INTERNATIONAL RESEARCH CAPACITY- BUILDING PROGRAM
FOR HEALTH RELATED PROFESSIONALS TO STUDY THE DRUG PHENOMENON
IN LATIN AMERICA AND THE CARIBBEAN

A MULTI-CENTRIC STUDY OF COMORBIDITY BETWEEN
PSYCHOLOGICAL DISTRESS AND DRUG ABUSE AMONG PATIENTS
IN TREATMENT CENTRES, IN SEVEN COUNTRIES OF LATIN
AMERICA AND ONE IN THE CARIBBEAN: POLICY AND PROGRAM
IMPLICATIONS.

TORONTO – CANADA, 2009
## Research Proposal

### Principal Investigator’s Countries

<table>
<thead>
<tr>
<th>Name of Investigator</th>
<th>Affiliated University</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edgar Merchan Hamann</td>
<td>University of Brasilia</td>
<td>Brazil</td>
</tr>
<tr>
<td>Erotildes Leal</td>
<td>Federal University of Rio de Janeiro</td>
<td>Brazil</td>
</tr>
<tr>
<td>Liliana Basso Musso</td>
<td>University of Valparaiso</td>
<td>Chile</td>
</tr>
<tr>
<td>Miriam García Estrada</td>
<td>University of San Carlos</td>
<td>Guatemala</td>
</tr>
<tr>
<td>Patrice Reid</td>
<td>University of the West Indies, Mona Campus</td>
<td>Jamaica</td>
</tr>
<tr>
<td>Olga Kulakova</td>
<td>National Autonomous University of Nicaragua, Leon</td>
<td>Nicaragua</td>
</tr>
<tr>
<td>Eddy Vásquez Espinoza</td>
<td>National Autonomous University of Nicaragua, Leon</td>
<td>Nicaragua</td>
</tr>
<tr>
<td>Opal Jones Willis</td>
<td>University of Panama</td>
<td>Panama</td>
</tr>
<tr>
<td>Ricardo Prieto López</td>
<td>Iberoamerican University</td>
<td>Paraguay</td>
</tr>
<tr>
<td>Diana Domenech</td>
<td>University of the Republic</td>
<td>Uruguay</td>
</tr>
</tbody>
</table>

### Research Advisors

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- Carol Strike, Ph.D.
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Central Theme

Prevalence of psychological distress among patients in treatment for illicit drugs and alcohol abuse or dependence.

Title

A multi-centric study of comorbidity between psychological distress and drug abuse among patients in treatment centres in seven countries of Latin America and one in the Caribbean: policy and program implications.

Introduction

Comorbidity between substance use disorders (thus substance abuse and dependence) and other mental health problems is common. Therefore, there is a high risk for drug use in patients with mental disorders and a high frequency of psychopathology triggered by or existing prior to the use of illicit drugs and alcohol. When two disorders occur simultaneously such as the aforementioned, it is referred to as comorbidity, and the patients’ life quality is significantly affected. This is particularly important as oftentimes the situation of mental health problems present as non specific symptoms and may not manifest in a diagnosable disorder, like psychological distress.

The high rate of comorbidity between substance use disorders and other mental disorders, and by extension psychological distress may be said to be as a result of or due to the complex interaction between environmental and biological/individual factors. Such environmental factors include the culture, family dysfunction, poor interpersonal relationships, unemployment, social exclusion, poverty, legislation, health care services and many others. On the other hand, individual/biological factors include ones’ genetic predisposition, coping strategies, personality, and others.
Therefore, the importance of further research in comorbidity related to illicit drugs and alcohol abuse, thus substance use disorders and psychological distress are of utmost importance to explore, especially as it relates to the factors mentioned above. It is upon this background that the main goal of this multi-centric research is to explore psychological distress, as well as some aspects of the attention the patients receive for the mental disorder in treatment centres for drug users in seven countries of Latin America and one of the Caribbean.

**Justification**

Comorbidity affects millions each year, according to the Unites States General Surgeon Report on Mental Health (2006). It was reported that “31 – 65% of individuals with a lifetime substance abuse disorder also have a lifetime history of at lease one mental disorder, and about 51% of those with one or more lifetime mental disorders also have a lifetime history of at lease one substance abuse disorder” (Colin, 2006).

Furthermore, the problematic situation extends from the individual to the family, the workplace, the school, and the society producing policy, social, economical and cultural implications, and so forth. As such, when substance abuse and other mental disorders or psychological distress occur simultaneously there often is greater functional impairment and self destructive behavior, and successful treatment is more problematic. Therefore, it is important to determine if treatment centres for drug abuse and dependence offers care to the co-morbidity.

Bearing this in mind, within Latin America and the Caribbean, there is little to no research exploring this phenomenon and therefore making it evident the need for studies in this area.
Background of Participating Countries

The information presented below provides socio-demographic characteristics as well as some development indicators in the eight countries in which this study will be conducted (Table 1). There are important differences regarding geographic areas and population sizes, the age distribution of the population, life expectancy and the rank of each country in relation to development indicators.

Table 1. Participant country’s selected main demographic (population at extreme ages, life expectancy) and development characteristics (Gross Domestic Product, Human Development Index and Literacy Rate).

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>AREA (km²)*</th>
<th>POP.* (x10⁶)</th>
<th>POP. &lt; 15 Y.O.*</th>
<th>POP. &gt; 65 Y.O.*</th>
<th>LIFE EXP.** (RANK)</th>
<th>GDP*** (RANK)</th>
<th>HDI**** (RANK)</th>
<th>LIT.RAT. (R)***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>8,514,877</td>
<td>189.3</td>
<td>28.0%</td>
<td>6.0%</td>
<td>72.4 (92⁸)</td>
<td>1,612.5 (8⁶)</td>
<td>0.807 (70⁹)</td>
<td>90.0%</td>
</tr>
<tr>
<td>Chile</td>
<td>756,096</td>
<td>16.6</td>
<td>25.0%</td>
<td>8.0%</td>
<td>78.6 (35⁸)</td>
<td>169.5 (45⁸)</td>
<td>0.874 (40⁸)</td>
<td>95.7%</td>
</tr>
<tr>
<td>Guatemala</td>
<td>108,889</td>
<td>13.4</td>
<td>43.0%</td>
<td>4.0%</td>
<td>70.3 (112⁸)</td>
<td>39.0 (76⁸)</td>
<td>0.696 (121⁸)</td>
<td>69.1%</td>
</tr>
<tr>
<td>Jamaica</td>
<td>10,991</td>
<td>2.8</td>
<td>30.0%</td>
<td>8.0%</td>
<td>72.6 (88⁸)</td>
<td>15.1 (103⁸)</td>
<td>0.771 (121⁸)</td>
<td>79.9%</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>130,668</td>
<td>5.6</td>
<td>39.0%</td>
<td>4.0%</td>
<td>72.9 (83⁸)</td>
<td>6.6 (132⁸)</td>
<td>0.699 (120⁸)</td>
<td>76.7%</td>
</tr>
<tr>
<td>Panama</td>
<td>78,200</td>
<td>3.4</td>
<td>30.0%</td>
<td>6.0%</td>
<td>77.5 (57⁷)</td>
<td>23.4 (90⁹)</td>
<td>0.832 (58⁸)</td>
<td>92.6%</td>
</tr>
<tr>
<td>Paraguay</td>
<td>406,752</td>
<td>6.1</td>
<td>36.0%</td>
<td>5.0%</td>
<td>71.8 (99⁹)</td>
<td>16.0 (101⁸)</td>
<td>0.752 (98⁸)</td>
<td>93.5%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>177,508</td>
<td>3.3</td>
<td>24.0%</td>
<td>13.0%</td>
<td>76.4 (47⁷)</td>
<td>32.2 (80⁸)</td>
<td>0.859 (47⁷)</td>
<td>96.8%</td>
</tr>
</tbody>
</table>

*Area, population and proportion of population aged under 15 years old and above 65 years old. Source: Population Reference Bureau, 2008 (data for 2007).


*****Literacy Rate & Rank – estimated percentage of population aged 15 years old and more - UNDP, 2008.

Also, there are different views on the way the countries classify their distribution according to race or ethnicity (Table 2).
Table 2. Ethnic and / or racial classifications and distribution of categories by country.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>MAIN VARIABLES</th>
<th>LOCAL TERMS FOR CATEGORIES*</th>
<th>PROPORTION OF POPULATION*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Color (self-declared)</td>
<td>Branco (White)</td>
<td>49.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pardo (Mixed)</td>
<td>42.3%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negro (Black)</td>
<td>7.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amarela (Asian)</td>
<td>0.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indigena (Indigenous)</td>
<td>0.4%</td>
</tr>
<tr>
<td>Chile</td>
<td>Race</td>
<td>Mestizo (Mixed)</td>
<td>65.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blanco (White)</td>
<td>30.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indigenas (Indigenous)</td>
<td>5.0%</td>
</tr>
<tr>
<td>Guatemala</td>
<td>Ethnic group</td>
<td>Ladinos (White &amp; mixed)</td>
<td>58.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mayas (Indigenous)</td>
<td>40.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Xincas and Garifunas</td>
<td>1.4%</td>
</tr>
<tr>
<td>Jamaica</td>
<td>Race</td>
<td>Afro-Jamaican**</td>
<td>92.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>East Indian or Indo-Jamaican**</td>
<td>3.4%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Euro-Jamaican</td>
<td>3.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chinese-Jamaican**</td>
<td>1.2%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Syrian &amp; others</td>
<td>&lt;1.0*</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Race &amp; Ethnic groups</td>
<td>Mestizo (Mixed)</td>
<td>69.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blanco (White)</td>
<td>17.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negro (Black)</td>
<td>9.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Garifuna</td>
<td>0.05%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amerindio (Indigenous)</td>
<td>4.95%</td>
</tr>
<tr>
<td>Panama</td>
<td>Ethnic groups</td>
<td>Mestizo (Mixed)</td>
<td>69.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blanco (White)</td>
<td>14.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negro &amp; Mulato (Black and Mixed White-Black)</td>
<td>10.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indígena (Indigenous)</td>
<td>6.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asiático (East-Asian)</td>
<td>1.0%</td>
</tr>
<tr>
<td>Paraguay</td>
<td>Races / ethnic groups</td>
<td>Mestizo (Mixed)</td>
<td>95.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Otros (other)***</td>
<td>5.0%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>Race (self-declared) (National Household Survey – 2006)</td>
<td>Blanco (White)</td>
<td>86.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Afro-descendiente (African-descendant)</td>
<td>9.1%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indígena (Indigenous)</td>
<td>3.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asiático (East-Asian)</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

*Sources: official and unofficial information sources. Some countries do not even consider this a relevant issue.

**“Afro-Jamaican” includes Afro-Jamaican (76.0%) and mixed Afro-European people (15.0%); the categories listed as “East Indian” and “Chinese-Jamaican” also include mixed population with African descendants.

***Other include Asian-European immigrants, native Guarani population and Afro-Paraguayan.

In the following, is a presentation of the general view of each country’s situation in relation to drug production, commercialization, and control strategies. Additionally, data on the main
studies conducted on this issue regarding consumption, as well as existing data on mental health disorders prevalence when they are available, are also presented.

Brazil

Regarding drug production, the main illegal substance utilized marijuana, is locally produced and also imported. There is extensive domestic production and the surroundings of North-Eastern State of Pernambuco are recognized as a great clandestine marijuana production area which supplies an important proportion of domestic demand. A proportion of marijuana consumed in Brazil is commercialized from Paraguayan production. In 2007, Brazil did not appear among the 24 countries listed having large amounts of marijuana seizures. But, in 2006 Brazil was the 7th on the ranking of those seizures, with 3% of the global seizures (UNODOC, 2009).

Brazil is an important country both for cocaine consumption and for trafficking to other countries. Nevertheless, local production and processing are negligible. In 2008, Brazil was the third country (after Dominican Republic and Argentina), in the rank of number of seizures (and not quantity) of cocaine in transit to Europe. Brazil is the fifth country in the rank of cocaine amount seized (UNODOC, 2009); about 17 tons of the drug were confiscated in 2007. Cocaine seizures in Brazil have increased in recent years. Also, cocaine found in African countries is, in general, from Colombia and Peru, and it frequently reaches the African continent through Brazil. Brazil is the 10th country in the world in the quantity of cocaine confiscated worldwide (in 2006 the country was the 12th).

In recent years, there has been an increase in the number of Ecstasy pills seized in Brazil. In 2007, more than 210,000 pills were confiscated and there is also an increase in the domestic production. The first underground laboratory of Ecstasy was found in 2008. In 2007, Brazil was
included in the group of 22 countries with the highest number of seizures of ecstasy and related substances.

Historically, the Brazilian government has faced the illegal drug issue with prohibitionist strategies. Previous inter-ministerial agencies (National Council of Narcotics - Conselho Nacional de Entorpecentes, and the National Secretariat of Fight against Drugs, linked to Institutional Security Office of the Republic’s Presidency) were reduced to the National Secretariat Anti Drugs (SENAD) and the National Council Anti-Drugs (CONAD). They established the national policy and regulations at the Federal level.

