60
Chile (2008)	8.79	4.16	2.12
Colombia (2008)	3.79	0.93	4.08
Costa Rica (2006)	1.90	0.20	9.50
Ecuador (2007)	1.40	0.10	14.00
El Salvador (2005)	0.75	0.02	37.50
Guatemala (2005)	0.29	0.03	9.67
Nicaragua (2006)	1.18	0.20	5.90
Mexico (2008)	1.73	0.38	4.55
Panama (2003)	6.35	1.65	3.85
Paraguay (2003)	0.80	0.28	2.86
Peru (2006)	1.16	0.27	4.30
Uruguay (2006)	7.50	3.04	2.47
USA (2009) †	14.18	8.63	1.64

Sources: NDCs, NDOs, \*HC, †NSDUH

Table displays data available from individual countries. Countries without comparable data may not be represented. \*Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older- The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution.

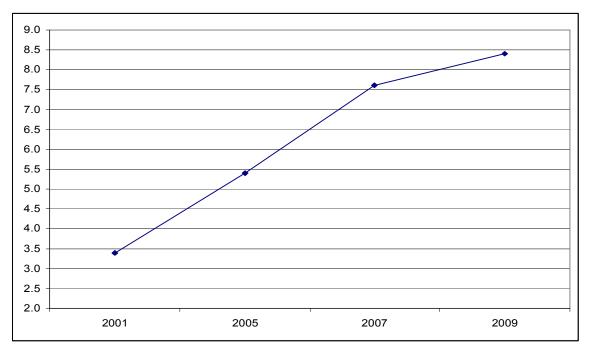
 $<sup>\</sup>dagger$ Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over.

## 2.4. Trends in Marijuana Use

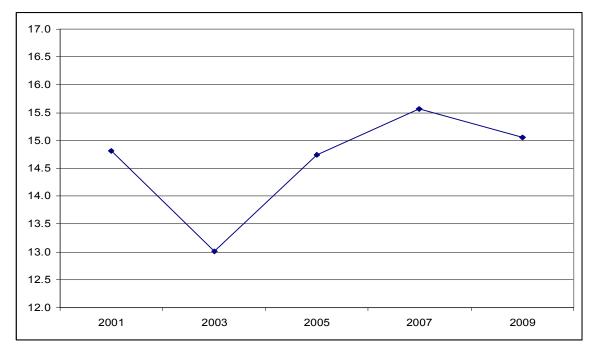
The following section presents some limited data on trends in marijuana use in the American hemisphere. CICAD/OID guidelines for measuring trends in drug consumption require a minimum of three successive periods of data in order for a trend to be considered discernable. Presently, CICAD has data from only a few countries that are able to display past year prevalence trends in marijuana use among the secondary school population.

Other countries, such as Mexico and Suriname report on lifetime marijuana prevalence among secondary school students. A 2007 report from Mexico indicates that lifetime prevalence of marijuana use increased in Mexico between 1997 and 2006 from around 5% to approximately 8%, and showed a dramatic drop to about 4% in 2009.<sup>34</sup> A similar report from Suriname (2007) showed a moderate decline in lifetime prevalence among secondary school students from 3% to 2.5% between 2002 and 2004, with a sharp increase in 2006 to over 4.5%.

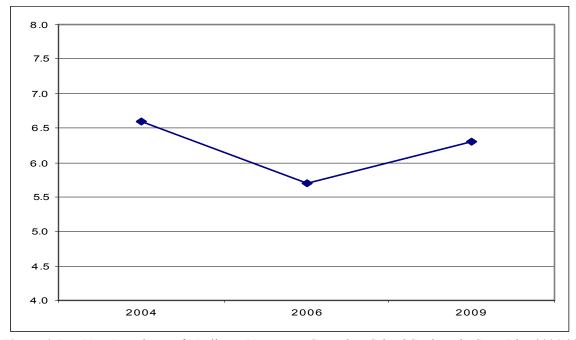
Figures 4-8 depict the available information on trends in marijuana consumption from Argentina, Chile, Costa Rica, the United States and Uruguay. It may be important to keep in mind that the countries in the American hemisphere that do possess trend data have collected these data over different years. It is also relevant to note that the Y-axis is scaled differently on each graph. Any interpretation of trends should be taken with caution.



**Figure 4.** Past Year Prevalence of Marijuana Use among Secondary School Students in Argentina, 2001-2009 Sources: OAD/SEDRONAR.



**Figure 5.** Past Year Prevalence of Marijuana Use among Secondary School Students in Chile, 2001-2009 Source: CONACE



**Figure 6.** Past Year Prevalence of Marijuana Use among Secondary School Students in Costa Rica 2004-2009 Source: IHAFA

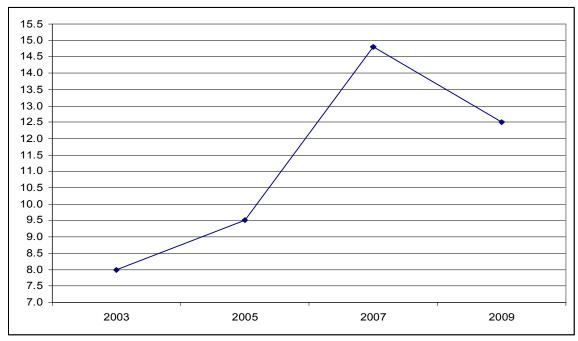
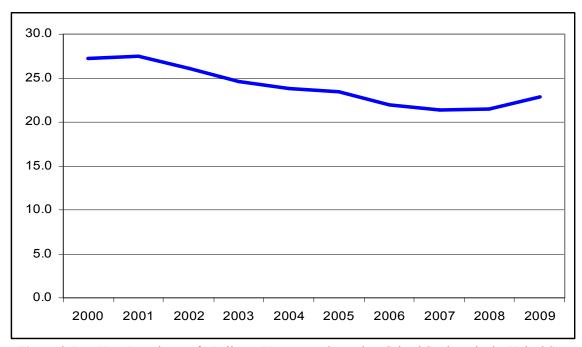


Figure 7. Past Year Prevalence of Marijuana Use among Secondary School Students in Uruguay, 2003-2009 Source: JND

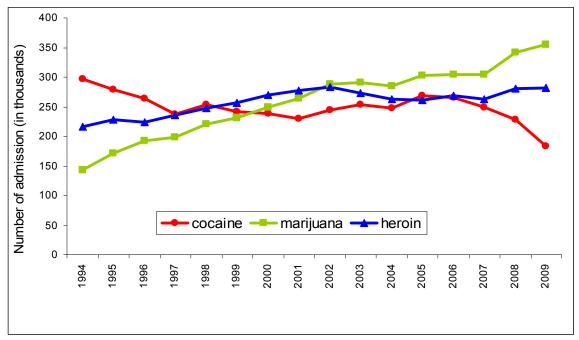


**Figure 8.** Past Year Prevalence of Marijuana Use among Secondary School Students in the United States, 2000-2009. Source: MTF (2010)

Data from Argentina indicate a steady increase in the past year prevalence of marijuana use among high school students in the country. The overall trend in past year prevalence of marijuana use among secondary school students appears to be relatively stable in Chile with the exception of an apparent dip in prevalence during 2003. However, the other years indicate relatively similar rates from one year to the next. Data from Uruguay show an increasing trend between 2003 and 2007, followed by a decrease between 2007 and 2009. It will be important to monitor marijuana use over time in Uruguay to determine whether this is indicative of a new trend. Figure 8 shows the trend in past year prevalence of marijuana use among secondary school (high school) students in the United States between 2001 and 2009. The trend appears to show a slight decline. It is difficult to gauge whether the slight increase in 2009 indicates a change in this trend or not.

## 2.5. Treatment for Marijuana Dependence

There are limited data on treatment for marijuana dependence. Currently no standardized cross-national methodology exists for collecting data on access to treatment or demand for treatment in Latin America or the Caribbean. However, some countries collect and report information independently. The following figure shows data available from the United States on treatment admissions for marijuana related issues.



**Figure 9.** Increase in Treatment Admissions with Marijuana as the Primary Substance of Abuse in the United States, Since 1994 Sources: SAMHSA, Treatment Episode Data Set (TEDS) Highlights – 2006 (January 2008). data for 1994 and 1995 from the 2004 and 2005 TEDS reports, respectively.

Data from the United States show an increase in treatment admissions for marijuana use over time. Between 1994 and 2009, the number of drug treatment admissions for marijuana more than doubled.<sup>35</sup>

Available data indicate that there is a broad range in the proportion of admissions to treatment centers in which marijuana is the primary substance for which the individuals are accessing treatment (Table 8). Countries reporting this data show between 3% and 23% of those accessing treatment are seeking treatment for marijuana as their primary substance of abuse. These data may not be representative of the region, as only a handful of countries have reported data on treatment admissions to CICAD. Nevertheless, it offers a glimpse of the proportions of people accessing treatment for marijuana use in different countries in the American hemisphere.

Table 8.	Percent of Treatment	Admissions the	at Identify	Marijuana	as the	Primary	Substance f	or
which Tr	eatment is Sought by 0	Country						

which is so		1
	% Of treatment admissions that identify marijuana as the primary	
Country	substance for which treatment is sought.	Year
Argentina	23.30	2007
Chile	15.18	2008
Costa Rica	11.10	2007
Dominican Republic	5.87	2008
Ecuador	5.40	2007
Mexico	12.10	2007
Panama	23.00	2008
Peru	20.40	2008
Suriname	3.00	2008

Sources: Analysis performed by OID applying data obtained from NDOs in member states. The information may be from governmental or non-governmental sources.

Note: Table displays data available from individual countries. Countries without comparable data may not be represented.

## 2.6. Discussion on Marijuana

Marijuana is the most commonly used illicit drug in nearly every country in the American hemisphere. This is evidenced in both the secondary school population, as well as the general population. The range of use across the American hemisphere is broad, and indicates very different drug use behaviors across both regions and individual countries.

An unusual phenomenon seen among secondary school students across regions is the differences in the ratios of use between tobacco and marijuana consumption. In most parts of the world, tobacco use outstrips marijuana use handily. Data from the secondary school populations indicate that this pattern holds true in both North America and Latin America. However, in several of the Caribbean countries, this pattern of use is reversed. Secondary school students in several Caribbean countries display higher prevalence of marijuana use than tobacco, on both for past year and past month prevalence. Indeed, marijuana use is more than four times greater than tobacco use in some countries. It is difficult to predict what sort of impact this may have over time in these countries regarding health outcomes. Nevertheless, it may be an important issue for policy makers to keep in mind regarding drug interventions among youth.

Gender differences in use of marijuana are apparent in the general population and also in the secondary school population. In the general population, past month use of marijuana shows some differences by gender. In the countries with the lowest rates of past month marijuana use; Ecuador, Bolivia and Peru, marijuana use is almost entirely driven by males. In Uruguay, Chile and Argentina, where marijuana prevalence is higher overall, the difference in use between males and females is less acute, although males still report slightly higher rates than females.

Although marijuana use is greater among males in the general population of most countries, the smaller prevalence ratios between boys and girls in secondary schools may indicate that the gender gap in marijuana use is closing and that these countries could see more similar rates between males and females in the future.

There are limited data on trends in marijuana use in the American hemisphere, and the scant that exists makes it difficult to draw conclusions regarding any sort of hemisphere-wide trend. Only a few countries in Latin America currently have information on the number of people accessing treatment for marijuana use.

## **Chapter 3 Inhalants**

Inhalants are breathable chemical vapors that produce psychoactive effects. There are a variety of products legally available and commonly used in the home, in the workplace, and accessible in the open markets that contain inhalable substances.<sup>36</sup> The definition of inhalants is often problematic in drug research because it includes a broad range of chemical substances that produce a varying range of psychoactive and pharmacological effects. This variety of issues poses challenges for research on inhalant use, motives for use, and associated behaviors and disease.

The classification of inhalants differs from other drugs; whereas substances such as cocaine are defined by a pharmacological class, inhalants are defined by their route of administration.<sup>37</sup> Research has identified four classes of substances: solvents, aerosols, gases and nitrites.<sup>38</sup> Volatile solvents refer to substances such as paint thinners or removers, toluene, glues and correction fluid. Gases refer to butane, propane and similar gases, as well as chloroform, nitrous oxide and medical anesthetic gases. Aerosols or propellants are found in deodorants, cooking sprays and whipped cream dispensers. Nitrites are often sold commercially and are packaged specifically for inhalation, are commonly referred to as "poppers" and are frequently associated with the club scene and raves. Many of these substances are common household items and are easy to obtain.

Inhalant use is common in many countries across the globe, both in marginalized populations as well as among mainstream populations.<sup>39,40,41,42,43,44</sup> Among the most commonly abused substances are those that contain toluene, a solvent found in paint thinner and glue. Inhalants are generally used to produce a high and hallucinogenic effect. However, there is a great deal of evidence from developing countries that inhalation of substances containing toluene is often initiated for other reasons that have particular implications for policy. For example, in extremely marginalized populations toluene or glue is often used to ward off hunger or feelings of cold. Research in the United States indicates that about one million adolescents ages 12-17 years in the United States used some form of inhalant during 2009.<sup>45</sup>

## 3.1 Prevalence and Patterns of Inhalant Use

## 3.1.1 Prevalence of Inhalant Use among Secondary School Students

Table 9. Highest and Low	est Prevalence of Inhalant Use in the	Secondary School Population, overall	
	Lifetime	Past Year	Past Month
Range	0.70% - 28.17%	0.50% - 14.34%	0.20% - 9.95%
Lowest Prevalence	Venezuela (Bolivarian Republic	Dominican Republic (2008) 0.50	Dominican Republic (2008)
	of) (2009) 0.70	Honduras (2005) 0.54	0.20
	Dominican Republic (2008) 1.10	Nicaragua (2003) 0.87	Venezuela (Republic of)
	Honduras (2005) 1.60	Guatemala (2003) 0.99	(2009) 0.20
	Nicaragua (2003) 2.00	Uruguay (2009) 1.40	Honduras (2005) 0.23
	Guatemala (2003) 2.11		Nicaragua (2003) 0.40
			Guatemala (2003) 0.41
TT: 1 + D = 1	D (1/2004) 15/0	D 1 1 (2000) 0.00	D 1 1 (2000) (47
Highest Prevalence	Brazil (2004) 15.69	Barbados (2006) 9.92	Barbados (2006) 6.47
	Barbados (2006) 19.66	Guyana (2007) 10.51	Guyana (2007) 6.93
	Guyana (2007) 21.72	Trinidad & Tobago (2006) 13.29	Trinidad & Tobago (2006)
	Trinidad & Tobago (2006) 26.38	Jamaica (2006) 13.93	7.45
	Jamaica (2006) 28.17	Brazil (2004) 14.34	Jamaica (2006) 9.47
			Brazil (2004) 9.95
14 years and Under	Antigua (2005) 15.28	Barbados (2006) 11.05	Guyana (2007) 6.84
9	Guyana (2007) 22.62	Guyana (2007) 11.12	Barbados (2006) 7.11
	Barbados (2006) 22.69	Brazil (2004) 11.36	Brazil (2004) 7.83
	Trinidad & Tobago (2006) 26.22	Jamaica (2006) 12.81	Trinidad & Tobago (2006)
	Jamaica (2006) 27.73	Trinidad & Tobago (2006) 14.31	8.08
			Jamaica (2006) 8.10
15-16 years	Barbados (2006) 17.15	Guyana (2007) 10.07	Barbados (2006) 5.94
,	Brazil (2004) 19.17	Mexico (2009) 10.13	Guyana (2007) 7.08
	Guyana (2007) 20.71	Trinidad & Tobago (2006) 13.98	Trinidad & Tobago (2006)
	Trinidad & Tobago (2006) 27.02	Jamaica (2006) 14.95	7.58
	Jamaica (2006) 29.53	Brazil (2004) 18.12	Jamaica (2006) 10.84
	, ,	, ,	Brazil (2004) 12.40
17 and over	Double des (2006) 12 57	St. Lucia (2005) 7.20	Dowledge (2006) 5-22
1 / and over	Barbados (2006) 13.57 Brazil (2004) 20.10	St. Lucia (2005) 7.39 Tripided & Tobago (2006) 0.88	Barbados (2006) 5.32
		Trinidad & Tobago (2006) 9.88	Trinidad & Tobago (2006) 5.82
	Guyana (2007) 22.40	Guyana (2007) 9.98	5.82 Guyana (2007) 6.63
	Trinidad & Tobago (2006) 25.73	Jamaica (2006) 14.17	
	Jamaica (2006) 26.64	Brazil (2004) 18.73	Jamaica (2006) 9.57
	mamber states and MEM *MTE 2000 *I	10	Brazil (2004) 13.33

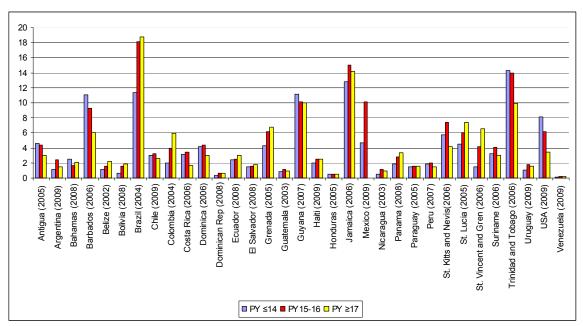
Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

Numbers in () indicate year of study.

The lowest rates of inhalant use for lifetime, past year and past month use are found primarily in the Central American countries. The highest rates of lifetime use are found in the Caribbean region and also Brazil. Moderate rates of inhalant use are found throughout the South American region as well.

## 3.1.2 Inhalant Use by Age, Secondary School Students



**Figure 10.** Past Year Prevalence of Inhalant Use among Secondary School Students, by Age Group (blue: ≤14, red: 15-16, green ≥17)

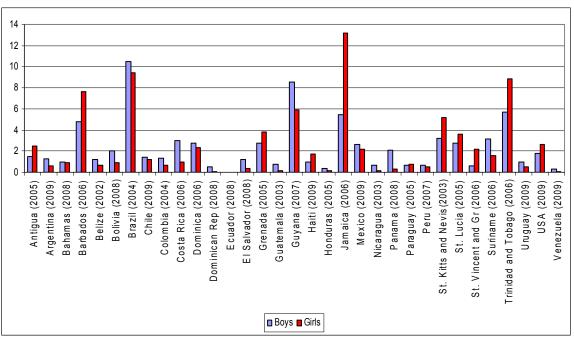
Note: Figure displays data available from individual countries. Countries without comparable data may not be represented. Data for USA indicates grades 8, 10 and 12 and corresponds to age groups  $\leq 14$ , 15-16, and  $\geq 17$ , respectively.

In the USA, inhalant prevalence peaks at around 8<sup>th</sup> grade (roughly 13 to 14 years of age) and then drops off quickly (Johnston, 2009). A similar pattern is reflected in Barbados, Chile, Guyana and Panama, where inhalant prevalence peaks at around fourteen years of age. In the other countries in Latin America and the Caribbean, inhalant use peaks at a later age. In Antigua and Barbuda, Argentina, Costa Rica, Dominica, Guatemala, Haiti, Jamaica, Nicaragua, Peru, St. Kitts and Nevis, Suriname and Trinidad and Tobago, the highest rates of use are found at around age fifteen or sixteen. In nearly all others, Brazil, Colombia, the Dominican Republic, Ecuador, El Salvador, Grenada, St. Lucia, Saint Vincent and the Grenadines and Uruguay, the prevalence of inhalant use among secondary school students continues to rise up to age 17.

<b>Table 10.</b> Countries where Past Mamong Secondary School Students	v	Exceeds Marijuana Prevalence
Country	Past Month Marijuana	Past Month Inhalants
Barbados (2006)	6.08	6.47
Brazil (2004)	3.08	9.95
Guyana (2007)	3.72	6.93
Haiti (2009)	0.40	1.40
Jamaica (2006)	8.50	9.47
Mexico (2009)	1.15	2.39
Trinidad & Tobago (2006)	2.75	7.45
Sources: NDCs and NDOs in member state	es.	

Although marijuana is usually the most common illicit substance used among secondary school students in Latin America and the Caribbean, inhalants often occupy second place. Argentina and Uruguay are exceptions where cocaine tends to be the most commonly used drug after marijuana. In a few countries such as Brazil and several Caribbean countries, prevalence of current inhalant use is higher than marijuana (Table 10).

## 3.2 Inhalant Use by Gender



**Figure 11.** Prevalence of Past Month Inhalant Use among Secondary School Students, by Gender.

Note: Data for the United States are taken from the MTF 2009. US data correspond to 10<sup>th</sup> grade only, as results for total population are not available. Figure displays data available from individual countries. Countries without comparable data may not be represented.

The prevalence of inhalant use during the past month is higher among boys than girls in every Latin American country. However, this is not necessarily the case in the Caribbean, where in many countries inhalant prevalence is higher among girls than boys. In the United States, girls in the eighth and tenth grades use inhalants at a slightly higher rate than boys; however, in the twelfth grade boys use inhalants slightly more frequently than girls.

## 3.3 Inhalant Use among University Students

A recent study carried out by the Andean Community (CAN)<sup>46</sup> among university students in Bolivia, Colombia, Ecuador and Peru demonstrated higher rates of inhalant use among college students.

<b>Table 11.</b> Past Year Prevalence of Inhalant Use among University Students in Four Andean Countries					
Country % CI* 95%					
Bolivia	1.88	1.48-2.31			
Colombia	1.40	1.14-1.67			
Ecuador	0.77	0.53-1.02			
Peru	1.70	1.34-2.08			

Source: CAN (2009)

Note: Table displays data available from individual countries. Countries

without comparable data may not be represented.

In Bolivia, 1.9% reported using inhalants at some point in the past year. In Colombia, 1.4% of college students reported past year use. In Ecuador, 0.8% and in Peru, 1.7% reported past year use. Although some of these rates may appear low compared with other populations, the report points out that in countries such as Bolivia, Ecuador and Peru the prevalence of inhalant use among university students is second only to marijuana among this population, and the prevalence of these drugs is very similar among university students. The CAN (2009) study also notes that in Bolivia, Ecuador and Peru, the past year prevalence of inhalants was higher among females than among males.

## 3.4 Treatment for Inhalant Use

CICAD does not possess data on treatment for inhalant use in Latin America or the Caribbean. However, studies from the United States indicate that adolescents between the ages of 12 and 17 account for almost half of all drug treatment admissions that report inhalant use. These same admissions had higher rates of concurrent psychiatric disorders. About 45% of adolescents admitted into drug treatment with inhalant use also had a concurrent psychiatric disorder, as compared to only 29% of adolescents admitted to treatment for drug use that did not include inhalants.<sup>47</sup>

<sup>\*</sup> Confidence Interval

#### 3.5 Discussion on Inhalants

One of the persistent issues associated with understanding inhalant use is that the term inhalants refers to a category that represents a broad range of substances that are chemically different, most often available licitly, and produce slightly different effects. The motivations for use of these different substances may be quite different. In-depth studies of inhalants are sorely needed in order to understand the different substances at play, motivations for use and the health impact of the substances.

Data from secondary school students demonstrate that inhalant use is firmly present among secondary school students. In the majority of countries in both Latin America and the Caribbean, inhalants are the most common substance following marijuana and, in some countries, the past year prevalence of inhalants exceeds marijuana prevalence. Indeed, other studies have shown that inhalant use is common among secondary school students (Neumark, 2011), (Hynes et al, 2011), (Villatoro et al, 2011).

Another issue of concern regarding inhalant use among the secondary school population is the age at which inhalant use peaks. Studies from the United States have shown over time that inhalant use tends to peak at around age fourteen, and then prevalence drop off quickly. However, the patterns in Latin America and the Caribbean are quite different. Most of the countries showed that secondary school students in Latin America continue using inhalants at increasing rates until age 17. Findings from university studies have shown higher rates of inhalant use among this population as well. In the Caribbean, secondary school youth show higher rates of lifetime inhalant use but more moderate rates of inhalant use during the past year or past month. Rates also tend to decrease with age, which is consistent with what has been seen in North America.

There also appear to be gender differences in inhalant use, which vary from country to country. Argentina, Bolivia, Colombia, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Suriname and Uruguay show rates of use among boys that exceed the prevalence among girls by 1.5% or more. On the other hand, the other countries in the American hemisphere show rates that are either equal among boys and girls or higher among the girls.

# Chapter 4 Cocaine HCl, Coca Paste, Cocaine Base and Other Substances that Contain Cocaine Alkaloids

A variety of substances derived from the coca leaf are produced in the Americas. These include not only cocaine hydrochloride (HCl), commonly known as powder cocaine, but also a variety of smokeable substances that are created during the processing of cocaine HCl.<sup>48</sup> Within these smokeable substances we find a variety of forms of cocaine base paste (CBP), which are produced early in the refining process of cocaine Crack and freebase are smokeable forms of cocaine that are produced much later in the refinement process as products derived from cocaine hydrochloride itself. <sup>49, 50, 51</sup>

Although the exact composition, distinguishing features and precise nomenclature for cocaine base paste are still debated, for the purposes of this chapter cocaine refers to cocaine HCl and the term *cocaine* base paste (CBP) refers to basuco, paco and other smokeable substances containing cocaine alkaloid that are derived from the coca leaf and are produced prior to cocaine HCl.

The following chapter reports on prevalence of both cocaine HCl and CBP in OAS member states. Please observe that crack cocaine is not included in the majority of the tables.

#### 4.1 Prevalence and Patterns of Cocaine Use

Prevalence and patterns of cocaine use vary across both countries and subregions in the American hemisphere. The following table presents the ranges of cocaine use among secondary school students in the American hemisphere.

38

<sup>&</sup>lt;sup>e</sup> Also known as cocaine sulfate, base paste or simply paste, in addition to local terms such as *Basuco* and/or *Bazuca* in Colombia, *Pitillo* in Bolivia, *Baserolo* in Ecuador and *Pasta de Coca* in Peru; it is an intermediate product in the production of cocaine HCl derived from coca leaves. Generally it is made by soaking dried coca leaves in water and treating them with a solution of kerosene or gasoline, which later mixed with alkaline substances such as potassium permanganate and finally sulfuric acid. The base paste (pasta básica), called *Basuco*-produced in Colombia is differs from this traditional description of cocaine base paste and is a mid-way substance in the processing of cocaine HCl. In Colombia, "Basuco" is a remnant from the second phase of processing of when coca leaf paste is transformed into cocaine base, and it is obtained from fairly simple methods using kerosene, base substances, sulfuric acid and ether.

## 4.1.1 Prevalence of Cocaine Use among Secondary School Students

Table 12. Highest and Lowest Prevalence of Cocaine Use among the Secondary School Population, over	rall and by Age
Group (%)	, ,

	Lifetime	Past Year	Past Month
Range	0.53%- 6.70%	0.17%- 3.40%	0.07%-1.78%
Lowest Prevalence	St. Vincent and Grenadines	Suriname (2006) 0.17	Suriname (2006) 0.07
	(2006) 0.53	Bahamas (2008) 0.20	Bahamas (2008) 0.20
	Venezuela (Bolivarian Republic	Venezuela (Bolivarian	St. Vincent and Grenadines
	of) (2009) 0.60	Republic of) (2009) 0.30	(2006) 0. 21
	Dominica (2006) 0.69	St. Vincent and Grenadines	Trinidad & Tobago (2006)
	Suriname (2006) 0.70	(2006) 0.32	0.24
	Bahamas (2008) 0.80	Trinidad & Tobago (2006)	Venezuela (Bolivarian
		0.49	Republic of) (2009) 0.30
Highest Prevalence	Argentina (2009) 4.00	Argentina (2009) 2.30	Panama (2008) 1.20
	Guyana (2007) 4.12	Uruguay (2009) 2.50	Argentina (2009) 1.30
	Canada* (2006) 4.40	United States† (2009) 2.70	Jamaica (2006) 1.35
	United States† (2009) 4.60	Guyana (2007) 2.78	Chile (2009) 1.70
	Chile (2009) 6.70	Chile (2009) 3.40	Guyana (2007) 1.78
14 years and Under	United States† (2009) 2.60	United States† (2009) 1.60	St. Kitts and Nevis (2003)
Highest rates	Panama (2008) 3.28	Chile (2009) 1.90	0.86
	Jamaica (2006) 3.45	Jamaica (2006) 2.42	Chile (2009) 1.10
	Chile (2009) 3.90	Panama (2008) 3.03	Jamaica (2006) 1.82
	Guyana (2007) 4.96	Guyana (2007) 3.93	Guyana (2007) 2.62
			Panama (2008) 2.69
15-16	Mexico (2009) 4.42	Mexico (2009) 2.00	Antigua (2005) 0.96
Highest rates	United States† (2009) 4.60	United States† (2009) 2.70	Jamaica (2006) 1.05
	Argentina (2009) 4.80	Argentina (2009) 2.90	Uruguay (2009) 1.50
	Canada* (2006) 5.20	Uruguay (2009) 3.30	Chile (2009) 1.70
	Chile (2009) 6.60	Chile (2009) 3.40	Argentina (2009) 1.80
17 and over	Argentina (2009) 6.00	Argentina (2009) 3.20	St. Lucia (2005) 1.34
Highest rates	United States† (2009) 6.00	Colombia (2004) 3.32	Argentina (2009) 1.60
	Uruguay (2009) 6.90	United States† (2009) 3.40	Uruguay (2009) 1.80
	Canada* (2006) 9.00	Uruguay (2009) 4.40	Guyana (2007) 1.89
	Chile (2009) 9.80	Chile (2009) 4.90	Chile (2009) 2.30

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

Numbers in () indicate year of study.

## 4.2 Prevalence of Cocaine Use among the General Population

There are broad differences in cocaine use in the general population among countries in the American hemisphere. Estimates by the UNODC (2010) indicate that globally, the past year prevalence of cocaine use is between 0.3% and 0.4%, but in the Americas about 1.4% of the general population has used cocaine during the past year, while the overall rate in Europe is below 1%. Nevertheless, the range of drug use prevalence across North America, Central America, South America and the Caribbean is quite wide.

Table 13 displays the range of cocaine prevalence in the general population (age 12-65 years) across the American hemisphere. Higher past year prevalence (exceeding 1.4%) are found in both the northernmost and southernmost countries in the American hemisphere, with diverse patterns among the countries in between. The highest past year prevalence is around 2%. Lowest past year prevalence in the American hemisphere can be found in Ecuador (0.1%) and Guatemala (0.1%). It is difficult to identify patterns by sub-region.

<b>Table 13.</b> Highest and Lowest Prevalence of Cocaine Use in the General Population age 12-64 years, overal	l
and by Age Group (%)	

	Lifetime	Past Year	Past Month
Range	0.66%-16.74%	0.10%-2.24%	0.03%-1.03%
Lowest Prevalence	Paraguay (2003) 0.66	Ecuador (2007) 0.10	Guatemala (2005) 0.03
	Barbados (2006) 0.79	Guatemala (2005) 0.11	Barbados (2006) 0.04
	Guatemala (2005) 0.85	Barbados (2006) 0.14	Ecuador (2007) 0.06
	Ecuador (2007) 1.20	Paraguay (2003) 0.19	Costa Rica (2006) 0.10
	Peru (2006) 1.37	Costa Rica (2006) 0.20	El Salvador (2005) 0.13
Highest Prevalence	Bolivia (2007) 3.22	Panama (2003) 1.20	Belize (2005) 0.61
8	Argentina (2008) 3.46	Uruguay (2006) 1.44	United States† (2009) 0.76
	Uruguay (2006) 4.03	Chile (2008) 1.80	Uruguay (2006) 0.79
	Chile (2008) 6.60	Canada* (2008) 1.90	Chile (2008) 1.00
	United States† (2009) 16.74	United States† (2009) 2.24	Panama (2006) 1.03
	,	, , ,	, ,
		Age Groups	
12-17 years	Belize (2005) 0.73	Panama (2003) 0.44	Guatemala (2005) 0.26
Highest rates	Mexico (2008) 0.80	Uruguay (2006) 0.57	Paraguay (2003) 0.28
	Chile (2008) 0.84	Colombia (2008) 0.78	Argentina (2008) 0.28
	Colombia (2008) 1.22	United States† (2009) 0.98	United States† (2009) 0.28
	United States† (2009) 1.64	Canada* (2008) 3.60	Colombia (2008) 0.35
18-34 years	Nicaragua (2006) 3.76	Chile (2008) 2.34	Chile (2008) 0.94
Highest rates	Argentina (2008) 6.47	Argentina (2008) 2.45	Panama (2003) 1.12
	Uruguay (2006) 8.49	Uruguay (2006) 3.34	United States† (2009) 1.19
	Chile (2008) 10.10	United States† (2009) 4.28	Argentina (2008) 1.25
	United States† (2009) 16.52	Canada* (2008) 4.30	Uruguay (2006) 1.89
35-64 years	Uruguay (2006) 2.09	Canada* (2008) 0.50	Uruguay (2006) 0.22
Highest rates	Panama (2003) 2.21	Chile (2008) 0.71	Chile (2008) 0.46
	Chile (2008) 4.31	Belize (2005) 0.84	United States† (2009) 0.62
	Bolivia (2007) 4.61	Panama (2003) 1.29	Belize (2005) 0.84
	United States† (2009) 19.97	United States† (2009) 1.30	Panama (2003) 1.17

Sources: NDCs and NDOs in member states and HC  $\,$ 

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices.

<sup>\*</sup>Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older- The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution. Numbers in () indicate year of study.

<sup>†</sup>Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12-64.