Brazilian general policy for mental health care established by the Ministry of Health includes a network of mental health care facilities, called Centers of Psycho-Social Care – (in Portuguese, Centros de Atenção Psico-Social – CAPS). Among them, some of these facilities have been conceived for major mental health disorders, like the CAPS-II, and others specially designed for persons in situations of abuse or dependence (these are called CAPS-AD, which stands for Centers of Psycho-social Care – Alcohol – Drugs; in Portuguese CAPS- Álcool-Drogas). The CAPS-AD are at the same level of primary health care in spite of the fact of being specialized. They were planned to provide treatment and support for the population with abuse and dependence. Recent data show that there are already 189 CAPS-AD in the country; at the Federal District, there are only two; at the State of Rio de Janeiro there are 15.

Table 3 shows the main studies conducted regarding substance use and mental health prevalence in Brazil. Data available on lifetime use (in the table), last 12 months and last 30 days use (not shown in the table) are consistent across surveys and compatible with other studies conducted in more restricted sample frames in the country. Nevertheless, data from mental health disorders prevalence show great discrepancies.
Table 3. Studies conducted in Brazil on alcohol and drug use prevalence and mental disorders.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>POPULATION</th>
<th>SAMPLE</th>
<th>RESULTS</th>
<th>SOURCE &amp; YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Survey on psychotropic drugs use among children and adolescents living in the streets in 27 capital cities. 2003.</td>
<td>Children and adolescents (10-18 years old) which spend most of their time in the street.</td>
<td>2,807 children and adolescents.</td>
<td>(Lifetime use) Alcohol: 76.0%; Inhalant solvents: 44.4%; Cocaine &amp; preparations with cocaine: 24.5%; Psychotropic medicines: 13.4%</td>
<td>Noto et al., CEBRID. (2004).</td>
</tr>
<tr>
<td>Community-based epidemiological study on mental health disorders</td>
<td>General population</td>
<td>Not stated</td>
<td>(Lifetime prevalence) Alcohol dependence: 7.6%-14.9%; Major depression: 1.9%-12.8%; Dysthymia: 4.9%; Bipolar disorder: 0.6%-2.1%; Non-affective psychosis: 0.3%-2.4%; Panic: 1.3%; Illicit drug dependence: 1.0%</td>
<td>Saraceno et al. (2005)</td>
</tr>
</tbody>
</table>
Chile

The production of drugs in Chile is quite minimal. However, there is illegal traffic of cocaine, especially because of the geographical proximity to Bolivia. Chile is the 7th country in the rank of cocaine seizures by authorities (UNODOC, 2009); about 11 tons of cocaine was confiscated in 2007. It must be noted that cocaine seizures in Chile have increased in recent years.

In Chile, the Program for the Treatment and Rehabilitation of People with Dependence of Alcohol and Drugs was implemented in 2001. It is conceived nation-wide for the health services including the primary care network, the Communitarian Centers of Mental Health, hospitals as well as therapeutic communities. This program offers free-of-charge treatment with coverage for the beneficiaries of the National Health Fund (FONASA - Fondo Nacional de Salud) in some of its four modalities, which varies according to the characteristics, the necessities and the complexity of the case: plan of treatment as first response, plan of basic ambulatory treatment, plan of intensive ambulatory treatment and plan of residential treatment in Therapeutic Communities. This program is a joint effort of the Ministry of Health and the National Council for the Narcotic Control (CONACE) which belongs to the Department of Interior (Home Office) and the Ministry of Justice.

The mission of CONACE is to implement public policies on the drug problem and prevent consumption and trafficking of illicit substances in the country. It is comprised of 14 state-run institutions, which use their social networks to coordinate and implement drug prevention programmes, treat drug misuse and inform the public about the drug phenomenon. It is also related to control of drug smuggling by means of police control and legislation.

The Drug Law Nr 20,000, of 2005, establishes the punishment for smuggling of narcotic drugs and psychotropic substances. It deals also with other offences related to drugs.
Table 4 shows the main studies conducted regarding substance use and mental disorders in Chile. CONACE conducts national surveys based on probabilistic samples on a regular basis. This has allowed for comparisons on lifetime use (like data in the table), last 12 months and last 30 days use (not shown in the table). There are few data on the prevalence of mental health disorders.

Table 4. Studies conducted in Chile on alcohol and drug use prevalence and mental disorder.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>POPULATION</th>
<th>SAMPLE</th>
<th>RESULTS</th>
<th>SOURCE &amp; YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th National Study on Drugs</td>
<td>General Population</td>
<td>17,113</td>
<td>(Use in the last year)</td>
<td>National Commission for Drug Control -</td>
</tr>
<tr>
<td>among General Chilean</td>
<td>(12 - 64 years old)</td>
<td>Random simple</td>
<td>Alcohol: 68.5%</td>
<td>CONACE (2008)</td>
</tr>
<tr>
<td>Population.</td>
<td></td>
<td></td>
<td>Marijuana: 6.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cocaine base paste: 0.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cocaine: 1.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cocaine total: 2.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Crack - Use: 0.2%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ecstasy: 0.1%</td>
<td></td>
</tr>
<tr>
<td>Health: 10 years of</td>
<td>(&gt;15 years old)</td>
<td></td>
<td>Major mental disorders: 36%</td>
<td>Mental illnesses in Chile. Unit of</td>
</tr>
<tr>
<td>experience</td>
<td></td>
<td></td>
<td>Agoraphobia: 11.1%</td>
<td>Mental Health. Ministry of Health.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Major depression: 9.0%</td>
<td>Santiago. Chile.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dysthymia: 8.0%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alcohol dependence: 6.4%</td>
<td>Chilean Ministry of Health. Policies</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and National Plan of Mental Health. (2005)</td>
</tr>
</tbody>
</table>

Guatemala

According to International Narcotics Control Board report (INCB-UN, 2003), the corridor of Central America, Mexico and the Caribbean is a pathway for trafficking cocaine and heroin from Colombia to North America. Guatemala has been working on making policies to enforce legal procedures to decrease drug trafficking by land and by sea. Since January 2009, a National Policy against Addictions and Illicit Drug-Traffic is under implementation. It represents the continuous search for adapting domestic policy to the agreements signed by the country at the United Nations Convention on Drugs since 1961, renewed by protocols in the 1970’s. In 1994, a national governmental agreement was promulgated by the Executive Secretary of the National Commission against Addictions and Illicit Drug-Traffic (SECCATID).
As a result of the existence of the corridor of drug traffic, the exposure to drugs in the country has been growing year by year. The Guatemalan government, through SECCATID, is working hard to implement control measures addressed to decrease use and abuse of licit and illicit drugs in schools, universities, prisons and specific sectors, like “El Gallito” neighborhood, the best known place where drugs are sold in Guatemala City.

In Guatemala, the Ministry of Public Health and Social Welfare, is responsible for evaluating the quality of the services and institutions that offer drug treatment programs in the country. This work is done through the Department for Regulation, Accreditation, and Control of Health Facilities (DRACES). Nevertheless, the country reports that verification of the quality of the services’ compliance is not yet being done.

According to the Multilateral Evaluation Mechanism (MEM, 2005-2006), Guatemala has 91 treatment centers, one public state-run services and 90 private services. There are five private centers for detoxification and 85 private treatment and rehabilitation centers. The only public facility focuses on early detention, training, and referral to other centers. The country did not report data related to patients in treatment or admissions to treatment during 2004 to 2006. Therefore, the demand in the country cannot be estimated.

Furthermore, the WHO (2005) estimates that in Guatemala the prevalence of depression is 25.5%, chronic psychosis 21.9%, epilepsy 10.4%, bipolar disorder 5.2%, somatoform disorders 11.4%, mental retardation 4.4% and anxiety disorders 8.3%.

There are also other studies that have been conducted on specific populations under the Commission’s direction. Table 5 shows some of these research works whose results are similar to the finding of other studies in the Central American region. Some specific Guatemalan historical facts have elicited research on special culturally-bound alcohol use among Maya
population (Kanteres et al., 2008), mental health problems as a result of the civil war (Sabin et al., 2006) and injected drug use related to HIV (Shehane et al., 2008).

Table 5. Studies conducted in Guatemala about alcohol and drug use prevalence.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>POPULATION</th>
<th>SAMPLE</th>
<th>RESULTS</th>
<th>SOURCE &amp; YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st National Household Survey on addictive substances consumption.</td>
<td>General population (12-65 years old)</td>
<td>4,899</td>
<td>(Lifetime use) Alcohol: 52.0% Benzodiazepines without prescription: 8.4% Stimulants without prescription: 2.8%.</td>
<td>SECCATID, National Institute of Statistics, Narcotics Affairs Section, NAS - Embassy of the United States of America. CICAD (2007).</td>
</tr>
<tr>
<td>Evaluation of the progress of Drug Control 2005-2006</td>
<td>General population (12-64 years old)</td>
<td>Not stated</td>
<td>(Lifetime use) Alcohol: 53.4% Benzodiazepines &amp; other sedatives: 8.5% Marijuana: 2.8% Stimulants: 2.8%.</td>
<td>SECCATID-CICAD-MEM (2006).</td>
</tr>
<tr>
<td>Drug consumption among 6th grade students at schools in Guatemala.</td>
<td>Students (Adolescents)</td>
<td>Not stated</td>
<td>(Lifetime Prevalence) Alcohol: ♂= 53.9%; ♀= 47.9% Benzodiazepines: ♂= 11.1%; ♀= 17.2% Marijuana: ♂= 9.4%; ♀= 2.9% Stimulants: ♂= 5.5%; ♀= 5.1% Solvent inhalants: ♂= 3.8%; ♀= 1.4% Base Paste - Cocaine: ♂= 1.4%; ♀= 0.5%; Ecstasy: ♂= 1.8%; ♀= 1.4% Hallucinogenic: males= 1.6%; ♀= 0.7%; Morphine and Opioids: ♂= 1.5%; ♀= 0.7%</td>
<td>SIDUC-CICAD (2002).</td>
</tr>
</tbody>
</table>

Jamaica

Jamaica is the first producer of cannabis in the Caribbean region. Like other countries within the region, its geographic location has made it a trans-shipment point for cocaine from South America to North America and Europe.

The Jamaican government has enacted a number of laws for drug control as part of a national policy that has been changing in the last years. Since the enactment of the first national legislation on drugs (Dangerous Drugs Act and Regulation - 1948; the Food and Drugs Act – 1964; the Food and Drugs Regulation - 1975), the legislation became more specific addressing
the abuse and the illegal commercialization, as well as the work on drug manufacturing 
(Precursor Chemical Act -1999). Special legislation addressed the insular vulnerability of the 
country for drug trafficking via the Maritime Drug Trafficking Suppression Act which was 
created in 1998. In October 1983, a National Council on Drug Abuse (NCDA) was created by 
the then Prime Minister, and assigned it the portfolio of the then Ministry of Science, 
Technology and Energy.

In 1984, that Ministry was disbanded, and the responsibility for the NCDA was transferred to 
the Office of the Prime Minister. In September 1984, the Drug Abuse Secretariat was 
established to assist the NCDA in carrying out the administrative tasks necessary to fulfill its 
objectives. The Secretariat is funded by the government of Jamaica, through the Office of the 
Prime Minister. The NCDA was transferred from the Office of the Prime Minister to the 
Ministry of Health in 1994 and operates on a basis consistent with the Civil Service system. It is 
headed by an Executive Director, who has responsibility for the overall co-ordination and 
monitoring of all the programmes and projects falling within the jurisdiction of the NCDA. The 
Secretariat maintains the linkage between the public and the Council and is also expected to co-
ordinate the activities for various projects.

The initial responsibility of NCDA was to educate the general public about the dangers of 
drug use and to prevent the indiscriminate use of drugs. Since then however, the Council has had 
to review it role, and this has led to an expansion of its terms of reference to include an 
examination of the legal, medical and security issues surrounding drug abuse, as well as 
research. This has embraced the formulation of projects that have attempted to address all the 
various key elements and to establish a comprehensive national policy on drug abuse prevention
and demand and supply reduction. It must be noted that in 1991, the National Council on Drug Abuse Act was implemented.

NCDA has agreements and supports the following treatment and rehabilitation centres: the Assessment and Detoxification Centre and the Ward 21 (both at the University Hospital of the West Indies), Patricia House (Richmond Fellowship), William Chamberlain Rehabilitation Centre, Chemical Addiction Unit (Cornwall Regional Hospital) and the Project Teen Challenge Jamaica. By and large, there are six governmental or public sector-operated treatment services; nine NCDA community clinics for substance abuse, HIV positive individuals and trauma, twelve community institutions, and four non-governmental operated drug abuse treatment facilities across the island. NCDA also supports institutions acting on prevention, people living with HIV and traumatized families.

In 2000 the initiative of Drug Court was implemented for helping treatment and rehabilitation of offenders. A number of prevention programs targeting adolescents and university students have been implemented: Prevention Education Programme (PEP), ‘Squeaky’ initiative, Resistance Education Against Drugs (READ), Lignum Vitae Program, Rosebud Program, and Peer Educators Program.

In relation to the prevalence of drug use, misuse and abuse in Jamaica, the NCDA (2008) reported that within six residential treatment and re-habilitation centres, there was a total of 1,594 admissions (ages 10 years and older) between 2004 and 2008. The NCDA (2008) also reported that between the aforementioned period the drugs that elicit the major demand for treatment of abuse / dependence were: crack, marijuana, alcohol, seasoned spliff (this refers to marijuana mixed with cocaine which is smoked), and cocaine. For women, substances which created treatment demand were: crack, marijuana, alcohol and benzodiazepines (NCDA, 2008).
In Table 6, some studies on legal and illegal substance, mental health and co-morbidity are presented. Jamaica is one of the few countries which have conducted surveys on co-morbidity. Regarding mental health, Francis (2007) cites De La Haye who reported that in 2006, approximately 13,000 persons were treated for mental illnesses in health centres and that local studies have found that depression and substance abuse are the most common forms of mental illness throughout the island, with prevalence 1.2 % rate for schizophrenia.

Table 6. Studies conducted in Jamaica about alcohol and drug use prevalence, mental disorders and comorbidity.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>POPULATION</th>
<th>SAMPLE</th>
<th>RESULTS</th>
<th>SOURCE &amp; YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>National household survey on drug abuse.</td>
<td>General population (12-55 years old)</td>
<td>2,380</td>
<td>(Lifetime use) Alcohol: 44.5%; Marijuana: 12.1%; “Pain killers”: 32.1% Crack / cocaine / heroin: 2.7% Inhalants / amphetamines / benzodiazepines / steroids: 0.11% Other illicit substances: 12.2%. 20% of the seriously mentally ill are dependent on or abusing alcohol and drugs. Such dual disorders are mostly common among the homeless, prisoners and mental hospital patients.</td>
<td>NCDA (2001)</td>
</tr>
<tr>
<td>Study of co-morbidity among patients with drug abuse or dependence in Jamaica.</td>
<td>Patients with a history of substance misuse</td>
<td>158</td>
<td>Proportion of patients with co-morbid psychiatric disorder: 31.6%. General categories (Out of 31.6%): Psychotic disorders: 48.8% Mood disorders: 40.0% Conduct disorders: 10.0% Anxiety disorders: 2% Specific disorders (Out of 31.6%): Depression: 26.0% Schizophrenia: 24% Cannabis-induced Psychosis: 24% Bipolar disorders: 14% Conduct disorders: 10% Anxiety disorders: 2%</td>
<td>De La Haye (2006)</td>
</tr>
</tbody>
</table>
Nicaragua

According to the report of the National Antidrug Plan Commission of Fight against Drugs (CNLCD, 2005), Nicaragua became a strategic place for drug traffic. This is due to its geographic position at the center of the Americas, a midpoint between the main zone of production (South America) and the main zone of consumption (North America). Among the factors of vulnerability for international drug traffic in Nicaragua, we highlight the borders with surrounding countries with many blind points and a wide maritime zone both in the Pacific and Atlantic oceans, which facilitate drug inflow and outflow. Another factor is the lack of technical resources to guard those borders.

According to the Multilateral Evaluation Mechanism (MEM), the country does not have a system for the detection and quantification of the area of illicit plantations. This may be associated with the lack of a formal system for the eradication of illicit crops. It has not been detected in the territory cultivated areas of marijuana under ceiling, nor found illicit laboratories for the organic or synthetic drug production.

Nicaragua has signed and ratified a series of international conventions and treaties on the subject of drugs. A specific legislation for drug issues is contained in the Law 285. Recently, in 2008, a new Penal Code (Law 641) was implemented referring to the recommendations made by the MEM regarding crimes of money laundering.

Table 7 shows some of the studies conducted in Nicaragua. Two of them, conducted in the general population show data comparable with other countries’ studies. The third study shows the reality of a city regarding the prevalence of mental disorders.
Table 7. Studies conducted in Nicaragua about alcohol and drug use prevalence and mental disease.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>POPULATION</th>
<th>SAMPLE</th>
<th>RESULTS</th>
<th>SOURCE &amp; YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Survey on Drugs Consumption.</td>
<td>General population (12 -65 years old)</td>
<td>30,000</td>
<td>(Lifetime use)</td>
<td>OEA, CICAD, GEG, MEM. (2006).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Marijuana:  7.9%; Cocaine: 2.5%; Crack: 1.3%; Inhalants: 0.6%; Cocaine paste: 0.5%; Hallucinogenic: 0.3%; Heroin: 0.05%; Morphine: 0.04%; Ecstasy: 0.02%</td>
<td></td>
</tr>
<tr>
<td>Drug consumption prevalence among secondary school students</td>
<td>School population (12 – 17 years old)</td>
<td>5,412</td>
<td>(Lifetime use)</td>
<td>SIDUC - OEA. (2003).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alcohol: 47.6%; Marijuana: 5.2%; Cocaine: 2.3%; Crack: 1.2%; Inhalants: 2.0%; Benzodiazepines: 12.3%; Hallucinogens: 0.6%; Ecstasy: 0.5%; Heroin: 0.3%</td>
<td></td>
</tr>
<tr>
<td>Prevalence of health mental disorders among adults in Sutiava (León – Nicaragua).</td>
<td>Adult population (18 – 64 years old)</td>
<td>584</td>
<td>(Prevalence)</td>
<td>Penayo et al. (1992).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(219 families)</td>
<td>Global: 27.9%; Male: 30.8%; Female: 26.3% Neurosis: 5.0%; Depression: 6.2%; Reactive mental crisis: 3.3%; Alcoholism: 5.8%; Organic Mental Syndrome: 3.9%; Psychosis: 0.5%; Others: 0.7%</td>
<td></td>
</tr>
</tbody>
</table>

Panama

Panama has a strategic geographic situation that is crucial for traffic routes between South America and the consumer main countries. Therefore, Panama has been appointed as a major cocaine trans-shipment point and primary money-laundering center for narcotics revenue. Money-laundering activity is facilitated by its geographical position and by the fact of being an offshore financial center. Local production of coca is negligible. Regarding main drug control policies, monitoring of drug-related financial transactions is improving. Nevertheless, official corruption remains a major problem (CIA, World Fact Book, 2008).
Recently, the Ministry of Youth, Children, Women and Family (MINJUNMFA), now called Ministry of Social Development (MIDES) closed the only rehabilitation center that belonged to the state because of allegedly financial restriction. Therefore, in Panama there are no specialized state-run institutions with rehabilitation programs for persons with abuse or dependence of illegal substances. However, the Ministry of Health continues the health care provision for drug users through mental health teams in health centres, in such a way that patients receive individual attention and also get some group therapy for themselves and their family. In this regard, the Health Center of Parque Lefevre, Hospital Nicolás A. Solano in La Chorrera, the Health Region of Chiriqui, and the National Institute of Mental Health, have specific programs structured to deal with addictions.

The National Institute of Mental Health, through its Program for Chemical Dependence, has handled a total of 60 patients during the year, in addition to the follow-up and consultations to patients discharged from the program and their families. The treatment of drug use, abuse and dependence has fallen into the hands of Non-Governmental Organisations (NGOs) like Hogares Crea, Teen Challenge and Rehabilitation for Marginalized (REMAR). In total there are 24 institutions connected to the subject, 14 provide treatment to drug addicts and the rest are for prevention efforts. Before, these centres were attended by an average of 12 young people. Still, according to Dr. Dagmar de Alvarez, there is a lack of specialists for the management of young people with this kind of problem. Then, the government delegated responsibility on Hogares Crea, an institution that gets a government subsidy of US$60,000.00 a year. The Ministry of Social Development is in charge of activities’ supervision.

Table 8 shows some of the most important studies conducted in Panama. Results of repeated surveys of schools have shown the increase in drug use and have been used to respond to the
demand. The program directed by the Office of First Lady of the Republic, in coordination with CONAPRED called "We're Winners", which is aimed at preventing drug use among students in 6th, 7th and 8th grades will be implemented by the Ministry of Education. There are no national data on the prevalence of mental health disorders or on co-morbidity.

Table 8. Studies conducted in Panama about alcohol and drug use prevalence

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>POPULATION</th>
<th>SAMPLE</th>
<th>RESULTS</th>
<th>SOURCE &amp; YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance use in the population of Panama.</td>
<td>General population</td>
<td>Not stated</td>
<td>(Lifetime use)</td>
<td>Study by the Economic Commission for Latin America and the Caribbean (ECLAC). (2006)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2nd illegal drug: marijuana.</td>
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<tr>
<td></td>
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<td></td>
<td>Only 6.6% of cocaine addicts are in treatment centers in relation to</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>19.4% of those addicted to marijuana.</td>
<td></td>
</tr>
<tr>
<td>National household survey of drug use and associated factors</td>
<td>General population In nine cities with 30,000 inhabitants or more.</td>
<td>Representative sample (12 - 65 years old)</td>
<td>(Lifetime use)</td>
<td>National Drug Commission of Panama (CONAPRED) (2002)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1st substance: alcohol</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2nd substance: tobacco</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3rd marijuana; 4th benzodiazepines; 5th stimulants; 6th ecstasy; 7th pegón.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1st illicit drug: marijuana</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>2nd illicit drug: cocaine</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3rd crack; 4th ecstasy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5th inhalants.</td>
<td></td>
</tr>
</tbody>
</table>

**Paraguay**

International traffic is one of the most important drug-related problems in Paraguay. Cocaine enters the country from Colombia, Bolivia and Peru and goes through it towards Argentina, Brazil, Europe, Africa and the Middle East. Data of recent seizures and policial operations
indicate that restrictions related to the use of Brazil as a drug-traffic corridor has increased drug trafficking through Paraguay. Still, small amounts of cocaine enter by land in Brazil.

Marijuana is the only illicit drug which is cultivated in Paraguay. The cultivation of marijuana is conducted throughout year and its production has increased in recent years even in non-traditional cultivation areas. The National Secretariat on Drugs (Secretaría Nacional Antidroga - SENAD) destroyed 1,000 hectares of marijuana plantations in 2005 (amount sufficient to produce three tons of the drugs). It is estimated that there are 5,500 hectares of marijuana plantations. Marijuana produced in Paraguay is not commercialized to the USA. SENAD estimated that almost 85% is commercialized for the Brazilian market, 10-15% for other Southern Cone regional countries and only 2-3% for domestic consumption.

As Paraguay has been an important country in international drug trafficking, SENAD created a Main Violators Unit (Unidad de Violadores Principales – UVP). This unit has increased the number of cocaine seizures and has been working together with international agencies on the interruption of drug trafficking networks. Paraguay is a member of the UN Convention on Drugs (1988), of the UN Convention on Narcotics (1961) and signed the 1972 Protocol with amendments to the previous conventions and also to the Convention on Psychotropic Substances of 1971. Paraguayan government has also ratified the UN Convention against Transnational Organized Crime. In this issue, Paraguay also signed regional agreements like The Interamerican Convention against Corruption, the Interamerican Convention against Terrorism, and the Hemispheric Strategy on Drugs of OAS/ CICAD.

In 2004, the Interamerican Convention on Mutual Collaboration on Criminal Issues began to operate in Paraguay and the country has specific bilateral agreements with Brazil, Argentina, Chile, Venezuela and Colombia. There is also an extradition treaty with the United States. The
Bilateral Agreement with the USA (1987), of collaboration on drugs was ratified in 2005. In May 2005, the government approved the structural reorganization of SENAD, aiming for a much faster and more problem solving-oriented agency. An intelligence area, closely associated with the community, began to function one month later in order to improve information necessary to facilitate the agency’s operation.

Both forensic laboratories and the canine detection training program have improved the operational capacity of SENAD. The canine detection units have been acting at the Asunción International Airport and in selected points of the Paraguayan-Brazilian border. However, surveillance at the border is very difficult. Moreover, since 2005, a number of confiscated properties, among them airplanes, have been sold and those resources have been used to help overcome limited budget for drug control.

Regarding the mental health care organization, most of governmental funding resources are addressed to the Psychiatric Hospital. In Paraguay there is no wide-coverage of social security and only a minority has free access to psychotropic medication. A total of 26 mental health care facilities provide care for 263 persons by 100,000 inhabitants.