The highest prevalence of cocaine use is found in the population age 18-34 years in the majority of countries. This holds true for lifetime, past year and past month use. With only a few exceptions, the lifetime prevalence of cocaine is higher in the 35-64 year age group (4.61%) than in the 18-34 age group (3.49%, not shown). In Panama, with data from 2003, the past month rate of cocaine use among the age group 35-64 years is 1.17%, higher than among the 18-34 year age group (1.12%) (Table 13).

## 4.3 Cocaine Use by Gender

Country	Total Past month	Males	Females	Ratio Male: Female
Antigua (2005)	0.74	1.03	0.54	1.92
Argentina (2009)	1.30	2.10	0.60	3.50
Bahamas (2008)	0.20	0.10	0.20	0.50
Barbados (2006)	0.50	0.58	0.44	1.33
Belize (2002)	0.45	0.67	0.27	2.50
Bolivia (2008)	1.20	1.70	0.80	2.12
Chile (2009)	1.70	2.20	1.20	1.83
Colombia (2004)	0.50	0.76	0.28	2.74
Costa Rica (2006)	0.70	0.90	0.40	2.25
Dominica (2006)	0.39	0.68	0.15	4.37
El Salvador (2008)	0.50	0.80	0.30	2.67
Grenada (2005)	0.54	0.90	0.15	5.99
Guatemala (2003)	0.54	0.94	0.22	4.27
Guyana (2007)	1.78	3.01	0.98	3.07
Haiti (2009)	0.30	0.50	0.10	5.00
Honduras (2005)	0.38	0.63	0.19	3.31
Jamaica (2006)	1.35	1.90	0.85	2.24
Mexico (2009)	0.48	0.67	0.28	2.39
Nicaragua (2003)	0.52	0.79	0.32	2.47
Panama (2008)	1.20	1.50	1.00	1.50
Paraguay (2005)	0.45	0.68	0.28	2.43
Peru (2007)	0.50	0.70	0.30	2.33
St. Kitts and Nevis (2003)	0.86	1.30	0.48	2.73
St. Lucia (2005)	0.58	0.71	0.49	1.45
St. Vincent and Grenadines (2006)	0.21	0.29	0.17	1.71
Trinidad and Tobago (2006)	0.24	0.15	0.31	0.48
United States (2009) †	0.90	1.00	0.80	1.25
Uruguay (2009)	1.10	1.70	0.50	3.40

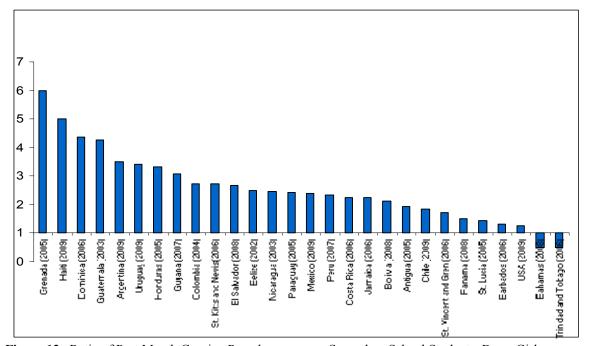
Sources: NDCs and NDOs in member states.

<sup>†</sup> Data for the United States are taken from the MTF survey and display data for 10<sup>th</sup> grade by gender. Combined data for all grades by gender were not available in the MTF 2009 report.

Note: Table displays data available from individual countries. Past month prevalence by gender was not available for all countries and some may not be represented in this table.

The experience of countries with long histories of drug use has shown us that as drug epidemics grow and evolve over time, differences in rates of use between males and females tend to diminish. Hence, in countries with higher rates of drug use overall, the differences in rates of use between males and females tend to be small, while in countries with relatively low rates of use, the differences in drug use rates between males and females appear to be greater.

In the majority of countries in Latin America and the Caribbean, prevalence of cocaine use is higher among males than among females. This holds true both for the general population as well as for the student population. There are some exceptions where cocaine prevalence among females appears to be higher than among males but the differences are small and tend to be close to equal.



**Figure 12.** Ratio of Past Month Cocaine Prevalence among Secondary School Students, Boys: Girls Source: NDCs, NDOs in member states and MEM. USA=MTF.

Note: Figure displays data available from individual countries. Countries without comparable data may not be represented.

Figure 12 displays the ratio of past month cocaine use among males to that of females. What we observe is a broad range of patterns of use among secondary school males and females across countries. Differences in rates of use between boys and girls vary greatly. For example, in Grenada, the overall past month prevalence is comparatively low in the country; however, among cocaine users, there are nearly six times more boys than girls who used cocaine during the past thirty days in Grenada. In the United States, where past month prevalence is much higher, boys and girls have almost equal prevalence. In Bahamas and Trinidad and Tobago, ratios of use are just below 1 indicating similar use by gender, with slightly higher rates among girls than boys. These data should be interpreted with caution due to the low prevalence among these groups.

Constant	Total Past Year	Males	Females	Ratio Male: Female
Country Argentina (2008)	1.06	1.89	0.24	7.70
Barbados (2006)	0.14	0.30	0.03	10.00
Belize (2005)	0.71	0.69	0.73	0.95
Bolivia (2007)	0.55	0.46	0.62	0.74
Brazil (2005)	0.73	1.45	0.21	6.90
Canada* (2008)	1.90 <sup>Q</sup>	2.70 <sup>Q</sup>	1.10 <sup>Q</sup>	2.50 <sup>Q</sup>
Chile (2008)	1.80	3.15	0.55	5.72
Colombia (2008)	0.72	1.28	0.22	5.82
Costa Rica (2006)	0.20	0.40	0.00	_
Ecuador (2007)	0.10	0.60	0.00	_
El Salvador (2005)	0.24	0.52	0.00	-
Guatemala (2005)	0.11	0.25	0.03	8.33
Nicaragua (2006)	0.34	0.46	0.09	5.11
Mexico (2008)	0.44	0.76	0.14	5.43
Panama (2003)	1.20	0.22	0.17	1.29
Paraguay (2003)	0.19	0.43	0.15	2.87
Peru (2006)	0.27	0.56	0.10	5.60
Uruguay (2006)	1.44	2.31	0.66	3.50
USA† (2009)	1.90	2.51	1.33	1.89

Sources: NDCs, NDOs in member states and MEM.

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Complete prevalence tables can be found in appendices.

†Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over.

Gender differences regarding the prevalence of cocaine use in the general population are broader than among the student population. Ratios range from close to 1 indicating equal cocaine use between men and women to nearly 10 to 1. In the majority of the countries in Table 15, past year prevalence of cocaine use is higher among men than women (ratios above 1). However, this does not necessarily imply higher levels of cocaine use. Indeed, many of these countries have some of the lowest past year prevalence of cocaine use. Rather, it may be important to note that, although a country may have low prevalence as compared to other countries in the hemisphere, cocaine use may be a more serious issue in a particular segment of the population.

<sup>\*</sup>Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older- The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution.

## 4.4 Prison Population

Data captured among the populations in prison in Latin America and the Caribbean are limited. Table 16 shows some limited data from countries that have reported this information to the MEM. A study in El Salvador in 2005 among youth in penitentiary schools and youth rehabilitation centers showed lifetime and past year rates of cocaine use that vastly exceed what has been found among secondary school youth. Use of cocaine HCl as well as cocaine derivatives such as crack, or related substances such as basuco, cocaine paste or coca paste is more prevalent among these youth.

Table 16. Use of Cocaine type Drugs Among the Incarcerate	d Population		
El Salvador	Lifetime	Past Year	Past Month
2005 - Penitentiary Schools			
Cocaine HCl	14.00	1.40	0.50
Coca Paste (Basuco)	5.10	0.30	0.30
Crack	14.00	3.20	1.40
2005 - Rehabilitation Centers for Youth			
Cocaine HCl	17.10	3.40	0.90
Coca Paste (Basuco)	6.00	2.60	0.90
Crack	14.50	4.30	0.90
Any type of cocaine or derivative	37.60	10.30	2.70
Colombia	Lifetime	Past Year	Past Month
2006 Population in Prisons			
Cocaine HCl	16.70	6.00	5.70
Basuco (CBP)	11.40	4.00	3.70
Crack	0.00	0.00	0.00
Sources: MEM 2005-2006, National Reports for El Salvador and Col Note: Table displays data available from individual countries. Count		nparable data may not	be represented.

A 2006 study in the prison population in Colombia showed higher prevalence for lifetime, past year and past month use of cocaine HCl and CBP. These rates far exceed the past year and past month prevalence found in the general population.

## 4.5 Dependency: Data from the South American Subregion

In 2006, CICAD and the UNODC published a joint study on drug use in the general population of six South American countries: Argentina, Uruguay, Chile, Bolivia, Peru and Ecuador.<sup>52</sup> That study indicated that the overall rate of cocaine use during the past year in the six South American countries studied, when taken as a whole, is high in comparison to worldwide levels. The UNODC estimated that the global prevalence of cocaine during the past year was between 0.3% and 0.4%, but in these six countries, the combined past year rate in the general population was estimated at about 1.4%.

**Table 17.** Past Year Prevalence of Cocaine Use among the General Population of Six Countries in South America, and the Proportion of those Cocaine Users who Meet the Criteria of Dependency or Abuse Use, by Age Group

	12-17	18-24	25-34	35-65	Total
Age Groups					
Past year prevalence	0.90%	1.80%	1.90%	1.10%	1.40%
Proportion of Cocaine Users that meet ICD-10 criteria for dependency or abuse	39.70%	42.70%	39.90%	41.70%	41.30%
% Who Meet the Criteria for Cocaine Dependence or Abuse  Population that consumed Cocaine in the past year					

Sources: CICAD/UNODC 2006

Note: Table displays data available from individual countries. Countries not participating in the CICAD/UNODC subregional study are not included. Prevalence by age group is adjusted according to population size and demographics.

When broken down by age group, the highest prevalence in past year use of cocaine is found in the 18–24 year and 25–34 year age groups of the general population of these six countries. Of greater concern are the higher rates of dependence on cocaine among the general population across these six countries. Approximately 1.4% of the general population in these countries used cocaine during the past year. However, over 40% of these users met the criteria for abusive use or dependency on cocaine, according to ICD-10 criteria.

#### 4.6 Trends in Cocaine Use

## 4.6.1 Trends in Past Year Cocaine Use among Secondary School Students

This section displays trend data on the past year prevalence of cocaine use among secondary school students from Argentina, Chile, Uruguay and the United States. Data on trend use are limited and not reported consistently to the CICAD/OID. It is also important to note that the Y-axis is scaled differently on each graph. Any interpretation of trends should be taken with caution.

Trend data from additional countries not available in graph form include a 2004 study among secondary school students in Brazil (SENAD, 2004), which indicated that lifetime prevalence of cocaine use increased steadily between 1987 and 2004. A study carried out in Mexico indicated that lifetime prevalence of cocaine use among Mexican secondary school students declined from just over 5% to about 2% between 2000 and 2009 (Villatoro et al, 2009).

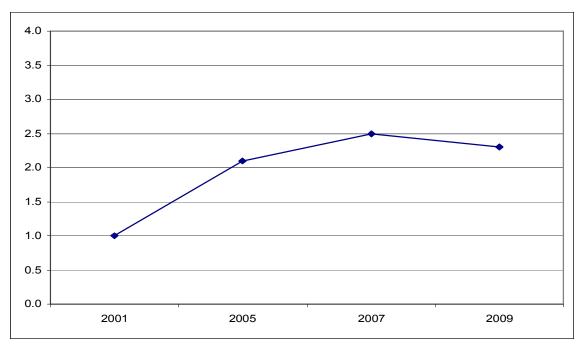
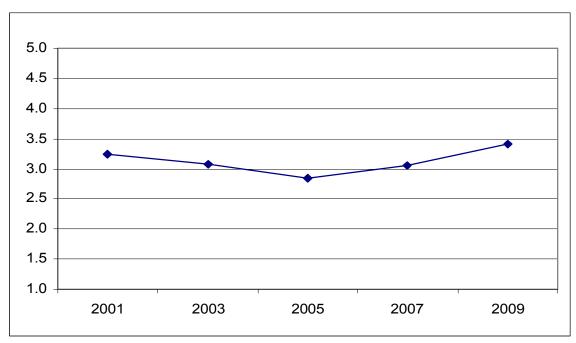


Figure 13. Past Year Prevalence of Cocaine Use among Secondary School Students in Argentina, 2001-2009 Source: SEDRONAR



**Figure 14.** Past Year Prevalence of Cocaine Use among Secondary School Students in Chile, 2001-2009. Source: CONACE

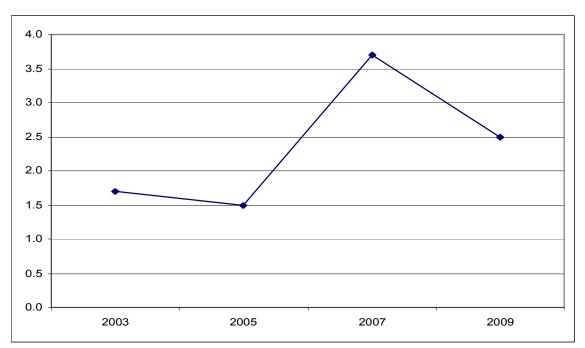


Figure 15. Past Year Prevalence of Cocaine Use among Secondary School Students in Uruguay, 2003-2009 Source: JND

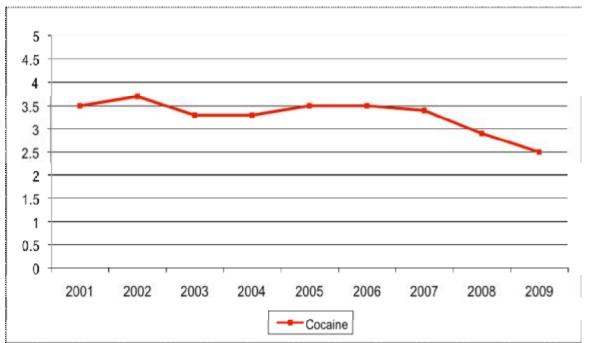
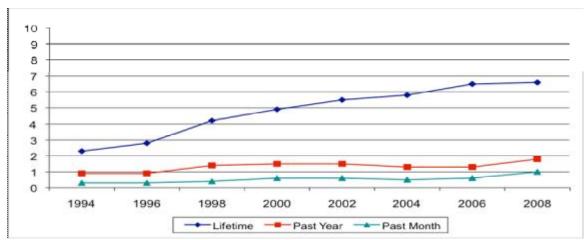


Figure 16. Past Year Prevalence of Cocaine Use among Secondary School Students in the United States, 2001-2009 Source: Johnston et al (2010)

Due to the limited data from countries in the hemisphere and the fact that most of the Latin American countries possess only a few years worth of data, it is difficult to assess a regional or even subregional trend on cocaine use among secondary school students. However, some observations may be made. The past year prevalence of cocaine use among secondary school students in Argentina (Figure 13) shows a gradual increase between 2001 and 2007 with a slight dip toward 2009. Past year prevalence of cocaine use among secondary school students in Chile (Figure 14) appears to show a relatively stable trend between 2001 and 2009. The trend for past year prevalence of cocaine use among secondary school students in Uruguay is unclear (Figure 15). A dramatic increase in prevalence was experienced between 2005 and 2007, followed by a decline in 2009. According to US data (Figure 16), the prevalence of cocaine use among high school students has gradually been in decline since 2000.

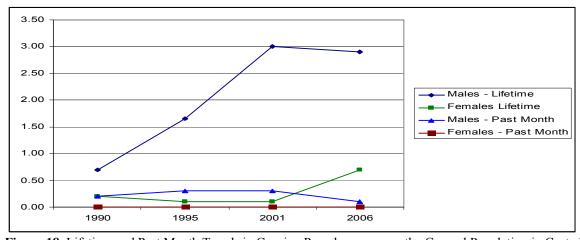
## 4.6.2 Trends in Cocaine Prevalence among the General Population

CICAD has trend data on cocaine use in the general population from only a few countries in the hemisphere. Data available from Chile and Costa Rica indicate that the lifetime prevalence of cocaine consumption in the general population between ages 12 and 64 years has increased in those two countries. However, past year and past month prevalence rates may not be on the rise. In Chile (Figure 17), past year and past month prevalence have remained relatively stable between 1998 and 2006, with only slight increases in 2006 and 2008. In Costa Rica (Figure 18), the past month prevalence of cocaine decreased among males between 2001 and 2006, and prevalence among females has remained stable across years of study.



**Figure 17.** Trends in Lifetime, Past Year and Past Month Cocaine Prevalence among the General Population in Chile, 1994-2008

Source: CONACE



**Figure 18.** Lifetime and Past Month Trends in Cocaine Prevalence among the General Population in Costa Rica, 1990-2006 Source: IHAFA

## 4.7 Cocaine Base Paste (CBP) Prevalence and Patterns of Use

## 4.7.1 Prevalence of CBP Use among Secondary School Students

According to information from the CICAD member states, higher rates of CBP use can be found in South American countries (Table 18). Lifetime prevalence of 1% or higher are found in Ecuador, Uruguay, Colombia, Peru, Argentina, Bolivia and Chile. Lifetime prevalence below 1% can be found in Paraguay, Nicaragua, Venezuela, Guatemala and Honduras.