Table 9 shows the results of studies conducted in Paraguay on the drug issue. Drug use is comparable to other data in South America. A pioneer study on comorbidity was conducted by Mígues et al. (1992), based in the DSM-III-R and using the instrument SRQ. It yielded a prevalence of depression of 21.0%.
Table 9. Studies conducted in Paraguay on alcohol and drug use prevalence and mental disease.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>POPULATION</th>
<th>SAMPLE</th>
<th>RESULTS</th>
<th>SOURCE &amp; YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study on Toxic Habits in Paraguay (Household survey on use and abuse of psychoactive substances and presence of depression in Paraguayan population).</td>
<td>General population in 10 largest cities (&gt;20,000 inhabitants). Representative sample of each city.</td>
<td>2,484 (12 – 45 years old)</td>
<td>(Lifetime Use) Alcohol: 79.5% Benzodiazepines: 5.7% Stimulants: 4.6%; Inhalants: 1.9% Marijuana: 1.4%; Barbituric: 1.4% Cocaine: 0.3%; Opioids: 0.2% Depression (SRQ/WHO; DSM-III-R): 21.0%</td>
<td>Miguez et al. (1992)</td>
</tr>
<tr>
<td>Prevalence of drug consumption among students in Paraguay.</td>
<td>Students at high school in Asunción (Paraguay)</td>
<td>Not stated</td>
<td>Alcohol: 63.0% Marijuana: 4.2% Cocaine: 1.0%</td>
<td>CICAD (MEM) (2005)</td>
</tr>
<tr>
<td>Prevalence of alcoholic beverages use among high school students in Asunció – Paraguay. 2006.</td>
<td>Students at high school (14 - 18 years old)</td>
<td>1,114 (Private and public schools)</td>
<td>(Lifetime use) Alcohol: 88.0%</td>
<td>López et al., (2006)</td>
</tr>
</tbody>
</table>

**Uruguay**

At the South American southern cone countries, Argentina, Chile, Brazil, Paraguay and Uruguay, seizures of cocaine increased from 10 tons in 2000 to 28 tons in 2007 (UNODOC, 2009). These data show that those countries are growing in importance for the trafficking of cocaine, both to satisfy the internal demand for consumption and to re-export to markets like Europe and Africa.

In Uruguay, the National Drugs Commission (JND), attached to the Republic President’s office, is the main institution responsible for national policy on drugs. The JND provides guidelines for implementing policies for prevention, treatment, rehabilitation and punishment (Decrees 463/988, 346/999, 170/000). These functions are implemented by agencies with specific responsibilities in their respective areas, according to the laws and regulations. The National Drug Plan prepared by the JND defined a comprehensive national policy on drugs in
Uruguay. Some of the most important programs and actions are: “Knock out the drug,” Alliance against Smoking, Drug Technical Unit (Ministry of Interior), and the creation of Portal Amarillo, an integrated network of drug-specialized health care integrated to the primary level of public health care including interdisciplinary mental health teams as well as drug-continuous education enhancing integrated actions.

In order to quantify and measure the demand for care in the country Uruguayan Observatory of Drugs held in the month of November 2006 the first census of treatment centers and drug users under treatment in these same institutions in Montevideo. Data showed that in the capital of the country (Montevideo) 65% of the care is provided by private treatment centres and 35% by public treatment centres (9,159 persons with problems related to illegal substances consumption were treated in 2006). Regarding treatment centres, there are 20 organizations, of which 16 correspond to the private sphere (80%). However, it must be noted that the overall demand for care in the public sphere is higher than in private, which may be as a result of the nature of first aid.

With respect to the profile of the clients of the aforementioned treatment centres (data from the experts) approximately 80% are men; there exists a smaller percentage of young people (except in the institution of the children and adolescents of Uruguay); the main substance that require the most treatment are alcohol, marijuana, cocaine paste, and cocaine (there are differences between the type of centres); among the majority of the clients, there is poly-consumption and the majority of them go to the centres of their own volition and or because of their families.

Furthermore, in relation to the different therapeutic modalities, ambulatory services are predominant. Nevertheless, 14 of the 20 centers have also inpatient care. Most of professional
teams of those centers include psychiatrists and clinical psychologists. On the other hand, less than 10% are of nurses, auxiliary nurses and social workers. Of the Uruguayan departments (the national political division), 85% refer patients to Montevideo and the average time of treatment is about one year. Most of them are tracked by telephone or personally.

In addition to the treatment centers, Uruguay has Therapeutic Communities whose purpose is the treatment, rehabilitation and social reintegration. In 2005, the Ministry of Public Health in coordination with the National Drug Commit, created the Portal Amarillo, National Center of Information and Referral Network Drugs, which provides care and treatment to people who use and abuse substances. It has 20 places for residential treatment and follows 250 outpatient persons per week and their family environment.

Table 10 shows studies conducted in Uruguay on the drug issue. Uruguayan government conducts household surveys on regular basis allowing the monitoring of use and abuse trends. Also, some studies have been conducted on mental health disorders.

**Table 10. Studies conducted in Uruguay on alcohol and drug use prevalence and mental disease.**

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>POPULATION</th>
<th>SAMPLE</th>
<th>RESULTS</th>
<th>SOURCE &amp; YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Household Survey about Drugs use.</td>
<td>General population (12 - 65 years old), living in cities &gt; 10,000 inhabitants. Representative sample.</td>
<td>7,000</td>
<td>(Lifetime use): Alcohol: 78.6%</td>
<td>National Commission on Drugs. Uruguayan Observatory of Drugs. CICAD – OEA (2006)</td>
</tr>
</tbody>
</table>
Conceptual Framework

Abuse or dependence on drugs is a complex, chronic and recurrent disease, due to the interaction multiple factors: individual, family, community, social, political, and the addictive properties of each substance. The relative weight of each of these factors in the genesis of this problem is specific and different for each particular situation. However the participation of all those aspects in this disease are not denied.

Depending on how these factors interact, they could be considered protective or risk factors (these increase the probability for the phenomenon to appear) or protective factors.

Chart 1. Individual Factors as Determinants of the Drug Phenomenon

<table>
<thead>
<tr>
<th>Protective Factors</th>
<th>Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption of conventional norms about drug use.</td>
<td>Psychological distress</td>
</tr>
<tr>
<td>Coping</td>
<td>Genetic predisposition</td>
</tr>
<tr>
<td>Resilience</td>
<td>Age (Teenage)</td>
</tr>
<tr>
<td>Presence of personal life project</td>
<td>Psychiatric Disorders</td>
</tr>
<tr>
<td>Healthy lifestyle</td>
<td>Inappropriately shy or aggressive behavior</td>
</tr>
<tr>
<td></td>
<td>Low self-esteem</td>
</tr>
<tr>
<td></td>
<td>Lack of spirituality</td>
</tr>
</tbody>
</table>

Source: Adapted NIDA Notes, February 2002
Chart 2. Family Factors as Determinants of the Drug Phenomenon

<table>
<thead>
<tr>
<th>Protective Factors</th>
<th>Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong and positive family bonds</td>
<td>Chaotic home environments, particularly in which parents abuse substances or suffer from mental illnesses;</td>
</tr>
<tr>
<td>Parental monitoring of children's activities and peers</td>
<td>Ineffective parenting, especially with children with difficult temperaments or conduct disorders;</td>
</tr>
<tr>
<td>Clear rules of conduct that are consistently enforced within the family</td>
<td>Lack of parent-child attachments and nurturing</td>
</tr>
<tr>
<td>Involvement of parents in the lives of their children</td>
<td>Domestic violence</td>
</tr>
</tbody>
</table>

Source: Adapted NIDA Notes, February 2002

Chart 3. Socio-Cultural and Political Factors as Determinants of the Drug Phenomena

<table>
<thead>
<tr>
<th>Protective Factors</th>
<th>Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care professionals with knowledge on drug phenomenon</td>
<td>Affiliations with peers displaying deviant behaviors and drug consumption</td>
</tr>
<tr>
<td>The presence of enough treatment centres with adequate quality to satisfy demand</td>
<td>Scarcity of institutions and or programs focusing on the drug phenomenon</td>
</tr>
<tr>
<td>The presence of national policies related to the drug phenomenon</td>
<td>Perceptions of approval of drug-using behaviors in family, work, school, peer, and community environments</td>
</tr>
<tr>
<td>The presence of health programs focused on the drug phenomenon</td>
<td>Social exclusion</td>
</tr>
</tbody>
</table>

Source: Adapted from NIDA Notes, February, 2002

The presence or absence of risk in the family and socio-cultural environment is conditioned by the way in which the factors interact with each other. This multiple and bidirectional relationship occurs within a global context that may or may not promote the occurrence of risks.
This global context of relationships between family and socio-cultural factors, health condition determinants of individuals and societies, is considered the environment. Therefore, the outcome, perpetuation or prevention and treatment of the drug phenomenon will be possible if the individual characteristics, the substance, and the environment interact, thus promoting the process.

In the following paragraphs the main factors aforementioned will be developed, in order to support this research.

The conceptual framework begins with the classical definition of Drugs and its classifications regarding the judicial system and the pattern of consumption. Then, the concepts of Comorbidity, Psychological Distress and the most prevalent mental disorders (Depression and Anxiety) are also defined.

Then, broad lines of the approach to the problem of drug abuse and dependence are presented as well as the different types of organizations of treatment centres for this approach.

The World Health Organization (WHO) defines drug as “any natural or synthetic substance able to alter one or more functions in the organism” (WHO -ICD -10, 1992).

Psychoactive drugs or substances are those which effect on the central nervous system is of most importance, as it produces changes in the mood, behavior, perceptions, and ones level of consciousness. Jaime Funes Arteaga (National Drug Committee, 2007) adds that “drug is any of the varieties of substances that the man have used, use, and will create through the centuries, with capacity of chance the organism function related with the behavior, judgment, perception or mood”.

Given these definitions, it is not appropriate to speak about "the drug" as a uniform phenomenon. Whereas various substances consumed in different ways by different people in
different contexts and can lead to varied types of situations more or less problematic, it is more appropriate refer to "the drugs".

The drugs can be classified in their relation with the legal system:

1. Illicit drugs: psychoactive substance which production, sale or consumption are prohibited. Examples: cocaine, marijuana.
2. Licit drug: psychoactive substance legally able by medical prescription or sometimes without it. Example: tobacco, alcohol.

With respect to the relationship between the person and the drugs, different patterns of consumption could be defined as: use, abuse and dependence.

a) Use: consumption of drugs where, either by their amount, frequency or by the physical, psychological and social context, there is no impact in consumers or the environment.

b) Abuse: The American Psychiatric Association defined in the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-V-IV–TR, 2004) as a maladaptive pattern of use characterized by a continued consumption, despite the fact that the subject knows he has a social, occupational, legal, psychological or physical, persistent or recurrent, caused or stimulated by the consumption; or consumption in recurrent situations where it is physically dangerous. Establishes a set of criteria to be submitted in a period of twelve months to diagnose.

c) Dependence: the Lexicon of alcohol and drug terms (WHO, 1995) established the dependence as a need to consume several doses of the drug to be better or not feel bad. In the DSM-IV-R is defined as a cluster of cognitive symptoms, physiological and behavioural indicating that a person presents a damage control on the consumption of psychoactive substance and continues despite adverse consequences.
Among the determinant factors of drug abuse or dependence, the family is one of the most important areas of human development. And the family as a social institution can fulfill this role in the extent of its functionality.

"The Family is an open social system in constant interaction with the natural, cultural and social life, where each team member interacts as group in a family environment, where there are biological, psychological and social relevance in determining the state of Health – illness" (L. De la Revilla, 1998)

Raquel Vidal (2001) defines family as "an open system that includes an organized structure of individuals that constitute stable relationships, involving prescribed sex between the partners, and prohibited from other members, united by needs of survival, belonging, identity and that affected property share a dimension temporal – daily space, a certain stretch of history, a project of future and a unique code”. From this systemic perspective, focusing on interpersonal interactions, a ‘functional family’ is one that is capable of regulating relations among its members, allowing each bio-psychological, educational and social development.

Therefore, there is not a unique model of family functionality, because these are as diverse and complex as the links are. So, for the definition of family functioning the vision of each member is required.

Many authors have studied the family's inability to sustain the development of each member (dysfunctional family) and their contribution to the genesis and or perpetuation of diseases such as abuse or dependence of drugs. Therefore, this aspect should always be considered when analyzing this problem and in the individual and specific approaches.

On the other hand, there are also individual factors that predispose the start and or continuity of problem drug use. For example, genetic factors, low self-esteem, and psychiatric specific or
non-specific problems. Different studies support the presence of other diseases in persons that abuse or depend on drugs. WHO (2004) defines co-morbidity or dual diagnosis as the coexistence in one person of a disorder induced by the consumption of a psychoactive substance and a psychiatric disorder. In other words, co-morbidity refers to the temporary coexistence of two or more psychiatric or personality disorders, one of which is derived from problematic substance use.

One of mental health problems that can coexist with problematic drug use is psychological distress, defined as the presence of non-specific symptoms that increase the probability of having a mental disorder. Those symptoms can be mild, moderate or severe enough to cause impairment in functioning within the social, occupational, or school realms and require less, moderate or serious treatment. The presence of a severe psychological distress increases the likelihood of the person to have anxiety and depression (L. Pratt, A. Dey, A. Cohen, 2007).

Anxiety and Depressive disorders are two of the most prevalent mental health problems in Latin America and the Caribbean according to a Pan-American Organization of Public Health’s study (PAHO) in 2004. It was found that Major Depression lifetime prevalence’s is 8.7% and the average prevalence during the previous year is 4.9%; and Anxiety disorders has the following lifetime prevalence: Generalized anxiety disorder: 5.5%; panic disorder: 1.6%; obsessive compulsive disorder: 1.9% (PAHO, 2004).

In 2000 WHO established that Depression is the leading cause of disability as measured by DALYs (Disability Adjusted Life Years) and the 4th leading contributor to the global burden of disease. By the year 2020, depression is projected to reach second place of DALYs ranking, calculated for all ages and both sexes. Today, depression is already the second cause of disability in the age category 15-44 years for both sexes combined.
WHO's Mental Health Program define Depression as common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. At its worst, depression can lead to suicide, a tragic fatality associated with the loss of about 850,000 thousand lives every year. Additionally, it is said to affect about 121 million people worldwide, can be reliably diagnosed and treated in primary care and fewer than 25% of those affected have access to effective treatments.

Anxiety is one of the feelings all of us experience when we are under stress, whether physically, socially, economically, and or psychologically. It helps at times by driving us to action to remove the source of anxiety, however if it becomes too much it can result in us being unable to do anything. It is called Anxiety Disorder when the anxiety becomes too much or if for no apparent reason it occurs all the time, and results in treatment.

Anxiety include various symptoms such as fear (which can be intense), dryness of mouth, sweating, restlessness, racing heart, butterflies in the stomach, itching and tingling all over the body, shortness of breath, having to visit the bathroom repeatedly, inability to concentrate or to make decisions, carry out work, eat or sleep. DSM-IV-R established specific criteria for the diagnosis of the different types of Anxiety disorders

Addressing the problems of use, abuse and drug dependence should include measures to promote health in adolescents and among the general population in order to prevent the beginning of consumption, to treat the abuse and dependency between different disciplines, and rehabilitation and social reintegration of drug users in the field community. Specifically, treatment systems must provide the following aspects:
Accessibility: treatment must be accessible and usable by all those who need it, in a timely manner, and for the time they require for their rehabilitation.

Integrity: treatment goals should not be confined to the attention of drug use; they should consider other problems including co-morbidity, psychosocial and biomedical aspects and support Community resources.

Inter-sectorality: there should be coordination with other services and community organizations.

Rights Approach - Ethics of care: respect for the human condition, principally their fundamental rights, approach of risk reduction and harm. In any situation of consumption, they should be warned about the risks, and promote the possibility of minimize persons’ damage.

Flexibility: the treatment should provide answers to the individual needs. In addition, it should provide the possibility of making adjustments required during the process, according to the demands.

Continuity: ensuring adequate provision of services during the minimum time required to obtain a favourable response to treatment and the permanence of interventions and access to them in case relapse.

(Extracted from National Care Program to problem drugs users. JND – MSP, 2007)

The National Committee of Drug in the text ‘First Survey in Montevideo of Treatment Centres and Clients in Treatment’ (2007) defines treatment centres as all therapeutic institutions, public or private, specialized or not in handling the problems where people come with a demand for treatment related to an issue of consumption of psychoactive substances.
The type of care is the institutional program which involves promotional and preventive activities and treatment:

a) *Ambulatory services*: this is a type of non-residential care and out-patient care. The users go a limited number of hours with a low and moderate frequency.

b) *Residential services*: this method requires the placement of the user, during the whole day (24 hours) in the treatment centre. It is well suited for users who demand a period of time allowing them to generate the necessary tools to face and solve their problems. Some residential services have an “alternative halfway mode” in which placement is done by periods: weekends, nights, etc.

c) *Day centre*: is a mode of non-residential approach which is more intensive in comparison to ambulatory services. This mode requires the patient to stay a specific amount of time (morning, afternoon or both) with a high frequency (daily regimen or alternate). This mode is designed for users whose problems have a degree of complexity that require intensive care, structure, and more resources that is generally provided in outpatient settings, although it is not required to provide placement for the patient. In general, this type of approach incorporates components that are provided in the residential form. The treatments that may be implemented in the Day Centre are: Psychotherapeutic approaches, individual, family and group approaches, psycho-educational and also psychopharmacological approaches.

d) *Specialist in-patient unit for drug treatment*: are those centers with short internments conducted for users with high risk or imminent danger to themselves or others, and without moderate or serious organic or mental health problems.
e) **Detoxification Unit:** centres focused on care for severe intoxication and abstinence syndromes.

f) **Psychiatry unit:** centres that care for drugs users with moderate and serious complications within the mental health area or have other mental health problems that require specific resources.

g) **Inpatient:** Is when a patient is admitted to a hospital or clinic for substance abuse or dependence treatment that requires at least one overnight stay.

(Modified from National Care Program to problem drugs users. JND – MSP, 2007)

Linking the determinant factors on drug consumption and their relationship exposed with figure 1, plus the concepts aforementioned, this research will be focused on the relationship between psychological distress (individual factor) and drug abuse / dependence (comorbidity). Nevertheless, many other individual factors and those related to the environment (family and socio-cultural factors) will be studied in this research.

Chart 4. Determinant Factors Related to Drug Abuse and Dependence that will be studied in this research.

<table>
<thead>
<tr>
<th>INDIVIDUAL FACTORS</th>
<th>Psychological distress</th>
</tr>
</thead>
</table>
Comorbidity

Gender
Age

ENVIRONMENTAL FACTORS
Family Structure
Family Dysfunction

Marital Status
Ethnicity/Race
Educational Level
Employment
Income

Health system (Treatment Centres)
Judicial System (Judicial Background)


The figure 1 presents a Venn diagram with the Conceptual Framework of Patients with Comorbidity in treatment centres for Drug Abuse/Dependence, showing the relationship between the main determinant factors studied in this research.
Figure 1: The Conceptual Framework of Patients with Comorbidity in treatment centres for Drug Abuse. (Designed by: IRCBP- Group IV, 2009).
The operational framework facilitates reading, understanding, and analysis of the main determinants of the phenomenon of drugs that is the focus of this research. According to this framework, there are a number of factors within the individual characteristics, the properties of
the drug, and the environment which interact in a patient with comorbidity. Among family characteristics, structure and family functioning can promote or disadvantage the presence of comorbidity, helping to create a protective or risk context.

The specific properties of the drugs (i.e. type of drug used, age of onset, and method of consumption) contribute to the emergence of a pattern of abuse and / or dependence, which generates one of the mental health problems contributing to the comorbidity. Moreover, socio-demographic characteristics of the individual (age, gender, educational level, occupation, race or ethnicity, marital status, income) and the presence or absence of psychological distress and its levels (mild, moderate, severe or very severe) provide another component of the comorbidity in this study.

However, as previously defined, all these factors interact in a broader context, in which judicial factors also converge (history of legal problems related to drug use) and health, among others, which is the environment. Specifically, in one of the elements of the environment, treatment centres, is another context in which other factors merge. The type of care that is offered, the team of professionals, and the user satisfaction of the attention received are the fundamental aspects when referring to patients with comorbidity.

**Literature Review**

The importance of psychiatric comorbidity with alcohol and other drug use, abuse or dependence has been studied extensively since the 1980’s (Reiger, 1990). A broad and non
systematic review of the literature\(^1\) about this issue shows that use, abuse or dependence of psychoactive substances is the most common disorders among people with psychiatric problems, which indicates how important it is to adequately recognize the presence of both of problems. The data from the Epidemiological Catchment Area Study (ECA)\(^2\) showed that about half of individuals diagnosed with abuse or dependence on alcohol or other drugs also have a psychiatric diagnosis: 26% have mood disorders, 28% anxiety disorders, 18% antisocial personality disorders and 7% schizophrenia. The presence of major depression among drug varies from 30% to 50%.

Similar conclusions and data are also supported by more recent publications around the world (Evans and Sullivan, 2001; Dalex and Moss, 2002; and Rassoo, 2002). More recently, Kathleen Brady (2003) reported that numerous epidemiological surveys have been conducted over the past 15 years and have demonstrated that numerous psychiatric disorders and substance use disorders co-occur more often than one would expect. Edward Nunes as cited by Brady (2003) states that there is a15% to 67% comorbidity between the prevalence of depression and alcohol use. Interest in the co-occurrence of mental disorder and substance use is important because it is said to affect the course, treatment and prognosis of both disorders negatively (Brady, 2003).

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\(^1\) To do this brief overview a search was done at CAMH on line library, especially on the *International Mental Health & Addiction Journal*, using the keywords: psychiatric co-morbidity and substance use disorders, substance abuse, psychological distress. In the search on the CAMH library the last keyword – psychological distress – this did not work. We selected a set of articles, by reading first the abstracts that discuss the co-occurring disorder: mental disorder and substance abuse. We include those articles that discuss this issue in general, without focusing in a specific disorder, and those that discuss the most prevalent disorders: anxiety and depression. The articles which discussed other specific disorders, like personality disorders were excluded.

The clinical relevance of mental disorders among people with addictions is already well known (Skinner, 2004, 2005; Watkins, 2001; Kessler 1999, Hersh, 1988, Kranzler, 1998; and Marlatt, 1985). The presence of both problems simultaneously produces other damages such as cognitive, interpersonal, emotional and biological deficits, thus making the treatment of each problem more difficult; increased use of emergency services; social vulnerability; costs associated with treatment; as well as reduced compliance to the medical treatment.

The impact of these two health problems in the same person has also a higher and specific effect on their families, producing feelings of shame, guilt, stigma, and despair (Dixon, 1995 and Aloen, 2006). These feelings must also be addressed in treatment, as illustrated by many studies that fail to or do not adequately discuss how these persons should be treated – with integrated interventions and treatment for both problems (Maisto, 2008; Parikh, 2008; Cherry, 2008; Burnan, 2006; Drake, 2004; Minkoff, 1989,1991; Osher, 1996,1989; and Ridgely, 1991) - but also how important is to produce support and self care for the rest of the family (Clark, 2001; Carey, 1996; and Drake, 1996, 1991). J. R. Mckay, R. T. Murphy, T. R. Rivinus and S. A. Maisto (1991) explored the relationship between family functioning and substance use in adolescent psychiatric in-patients and found that the greater degree of family dissatisfaction in the areas of affective responsiveness and role function were associated with higher levels of substance abuse. In light of the above, the role of the family and its functioning is important to explore in conjunction with substance use, abuse and dependence. This is particularly the case in relation to treatment, where the family involvement is deemed as essential for rehabilitation.

The prevalence of the comorbidity of substance use disorders with severe mental disorders appears to be growing and requires more research. Additionally, there are difficulties in diagnosing these kinds of comorbidity, as differential diagnosis is not an easy task given that
there may be an overlap of symptoms. This is the case as one disorder can ‘pretend’ or appear to be another. At the beginning it is especially difficult to establish the presence of comorbidity. The elements that make the phenomenon unclear extend from the psychopathological aspects to socio-cultural and demographic factors such as ethnicity, social status. The rates of this type of comorbidity also vary by gender. Among men and women in drug treatment, antisocial personality disorder is more common in men, while women have higher rates of major depression, post-traumatic stress disorder, and other anxiety disorders (Hendrick, 2000; Brady, 1999; and Conway, 2006).

Some studies suggest that this apparent increase should be better contextualized in order to be better understood. Grant (2007), for example, found that comorbidity has reached high rates in settings of treatment for drug abuse or use, because people who have both problems seek treatment more often than those that have only one problem. These studies support the importance of understanding the prevalence of the psychiatric comorbidity in greater detail among people with substance use disorders. Almost all of the studies concerning comorbidity were conducted in North America, Europe and Australia. It is known that the prevalence is influenced by gender, ethnicity and other variables (Grant, 1997; Brady, 1999 and Conway, 2006). However, there are few studies developed in Latin America and the Caribbean and extensive research conducted in North America, Europe and Australia cannot be directly transferred to the Latin American and the Caribbean contexts as a result because of the historical, socio-cultural and political differences. Therefore, more studies need to be developed to estimate the prevalence in this particular region.

On the other hand, it is also possible to conclude, upon reviewing these studies conducted outside of the Latin American and Caribbean context that is not that simple to affirm and confirm
the present of the co-morbidity itself. The definition of both diagnoses has been a challenge as well as to define these two situations in the clinical and research settings. Great effort has been done to take it into account. Considering the literature review, it is easy to perceive this particular difficulty. Different opinions about how and what should be observed by clinicians and researchers to indicate co-morbidity have been discussed.

This arises especially if the focus is on the diversity of these studies. Many different tools, based on different ways of approaching this question, have been used. Considering these factors, these studies examining the prevalence of psychiatric co-morbidity and substance use disorders could be divided in three broad groups. The first group, corresponds to the use of structured diagnostic interviews, based on DSM, CID, or both, which are recognized as the gold standard. The second group relates to the use of the diagnostic based screening tools, for example screening tool for a particular disorder such as depression, and the third group corresponds to the use of dimension based tools, that is, screening for psychological impairment or distress.

There are pros and cons for each approach in relation to the length, practicality, administration time, cost, and ability to contribute to diagnosis, assessment and treatment planning. Despite the above, there is no “best tool” or single criteria (Sacks, 2008) capable to indicate which one is the best to identify co-morbidity among substance use disorders and mental disorders. The choice of one of them needs to be made based on all the arguments cited above and the recognition of their importance and power in each situation.