## 4.7.2 CBP Prevalence among Secondary School Students

There appears to be measurable lifetime prevalence of CBP use among secondary school students in most of the South American and a few Central American member states. Lifetime prevalence varies from less than 1% to over 5%. Prevalence of CBP among high school students in Central America as a region appears to be very low while the highest rates, regardless of whether they are lifetime, past year or past month, appear to be higher in South America.

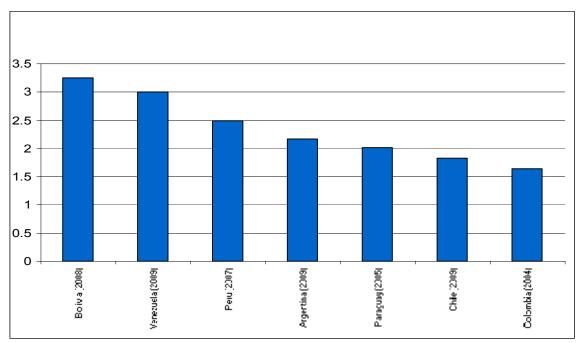
<b>Table 18</b> <sup>f</sup> . Prevalence of Cocaine Base Paste Use in the Secondary School Population, overall and by					
Gender (%)					
Country	Lifetime	Past Year	Past Month	Boys month	Girls Month
Argentina (2009)	1.80	0.90	0.52	0.80	0.30
Bolivia (2008)	1.89	1.30	0.80	1.30	0.40
Chile (2009)	5.30	2.60	1.30	1.70	0.90
Colombia (2004)	1.37	1.22	0.61	0.75	0.49
Ecuador (2008)	1.00	0.60	0.30	-	-
Guatemala (2003)	0.37	0.19	0.06	0.12	0.02
Honduras (2005)	0.32	0.16	0.06	-	-
Nicaragua (2003)	0.64	0.18	0.12	0.14	0.11
Paraguay (2005)	0.76	0.50	0.24	0.34	0.15
Peru (2007)	1.60	0.70	0.30	0.50	0.20
Uruguay (2009)	1.30	0.60	0.20	0.40	< 0.10
Venezuela (2009)	0.40	-	0.20	0.30	0.10

50

<sup>&</sup>lt;sup>f</sup> Studies conducted before 2005 included questions on cocaine base paste use in secondary school population. However, these questions were not included in questionnaires for studies conducted after 2005.

## 4.7.3 Gender differences, Secondary School Students

There are consistently higher differences in CBP use among secondary school males and females across countries. In most of the countries where CBP use is found, past year prevalence among males is twice or more than that among females. In Bolivia and Venezuela past year prevalence of CBP among male students was three times or more that among female students.



**Figure 19.** Ratio of Past Month CBP Use Males: Females, among Secondary School Students, by Country and Year Note: Table displays data available from individual countries. Countries without comparable data may not be represented.

## 4.8 Prevalence of CBP Use in the General Population

Information on the prevalence of CBP use in the general population between 12 and 65 years of age is available in seven South American countries (Argentina, Chile, Colombia, Ecuador, Paraguay, Peru, and Uruguay), and four Central American countries (El Salvador, Guatemala, Nicaragua and Panama).

<b>Table 19.</b> Prevalence of Cocaine Base Paste Use in the General Population age 12-64 (%)				
			Past	
Country	Lifetime	Past Year	Month	
Argentina (2008)	0.40	0.20	0.10	
Chile (2008)	3.10	0.70	0.40	
Colombia (2008)	1.09	0.17	0.10	
Ecuador (2007)	0.72	0.13	0.10	
El Salvador (2005)	0.30	0.08	0.08	
Guatemala (2005)	0.26	0.08	-	
Nicaragua (2006)	0.50	-	-	
Panama (2003)	0.24	0.14	0.08	
Paraguay (2003)	0.14	0.08	0.02	
Peru (2006)	1.30	0.38	0.16	
Uruguay (2006)	0.80	0.30	0.12	

Sources: NDCs and NDOs in member states.

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Canada and the USA do not collect data on CBP use.

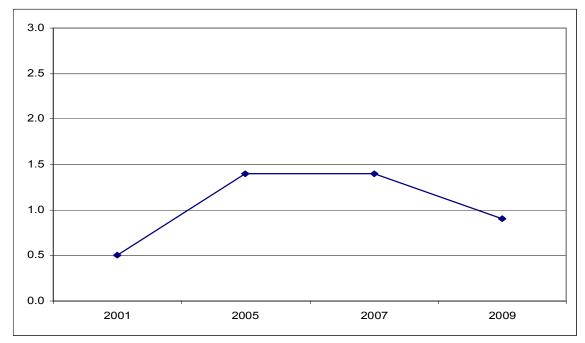
Numbers in () indicate year of study.

Lifetime prevalence for CBP among the general population (Table 19) ranges from 0.14% to 3.10%. Moderate prevalence ranged around 1%. The lowest lifetime prevalence were found in Paraguay, Panama and Guatemala, each below 0.3%.

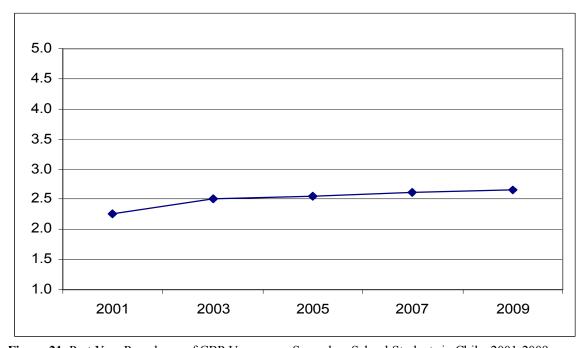
Past year prevalence ranged from 0.08% to 0.70%, and represents less than 1% of the population of any of the countries with data on CBP consumption. Past year prevalence at or above 0.3% was found in Chile, Peru, and Uruguay. The countries with the lowest prevalence of past month use were Paraguay (0.02%), El Salvador (0.08%), Panama (0.08%), Colombia (0.10%) and Ecuador (0.10%).

## 4.9 Trends in CBP use

Given that only Argentina, Chile and Uruguay are able to present any trend data on CBP use, and the number of years of those trends is limited, it is difficult to draw conclusions on the trend in CBP either nationally or regionally. Nevertheless, given the highly addictive nature of CBP, any use of CBP in any population should be considered a matter of concern and countries possessing data on CBP use should continue to monitor use of this drug carefully. It is also important to note that the Y-axis is scaled differently on each graph. Any interpretation of trends should be taken with caution.



**Figure 20.** Past Year Prevalence of CBP Use among Secondary School Students in Argentina, 2001-2009 Source: SEDRONAR



**Figure 21**. Past Year Prevalence of CBP Use among Secondary School Students in Chile, 2001-2009 Source: CONACE

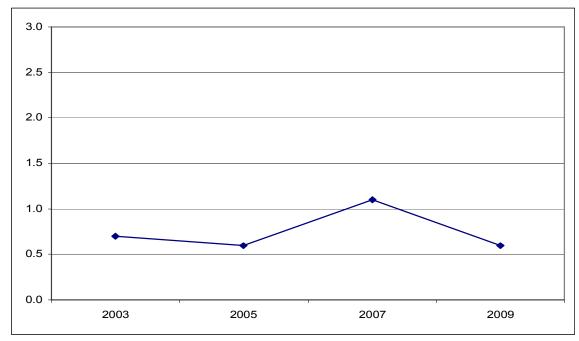


Figure 22. Past Year Prevalence of CBP Use among Secondary School Students in Uruguay, 2003-2009 Source: JND

#### 4.10 Discussion on Cocaine HCl and CBP

## **Cocaine HCl**

Cocaine is considered to be one of the most problematic substances in the American hemisphere. There is a very broad range of prevalence of use across countries and populations. Among secondary school students, the highest rates of use are seen in Uruguay, the Unites States, Guyana, and Chile. Each of these countries has past year prevalence of cocaine use among secondary school students of 2.5% and higher. It may be important to note that apart from the United States, the countries with the highest rates of cocaine consumption are all located on the South American continent.

Age appears to play an important role in cocaine use. Similar to other illicit drugs and alcohol, the highest prevalence of cocaine use are found in the population age 18-34 years in nearly every country in the American hemisphere.

Of even greater concern are the rates of dependence on cocaine among the general population in countries where that information is available. When we analyze the six South American countries that currently have information on cocaine dependence, approximately 1.4% of the general population of those countries used cocaine during the past year. It should be of key interest to prevention programs to understand that, of the 1.4% who use cocaine in the past year, over 40% of them met the criteria for abusive

use or dependency on cocaine, according to ICD-10 criteria. More research is needed to quantify the likelihood of becoming dependent on cocaine once a person begins using it.

There are only a few countries in Latin America with trend data on cocaine prevalence. Available data come from studies among secondary school students and shows increases in several countries (1%-2% over time). The possible exception to this case is Chile, where while the trend appears to be stable, prevalence rates are higher than in other parts of the hemisphere.

#### **Cocaine Paste**

CBP and its various forms were once substances found only in cocaine producing countries and were relatively cheap versions of smokeable cocaine. Present information indicates that CBP use has spread beyond producing countries and is being used in Central and South American countries, particularly the Southern Cone.

Information on access to treatment and reasons for seeking treatment for CBP use is scarce. Nevertheless, the limited information that is reported to the CICAD Observatory on Drugs implies that in two of the countries where CBP is used, the number of people who access treatment for CBP is disproportionate to the prevalence of its use compared with other drug use, i.e., high percentages of CBP users sought treatment compared with marijuana or cocaine users. Although prevalence is much lower overall than marijuana or cocaine, CBP and related substances appear to be highly addictive and harmful. More research needs to be done in this area to fully understand the addictiveness and impact on health caused by CBP use.

Despite the data on its consumption, CBP use is a difficult phenomenon to compare across countries. There appear to be a variety of local forms of CBP. There continues to be debate whether the substances described as *paco*, *basuco*, *pasta base*, or *coca paste* in the different countries are indeed different substances or whether they should be classified as variants of the same substance. There appears to be good reason for the ongoing debate, research indicates that CBP may in fact represent many similar substances with varying chemical compositions (Meikle et al, 2009).

55

<sup>&</sup>lt;sup>g</sup> Data reported to the CICAD Observatory on Drugs in 2009 by CONACE in Chile indicates that of the 7,386 persons accessing treatment for drug use, 4,495 identified CBP is the primary drug for which treatment was being sought. Likewise, in Argentina, 282 of the 1816 people in treatment were requesting treatment for CBP as the primary substance of use.

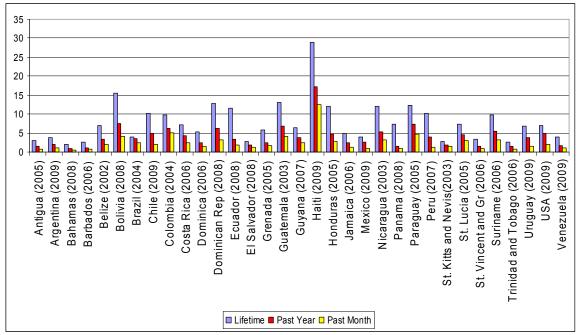
# **Chapter 5 The Non-Medical Use of Pharmaceutical Drugs and Prescription Drugs**

One of the substance abuse issues gaining greater attention is the non-medical use pharmaceutical drugs and the use of prescription drugs without a medical prescription. Misuse of pharmaceuticals may be due to self-medication, or they may be taken with the intention of getting high. Either case may result in eventual abuse or dependence.

The dual practices of self-medication without medical supervision and the use of pharmaceuticals with the intention of intoxication manifest as complex sociocultural phenomena that are difficult to separate in research. To further complicate matters, pharmaceutical use without a medical prescription refers to a diverse set of substances that may be known by different brand names. Indeed, it is often unclear whether the substance user knows exactly what the substance is that he or she has used.

Some recent data from OAS member states on pharmaceutical use without a medical prescription among secondary school students indicate that the phenomenon is widespread. However, it is difficult to draw conclusions about the non-medical use of pharmaceuticals because the CICAD/OID methodology does not allow us to disaggregate the data by pharmaceutical subtype. As a result, the broad range of pharmaceutical prevalence across countries may reflect many different types of drugs.

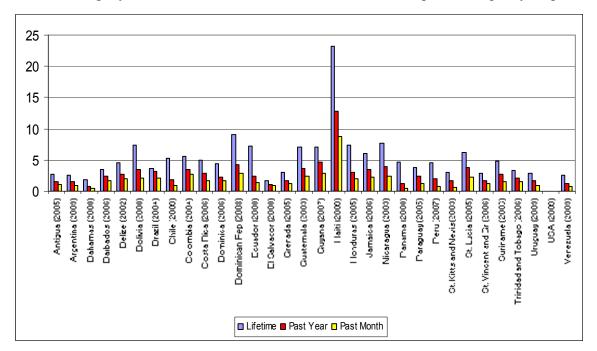
## 5.1 Prevalence and Patterns of Use among Secondary School Students



**Figure 23.** Prevalence of Non-medical Use of Tranquilizers among Secondary School Students in the Americas Sources: NDCs and NDOs in member states

Note: Figures displays data available from individual. Countries without comparable data may not be represented.

Figure 23 displays data on the prevalence of the use of tranquilizers without a medical prescription among secondary school students in the Americas. In this figure, Haiti stands out as having the highest prevalence for lifetime, past year and past month use. However, if we look beyond Haiti, we can see that in Bolivia, Paraguay, Guatemala, Colombia and the Dominican Republic the past year prevalence is over 6%.



**Figure 24.** Prevalence of Non-medical Use of Stimulants among Secondary School Students in the Americas. Sources: NDCs and NDOs in member states.

Note: Figures displays data available from individual. Countries without comparable data may not be represented.

Figure 24 shows the lifetime, past year and past month prevalence of stimulant use without a medical prescription among secondary school students. Haiti stands out as having the highest prevalence for lifetime, past year and past month among this population. Nevertheless, if we can overlook Haiti's rate, we can observe that in Guyana, the Dominican Republic, Nicaragua, St. Lucia, Guatemala, and Bolivia the past year prevalence of stimulant use among secondary school students reaches 3.5% and higher.

#### 5.2 Discussion on the Non-Medical Use of Pharmaceutical Drugs and Prescription Drugs

Unfortunately, the data available on pharmaceutical use without medical prescription from the member states are limited. The standardized questionnaires applied by CICAD member states for studies among high school students inquire about the use of pharmaceuticals in the broad categories: tranquilizers and stimulants. The questionnaires include parenthetical reference to specific substances such as clonazepam, alprazolam, lorazepam, and Valium for the tranquilizers and for the stimulant category to amphetamine type stimulants. Countries may include specific substances of concern or brand names known in their countries such as such as dextroamphetamine (Adderall), Cylert (pemoline), or Ritalin

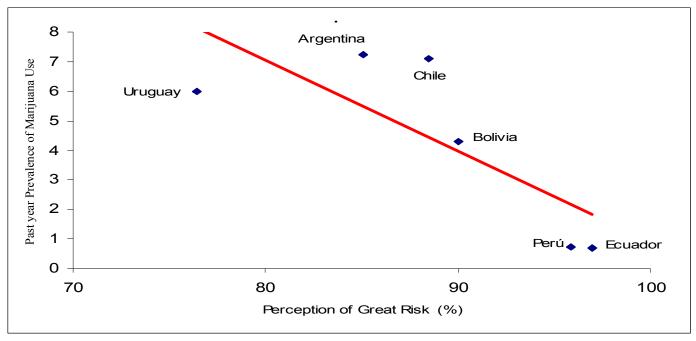
(methylphenidate hydrochloride). Nevertheless, the standardized methodology used by member states does not allow us to disaggregate the specific substances. More work needs to be done in order to raise the quality of data on pharmaceutical misuse.

Although the prevalence of non-medical use of pharmaceutical substances varies a great deal across countries, it may be important to note that many of the countries that have relatively lower use of illicit drugs show higher rates of pharmaceutical and prescription drug misuse. In addition, the limited ability to disaggregate the different pharmaceutical substances is a significant shortcoming and it will be important to improve the SIDUC questionnaires to allow us to examine this issue more in-depth in future studies.

## **Chapter 6 Other Issues**

## 6.1 Perception of Risk Associated with Drug Consumption and Availability of Drugs

Perception of great risk associated with drug use is considered to be a subjective benchmark regarding drug access and likelihood of use. The *Elementos Orientadores para las Politicas Públicas sobre Drogas en la Subregión* (UNODC/CICAD, 2008) indicates a pattern across countries where the perception of risk is negatively correlated with the countries' drug prevalence estimates. Specifically, countries where the perceived risk is associated with drug use is higher tend to have lower prevalence. This pattern holds true for nearly any drug and has been observed in studies in other countries as well (Johnston et al 2010). Understanding the perception of risk associated with drug use is an essential element to planning and implementing drug prevention programs.

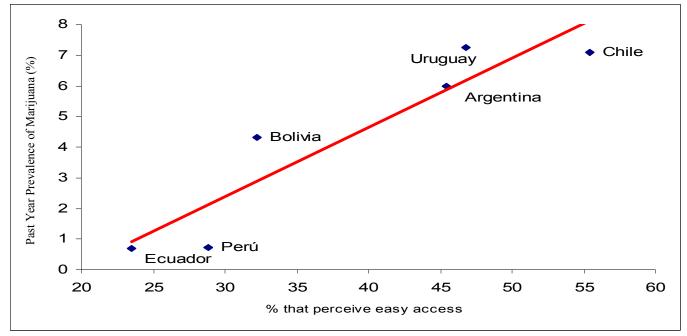


**Figure 25.** Past Year Prevalence of Marijuana Use and Perception of Risk Associated with "Frequent" Marijuana Consumption among the General Population in Argentina, Bolivia, Chile, Ecuador, Peru and Uruguay.

Note: Prevalence adjusted by age and gender. Figure displays data available from individual countries

Figure 25 indicates that in countries such as Ecuador and Peru, where the perception of great risk associated with drug use is higher, the prevalence is lower. By contrast, in Chile and Argentina, where the perceived risk associated with drug use is lower, drug use prevalence is higher.

The perceived ease or difficulty in accessing drugs is considered to be an objective benchmark of the access to drugs and are factors that ultimately impact an individual's decision to use or not use drugs. The study by CICAD-UNODC indicates that the perceived ease of access to any drug is directly correlated with the prevalence of that drug in the six countries studied.



**Figure 26.** Past Year Prevalence of Marijuana and Perceived Ease of Access among the General Population, by country Note: prevalence is adjusted by age and sex. Figure displays data available from individual countries.

As can be seen in figure 26, countries such as Ecuador and Peru, where the perception that drugs can be easily obtained is low, the prevalence of drug use is lower. By comparison, Argentina, Chile and Uruguay show higher rates of perceived ease of access to drugs and also present higher prevalence of drug use.

Although there are a multitude of factors that ultimately shape an individual's decision to use drugs, the perceived risk associated with use and the perceived availability and ease of access to drugs have been demonstrated to be highly relevant factors for drug use (Johnston et al, 2010). In the framework of public policy on drug use, controlling the supply and availability of drugs has always been one of the primary focuses of the fight against drugs. However, it is important to consider the perceptions that the population has regarding the availability and risk associated with use. Countries in the Americas need to be conscious of the changes in the perception of risk associated with drug use and the accessibility of drugs in their population and be prepared to respond with appropriate policies and programs.

## **6.2 Treatment for Drug Use**

Data on demand for drug treatment and access to drug treatment in Latin America and the Caribbean are scant. There are no known national reporting systems for drug treatment centers in any of the Latin American or Caribbean member states. However, a few countries gather minimal data on drug treatment admissions and report to the CICAD OID. Table 20 displays data from Argentina, Chile, Costa Rica, Ecuador, the Dominican Republic and Panama on drug treatment admissions according to the drug for which drug treatment was sought.

<b>Table 20.</b> Treatment Admissions for Drug Use, by Drug and Country						
Primary Drug for which	Argentina 2007	Chile 2008	Costa Rica 2007	Ecuador 2007	Dominican Republic 2008	Panama 2009
Treatment was Sought	%	%	%	%	%	%
Alcohol	33.80	-	51.90	59.10	0.03	11.00
Tobacco	2.00	-	2.40	0.40	-	2.00
Cannabis	23.30	15.18	11.10	5.40	5.87	23.00
Inhalants	4.20	0.21	-	0.60	-	1
Heroin	-	0.05	-	0.40	3.37	1
Morphine	-	-	-	0.20	-	1
Cocaine HCl	21.10	22.39	8.10	7.40	32.64	16.00
Crack	0.30	0	24.20	0.50	53.20	48.00
CBP	8.20	58.41	-	25.60	-	-
Benzodiazepines	3.20	3.61	-	-	-	1
Barbiturates	0.40	0	2.20	-	-	1
Methamphetamine	-	-	-	-	0.16	-
Other	3.50	0.15	0.10	0.40	4.73	-
Total	100	100	100	100	100	100

Sources: NDCs and NDOs in member states.

Note: Data in this table represents only information on treatment admissions from treatment centers that report their information regularly to the NDC in their country and may not be representative of treatment admissions throughout the country. (-) Indicates % less than 1%

Although, this table does not necessarily provide a representative view of drug treatment in individual countries, there are several important points to be observed. Cannabis is well represented among the treatment admissions in each of the countries that report data on drug treatment. Also, cocaine HCl appears as one of the most common drugs for which drug treatment is sought in Argentina, Chile, the Dominican Republic and Panama. Although both Argentina and Chile have prevalence data that indicate well established and growing cocaine use in their countries, the Dominican Republic has shown relatively low prevalence rates of most drugs and may need to take heed that the largest proportion of persons in nationally sanctioned treatment centers are admitted, seeking treatment for cocaine use.

In Argentina, Chile and Ecuador, three countries where CBP use is found at low endemic levels, we can see that a notable portion of drug treatment admissions are for this drug. Indeed in each of these countries, particularly Chile, the proportion of those receiving treatment for CBP far outweighs the

prevalence of CBP. Since the data on treatment admissions may not be representative of treatment admissions throughout the country (public and private centers), it is difficult to draw conclusions on the meaning of this. However, these countries should take note given the known physical health impacts and addiction qualities of CBP.

Finally, additional issues of concern are the drugs represented among treatment admissions that are not found in the drug use surveys. In these cases we see crack in both Costa Rica and the Dominican Republic, in addition to Heroin in the Dominican Republic. We are unable to draw conclusions regarding prevalence of use of either of these drugs in these countries given the information available. However, if we consider drug treatment data to be a reasonable indicator of new drug problems on the horizon, these figures should give pause to not only Costa Rica and the Dominican Republic, but to other countries in the region.

## **Appendices**

#### Appendix 1. Tables

#### I. Tables on Alcohol Consumption

### I.1 Alcohol Prevalence among Secondary School Students in the American Hemisphere %

Country	LT	PY	PM	Boys PM	Girls PM	Ratio Boys: Girls
Antigua (2005)	73.40	53.10	32.60	33.58	31.89	1.07
Argentina (2009)	71.30	59.80	46.30	47.80	45.30	1.06
Bahamas (2008)	68.20	49.30	28.90	29.20	28.80	1.01
Barbados (2006)	74.69	54.95	34.03	32.46	35.42	0.92
Belize (2002)	73.60	55.87	35.00	40.38	29.77	1.35
Bolivia (2008)	46.50	35.40	27.70	33.50	22.50	1.48
Brazil (2004)	65.20	63.30	44.30	-	-	-
Canada (2006)*	70.90	61.40	-	-	-	-
Chile (2009)	75.00	57.00	35.50	35.60	35.50	1.00
Colombia (2004)	74.90	61.80	50.30	53.71	47.53	1.13
Costa Rica (2006)	48.10	35.10	18.90	18.60	19.20	0.97
Dominica (2006)	80.52	67.50	52.26	55.53	49.65	1.12
Dominican Republic (2008)	63.80	48.60	31.40	28.90	33.40	0.87
Ecuador (2008)	79.40	57.50	35.50	-	-	-
El Salvador (2008)	32.50	20.00	11.50	12.70	10.60	1.20
Grenada (2005)	84.05	63.19	43.10	47.42	37.44	1.26
Guatemala (2003)	49.28	35.48	27.75	31.88	24.76	1.28
Guyana (2007)	61.58	48.49	38.23	43.96	34.54	1.27
Haiti (2009)	59.80	38.10	26.90	30.80	23.70	1.30
Honduras (2005)	43.38	22.12	12.70	14.66	11.15	1.30
Jamaica (2006)	70.43	52.46	36.72	-	-	-
Mexico (2009)	57.12	44.77	29.75	29.10	30.40	0.96
Nicaragua (2003)	47.55	31.76	23.98	30.13	19.46	1.54
Panama (2008)	52.50	35.30	20.50	25.70	16.40	1.57
Paraguay (2005)	62.92	51.62	42.64	42.69	42.60	1.00
Peru (2007)	44.90	29.90	16.10	17.20	15.10	1.14
St. Kitts and Nevis (2003)	65.91	47.72	31.12	29.48	32.59	0.90
St. Lucia (2005)	88.20	77.26	63.77	68.79	60.34	1.13
St. Vincent and Grenadines (2006)	63.23	44.52	31.30	38.84	26.97	1.44
Suriname (2006)	63.50	46.80	34.40	-	-	-
Trinidad and Tobago (2006)	83.69	69.92	49.93	54.63	46.16	1.18
Uruguay (2009)	81.50	70.20	52.70	53.00	52.60	1.01
USA (2009)†	59.00	52.80	30.40	31.00	29.80	1.04
Venezuela (Bolivarian Republic of) (2009)	47.20	30.10	17.90	19.90	16.20	1.23

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

<sup>\*</sup>Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

<sup>†</sup>Data for the USA are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12. Numbers in () indicate year of study

I.2 Alcohol Prevalence among Secondary School Students in the American Hemisphere, by Age Group %

1.2 Miconor i revalence among	Secondar	y Bellooi B	tuuciits iii	the ranner	ican men	ispinere, b	y rige on	7up 70	
Country	LT ≤14	LT 15-16	LT ≥17	PY ≤14	PY 15-16	PY ≥17	PM ≤14	PM 15-16	PM ≥17
Antigua (2005)	65.60	75.58	85.14	42.80	56.03	67.64	24.90	35.03	43.41
Argentina (2009)	52.40	79.20	88.30	38.70	68.50	78.90	25.30	53.70	66.10
Bahamas (2008)	60.20	75.80	87.20	38.30	60.40	68.40	19.70	35.80	46.20
Barbados (2006)	68.51	80.23	84.50	46.46	62.91	65.28	26.33	41.33	42.95
Belize (2002)	68.21	71.94	79.56	46.17	53.46	65.85	25.69	33.96	42.72
Bolivia (2008)	20.68	44.99	67.77	11.23	31.40	51.44	6.39	18.56	34.02
Brazil (2004)	54.26	79.81	83.70	52.15	78.19	82.09	34.88	55.63	63.06
Canada (2006)*	59.10	81.40	85.30	45.50	74.70	79.30	-	-	-
Chile (2009)	58.06	78.80	88.40	40.00	60.30	71.80	19.50	36.90	51.20
Colombia (2004)	62.95	84.60	91.11	50.01	74.58	82.92	37.61	59.15	69.96
Costa Rica (2006)	33.78	62.92	75.10	19.31	42.31	56.36	10.36	23.38	34.59
Dominica (2006)	72.68	83.26	89.65	57.95	71.10	78.03	41.34	56.63	63.88
Dominican Republic (2008)	46.40	67.33	78.33	30.18	51.78	64.38	15.07	31.91	48.05
Ecuador (2008)	-	-	-	-	-	-	-	-	-
El Salvador (2008)	19.44	38.04	51.04	11.99	24.07	30.48	6.20	13.80	19.15
Grenada (2005)	76.44	87.46	89.40	51.19	68.24	72.46	31.07	46.51	54.90
Guatemala (2003)	41.78	50.07	54.06	29.60	35.90	39.40	22.03	27.64	32.04
Guyana (2007)	50.53	67.39	79.78	40.09	53.24	61.14	33.52	40.75	45.90
Haiti (2009)	51.00	60.70	62.10	32.00	38.70	39.60	22.50	27.70	27.80
Honduras (2005)	25.83	40.36	50.35	11.68	20.69	26.73	5.85	11.69	16.59
Jamaica (2006)	59.87	77.50	76.62	41.48	60.15	58.22	29.98	41.06	40.96
Mexico (2009)	55.42	74.32	61.80	42.88	63.48	47.30	27.86	48.28	47.30
Nicaragua (2003)	28.40	50.26	59.49	17.30	33.16	41.50	12.67	24.73	31.96
Panama (2008)	29.77	58.97	70.22	15.94	39.66	52.34	8.55	20.08	34.63
Paraguay (2005)	42.58	68.65	81.50	31.95	56.95	69.82	25.21	48.45	57.55
Peru (2007)	33.79	58.52	66.44	20.52	41.15	48.68	9.69	23.34	31.32
St. Kitts and Nevis (2003)	55.75	74.49	77.04	36.72	56.42	61.24	23.24	37.86	39.23
St. Lucia (2005)	83.44	91.34	90.82	70.12	80.49	85.17	57.64	64.32	77.55
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Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

Numbers in () indicate year of study.

<sup>\*</sup>Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

<sup>†</sup>Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

# I.2 Alcohol Prevalence among Secondary School Students in the American Hemisphere, by Age Group % (continued)

,									
St. Vincent and Grenadines (2006)	52.76	69.88	76.60	35.23	50.24	57.07	24.04	33.80	47.46
Suriname (2006)	55.12	62.65	74.65	38.80	47.65	60.11	26.01	32.17	47.36
Trinidad and Tobago (2006)	79.03	86.60	89.44	61.72	76.61	77.01	41.21	59.38	53.74
Uruguay (2009)	68.40	87.90	94.80	53.90	78.20	86.40	34.80	60.60	72.00
United States (2009)†	36.60	59.10	72.30	30.30	52.80	66.20	14.90	30.40	43.50
Venezuela (Bolivarian Republic of)									
(2009)	35.54	56.13	56.31	20.73	38.83	40.58	10.49	22.98	27.09
			~						

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only, age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

Numbers in () indicate year of study.

# I.3 Prevalence of Alcohol Consumption among the General Population age 12-64 year, overall and by Gender %

Country	LT	PY	PM	Male/PY	Fem/PY	Ratio Male PY: Female PY
Argentina (2008)	71.78	58.06	47.03	67.93	48.31	1.41
Barbados (2006)	78.79	53.38	36.11	68.88	43.10	1.60
Belize (2005)	44.62	36.58	27.10	39.59	33.57	1.18
Bolivia (2007)	76.37	59.09	37.74	64.56	54.85	1.18
Brazil (2005)	74.60	49.80	38.30	60.10	42.50	1.41
Canada (2008)*	91.20	79.90	66.70	-	-	-
Chile (2008)	81.88	68.49	49.81	75.62	61.56	1.23
Colombia (2008)	86.08	61.18	34.77	71.95	51.72	1.39
Ecuador (2007)	78.25	54.02	30.95	69.87	42.00	1.66
El Salvador (2005)	45.86	18.61	10.11	29.78	9.13	3.29
Guatemala (2005)	53.37	23.66	11.39	35.18	16.00	2.20
Mexico (2008)	50.40	36.40	22.90	33.80	12.70	2.66
Nicaragua (2006)	64.06	35.13	18.14	50.64	23.27	2.18
Panama (2003)	65.10	44.90	32.80	59.94	35.83	1.67
Paraguay (2003)	81.19	65.29	45.23	77.36	55.83	1.39
Peru (2006)	81.84	61.95	33.75	71.27	54.73	1.30
Suriname (2007)	65.88	47.84	31.08	62.26	37.67	1.65
Uruguay (2006)	78.60	64.26	50.10	72.00	57.20	1.26
USA (2009) †	82.82	66.77	51.87	70.60	63.10	1.12

<sup>\*</sup> Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older- The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution.

<sup>†</sup>Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over.

Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

# I.4 Prevalence of Alcohol Consumption among the General Population age 12 – 64 year, by Age Group %

	LT	LT	LT	PY	PY	PY	PM	PM	PM
Country	12-17*	18-34	35-64	12-17	18-34	35-64	12-17	18-34	35-64
Argentina (2008)	43.67	82.13	72.15	36.21	68.74	56.35	22.41	56.70	46.89
Barbados (2006)	52.77	85.38	78.91	33.19	61.02	51.87	14.60	40.33	37.03
Belize (2005)	21.75	54.86	46.08	17.10	47.02	35.97	11.35	36.06	26.09
Bolivia (2007)	30.74	86.94	90.82	23.17	70.13	67.04	7.98	46.61	44.68
Canada (2008) *	68.90	91.00	93.30	63.00	82.80	80.00	43.50	69.20	67.50
Chile (2008)	48.35	88.05	86.44	39.99	77.59	69.42	22.46	59.70	49.83
Colombia (2008)	62.43	93.13	88.34	43.98	72.76	57.07	19.55	44.33	31.73
Ecuador (2007)	-	-	-	-	-	-	-	-	-
El Salvador (2005)	-	-	-	-	-	-	-	-	-
Guatemala (2005)	19.52	55.57	62.07	10.77	25.45	25.93	3.32	12.34	13.00
Nicaragua (2006)	24.95	68.10	70.44	13.46	41.95	33.76	4.38	21.93	17.85
Mexico (2008)	21.80	57.00	56.40	16.40	43.60	38.50	7.90	28.00	24.60
Panama (2003)	36.44	74.02	67.22	24.22	55.22	43.09	14.00	41.35	32.35
Paraguay (2003)	57.08	87.80	82.12	42.64	74.18	63.23	20.34	51.48	46.83
Peru (2006)	43.68	88.50	88.33	31.20	70.61	64.27	12.16	40.87	34.45
Suriname (2007)	49.12	69.50	68.73	29.84	52.08	49.75	11.48	35.14	33.04
Uruguay (2006)	59.92	86.92	78.38	51.46	75.50	60.54	35.09	61.14	47.11
USA (2009) †	38.13	88.22	90.35	30.34	79.39	71.91	14.72	63.11	57.01

Sources: NDCs and NDOs in member states, HC and MEM.