Among all of the available tools, we have focused on the K-10. This is a dimension based tool, that can suggest the presence of the psychiatric co-morbidity among people with substance use disorders. This tool is very useful to answer the question: “Is there evidence of a possible mental health problem that require further investigation” in this population? (Zimmerman, 2008).
This tool has been used around the world to screen for psychological distress in the general population. This instrument has been validated to be used among people with substance use disorders (Hides, 2007; Karen, 2007; and Ours, 2008, Urbanoski, 2007) and a few studies were found in this specific population. The data provided by these studies show what has already been indicated by other studies, using different screening tools and structured diagnostic interview, and was cited above, that the risk of a possible mental health problem is higher for this specific group and also the prevalence of the psychiatric co-morbidity. Almost all of the studies considering the presence of psychological distress in adults with substance use disorders were done in Australia and EUA. In Latin America there is none using K-10 and rare using other screening tools (Silveira and Jorge, 1999).

It is upon the above framework that this study seeks to explore the prevalence and implications of comorbidity of psychological distress and substance use disorders among patients in treatment centres for alcohol and illicit drugs in seven countries of Latin America and one country in the Caribbean.

Research Question

What is the prevalence of past month psychological distress in patients currently in treatment for illicit drugs and alcohol abuse or dependence?
General Objective

To determine the prevalence of comorbidity between psychological distress and drugs abuse or dependence among patients in treatment centres.

Specific Objectives

1) To estimate the prevalence of psychological distress among patients who are receiving care in treatment centres for substance abuse/dependence.

2) To compare variations in the prevalence of psychological distress within and across countries.

3) To compare socio-economic demographic correlates and judicial background among patients with psychological distress who are receiving care in treatment centres for substance abuse.

4) To compare the family structure and perceived family functionality among patients with psychological distress who are receiving care in treatment centres for substance abuse.

5) To assess the attention given to patients who are receiving care in treatment centres for substance abuse.

Method

Research Design

A cross-sectional epidemiological study will be conducted in the population under treatment at selected specialized health care centres. In spite of the limitations of a transversal prevalence
study, which will be stated in the last part of the method section, this design is considered the best for a more efficient evaluation of the current situation and also the best fit under restrictive budget conditions.

**Population**

The target population will consist of male and female patients aged 18 years and older, under treatment for substance abuse or dependence in public health care centres in seven countries of Latin America and one in the Caribbean. In cases where public health care centres cannot be accessed or do not exist, non-governmental and or community institutions will be applied to. Researchers will select from the sample frame, a number of homogeneous facilities with the characteristics mentioned above, which provide ambulatory and or residential care, according to the reality of each study site.

**Participating Cities and Study Sites**

This is a multi-centric study that will be conducted in 9 different cities or metropolitan areas, namely:

Brazil: Two cities will participate in the study. The first, Brasilia-Federal District, is located within a federal unit (the Federal District which is the capital city of the country) with about 2.6 million inhabitants. It has two specialized public centres (Centres for Psycho-social Care – Alcohol and Drugs - CAPS-AD) in which approximately 900 patients are currently under treatment. The second city is the municipality of Macaé, which is located at the State of Rio de Janeiro (population: 15,406,468 inhabitants), occupies the 14th place in population in the state (~189,000 inhabitants). There is only one CAPS-AD in which about 70 patients are under treatment.
Chile: Valparaíso Metropolitan area (~803,683 inhabitants) include the city of Valparaíso, the third major municipality of the country (circa 290,000 inhabitants), Viña del Mar (circa 300,000 inhabitants), as well as the smaller municipalities of Concón, Quilpué and Villa Alemana. Also, a number of satellite cities are part of Grande Valparaíso (Limache, Quillota and La Calera). The study sites will be 15 of the 20 public centres which provide health care for people with abuse and dependence. The number of persons under treatment varies (mean about 10 persons).

Guatemala: Guatemala City (~2,156,000 inhabitants) is the capital city and major municipality of Guatemala. At the city, there is a reference center for addictions where health care is provided. There are 91 other centres officially registered which belong to NGO’s. The total number of patients entering in treatment at the main reference public centre during the first semester of 2009 was 171; the number of patients under follow up and control consultations was 317. It is conceivable that there are 125 patients available within a period of three months from which a sample will be drawn.

Jamaica: Kingston (651,880 inhabitants) is the major urban centre in Jamaica followed by Montego Bay (96,488 inhabitants). Both cities have the most relevant public health day-care centres addressed to people with alcohol and illicit drugs abuse / dependence. The study will cover the whole Kingston Metropolitan area, with the neighbor Parish of St. Andrew (circa 600,000 inhabitants). There are scarce data about public and private centres providing health care for those patients. Still available information indicates that a number of health services offer specialized care for an approximate number of 120 patients in both cities.

Nicaragua: León (174,000 inhabitants) is the second most populated city in Nicaragua. There are no specialized state-managed health care services for people with substance abuse and
dependence in León. Most of the care is provided by non-governmental institutions including religious institutions. There is a separation between services provided for men and women. Also, alcohol-related problems are treated in separate instances from illicit drug abuse and dependence.

Panama: Panama City (1,863,000 inhabitants) is the largest urban centre and the capital city of Panama. Public health care services for people with alcohol and illicit drugs abuse and dependence are provided for men and women at three major centres which are NGO’s. From the total number of patients in these centres, approximately 280, the sample will be drawn.

Paraguay: Asunción (637,249 inhabitants) is the capital city and major municipality of Paraguay. In Asunción there are two major public services for alcohol and drug abuse or dependence, the National Centre of Toxicology and the Centre for addictions. An approximate number of 250 patients are treated in both services.

Uruguay: Montevideo (~1,326,000 inhabitants) is the major urban centre and the capital city of Uruguay. The institution in which the research work will be conducted is the Portal Amarillo (The Yellow Portal) which provides day-care ambulatory service for 200 patients. A consecutive sample of patients will be selected and invited for participation, according to the following criteria:

**Inclusion Criteria**

Patients 18 years and older, who voluntarily give their consent to participate.

**Exclusion Criteria**

Patients who are unable to answer the questionnaire because of mental impairment, intoxication and or those who refuse to give informed consent.

**Sample Frame and Sample Size Calculation**
Calculation will take into account the estimated or expected proportion of high and very high psychological distress among people who abuse or are dependent on alcohol or illicit drugs as well as the number of patients under treatment.

Given the expected differences regarding the cities or metropolitan areas’ populations, and also the differences among health care centres, a first approach to define a sampling frame was to examine available information. Initially, it was estimated the prevalence rate of any dependence / drug abuse at 12%, a hypothetical rate for all countries (Alcohol abuse and dependence: 11.3% - PAHO, 2005; alcohol dependence: 7.6%-14.9% - Saraceno et al., 2005). In Table 11, the first four columns describe the cities / metropolitan areas, their population and the estimated number of people with abuse / dependence (based on the 12% prevalence rate).

Then, the fifth column in table 11 shows the total number of patients at the study sites based on the information available so far. The last column corresponds to the sample size calculation considering a power for detecting at least 40% of prevalence of high and very high psychological distress, considering a cut-off point of 22 in the K-10 scale (REF). The sample would be able to detect a minimal difference of 5% in the prevalence, maintaining criteria of errors type I and II at 0.05 and 0.20, respectively.

Table 11. Total city’s population, estimated rates of abuse and / or dependence, patients under treatment and sample size estimates.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>CITY</th>
<th>POPULATION</th>
<th>ESTIMATED RATES OF ABUSE &amp; DEPENDENCE</th>
<th>TREATMENT CENTERS’ POPULATION</th>
<th>ESTIMATED SAMLE SIZE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Brasília (FD)</td>
<td>2,557,158</td>
<td>306,859</td>
<td>900</td>
<td>262</td>
</tr>
<tr>
<td></td>
<td>Macaué (RJ)</td>
<td>188,787</td>
<td>22,654</td>
<td>70</td>
<td>59</td>
</tr>
</tbody>
</table>
Chile  
Valparaíso**  
803,683  
96,442  
150  
107  
Guatemala  
Guatemala City  
2,156,000  
258,720  
125  
93  
Jamaica  
Kingston / St. Andrew Area **  
651,880  
78,226  
110  
85  
Nicaragua  
León  
96,488  
11,579  
60  
52  
Panama  
Panama City  
1,863,000  
223,560  
280  
159  
Paraguay  
Asunción  
637,249  
76,470  
250  
149  
Uruguay  
Montevideo  
1,325,968  
159,116  
200  
130  

*Type I error < 0.05; power > 0.80; expected prevalence = 0.40; difference = 0.05.  
**In Chile and Jamaica, the metropolitan areas of Valparaíso and Kingston / Saint Andrew will be included.

In order to estimate internal associations between independent variables and the existence of psychological distress, the following simulations were performed: for an event (proportion of proportion of high and very high psychological distress) whose frequency is estimated at 30% in the category less exposed, the sample size in each category of a given variable will be 380 if the more exposed have 40% (with an type I error probability <0.05; power i.e., 1- type II error probability > 80%). For another event (proportion of the same mental disorder) whose frequency is 20% among in the category with less frequency, simple size in each category of a given variable will be 310 if the expected difference between exposed and unexposed is 10% (with the same type I and II error probabilities). Since these numbers do not seem to be achievable, it is conceivable that the third objective of the study only can be attainable in the whole sample and not for each site.

Data Collection Procedures

University undergraduate and graduate students will be trained as research assistants to help in the collection of the data. Participants will be asked to carefully read and sign an informed
consent form (Appendix A), then proceed to complete a self-report questionnaire (Appendix A). The research assistants will help participants in case of doubts and to conduct the interviews. If participants are unable to read and write, a research assistant will interview them. A study manual will be used to provide consistency and guidance. Data will be collected done in a location offering privacy for the participants.

**Measures and Instruments**

In this study, the prevalence within the population of patients under treatment (i.e., the proportion of cases with co-morbidity expressed as psychological distress) is considered the most important epidemiological frequency measure. Therefore, the data will be collected using the EU-LAC-CICAD Admission form, which was adapted for this study. It consists of 30 questions regarding socio-demographic status, history of drugs and alcohol abuse, judicial history, past and current mental problems and some aspects about the treatment centre.

Psychological distress will be assessed by means of the Kessler-10 (K-10). The K-10 is a ten-item questionnaire that measures mental distress from a symptom-oriented screening perspective (Kessler et al., 2002). The possible values range from 10 (indicating absence of psychological distress) to 50 (indicating severe distress). Categorization of psychological distress has been made in four main groups: low (10-15), moderate (16-21), high (22-29) and very high (30-50). For analytical purposes, most studies collapse the last two categories (high and very high distress). It is demonstrated that a very high level of distress obtained through the score of K-10 scale is associated with a high probability of having an anxiety or depressive disorder (Andrews & Slade, 2001).

For estimation of perceived family functionality, Family APGAR scale will be applied (Smilkstein, 1978). The scales’ possible values range from 0 to 10 and is based on the
satisfaction of the participant with the relationships within his or her family. It includes five realms of family function (adaptability, partnership, growth, affection and resolve). The acronym “APGAR” emulates Dr. Apgar’s scale for newborn evaluation and also stands for the first letter of each realm. The scale has been already validated (Smilkstein et al., 1982) and also extensively utilized. The interpretation of family APGAR is based on the score; each question has a value of 0 to 2. A total score of 7 or more suggests high perceived family functioning; between 4 and 6, suggests a moderate perceived family dysfunction and 3 or less reflects severe perceived family dysfunction. The cut-off point for dichotomizing will be decided according to other studies. Other numerical variables (age, income), will be also categorized according to selected cut-off points.

Variables

Table 12 shows the main variables used in this study.

Outcome / Dependent Variables

The most important event of interest will be the presence or absence of psychological distress. This is documented from the question Q-31a to Q-31j that corresponds to the K-10 instrument. The score will be re-codified in terms of high and very high psychological distress in order to calculate the prevalence as a dichotomous variable.

Other variables and correlates

Other variables and correlates (independent variables) are in Table 12. They are grouped in social-demographic and economic variables (roughly, the first 15 questions), drug-related variables (years since treatment, substance for which patient is in current treatment, current
consumptions - questions Q16-Q22); legal problems (Q-23); previous diagnosis and treatments for mental conditions (Q24-Q26); satisfaction with treatment (Q27-q30) and perceived family dysfunction (Q32).

Chart 5. Variables included in the study

<table>
<thead>
<tr>
<th>INDIVIDUAL FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PSYCHOLOGICAL DISTRESS</strong></td>
</tr>
<tr>
<td>Likert Scale from Always to Never (score from 5-1)</td>
</tr>
<tr>
<td>Q-31a-feeling tired for no good reason;</td>
</tr>
<tr>
<td>Q31-b- nervous;</td>
</tr>
<tr>
<td>Q31-c- so nervous that nothing could calm the patient down;</td>
</tr>
<tr>
<td>Q31-d- hopeless; Q31-e- restless or fidgety;</td>
</tr>
<tr>
<td>Q31-f- so restless that cannot be sit still;</td>
</tr>
<tr>
<td>Q31-g- depressed;</td>
</tr>
<tr>
<td>Q31-h- so depressed that nothing could cheer the patient up;</td>
</tr>
<tr>
<td>Q31-i-everything was an effort;</td>
</tr>
<tr>
<td>Q31-j- worthless.</td>
</tr>
<tr>
<td><strong>COMORBIDITY</strong></td>
</tr>
<tr>
<td>Q-24a-Previous diagnosis of anxiety; depression; schizophrenia; Bipolar disorder; other mental conditions (open-ended)</td>
</tr>
<tr>
<td>Q-24b-Years since diagnosis of anxiety; depression; schizophrenia; Bipolar disorder; Other mental conditions (open-ended)</td>
</tr>
<tr>
<td>Q-25a-Current treatment for anxiety, depression, schizophrenia, Bipolar disorders, others.</td>
</tr>
<tr>
<td>Q-25b-Years from treatment for Anxiety; depression; schizophrenia; Bipolar disorder; Other mental conditions (open-ended)</td>
</tr>
<tr>
<td>Q-25c-Treatment for each one of the following disorders: Anxiety; depression; schizophrenia; Bipolar disorder; Other mental conditions</td>
</tr>
<tr>
<td>Q-26-Treatment types that patient is receiving in this centre: Medication, Psychotherapy, Group Therapy.</td>
</tr>
</tbody>
</table>
Support groups;  
Family Therapy,  
Counseling,  
Meditation,  
Self-Help,  
Yoga.