<sup>\*</sup> Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older-The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution.

## I.5 Problem Drinking among Regular Alcohol Consumers in the General Population age 12 to 64 year %

C	Problem Drinking in the General Population, as a proportion of the population who consumed alcohol in the past thirty days, by gender and age group										
Country	Total Problem Drinking, PM%	Males	Females	12-17	18-34	35-64					
Argentina	12.90	18.97	4.52	9.88	18.49	8.34					
Bolivia	48.44	62.94	31.13	39.58	53.38	42.96					
Canada*	20.80	28.10	12.60	47.20	34.00	12.30					
Chile	17.17	25.86	6.88	18.52	24.25	11.93					
Colombia	34.94	42.44	22.70	31.42	37.97	32.26					
Ecuador	41.17	49.96	23.88	29.49	43.39	40.36					
Peru	16.08	20.52	9.96	19.11	15.93	16.02					
Uruguay	9.33	12.15	5.55	7.63	11.99	7.36					

Sources: NDCs and NDOs in member states HC and OID.

## I.6 Problem Drinking in the General Population as a Proportion of the Total Population age 12 – 64 years, by **Gender and Age Group %**

Problem Drinking in the General Population, as a proportion of the total population in each country, by gender and age group

Country	% Total Population	Males	Females	12-17	18-34	35-64
Argentina	7.50	12.89	2.18	3.58	12.71	4.70
Bolivia	18.24	29.52	9.49	3.14	24.82	19.2
Canada*	14.60	21.50	8.00	21.9	24.70	8.80
Chile	9.79	16.30	3.53	5.37	15.66	7.33
Colombia	12.15	19.55	5.64	6.14	16.83	10.33
Ecuador	12.56	23.41	4.32	2.99	16.09	12.20
Peru	5.42	9.18	2.51	2.32	6.51	5.59
United States†	7.40	9.90	5.0	4.60	13.7	5.06
Uruguay	4.66	7.29	2.25	2.65	7.31	3.47
C NIDC I N	DO- : IIO	1 OID	·	·		•

<sup>\*</sup> Canadian Alcohol and Drug Use Monitoring Survey 2008 (CADUMS) Note that all estimates are from age 15-64, not age 12 – Percentage are of those scoring 8+ on AUDIT (age 15-64)

<sup>\*</sup> Canadian Alcohol and Drug Use Monitoring Survey 2008 (CADUMS) Note that all estimates are from age 15-64, not age 12 - Percentage are of those scoring 8+ on AUDIT (age 15-64)

<sup>†</sup>Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over.

### II. Tables on Marijuana Consumption

# II.1 The Prevalence of Marijuana Use among Secondary School Students in the Americas, overall and by Gender %

_						Ratio Boys:
Country	LT	PY	PM	Boys PM	Girls PM	Girls
Antigua (2005)	25.10	13.60	8.53	12.63	5.63	2.24
Argentina (2009)	11.90	8.40	4.80	7.10	2.90	2.45
Bahamas (2008)	12.70	7.10	3.30	5.40	1.60	3.38
Barbados (2006)	17.66	10.75	6.08	8.17	4.26	1.92
Belize (2002)	20.54	13.37	6.67	10.41	3.02	3.45
Bolivia (2008)	6.30	3.60	1.90	3.00	0.90	3.30
Brazil (2004)	5.51	4.40	3.08	-	i	-
Canada (2006)*	30.10	24.40	-	-	-	-
Chile (2009)	25.30	15.10	7.70	8.40	7.00	1.20
Colombia (2004)	7.65	6.61	2.33	3.39	1.46	2.31
Costa Rica (2006)	8.30	5.70	2.30	2.90	1.60	1.81
Dominica (2006)	29.59	18.07	11.93	18.93	6.47	2.92
Dominican Republic (2008)	1.70	1.00	0.40	0.70	0.20	3.50
Ecuador (2008)	6.40	4.20	2.20	-	ı	-
El Salvador (2008)	5.50	3.50	1.80	2.90	0.80	3.63
Grenada (2005)	27.28	15.74	8.58	10.34	6.57	1.57
Guatemala (2003)	4.44	2.28	1.12	2.06	0.42	4.96
Guyana (2007)	11.00	6.35	3.72	6.02	2.27	2.65
Haiti (2009)	2.00	0.70	0.40	0.40	0.40	1.00
Honduras (2005)	2.86	1.06	0.41	0.63	0.23	2.77
Jamaica (2006)	25.10	14.00	8.50	-	-	-
Mexico (2009)	4.10	2.84	1.15	1.94	0.37	5.24
Nicaragua (2003)	-	-	-	-	-	-
Panama (2008)	6.20	2.90	1.80	2.70	1.20	2.25
Paraguay (2005)	4.17	3.03	1.58	2.44	0.89	2.73
Peru (2007)	3.10	1.90	0.90	1.30	0.50	2.60
St. Kitts and Nevis (2006)	14.29	13.00	7.18	10.28	4.70	2.19
St. Lucia (2005)	25.56	16.03	8.98	12.45	6.67	1.87

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12. Numbers in () indicate year of study.

II.1 The Prevalence of Marijuana Use among Secondary School Students in the Americas, overall and by Gender % (continued)

Country	LT	PY	PM	Boys PM	Girls PM	Ratio Boys: Girls
St. Vincent and Grenadines (2006)	17.76	11.72	5.17	9.28	2.84	3.27
Suriname (2006)	6.80	4.10	2.30	-	-	-
Trinidad and Tobago (2006)	12.02	6.53	2.75	3.89	1.86	2.08
Uruguay (2009)	16.20	12.50	6.80	8.60	5.20	1.65
USA (2009)†	29.00	22.90	13.80	18.70	13.20	1.42
Venezuela (Bolivarian Republic of) (2009)	1.70	0.90	0.60	-	-	-

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12. Numbers in () indicate year of study.

## II.2 The Prevalence of Marijuana Use among Secondary School Students in the Americas, by Age Group %

Country	LT ≤14	LT 15-16	LT ≥17	PY ≤14	PY 15-16	PY ≥17	PM ≤14	PM 15-16	PM ≥17
Antigua (2005)	17.22	28.94	34.13	7.17	16.06	22.16	4.29	10.77	13.04
Argentina (2009)	4.40	13.20	20.20	2.90	9.50	14.10	1.50	5.70	7.90
Bahamas (2008)	6.50	15.60	25.80	3.60	8.50	15.30	1.20	4.30	7.90
Barbados (2006)	11.18	23.62	27.25	6.18	15.10	16.58	3.89	7.70	12.07
Belize (2002)	11.11	18.56	29.96	6.59	12.70	19.04	1.66	7.01	9.73
Bolivia (2008)	2.29	5.09	8.75	0.75	2.74	4.61	0.46	1.20	2.05
Brazil (2004)	1.67	7.67	14.09	1.30	6.29	11.22	0.90	4.32	7.93
Canada (2006)*	16.90	41.40	47.60	13.60	34.30	37.10		-	-
Chile (2009)	11.00	25.90	39.90	6.30	16.20	22.40	3.30	8.20	11.80
Colombia (2004)	3.29	9.58	16.27	2.83	8.36	13.99	0.96	3.01	4.95
Costa Rica (2006)	3.82	8.85	16.94	2.61	5.61	10.71	1.37	2.68	4.23
Dominica (2006)	20.58	30.88	43.75	10.94	19.94	27.65	6.79	12.45	20.56
Dominican Republic (2008)	0.75	1.66	2.69	0.55	0.83	1.68	0.37	0.32	0.67
Ecuador (2008)	2.50	7.10	13.40	1.80	4.50	8.60	0.80	2.40	4.50
El Salvador (2008)	3.12	5.97	9.97	2.14	3.71	6.09	1.24	1.73	3.19
Grenada (2005)	15.98	29.65	42.44	7.44	18.13	25.19	3.14	10.18	14.74
Guatemala (2003)	2.51	4.68	5.65	1.30	2.97	2.37	0.60	1.68	0.96
Guyana (2007)	8.18	11.53	20.18	5.33	6.11	11.69	3.34	3.49	6.30
Haiti (2009)	1.80	2.20	2.00	0.60	0.60	0.70	0.60	0.60	0.40
Honduras (2005)	1.04	2.03	3.90	0.48	0.86	1.14	0.25	0.35	0.31
Jamaica (2006)	15.74	28.49	30.94	9.19	16.57	17.08	5.04	9.46	11.02
Mexico (2009)	3.49	9.99	2.76	2.38	7.28	-	1.03	2.29	-
Nicaragua (2003)	-	-	-	-	-	-	-	-	-
Panama (2008)	4.56	6.48	7.77	3.68	3.10	1.67	3.18	1.52	0.67
Paraguay (2005)	1.70	3.94	7.46	1.31	3.13	5.03	0.69	1.94	2.27

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

Numbers in () indicate year of study.

<sup>\*</sup>Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

<sup>†</sup>Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

## II.2 The Prevalence of Marijuana Use among Secondary School Students in the Americas, by Age Group % (cont.)

Peru (2007)	1.70	4.37	7.76	1.15	2.68	4.16	0.50	1.28	2.07
St. Kitts and Nevis (2003)	15.00	32.40	32.97	7.59	18.50	18.92	4.63	9.74	9.62
St. Lucia (2005)	16.90	27.83	41.84	7.73	18.45	30.66	3.86	9.81	20.07
St. Vincent and Grenadines (2006)	10.97	20.66	30.98	5.51	15.34	20.49	2.01	6.83	10.21
Suriname (2006)	2.42	4.68	12.99	1.21	2.72	8.43	0.92	2.02	4.30
Trinidad and Tobago (2006)	5.88	18.63	15.20	3.21	11.10	6.66	1.22	4.79	2.91
Uruguay (2009	5.70	19.20	28.90	4.50	15.80	21.30	2.00	8.80	12.20
United States (2009)†	15.70	32.30	42.00	11.80	26.70	32.80	6.50	15.90	20.60
Venezuela (Bolivarian Republic of) (2009)	0.82	1.61	2.84	0.30	0.79	1.46	0.29	0.57	0.95

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

Numbers in () indicate year of study.

## II.3 Marijuana Prevalence in the General Population age 12-64 year, overall and by Gender %

						Ratio Male:
Country	LT	PY	PM	Male/PY	Fem/PY	Female
Argentina (2008)	9.00	3.70	2.30	5.38	2.07	2.59
Barbados (2006)	16.21	8.30	6.60	14.80	3.50	4.23
Belize (2005)	11.65	8.45	6.90	10.59	6.31	1.68
Bolivia (2007)	10.38	4.53	0.45	8.90	1.14	7.81
Brazil (2005)	8.80	2.60	1.92	4.20	1.50	2.80
Canada (2008)*	50.70	13.60	9.30	16.90	10.40	1.60
Chile (2008)	26.01	6.44	3.53	8.79	4.16	2.12
Colombia (2008)	7.99	2.27	1.60	3.79	0.93	4.08
Costa Rica (2006)	7.50	1.00	0.60	1.90	0.20	9.50
Ecuador (2007)	4.30	0.70	0.40	1.40	0.10	14.00
El Salvador (2005)	6.09	0.35	0.26	0.75	0.02	37.50
Guatemala (2005)	2.79	0.13	0.06	0.29	0.03	9.67
Nicaragua (2006)	7.91	1.06	0.41	1.18	0.20	5.90
Mexico (2008)	4.20	1.03	0.70	1.73	0.38	4.55
Panama (2003)	5.60	3.64	2.85	6.35	1.65	3.85
Paraguay (2003)	2.54	0.51	0.33	0.80	0.28	2.86
Peru (2006)	3.57	0.66	0.37	1.16	0.27	4.30
Uruguay (2006)	12.25	5.17	3.26	7.50	3.04	2.47
USA (2009) †	41.48	11.33	6.64	14.18	8.63	1.64

<sup>\*</sup> Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older- The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution. †Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over. Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

## II.4 Marijuana Prevalence in the General Population, by Age Group %

	LT	LT	LT	PY	PY	PY	PM	PM	PM
Country	12-17	18-34	35-64	12-17	18-34	35-64	12-17	18-34	35-64
Argentina (2008)	2.50	16.78	4.93	1.58	7.83	1.21	0.72	4.94	0.84
Barbados (2006)	5.01	24.11	12.37	4.07	13.65	4.39	2.26	11.08	3.32
Belize (2005)	7.78	16.65	8.37	5.28	13.25	5.03	4.10	10.85	4.19
Bolivia (2007)	3.53	17.22	5.83	0.79	9.26	0.77	0.04	0.78	0.28
Brazil (2005)	-	-	-	-	-	-	-	-	-
Canada (2008)*	32.60	57.50	48.90	25.20	24.00	7.10	18.20	16.80	4.60
Chile (2008)	13.62	39.32	19.28	7.93	12.17	2.66	3.05	6.82	1.15
Colombia (2008)	4.06	11.51	6.26	2.72	4.01	0.56	1.88	2.91	0.34
Costa Rica (2006)	-	-	-	-	-	-	-	-	-
Ecuador (2007)	-	-	-	-	-	-	-	-	-
El Salvador (2005)	-	-	-	-	-	-	-	-	-
Guatemala (2005)	-	-	-	-		-	-	-	-
Mexico (2008)	2.04	5.53	3.79	1.18	1.4	0.58	0.64	0.86	0.49
Panama (2003)	3.33	6.62	5.22	2.22	4.68	3.01	1.56	3.62	2.46
Paraguay (2003)	1.68	3.73	1.53	0.84	0.78	0.10	0.42	0.52	0.10
Peru (2006)	1.29	4.94	3.10	0.80	1.01	0.30	0.37	0.65	0.11
Uruguay (2006)	5.10	24.16	6.52	3.50	11.11	1.79	1.30	7.26	1.22
USA (2009)†	16.99	52.65	49.62	13.56	23.36	7.21	7.31	13.70	4.37

<sup>\*</sup> Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older- The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution.

<sup>†</sup>Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over.

Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

#### **III Tables on Inhalant Use**

III.1 Prevalence of Inhalant Use among Secondary School Students, overall and by Gender %

3.40 5.50 9.66	PY 4.18 1.70 2.20	PM 2.21 0.90	Boys PM 1.51	Girls PM 2.50	Ratio Boys: Girls 0.60
3.40 5.50	1.70		1.51	2.50	0.60
5.50		0.90			0.00
	2.20		1.30	0.60	2.16
9.66		0.90	1.00	0.90	1.11
	9.92	6.47	4.82	7.60	0.64
3.12	1.66	0.89	1.18	0.70	1.71
4.20	2.50	1.40	2.00	0.90	2.22
5.69	14.34	9.95	10.50	9.47	1.10
6.30	-	ı	ı	-	-
8.70	3.00	1.30	1.40	1.20	1.13
3.82	3.33	1.00	1.32	0.71	1.85
7.50	3.90	2.00	3.00	1.00	3.00
7.96	4.00	2.50	2.77	2.29	1.18
1 10	0.50	0.20	0.50	0.10	5.00
		1.30	-	_	-
	1.50	0.80	1.20	0.40	3.00
9.72	5.60	3.26	2.74	3.84	0.71
2.11	0.99	0.41	0.75	0.17	4.30
21.72	10.51	6.93	8.56	5.89	1.45
5.50	2.30	1.40	1.00	1.70	0.59
1.60	0.54	0.23	0.36	0.13	2.90
28.17	13.93	9.47	5.49	13.16	0.41
7.02	5.14	2.39	2.60	2.19	1.19
2.00	0.87	0.40	0.69	0.17	4.05
4.40			2.10	0.20	7.00
	2.11 21.72 5.50 1.60 28.17 7.02 2.00	5.70         2.50           2.80         1.50           9.72         5.60           2.11         0.99           21.72         10.51           5.50         2.30           1.60         0.54           28.17         13.93           7.02         5.14           2.00         0.87	5.70         2.50         1.30           2.80         1.50         0.80           9.72         5.60         3.26           2.11         0.99         0.41           21.72         10.51         6.93           5.50         2.30         1.40           1.60         0.54         0.23           28.17         13.93         9.47           7.02         5.14         2.39           2.00         0.87         0.40	5.70         2.50         1.30         -           2.80         1.50         0.80         1.20           9.72         5.60         3.26         2.74           2.11         0.99         0.41         0.75           21.72         10.51         6.93         8.56           5.50         2.30         1.40         1.00           1.60         0.54         0.23         0.36           28.17         13.93         9.47         5.49           7.02         5.14         2.39         2.60           2.00         0.87         0.40         0.69	5.70         2.50         1.30         -         -           2.80         1.50         0.80         1.20         0.40           9.72         5.60         3.26         2.74         3.84           2.11         0.99         0.41         0.75         0.17           21.72         10.51         6.93         8.56         5.89           5.50         2.30         1.40         1.00         1.70           1.60         0.54         0.23         0.36         0.13           28.17         13.93         9.47         5.49         13.16           7.02         5.14         2.39         2.60         2.19

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12. Numbers in () indicate year of study.

Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

# III.1 Prevalence of Inhalant Use among Secondary School Students, overall and by Gender % (continued)

Country	LT	PY	PM	Boys PM	Girls PM	Ratio Boys: Girls
Paraguay (2005)	2.79	1.53	0.71	0.71	0.72	1.00
Peru (2007)	3.50	1.80	0.60	0.70	0.50	1.40
St. Kitts and Nevis	13.54	6.15	4.24	3.19	5.14	
(2003)						0.63
St. Lucia (2005)	9.80	5.63	3.27	2.76	3.62	0.77
St. Vincent and	5.17	3.30	1.59	0.60	2.16	
Grenadines (2006)						0.28
Suriname (2006)	7.48	3.45	2.27	3.17	1.56	2.03
Trinidad and Tobago	26.38	13.29	7.45	5.71	8.80	
(2006)						0.66
Uruguay (2009)	2.60	1.40	0.80	1.00	0.50	2.00
USA (2009)†	12.3	6.10	2.2	1.80	2.60	0.69
Venezuela (Bolivarian						
Republic of) (2009)	0.70	-	0.20	0.30	0.10	3.00

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the USA are taken from the MTF 2009 and correspond to grade 10. Combined data on drug use by gender are not available in the MTF 2009 report.

Numbers in () indicate year of study.

III.1.1 Past year Prevalence of Inhalant Use among Secondary School Students, by Gender %

Country	Boys	Girls
Antigua (2005)	1.92	5.77
Argentina (2009)	2.40	1.10
Bahamas (2008)	2.10	2.20
Barbados (2006)	7.71	11.80
Belize (2002)	1.84	1.59
Bolivia (2008)	2.07	0.66
Brazil (2004)	15.16	13.63
Chile (2009)	2.90	3.00
Colombia (2004)	4.28	2.53
Costa Rica (2006)	5.20	2.50
Dominica (2006)	4.16	3.87
Dominican Republic (2008)	0.90	0.20
El Salvador (2008)	2.40	0.80
Grenada (2005)	4.89	6.41
Guatemala (2003)	1.75	0.46
Guyana (2007)	13.38	8.68
Haiti (2009)	1.70	2.80
Honduras (2005)	0.86	0.31
Jamaica (2006)	8.68	18.77
Nicaragua (2003)	1.43	0.45
Panama (2008)	4.40	1.30
Paraguay (2005)	1.58	1.49
Peru (2007)	2.10	1.60
St. Kitts (2003)	5.25	6.94
St. Lucia (2005)	5.13	5.96
St. Vincent (2006)	2.52	3.75
Suriname (2006)	4.50	2.62
Trinidad (2006)	10.89	15.16
Uruguay (2009)	2.10	0.80
USA (2009)	5.40	6.70

### III.2 Prevalence of Inhalant Use among Secondary School Students, by Age Group %

Country	LT ≤14	LT 15-16	LT ≥17	PY ≤14	PY 15-16	PY ≥17	PM ≤14	PM 15-16	PM ≥17
Antigua (2005)	15.28	13.12	11.11	4.55	4.37	3.07	2.62	2.04	1.68
Argentina (2009)	2.10	4.30	3.80	1.10	2.40	1.50	0.60	1.40	0.70
Bahamas (2008)	6.10	4.70	5.50	2.50	1.70	2.10	1.00	0.60	1.20
Barbados (2006)	22.69	17.15	13.57	11.05	9.22	6.09	7.11	5.94	5.32
Belize (2002)	3.02	2.82	3.60	1.10	1.56	2.20	0.83	0.85	1.00
Bolivia (2008)	2.72	3.65	4.61	0.60	1.56	1.90	0.29	0.63	0.88
Brazil (2004)	12.82	19.17	20.10	11.36	18.12	18.73	7.83	12.40	13.33
Canada* (2006)	6.30	6.40	6.30	-	-	-	-	-	-
Chile (2009)	8.10	9.10	8.70	3.00	3.20	2.60	1.40	1.30	1.10
Colombia (2004)	2.34	4.51	6.66	2.01	3.93	5.90	0.67	1.20	1.55
Costa Rica (2006)	6.44	7.86	4.90	3.09	3.42	1.71	1.61	2.06	0.53
Dominica (2006)	8.25	8.23	6.90	4.17	4.34	2.99	2.54	2.65	2.14
Dominican Republic (2008)	0.83	1.23	1.29	0.27	0.65	0.58	0.19	0.37	0.13
Ecuador (2008)	5.30	5.60	6.60	2.40	2.50	3.00	1.10	1.20	1.60
El Salvador (2008)	2.12	2.69	4.40	1.42	1.59	1.74	0.73	0.55	1.12
Grenada (2005)	7.56	10.37	12.10	4.25	6.15	6.72	2.38	3.48	4.32
Guatemala (2003)	1.76	1.86	2.60	0.88	1.17	0.89	0.37	0.51	0.34
Guyana (2007)	22.62	20.71	22.40	11.12	10.07	9.98	6.84	7.08	6.63
Haiti (2009)	6.90	4.90	5.40	2.00	2.50	2.50	1.10	1.20	1.70
Honduras (2005)	1.21	1.48	2.02	0.50	0.55	0.57	0.23	0.28	0.17
Jamaica (2006)	27.73	29.53	26.64	12.81	14.95	14.17	8.10	10.84	9.57
Mexico (2009)	6.42	12.92	2.76	4.64	10.13	-	2.02	5.90	2.76
Nicaragua (2003)	0.91	2.28	2.58	0.49	1.12	0.92	0.42	0.27	0.52

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

<sup>\*</sup>Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

<sup>†</sup>Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

Numbers in () indicate year of study.

Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

### III.2 Prevalence of Inhalant Use among Secondary School Students, by Age Group % (continued)

Country	LT ≤14	LT 15-16	LT ≥17	PY ≤14	PY 15-16	PY ≥17	PM ≤14	PM 15-16	PM ≥17
Panama (2008)	3.70	3.86	5.79	1.84	2.84	3.38	0.90	1.02	1.35
Paraguay (2005)	2.28	2.56	3.69	1.44	1.58	1.59	0.66	1.00	0.45
Peru (2007)	3.13	3.71	4.92	1.83	1.95	1.48	0.51	0.64	0.71
St. Kitts and Nevis (2003)	13.05	15.24	10.45	5.71	7.38	4.21	4.36	4.63	2.69
St. Lucia (2005)	8.24	10.78	10.88	4.48	6.05	7.39	2.69	3.47	4.23
St. Vincent and Grenadines (2006)	2.68	7.12	7.14	1.47	4.18	6.59	0.74	1.90	3.40
Suriname (2006)	7.00	8.46	6.96	3.24	4.07	3.07	2.13	2.92	1.83
Trinidad and Tobago (2006)	26.22	27.02	25.73	14.31	13.98	9.88	8.08	7.58	5.82
Uruguay (2009)	1.60	3.30	3.20	1.00	1.80	1.60	0.60	1.10	0.60
United States (2009)†	14.90	12.30	9.50	8.10	6.10	3.40	3.80	2.20	1.20
Venezuela (Bolivarian Republic of) (2009)	0.52	0.70	0.81	0.13	0.20	0.22	0.12	0.12	0.16

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

Numbers in () indicate year of study.

### IV. Tables on Cocaine Consumption

### IV.1 Cocaine Use among Secondary School Students in the Americas, overall and by Gender %

Country	LT	PY	PM	Boys PM	Girls PM	Ratio Boys: Girls
Antigua (2005)	1.80	1.06	0.74	1.03	0.54	1.92
Argentina (2009)	4.00	2.30	1.30	2.10	0.60	3.50
Bahamas (2008)	0.80	0.20	0.20	0.10	0.20	0.50
Barbados (2006)	2.01	0.92	0.50	0.58	0.44	1.33
Belize (2002)	1.42	0.71	0.45	0.67	0.27	2.50
Bolivia (2008)	3.10	2.00	1.20	1.70	0.80	2.12
Canada (2006)*	4.40	_	_	-	_	_
Chile (2009)	6.70	3.40	1.70	2.20	1.20	1.83
Colombia (2004)	1.81	1.56	0.50	0.76	0.28	2.74
Costa Rica (2006)	1.70	1.20	0.70	0.90	0.40	2.25
Dominica (2006)	0.69	0.51	0.39	0.68	0.15	4.37
Dominican Republic (2008)	0.80	0.50		-		_
Ecuador (2008)	2.20	1.50	0.70	-		
El Salvador (2008)	1.90	1.10	0.50	0.80	0.30	2.67
Grenada (2005)	1.50	1.00	0.54	0.90	0.15	5.99
Guatemala (2003)	2.29	1.27	0.54	0.94	0.22	4.27
Guyana (2007)	4.12	2.78	1.78	3.01	0.98	3.07
Haiti (2009)	2.00	0.50	0.30	0.50	0.10	5.00
Honduras (2005)	1.98	0.80	0.38	0.63	0.19	3.31
Jamaica (2006)	3.12	2.02	1.35	1.90	0.85	2.24
Mexico (2009)	2.28	1.14	0.48	0.67	0.28	2.39
Nicaragua (2003)	2.26	1.06	0.52	0.79	0.32	2.47

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12. Numbers in () indicate year of study.

# IV.1 Cocaine Use among Secondary School Students in the Americas, overall and by Gender % (continued)

Country	LT	PY	PM	Boys PM	Girls PM	Ratio Boys: Girls
Panama (2008)	2.20	1.50	1.20	1.50	1.00	1.50
Paraguay (2005)	0.97	0.67	0.45	0.68	0.28	2.43
Peru (2007)	1.70	0.90	0.50	0.70	0.30	2.33
St. Kitts and Nevis (2003)	2.27	1.22	0.86	1.30	0.48	2.73
St. Lucia (2005)	1.48	0.77	0.58	0.71	0.49	1.45
St. Vincent and Grenadines (2006)	0.53	0.32	0.21	0.29	0.17	1.71
Suriname (2006)	0.70	0.17	0.07	0.16		
Trinidad and Tobago (2006)	0.83	0.49	0.24	0.15	0.31	0.48
Uruguay (2009)	3.90	2.50	1.10	1.70	0.50	3.40
USA (2009)†	4.60	2.70	0.90	1.00	0.80	1.25
Venezuela (Republic of) (2009)	0.60	0.30	0.30	-	-	-

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

\*Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

†Data for the USA are taken from the MTF 2009 and correspond to grade 10. Combined data on drug use by gender are not available in the MTF 2009 report.

Numbers in () indicate year of study.

IV.2 Cocaine Use among Secondary School Students in the Americas, by Age Group %

		LT 15-			PY 15-			PM 15-	
Country	LT ≤14	16	LT ≥17	PY ≤14	16	PY ≥17	PM ≤14	16	PM ≥17
Antigua (2005)	1.28	2.46	1.60	0.90	1.37	0.80	0.64	0.96	0.53
Argentina (2009)	1.80	4.80	6.00	0.90	2.90	3.20	0.60	1.80	1.60
Bahamas (2008)	1.20	0.30	0.90	0.30	0.00	0.30	0.20	0.00	0.30
Barbados (2006)	2.43	1.52	2.22	1.27	0.44	1.47	0.83	0.11	0.71
Belize (2002)	1.39	0.86	2.23	0.56	0.43	1.22	0.28	0.29	0.81
Bolivia (2008)	1.26	1.87	3.18	0.64	0.87	1.71	0.41	0.40	0.86
Canada (2006)*	2.30	5.20	9.00	-	-	-	-	-	-
Chile (2009)	3.90	6.60	9.80	1.90	3.40	4.90	1.10	1.70	2.30
Colombia (2004)	0.94	2.00	3.85	0.80	1.74	3.32	0.29	0.50	1.06
Costa Rica (2006)	1.11	1.91	3.67	0.64	1.04	1.99	0.41	0.72	1.01
Dominica (2006)	0.56	0.42	1.46	0.45	0.42	0.84	0.34	0.31	0.63
Dominican Republic									
(2008)	0.44	0.78	1.08	0.21	0.52	0.93	0.19	0.19	0.28
Ecuador (2008)	1.20	2.40	4.20	0.80	1.50	2.10	0.50	0.70	0.90
El Salvador (2008)	1.54	1.83	3.00	0.95	0.94	1.61	0.55	0.18	1.00
Grenada (2005)	1.04	1.67	1.96	0.52	1.29	1.18	0.31	0.53	0.98
Guatemala (2003)	1.21	2.78	2.64	0.60	1.72	1.34	0.23	0.69	0.62
Guyana (2007)	4.96	3.48	3.43	3.93	1.81	2.25	2.62	0.96	1.89
Haiti (2009)	1.50	2.40	1.80	0.50	0.80	0.60	0.00	0.60	0.40
Honduras (2005)	0.75	1.67	3.20	0.42	0.58	1.31	0.25	0.26	0.58
Jamaica (2006)	3.45	3.02	2.73	2.42	1.71	1.84	1.82	1.05	1.04
Mexico (2009)	2.07	4.42	-	1.05	2.00	-	0.46	0.69	-
Nicaragua (2003)	0.64	2.68	3.14	0.14	1.50	1.34	0.14	0.59	0.76
Panama (2008)	3.28	2.08	1.00	3.03	1.20	0.28	2.69	0.78	0.09
Paraguay (2005)	0.53	1.09	1.38	0.39	0.73	0.93	0.29	0.51	0.60
Peru (2007)	1.43	1.90	3.40	0.72	1.08	1.90	0.37	0.48	1.02
St. Kitts and Nevis (2003)	2.24	2.45	1.83	1.18	1.29	1.10	0.86	0.91	0.74
St. Lucia (2005)	1.39	1.49	1.74	0.73	0.52	1.67	0.61	0.31	1.34
St. Vincent and Grenadines (2006)	0.24	0.50	1.62	0.24	0.25	0.82	-	0.25	0.82
Suriname (2006)	0.46	0.28	1.17	0.16	-	0.31	0.16	-	0.08
Trinidad and Tobago (2006)	0.63	1.30	0.94	0.32	0.88	0.23	0.24	0.32	0.12
Uruguay (2009)	1.60	4.30	6.90	0.50	3.30	4.40	0.20	1.50	1.80
USA (2009)†	2.60	4.60	6.00	1.60	2.70	3.40	0.80	0.90	1.30
Venezuela (Bolivarian Republic of) (2009) Sources: NDCs and NDOs	0.39	0.68	0.79	0.14	0.26	0.46	0.13	0.21	0.36

Sources: NDCs and NDOs in member states and MEM. †MTF 2009, \*HC

Note: Table displays data available from individual countries. Countries without comparable data may not be represented. Table displays only highest and lowest rates. Complete prevalence tables can be found in appendices. Age groups are approximate and may include some students below age 14 or above age 17.

†Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12. Numbers in () indicate year of study.

<sup>\*</sup>Data from Canada are taken from the YSS 2006-2007 survey and were provided by the Office of Research and Surveillance, Controlled Substances and Tobacco Directorate. Past month marijuana prevalence was not available for this population in CA. Illicit drug questions were only asked of students in grades 7 through 12 (ages 12 through 17). Data are provided by grade only. age is derived from the reported grade: Age less than 14 years is associated with grades 7 thru 9, age 15-16 is associated with grades 10 and 11, and age 17 and older is associated with grade 12.