Q-26a-Medication the patient is currently taking. Includes “don’t know”
Q-16-Means of reaching this treatment centre
Q-17-Number of times treated for alcohol and drugs
Q-18-Type of more recent treatment before current therapy
Q-19-a-First substance (of three) by which patient sought treatment
Q-19-b-Second substance (of three) by which patient sought treatment
Q-19-c-Third substance (of three) by which patient sought treatment
Q-20-Most frequent route of administration of the 1st substance
Q-21a-Age at which the participant began to use the 1st drug
Q-21b- Age at which the participant began to use alcoholic beverage
Q-21c- Age at which the participant began to use other drugs
Q-22-Alcohol or drug consumption in the 30 days before the beginning of this treatment

GENDER
Q-6-Gender

AGE
Q-7a Date of birth
Q-7b Age

FAMILY FACTORS

FAMILY DYSFUNCTION
Scale from  
Almost Always to Hardly Ever (score from 2-0)
Q-32a-Behaving satisfied that can turn to family when something is troubling the patient;  
Q32-b- being satisfied with the way the family talks over things and share problems with the patient;  
Q32-c- satisfied with the way the family accepts and supports wishes to take on new activities or directions;  
Q32d- feeling satisfied with the way the family expresses affection and reacts to feelings of rage, sadness, love;  
Q32e- feeling satisfied with the way the family share time together.

FAMILY STRUCTURE
Q-11-With whom lived in the last 30 days
Q-12-With whom do you live

SOCIO-CULTURAL AND POLITICAL FACTORS

Q-1-Country
Q-2-City
Q-8-Residence (city)
Q-9-Nationality

MARITAL STATUS
Q-13-Marital Status

ETHNICITY
Q-10-Race – ethnic group

EDUCATIONAL LEVEL
Q-14-a-Know how to read
Q-14-b-Know how to write
Data Entry

Epi Info version 3.5.1 (CDC, 2008) will be used to enter and analyze the data. At each site, a member of the local research team will be trained to enter and manage the data. Analysis of consistency and data cleaning will be performed before sending the database from each site to CICAD.

Data Analysis

For the preliminary analysis, proportions and means will be calculated. To determine differences in the prevalence of psychological distress between different categories of an independent variable, the crude prevalence ratio and crude odds ratio will be calculated. Then, the correspondent 95% CI of these effect measures will be calculated. Significance will be obtained by using Chi-square test for proportions being considered significant at the level of p<0.05. Possible effect modification or confounding will be assessed and the correspondent adjusted measures will be obtained by means of multivariate methods (logistic regression).
For analysis of numerical variables, differences between means will be tested (e.g., differences in scores of psychological distress for different categories of a categorical variable). For that purpose, it will be taken into consideration the distribution of data in order to determine the adequacy of using parametric tests (like Student T for comparison of two means, or ANOVA for comparison of means among two or more groups after testing for homogeneity of variances) or non-parametric tests (Kruskal-Wallis or the like; more adequate for non-normally distributed data). Differences’ significance will be considered at the level of p<0.05.

**Pilot of Instrument**

At every study site, researchers will conduct a pilot of the instrument. Each researcher will choose a centre which is similar to one of the study sites and will distribute 10 self-administered questionnaires and could also conduct interviews when necessary. The pilot data analysis will be used to identify any difficulties, modify and improve any of the questions.

**Limitations**

Limitations of this research are related to the transversal study design. It is conceivable that survival bias will be present because of the cross-sectional nature of the design whereby information is obtained in a moment in the life of patient. As a consequence of using this method, a dynamic view of life-events, like death, emigration, and other disease incidence cannot be obtained. Furthermore, the lack of follow-up of the participants does not permit the perception of a clear sequence of events (both risk exposures and health outcomes) limiting any cause-effect inference.

Other limitations of the research arise from the study sites’ selection which depends on the existing structure and organization of health services. Therefore, it is probable to have referral
bias as well as different situations of access to health services that limit the capacity of generalizing results for the total target population of persons with abuse or dependence.

Another limitation of this study is the use of a self-administered questionnaire as the main source of data collection. Whereas this procedure ensures more confidentiality and efficiency, a greater rate of missing data is expected. To this end, this effect may be minimized with the help provided by trained research assistants. The occurrence of missing data may be more prominent among people who have difficulties to filling out the questionnaire due to low educational backgrounds or unfamiliarity with surveys.

**Ethical Considerations**

Ethical approval will be sought prior to conducting research examining psychological distress among patients with illicit drugs and alcohol abuse or dependence in substance abuse treatment services and its policy and program implications in eight countries belonging to Latin America and the Caribbean. As such, ethical approval will be sought from the Research Ethics Board (REB) of the Centre for Addiction and Mental Health (CAMH), as well as from governing ethical and or national bodies from each primary researcher’s affiliated university and or country.

The research will be conducted using the ethical guidelines stipulated by these bodies. Each participant will be informed that their participation is the study is voluntary; there are no incentives or direct benefits associated with their participation; there is minimal to no risks associated with their participation; their treatment at the centre will not be affected by their involvement or lack of involvement in the study; their records at the centre will not be accessed for the purpose of this study or otherwise; information obtained from the study will not be transferred to their records at the treatment centre; and they have the option to refuse and withdraw their participation at any time.
Additionally, so as to ensure confidentiality and anonymity, the interview with participants will be conducted in a private room within each centre. Each participant will be required to sign an Informed Consent Form which will be separated from the sequentially numbered questionnaires. A written Informed Consent Form needs to be signed as a requirement for governing ethical and national bodies of each primary researcher as well as to have a safeguard regarding the well-being of each participant. Upon agreeing to participate in the study, each participant will be given their own copy of the Informed Consent Form which provides contact information for the primary investigator, a university affiliated member of staff, and the chair for the CAMH/REB should the participant have any concerns or questions. It must be noted that should any participant have difficulty reading or understanding the Informed Consent Form, the primary investigator and or research assistants involved will assist in the participant in this effort.

To ensure anonymity, the names of the participants will not be disclosed. Each questionnaire will be numbered sequentially and not linked to the consent form. The computerized/electronic version of the data collected from this study will be stored within files and programmes with passwords in order to hinder unauthorized persons from retrieving such information. Both hard and soft copies of the data files will be stored for approximately 5 to 7 years in relation to the regulations of the ethical bodies involved. After which, all files will be carefully destroyed via incineration and or shredding.

Most importantly, given the nature of this study, whereby entrance into governmental and non-governmental treatment centres/services for drug abuse and dependence will be used, the assistance of the professionals or treatment staff who are affiliated with each institution will be garnered. However, the professionals or treatment staff will not be involved in recruitment or have access to the data collected. Their participation is limited to their own sensitization
regarding the research, orienting research assistants to the centres, and also acting as a source for assistance needed should the participant require help in light of possible distress experienced by his or her participation. Please note that risks associated with this study are expected to be minimal to non-existent.

Moreover, research assistants utilized will be trained and asked to be supervised by professionals affiliated with each treatment facility, as well as random site visits will be done by the primary investigator to monitor such research assistants for quality control. Each research assistant will be asked to sign a confidentiality agreement prior to their engagement in the study. All questionnaires will be stored in locked cabinets and then transported in sealed cases to the investigators offices. Research assistants will be required to engage in weekly meetings with the primary investigator to monitor progress and obtain the data collected from each site.

**Research Information Transfer/Exchange Plan**

1. **Background**

Researchers define Knowledge Transfer (KT) as the process by which knowledge, expertise and skilled people are transferred. This process will be carried out between the eight countries participating in the 2009 research program, their affiliated universities, health services and communities, increasing each country’s substance abuse treatment centres competitiveness, the effectiveness of public mental health services and policy, and indirectly, the quality of life of patients presenting comorbidity. This definition relates to the four main types of knowledge that would be produced:

- knowledge presented in scientific papers or at scientific meetings
• knowledge that can be disseminated to the wider community (e.g. through ownership of intellectual property)

• tacit knowledge ('know-how') relating to the methodologies used in this research

• information that could be valuable to other researchers or research-users, such as modifications to instruments used for data collection.

The Knowledge Transfer will be carried out through:

• Participating universities:
  o Meetings, seminars and conferences
  o Academic papers

• National and international scientific events:
  o Poster and conferences presentations
  o Round table talks, panel discussions, etc.

• Policy makers:
  o Meetings and reports

• General media publications:
  o Interviews on radio and T.V.
  o Publications in newspapers and magazines

• Health services:
  o Presentation in service to staff members and health professionals.

References


Appendix A

INFORMED CONSENT FORM

Name of Study: A multi-centric study of comorbidity between psychological distress and drug abuse or dependence among patients in treatment centres in eight countries: policy and program implications.

Study Sponsors: The Inter-American Commission for the Control of Drug Abuse (CICAD/OAS) and Centre for Addiction and Mental Health (CAMH).

Responsible Investigator(s): Dr. Carol Strike (CAMH)

The study is being conducted by the following investigators and affiliated universities:

Edgar Merchan Hamann University of Brasilia
Erotildes Leal Federal University of Rio de Janeiro
Liliana Basso Musso University of Valparaiso
Miriam García Estrada University of San Carlos
Patrice Reid University of the West Indies, Mona Campus
Eddy Vásquez Espinoza National Autonomous University of Nicaragua, Leon
Olga Kulakova National Autonomous University of Nicaragua, Leon
Opal Jones Willis University of Panama
Ricardo Prieto Lopez Iberoamerican University
Diana Domenech University of the Republic

Purpose: This is a research project is being carried out in 8 countries. We expect that approximately 1,230 persons from the participating countries listed above will take part in this study. The purpose of this study is to gather information about patients who experience drug problems and psychological problems in treatment centers for illegal drugs and alcohol problems. This study will focus on estimating the frequency of psychological problems among patients who are receiving care in treatment centres for drug problems and identify if factors such as sex, age, income, employment status, education, as well as the your view of how your family functions and legal problems. As such, we are asking you to respond to a series of questions in a confidential interview in order to collect information on the previously mentioned areas.

Participant Initials: ________________
The information collected here will be combined with study information from other participating countries. We hope that this study will help generate knowledge, awareness, promote change and helpful services in the future for all persons who may inappropriately use mind/mood-altering drugs and alcohol, and also have mental health problems.

**Procedures:** This study involves a questionnaire, whereby your participation in this study requires that you give informed consent by signing this document and be willing to answer questions about your current drug use, psychological problems, your view of how your family functions and your experience with the justice system if applicable. The questionnaire has a total of 50 questions. Please answer these questions to the best of your knowledge as they apply to your experience. While you are encouraged to answer all questions, please note that you are free to refuse in answering questions asked. Please note that the interview is expected to take approximately 30-45 minutes to be completed.

**Eligibility:** To participate in this study you must be a patient in treatment in this centre, 18 years and older, and voluntarily agrees to participate after signing a written informed consent.

**Confidentiality:** Please be assured that your participation in this study will be anonymous, confidential, and will not have any legal implications. This interview will not require any information that will directly identify you. In addition, only the investigators and research assistants will be able to see the information you provide. Consent forms and questionnaire responses will be separated to ensure that personal information given on this form cannot be associated with each other. Additionally, all completed consent forms and questionnaires will be kept in locked filing cabinets which only the investigators can access. Electronic versions of the collected information will also be protected by using codes or passwords to access this information. The overall results obtained from this study will only be used for scientific publications and events.

However, as a part of continuing review of the research, your study record may be accessed on behalf of the CAMH Research Ethics Board. A person from the research ethics team may contact you (if your contact information is available) to ask you questions about the research and your consent to participate. The person reviewing your file or contacting you, must maintain your confidentiality to the extent permitted by law.

**Risks:** Although we do not anticipate any significant risks from participating in this study, there may be the possibility of emotional discomfort or your becoming upset related to some items on the questionnaire. In the event that you experience this discomfort, or feel you need help, please inform the interviewer so that you can be assisted in obtaining the help you need in your treatment centre if you find it difficult to do it on your own or guide you to other sources of help if necessary.

**Benefits:** There are no direct benefits to you for choosing to participate in this study. You will however be contributing to the development of a knowledge base about the experience of having drug problems and psychological problems in your centre. This knowledge can be useful in the development of support services for persons who demonstrate both problems.

**Participant Initials:** ________________
Voluntary Participation: Your participation in this study is completely voluntary. As such, you maintain the right to discontinue participation in the study at any time. There will be no negative consequences if you choose to refuse or cease your participation. It should be clear that there will be no consequences to your treatment or even to you, at your treatment centre. In addition, the investigators or research interviewers responsible for this study may also, at their discretion, end your participation at any time without affecting your treatment or any type of intervention that you may receive here in this treatment centre.

Additional Information: If you have any questions about this study, which have not been answered in this informed consent form, please ask these questions now. If you have any question in the future, feel free to contact the study investigator at the University _______, at telephone number ___________. You may also contact (someone not associated with the study) _________, _________, at this university if you have questions about your rights as a participant.

All research participants may contact Dr. Padraig Darby Chair, Research Ethics Board, Centre for Addiction and Mental Health, to discuss their rights. Dr. Padraig Darby may be reached by the telephone at (416) 535-8501 ext. 6876.

AGREEMENT TO PARTICIPATE
I__________________________, have read this Informed Consent Form and was given time to ask questions pertaining to my participation and my questions have been answered to my satisfaction for the research entitled “A multi-centric study of psychological distress among patients in substance abuse treatment services in eight countries: policy and program implications.” I recognize that no direct benefits are associated with my participation in this study. I also acknowledge that my participation is completely voluntary and I reserve the right to refuse or cease my participation at any time with no consequences on my treatment or otherwise.

I may contact, Dr. Padraig Darby Chair, Research Ethics Board, Centre for Addiction and Mental Health, to discuss my rights. Dr. Padraig Darby may be reached by telephone at (416) 535-8501 ext. 6876.

I agree to participate.

Research Volunteer Participant:

__________________________ ________________________
Signature                          Date                  Name (Please print)

Research Staff/Personnel:

__________________________ ________________________
Signature                          Date                  Name (Please print)

I have received a copy of this form to keep for myself.
A MULTI-CENTRIC STUDY OF COMORBIDITY BETWEEN PSYCHOLOGICAL DISTRESS AND DRUG ABUSE AMONG PATIENTS IN TREATMENT CENTRES IN SEVEN COUNTRIES OF LATIN AMERICA AND ONE IN THE CARIBBEAN: POLICY AND PROGRAM IMPLICATIONS

This information is being collected for research purposes only. Your confidentiality will be respected.

Form Number

Date of Interview

Starting Time Of interview:  h  h  m  m

Finishing Time Of interview:  h  h  m  m

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q 5a. Type of Centre

- Public / governamental
- Private / particular
- NGO's (including religious institutions)
- Other

Q 5b. TYPE OF CARE IN THIS CENTRE

- Outpatient
- Residential
- Day clinic
- Inpatient Specialized unit for drug treatment
- Detoxification Unit
- Other facility

PLEASE ANSWER ALL OF THE FOLLOWING QUESTIONS ACCORDING TO WHAT BEST APPLIES TO YOUR REALITY

<table>
<thead>
<tr>
<th>Q 6. Gender</th>
<th>Q 7a. Date of birth</th>
<th>Q 7b. Age (years)</th>
<th>Q 8. City/ Town / Parish of Residence</th>
<th>Q 9. Nationality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>d  d  m  m  y  y  y  y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q 8. City/ Town / Parish of Residence

Q 9. Nationality
**Q 10. Ethnic group / Race.**

| White (Caucasian)                         | Mixed (Mestizo / ladino)                      |
| Mixed (Mestizo / ladino)                      | Afrodescendant (Black)                        |
| Native (Aborigen / Indigenous)                | East Asian (chinese, japanese,korean, etc.)   |
| Other                                          | Other                                          |

**Q 11. Where have you lived for the last 30 days?**

*(not including treatment centre)*

**(Mark one or more answers)**

| Family home(owned or rented) | Shelter/refuge          |
| Own home(owner)               | Squatting               |
| Own home (rental)             | Homeless                |
| Rooming/boarding house        | No response             |
| Other (specify)               |                         |

**Q 12. With whom do you live?**

*(You may tick as many options as necessary)*

<table>
<thead>
<tr>
<th>Father</th>
<th>Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brother/ sister</td>
<td>Stepmother</td>
</tr>
<tr>
<td>Stepfather</td>
<td>Wife / Husband</td>
</tr>
<tr>
<td>Girlfriend/Boyfriend</td>
<td>Friend</td>
</tr>
<tr>
<td>Alone</td>
<td>Other relative</td>
</tr>
<tr>
<td>Other</td>
<td>No response</td>
</tr>
</tbody>
</table>

**Q 13. Marital status**

<table>
<thead>
<tr>
<th>Single</th>
<th>Living together</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>Widow / widower</td>
</tr>
<tr>
<td>Divorced</td>
<td>No response</td>
</tr>
<tr>
<td>Separated</td>
<td></td>
</tr>
</tbody>
</table>

**Q 14 Educational level**

**Q14a. Can you read?**

| YES | NO |

**Q14b. Can you write?**

| YES | NO |

**Q 14c. Educational level (highest level achieved)**

<table>
<thead>
<tr>
<th>Never attended school</th>
<th>Primary Incomplete</th>
<th>Primary Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Incomplete</td>
<td>Secondary Complete</td>
<td></td>
</tr>
<tr>
<td>University/Tertiary Incomplete</td>
<td>University/Tertiary Complete</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Q 15a. Current occupation**

*(or in the last 30 days prior to treatment)*

<table>
<thead>
<tr>
<th>Working/self-employed</th>
<th>Working and studying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployed</td>
<td>Not working/student</td>
</tr>
<tr>
<td>Homemaker</td>
<td>Not working/ retired</td>
</tr>
<tr>
<td>Not working/because of disability</td>
<td>Not working (other Please specify)</td>
</tr>
<tr>
<td>No response</td>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

**Q 15b PERSONAL MONTHLY INCOME**

*(You can state approximate amount)*

<table>
<thead>
<tr>
<th>Income in Local Currency</th>
<th>I don't Know</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Q 16. How did you come to seek treatment?**

<table>
<thead>
<tr>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral from another drug treatment program</td>
</tr>
<tr>
<td>Referral from primary care centre (health centers, policlincs)</td>
</tr>
<tr>
<td>Referral from secondary or tertiary care centre (Hospitals, E.R.)</td>
</tr>
<tr>
<td>Referral from Social Services or others (churches, community services)</td>
</tr>
<tr>
<td>Referral from National Drug Councils</td>
</tr>
<tr>
<td>Referral from prison or juvenile detention center</td>
</tr>
<tr>
<td>Referral from the justice system or police department</td>
</tr>
<tr>
<td>Referral from employer</td>
</tr>
<tr>
<td>Referral from the school system</td>
</tr>
<tr>
<td>Encouragement from friend(s) or family member(s)</td>
</tr>
<tr>
<td>Voluntarily (self referral)</td>
</tr>
<tr>
<td>No response</td>
</tr>
<tr>
<td>Other (specify)</td>
</tr>
</tbody>
</table>

**Q 17. How many times have you ever been treated for drug or alcohol use, before entering this centre?**

*(Please indicate the number of episodes)*

- I have been treated _____ times
  - I don’t Know
  - No Response

**Q 18. Please indicate the most recent type of treatment for drug abuse you have received before entering the current treatment.**

*(Please tick all that applies)*

- Outpatient
- In patient specialized Unit for drug treatment
- None
- Residential
- Day clinic
- Self-help group (e.g., AA, NA)
- Detoxification Unit
- Psychiatric Unit
- None
- No response

**Q 19. What are the main substances for which you are seeking treatment?**

*(Mention up to three in order of priority)*

- **Q 19a. First substance**
- **Q 19b. Second substance**
- **Q 19c. Third substance**

**Q 20. What is the most frequent route of administration for the first substance as mentioned in question 19a?**

- Oral
- Smoked
- Inhaled
- Injected (intravenous or intramuscular)
- No response
- Other (Specify)

**Q 21a. Age when you first started to use the substance as mentioned in question 19a.**

- No response

**Q 21b. Age when you first started to use alcohol**

- No response

**Q 21c. Age when you first started to use other illicit drugs**

- No response

---

PLEASE, CONTINUE ON THE NEXT PAGE.
### Q 22. TYPES OF DRUGS YOU HAVE USED IN THE LAST 30 DAYS BEFORE ENTERING TREATMENT.

Have you used any of the following drugs within the last 30 days before entering treatment? Tick either YES or NO or NO RESPONSE (NR).

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>YES</th>
<th>NO</th>
<th>NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol (beer, wine, whisky, vodka, any other)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannabis / Ganja / Marihuana/ Spliff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Cannabis Preparations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td></td>
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<tr>
<td>Coca paste (basuco, paco)</td>
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<tr>
<td>Crack (piedra)</td>
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<tr>
<td>Other Cocaine Preparations</td>
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<tr>
<td>Hypnotics and Sedatives</td>
<td></td>
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<tr>
<td>Barbiturates</td>
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<tr>
<td>Benzodiazepines</td>
<td></td>
<td></td>
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<tr>
<td>Stimulants</td>
<td></td>
<td></td>
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<tr>
<td>Amphetamines</td>
<td></td>
<td></td>
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<tr>
<td>Methamphetamines (MDMA / Ecstasy) and other derivates</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Other Stimulants</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Opioids</td>
<td></td>
<td></td>
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<tr>
<td>Heroin</td>
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<tr>
<td>Methadone</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other Opioids</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Abuse of prescribed medications</td>
<td></td>
<td></td>
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<tr>
<td>(If YES, please specify)</td>
<td></td>
<td></td>
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<tr>
<td>Inhalants (glue, thinner, gasoline, others)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Hallucinogens</td>
<td></td>
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<tr>
<td>LSD</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Other Hallucinogens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anabolic Steroids (Red Bull, Ciclon)</td>
<td></td>
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<tr>
<td>Other Substances:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Q 23. JUDICIAL INFORMATION

Q 23a. Have you ever had legal problems related to drugs or alcohol?
Q 23b. Have you had legal problems related to drugs or alcohol the last year? (counting from the day of the interview)
Q 23c. How many times you had legal problems related to drugs or alcohol in the last year?
### Q 24. HISTORY OF OTHER MENTAL HEALTH PROBLEMS

Q 24 a. Please indicate if you have ever been diagnosed by any health care professional with:

<table>
<thead>
<tr>
<th></th>
<th>NO</th>
<th>Don’t Know</th>
<th>No Response</th>
<th>YES</th>
<th>b. Number of Years since Diagnosed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Schizophrenia</td>
<td></td>
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<td></td>
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<tr>
<td>Bipolar Disorders</td>
<td></td>
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<tr>
<td>Others</td>
<td></td>
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</tr>
</tbody>
</table>

### Q 25. OTHERS MENTAL HEALTH TREATMENTS.

Q 25.a Are you currently being treated by any health care professional for:

<table>
<thead>
<tr>
<th></th>
<th>NO</th>
<th>Don’t Know</th>
<th>No Response</th>
<th>YES</th>
<th>b. Years of Treatment</th>
<th>c. Are you receiving the treatment in this centre?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No Response</td>
</tr>
<tr>
<td>Bipolar Disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Q26. What kind of treatment are you receiving in this centre?

- Psychotherapy
- Group therapy
- Counseling
- Support Group
- Family Therapy
- Self help
- Meditation
- Yoga
- Medication
- Others

Q26 a. What medications are you taking now in this centre? I don’t Know

### Q 27. Are you satisfied with the current treatment you had in this centre? YES NO Don’t Know No Response

### Q 28. Please write, What do you LIKE the most about this treatment:

### Q 29. Please write, What do you DISLIKE the most about this treatment:

### Q 30. Please write, What would you CHANGE about this treatment:
Q 31. K10

The next questions are about how you have been feeling during the past 30 days.

For each question, please only mark one answer

<table>
<thead>
<tr>
<th>ABOUT HOW OFTEN DURING THE PAST 30 DAYS…</th>
<th>ALL</th>
<th>MOST</th>
<th>SOME</th>
<th>A LITTLE</th>
<th>NONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q 31 a … did you feel tired for no good reason?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 b … did you feel nervous?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 c … did you feel so nervous that nothing could calm you down?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 d … did you feel hopeless?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 e … did you feel restless or fidgety?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 f … did you feel so restless that you could not sit still?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 g … did you feel depressed?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 h … did you feel so depressed that nothing could cheer you up?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 i … did you feel that everything was an effort?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q 31 j … did you feel worthless?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Q 32. FAMILY APGAR

For each question, please only mark one answer

| Q 32 a. - I am satisfied that I can turn to my family for help when something is troubling me. | ALMOST ALWAYS 2 | SOME OF THE TIME 1 | HARDLY EVER 0 |
| Q 32 b. - I am satisfied with the way my family talks over things with me and shares problems with me. |  |
| Q 32 c. - I am satisfied that my family accepts and supports my wishes to take on new activities or directions. |  |
| Q 32 d. - I am satisfied with the way my family expresses affection and responds to my emotions, such as anger, sorrow or love. |  |
| Q 32 e. - I am satisfied with the way my family and I share time together. |  |