# IV.3 Prevalence of Cocaine Use in the General Population age 12-64, overall and by Gender %

Country	LT	PY	PM	Male/PY	Fem/PY	Ratio Male: Female
Argentina (2008)	3.46	1.06	0.56	1.89	0.24	7.70
Barbados (2006)	0.79	0.14	0.04	0.30	0.03	10.00
Belize (2005)	1.42	0.71	0.61	0.69	0.73	0.95
Bolivia (2007)	3.22	0.55	0.41	0.46	0.62	0.74
Brazil (2005)	2.90	0.73	0.39	1.45	0.21	6.90
Canada (2008)*	-	1.90 <sup>Q</sup>	0.50 <sup>Q</sup>	2.70 <sup>Q</sup>	1.10 <sup>Q</sup>	2.50 <sup>Q</sup>
Chile (2008)	6.60	1.80	1.00	3.15	0.55	5.72
Colombia (2008)	2.48	0.72	0.43	1.28	0.22	5.82
Costa Rica (2006)	1.80	0.20	0.10	0.40	0.00	-
Ecuador (2007)	1.20	0.10	0.06	0.60	0.00	-
El Salvador (2005)	1.89	0.24	0.13	0.52	0.00	-
Guatemala (2005)	0.85	0.11	0.03	0.25	0.03	8.33
Nicaragua (2006)	2.51	0.34	0.19	0.46	0.09	5.11
Mexico (2008)	2.40	0.44	0.27	0.76	0.14	5.43
Panama (2003)	1.80	1.20	1.03	0.22	0.17	1.29
Paraguay (2003)	0.66	0.19	0.16	0.43	0.15	2.87
Peru (2006)	1.37	0.27	0.14	0.56	0.10	5.60
Uruguay (2006)	4.03	1.44	0.79	2.31	0.66	3.50
USA (2009)†	14.53	1.90	0.65	2.51	1.33	1.89

<sup>\*</sup> Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older-The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution. †Data for the United States are taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over. Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

IV.4 Prevalence of Cocaine Use in the General Population age 12-64, by Age Group %

	LT	PY	PM	LT	PY	PM	LT	PY	PM
Country	12-17	12-17	12-17	18-34	18-34	18-34	35-64	35-64	35-64
Argentina (2008)	0.56	0.40	0.28	6.47	2.45	1.25	2.03	0.19	0.12
Barbados (2006)	-	-	-	0.57	0.31	0.05	1.13	0.04	0.04
Belize (2005)	0.73	0.10	-	1.90	0.91	0.71	1.29	0.84	0.84
Bolivia (2007)	0.42	-	-	3.49	1.01	0.93	4.61	0.29	-
Brazil (2005)	-	-	-	-	-	-	-	-	-
Canada (2008)*	-	3.60	-	-	4.30	-	-	0.5	-
Chile (2008)	0.84	0.32	0.17	10.10	2.34	0.94	4.31	0.71	0.46
Colombia (2008)	1.22	0.78	0.35	3.44	1.29	0.83	2.08	0.19	0.11
Costa Rica (2006)	-	-	-	-		-	-	-	-
Ecuador (2007)	-	-	-	-	-	-	-	-	-
El Salvador (2005)	-	-	-	-	-	-	-	-	-
Guatemala (2005)	0.39	0.39	0.26	1.24	0.04	-	0.57	0.10	-
Nicaragua (2006)	0.42	0.13	0.13	3.76	0.47	0.17	1.76	0.06	0.06
Mexico (2008)	0.80	0.40	0.20	3.60	0.70	0.50	1.80	0.20	0.10
Panama (2003)	0.44	0.44	0.22	2.37	1.62	1.12	2.21	1.29	1.17
Paraguay (2003)	0.28	0.28	0.28	0.87	0.27	0.17	0.57	0.09	0.09
Peru (2006)	0.51	0.36	0.20	2.04	0.26	0.10	1.07	0.25	0.15
Uruguay (2006)	0.65	0.57	0.25	8.49	3.34	1.89	2.09	0.46	0.22
USA (2009) †	1.64	0.98	0.28	16.52	4.28	1.19	19.97	1.30	0.62

<sup>\*</sup> Canadian Alcohol and Drug Use Monitoring Survey (CADUMS, 2008). Note that the CADUMS is only asked of people aged 15 and older-The results in this table are presented for those aged 15 - 64. Illicit drug use was asked of respondents for past year. Past 30 days use was only asked of respondents who reported past year use of marijuana, cocaine and amphetamines. s=estimate suppressed due to unstable sampling variability. Q=estimate has moderate sampling variability and should be interpreted with caution.

<sup>†</sup>Prevalence for the United States was calculated by OID based on data taken from the NSDUH 2009 database. The results from the USA correspond to ages 12 and over. Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

# V. Tables on Cocaine Base Paste Consumption

# V.1 Prevalence of CBP Consumption in the Secondary School Population in the Americas, overall and by Gender %

Country	LT	PY	PM	Boys PM	Girls PM	Ratio Boys: Girls
Antigua	-	-	-	-	-	-
Argentina (2009)	1.80	0.90	0.52	0.80	0.30	2.17
Bahamas	-	-	-	-	-	-
Barbados	-	-	-	-	-	-
Belize	-	-	-	-	-	-
Bolivia (2008)	1.89	1.30	0.80	1.30	0.40	3.25
Canada*	-	-	-	-	-	-
Chile (2009)	5.30	2.60	1.30	1.70	0.90	1.82
Colombia (2004)	1.37	1.22	0.61	0.75	0.49	1.63
Dominica	-	-	-	-	-	-
Dominican Republic	-	-	-	-	-	-
Ecuador (2008)	1.00	0.60	0.30	-	-	-
El Salvador	-	-	-	-	-	-
Guatemala (2003)	0.37	0.19	0.06	0.12	0.02	6.00
Guyana	-	-	-	-	-	-
Haiti	_	-	-	-	-	-
Honduras (2005)	0.32	0.16	0.06	-	-	-
Jamaica	-	-	-	-	-	-
Mexico	-	-	-	-	-	-
Nicaragua (2003)	0.64	0.18	0.12	0.14	0.11	1.30
Panama	-	-	-	-	-	-
Paraguay (2005)	0.76	0.50	0.24	0.34	0.15	2.02
Peru (2007)	1.60	0.70	0.30	0.50	0.20	2.50
St. Kitts and Nevis	-	-	-	-	-	-
St. Lucia	-	-	-	-	-	-
St. Vincent and Grenadines	-	-	-	-	-	-
Suriname	-	-	-	-	-	-
Trinidad and Tobago	-	-	-	-	-	-
Uruguay (2009)	1.30	0.60	0.20	0.40	0.00	-
USA*	-	-	-	-	-	-
Venezuela (Bolivarian Republic of) (2009) Sources: NDCs and NDOs in member state	0.40	-	0.20	0.30	0.10	3.00

<sup>\*</sup>Data on CBP consumption is not collected in this country
Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

# V.2 Prevalence of CBP Consumption in the Secondary School Population in the Americas, by Age Group %

Committee	I.T. <1.4	LT 15 16	I T > 17	DW <14	DV 15 16	DV > 17	DM <14	DW 15-16	DM > 17
Country	LT ≤14	LT 15-16	LT ≥17	PY ≤14	PY 15-16	PY ≥17	PM ≤14	PM 15-16	PM ≥17
Antigua	1.20	2.70	- 1.50	0.60	1.70	- 0.60		1.00	
Argentina (2009)	1.20	2.70	1.50	0.60	1.50	0.60	0.30	1.00	0.30
Barbados	-	-	-	-	-	-	-	-	
Belize	1 10	1.72	- 2.72	- 0.55	- 0.01	- 1 21	- 0.20	- 0.42	0.54
Bolivia (2008)	1.19	1.73	2.73	0.55	0.81	1.31	0.28	0.42	0.54
Canada*	-	-	-	-	-	-	_	-	-
Chile (2009)	3.60	5.40	6.90	1.80	2.90	3.10	1.00	1.40	1.50
Colombia (2004)	0.95	1.48	2.33	0.83	1.34	2.07	0.49	0.61	0.96
Dominica	-	-	-	-	-	-	-	-	-
Dominican Republic	-	-	-	-	-	-	-	-	-
Ecuador (2008)	0.60	1.20	1.50	0.40	0.60	1.00	0.20	0.30	0.50
El Salvador	-	-	-	-	-	-	-	-	-
Guatemala (2003)	0.28	0.48	0.34	0.09	0.33	0.14	-	0.15	0.03
Guyana	-	-	-	-	-	-	-	-	-
Haiti	-	-	-	-	-	-	1	-	-
Honduras (2005)	0.31	0.18	0.23	0.15	0.07	0.09	0.06	0.03	0.03
Jamaica	-	-	-	-	-	-	1	-	-
Nicaragua (2003)	0.79	0.59	0.58	0.43	0.05	0.12	0.36	0.05	
Panama	-	-	-	-	-	-	1	-	-
Paraguay (2005)	0.52	0.63	1.19	0.42	0.43	0.68	0.17	0.26	0.30
Peru (2007)	1.47	1.60	3.08	0.63	0.76	1.55	0.34	0.34	0.40
St. Kitts and Nevis	-	-	-	-	-	-	-	-	-
St. Lucia	-	-	-	-	-	-	-	-	-
St. Vincent and Grenadines	-	-	-	-	-	-	-	-	-
Suriname	-	-	-	-	-	-	1	-	-
Trinidad and Tobago	-	-	-	-	-	-	-	-	-
United States (2009)*		-	-	-	-	-	-	-	-
Uruguay (2009)	0.90	1.90	1.30	0.40	0.80	0.50	0.00	0.40	0.20
Venezuela (Bolivarian Republic of) (2009) Source: NDCs and NDCs in member states	0.43	0.54	0.55	0.10	0.20	0.29	0.11	0.20	0.28

<sup>\*</sup>Data on CBP consumption is not collected in this country
Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

# V.3 Prevalence of CBP Consumption among the General Population age 12-64 year %

Country	LT	PY	PM
Argentina (2008)	0.40	0.20	0.10
Barbados (2006)	-	-	-
Belize (2005)	-	-	-
Chile (2008)	3.10	0.70	0.40
Colombia (2008)	1.09	0.17	0.10
Ecuador (2007)	0.72	0.13	0.10
El Salvador (2005)	0.30	0.08	0.08
Guatemala (2005)	0.26	0.08	-
Mexico (2008)	-	-	-
Nicaragua (2006)	0.50	-	-
Panama (2003)	0.24	0.14	0.08
Paraguay (2003)	0.14	0.08	0.02
Peru (2006)	1.30	0.38	0.16
Uruguay (2006)	0.80	0.30	0.12

Sources: NDCs and NDOs in member states, HC and MEM.

Note: Table only shows countries that had this data available

LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past

Month Prevalence

# V1.1 Prevalence of Use of Tranquilizers without a Prescription among Secondary School Students %

Country	LT	PY	PM	Boys PM	Girls PM	Ratio Boys: Girls
Antigua (2005)	2.99	1.43	0.85	0.90	0.81	1.11
Argentina (2009)	3.70	2.10	1.10	1.20	1.00	1.20
Bahamas (2008)	2.00	1.00	0.50	0.40	0.70	0.57
Barbados (2006)	2.60	1.14	0.77	0.47	1.03	0.45
Belize (2002)	6.92	3.32	2.15	1.64	2.81	0.58
Bolivia (2008)	15.56	7.54	4.22	3.26	5.25	0.62
Brazil (2004)	3.90	3.59	2.40	1.85	2.88	0.64
Canada*	-	-	-	-	-	-
Chile (2009)#	10.20	5.00	2.70	2.80	2.70	1.04
Colombia (2004)	9.86	6.30	5.03	5.07	4.97	1.02
Costa Rica (2006)	7.20	4.40	2.50	2.40	2.50	0.96
Dominica (2006)	5.38	2.53	1.49	0.79	2.04	0.39
Dominican Republic						0.57
(2008)	12.80	6.20	3.20	2.40	3.90	0.62
Ecuador (2008)	11.50	3.40	1.80	-	1	-
El Salvador (2008)	2.80	1.80	1.30	1.00	1.50	0.67
Grenada (2005)	5.90	2.48	1.69	1.47	1.94	0.76
Guatemala (2003)	12.98	6.74	4.18	3.24	4.83	0.67
Guyana (2007)	6.34	3.83	2.52	3.79	1.71	2.21
Haiti (2009)	29.00	17.20	12.40	10.60	13.90	0.76
Honduras (2005)	12.03	4.81	2.85	1.83	3.61	0.51
Jamaica (2006)	4.89	2.38	1.33	1.19	1.46	0.82
Mexico (2009)	3.91	2.56	0.88	0.63	1.13	0.56
Nicaragua (2003)	12.17	5.31	3.31	2.84	3.69	0.77
Panama (2008)	7.40	1.60	1.00	0.60	1.30	0.46
Paraguay (2005)	12.27	7.41	4.67	2.88	6.09	0.47
Peru (2007)	10.20	4.00	1.40	1.40	1.40	1.00
St. Kitts and Nevis (2003)	2.87	1.83	1.48	2.06	0.96	2.16
St. Lucia (2005)	7.33	4.50	3.00	1.73	3.85	0.45
St. Vincent and	3.41	1.59	1.03	0.59	1.28	
Grenadines (2006)						0.46
Suriname (2006)	9.80	5.50	3.20	3.03	4.39	0.69
Trinidad and Tobago (2006)	2.69	1.50	0.81	0.75	0.85	0.88
Uruguay (2007)	6.90	3.70	1.50	0.80	2.20	0.36
USA (2009)†	7.0	5.0	2.0	1.80	2.10	0.86
Venezuela (Bolivarian Republic of) (2009) Sources: NDCs and NDOs in	3.90	1.70	1.10	1.00	1.30	0.77

<sup>\*</sup>This data is not available for Canada

<sup>#</sup>Only Benzodiazepines

<sup>†</sup>Data for the USA are taken from the MTF 2009 and correspond to grade 10. Combined data on drug use by gender are not available in the MTF 2009 report.

Numbers in () indicate year of study.

Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

# V1.2 Prevalence of Use of Stimulants without a Prescription among Secondary School Student, overall and by Gender %

Country	LT	PY	PM	Boys PM	Girls PM	Ratio Boys: Girls
	2.65	1.48	1.11	1.28	0.99	
Antigua (2005)			0.90		0.99	1.29 1.57
Argentina (2009)	2.60	1.50		1.10	0.70	1.57
Bahamas (2008)	1.80 3.53	0.80 2.35	0.40 1.63	1.28	1.04	-
Barbados (2006)	4.57	2.74	1.93	2.31	1.94	0.66
Belize (2002)	7.44	3.50	2.09	1.94	1.42	1.62
Bolivia (2008)					2.20	0.88
Brazil (2004)	3.64	3.09	2.09	1.71	2.41	0.71
Canada*	-	-	-	-	-	-
Chile (2009)	5.20	1.80	0.90	1.00	0.70	1.43
Colombia (2004)	5.64	3.41	2.69	2.97	2.44	1.22
Costa Rica (2006)	4.90	2.80	1.70	1.30	2.20	0.57
Dominica (2006)	4.39	2.27	1.62	1.27	1.89	0.67
Dominican Republic (2008)	9.10	4.20	2.80	2.50	3.10	0.81
Ecuador (2008)	7.20	2.40	1.40	-	-	-
El Salvador (2008)	1.70	1.10	0.90	0.90	1.00	0.90
Grenada (2005)	3.06	1.62	1.21	1.41	0.97	1.45
Guatemala (2003)	7.03	3.58	2.34	2.14	2.45	0.87
Guyana (2007)	7.15	4.60	2.86	4.31	1.94	2.23
Haiti (2009)	23.20	12.80	8.80	7.40	9.90	0.75
Honduras (2005)	7.35	3.05	1.97	1.72	2.15	0.80
Jamaica (2006)	6.07	3.43	2.26	2.25	2.26	0.99
Nicaragua (2003)	7.71	3.90	2.46	2.52	2.45	1.03
Panama (2008)	4.70	1.20	0.50	0.10	0.70	0.14
Paraguay (2005)	3.82	2.34	1.15	1.08	1.20	0.90
Peru (2007)	4.50	1.90	0.70	0.90	0.60	1.50
St. Kitts and Nevis (2006)	3.00	1.59	0.62	1.10	0.19	5.78
St. Lucia (2005)	6.11	3.70	2.20	2.24	2.17	1.03
St. Vincent and Grenadines (2006)	2.91	1.66	1.21	2.29	0.59	3.89
Suriname (2006)	4.80	2.70	1.50	1.92	1.64	1.18
Trinidad and Tobago (2006)	3.38	2.09	1.58	1.82	1.39	1.31
Uruguay (2007)	2.80	1.60	0.90	0.90	0.90	1.00
USA (2009)†	-	-	-	-	-	-
Venezuela (Bolivarian Republic of) (2009) Sources: NDCs and NDOs in m	2.60	1.20	0.80	0.90	0.70	1.29

<sup>\*</sup>This data is not available for Canada

<sup>†</sup>Data for the United States are taken from the MTF 2009. Data provided may be combined or by grade. Age less than 14 years is associated with grade 8, age 15-16 is associated with grades 10 and age 17 and older is associated with grade 12.

Note: LT = Lifetime Prevalence, PY = Past Year Prevalence, PM = Past Month Prevalence

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