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A Rapid Assessment and Response
to HIV and Drug Use in Mongolia

NDARC Technical Report No. 300

A RAPID ASSESSMENT AND RESPONSE TO HIV AND DRUG USE IN MONGOLIA

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Abbreviations

100% CUP	One hundred percent condom use program
AIDS	Acquired immuno-deficiency syndrome
APPADO	Association for Protection of Population Against Drugs & Opium
ARVT	Anti-retroviral therapy
BBV	Blood borne virus
CBO	Community based organisation
CMHN	Centre of Mental Health and Narcology
CNMP	Chronic non-malignant pain
CSW	Commercial sex work/worker
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
GoM	Government of Mongolia
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immuno-deficiency virus
HPV	Human papilloma virus
IDU	Injecting drug user
INCB	International Narcotics Control Board
MMT	Methadone maintenance treatment
MSIM	Marie Stopes International Mongolia
MSM	Men who have sex with men
NA	Narcotics Anonymous
NAF	National AIDS Foundation
NCCD	National Centre for Communicable Diseases
NDARC	National Drug and Alcohol Research Centre (Australia)
NGO	Non-government organisation
NSAID	Non-steroidal anti-inflammatory drug
PIRT	Program of International Research and Training
PLWHA	People living with HIV/AIDS
RAR	Rapid assessment and response
SGS	Second Generation Surveillance (of HIV/AIDS)
SPSS	Statistical Package for Social Sciences
STI	Sexually transmitted infection
TB	Tuberculosis
UN	United Nations
UNAIDS	Joint United Nations Programme for AIDS
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
UNSW	University of New South Wales
VCT	Voluntary counselling and testing
WHO	World Health Organisation

Glossary of local terms

Aimag	Province
Bagh	Sub-division of a Soum
Soum	Sub-division of an Aimag
State Great Hural	The Mongolian Parliament

EXECUTIVE SUMMARY

In September 2006 a Rapid Assessment and Response (RAR) addressing drug use and HIV/AIDS in Mongolia commissioned by the World Health Organisation Regional Office for the Western Pacific was conducted by a team from the Program of International Research and Training (PIRT) of the Australian National Drug and Alcohol Research Centre (NDARC). WHO RAR Guidelines were followed. Four members of PIRT spent a total of 59 person-days in country conducting research activities and writing this report.

The HIV epidemic is still at a very early stage in Mongolia. However, Mongolia faces the threat of a future HIV epidemic and its potentially serious health, social and economic costs and risks to national security. Few HIV infections have been reported to date but the number of HIV infections is likely to far exceed the number of reported infections.

Currently there is little injecting of illicit drugs in Mongolia and to date there have been no reported cases of HIV transmission occurring through injecting drug use. At present sexual transmission of HIV between clients and commercial sex workers (CSWs) and also among and from men who have sex with men (MSM) appear to be the most likely pathways that could result in HIV then spreading extensively to the general population during the next decade.

Less critical risk groups and practices at the moment include: (i) heterosexual men and women, including especially mobile populations and migrant mining communities; (ii) medical injecting and skin penetration including in both the formal and informal (traditional) health care sectors and mainly involving patients prescribed morphine who inject themselves intra-venously frequently and for many years; and (iii) illicit injecting drug users. Street children (especially girls who may be at risk of becoming engaged in CSW) are also at risk. The high prevalence of hepatitis C, 16%-24% by some estimates, suggests that there is considerable use of used injecting and other skin penetration equipment in the health care and para-medical systems.

Two of the five countries (China, Russia) in the world with the most rapidly increasing HIV epidemics are Mongolia's neighbours. This is of great concern. Unlike almost all other countries in Europe and Asia, there is little evidence so far of injecting drug use that has diffused through almost every other country in South East, South and East Asia in recent decades. Mongolia's isolation, accentuated by the harsh seasonal factors, sparse population, and current limited road, rail and air travel may have protected the country from the spread of injecting drug use till now. However, the high proportion of young people, high levels of youth unemployment, improving communications infrastructure and newly emerging pockets of affluence may herald rapidly increasing illicit drug use, including injecting drug use.

In a number of countries, HIV has spread rapidly among and from injecting drug users in community and prison settings. In some of these countries, initial HIV spread among injecting drug users has precipitated generalised epidemics. Mongolia is currently ill-prepared for this possibility.

The Government of Mongolia appears to be well aware of the potential seriousness of the threat of HIV and has a high level commitment to keeping HIV under control. This

report recommends that the Government of Mongolia adopt a comprehensive approach to the threat of HIV/AIDS including:

- Raising and maintaining high levels of awareness among the community of the risks of HIV;
- Achieving improved results from the 100% condom utilisation programme in the commercial sex industry by implementing this programme throughout the country as rapidly as possible;
- Strengthening STI policy and practice as a matter of urgency so that STIs in Mongolia are brought under control as soon as possible;
- Promoting condom use in the general community;
- Encouraging increased use of voluntary counselling and testing, especially among target groups including MSM, CSWs and emerging IDU populations;
- Protecting the human rights and reducing the stigma experienced by target populations to facilitate more accessible and better services for these groups and reduce their engagement in HIV risk behaviours;
- Reducing the re-use of un-sterile injecting equipment in the formal and informal health care systems;
- Increasing the provision of non-judgemental, evidence based drug education in schools and in the community;
- Increasing the capacity, expanding the range of options, and improving the quality of drug treatment by basing treatment on evidence and increasing funding;

Many of the recommendations will benefit not only HIV prevention but will also assist in controlling STIs and reduce drug use.

It is critical for Mongolia that the current low prevalence of HIV in the country is maintained as long as possible and that epidemic spread is averted. Early and vigorous action will avoid an HIV epidemic in Mongolia. As in other countries that have managed the HIV epidemic well, this will require strong political leadership and effective collaboration between health and justice ministries. The cost of action may seem rather high now but this will not compare with the much higher future cost of inaction.

BACKGROUND OF THIS ASSESSMENT

In 2006 The World Health Organisation Western Pacific Regional Office commissioned a team from the Australian National Drug and Alcohol Research Centre (NDARC) to carry out a *rapid assessment and response* (RAR) addressing HIV/AIDS and illicit drug use particularly injecting drug use.

An investigation of this nature was important at this time as there was some evidence to suggest that:

- The prevalence of drug use and associated harms are increasing and unsafe injecting practices amongst IDUs occurs
- While reported HIV/AIDS prevalence is low, actual infection rates may be higher than reported and are likely to be increasing
- More people are engaging in commercial sex work and CSWs may be at risk of using drugs including injecting
- Limited drug treatment services currently exist
- Drug trafficking – a risk factor for drug use – is thought to occur through Mongolia but is poorly documented

Aims and objectives

The RAR was undertaken in order to strengthen the development of national strategies and responses to drug use and HIV/AIDS and to provide guidance to the Ministry of Health and World Health Organisation Country Office in Mongolia on how to support such activities. To date there has been a paucity of data to allow for informed and strategic planning of policy and interventions to address these issues.

The study aimed to assess the following:

- The nature and extent of drug use, especially injecting drug use and its impact in Mongolia
- The current situation regarding HIV/AIDS in Mongolia, especially the risks of HIV transmission related to drug use
- Interventions that exist to address HIV/AIDS and drug use

Then, informed by these findings, the RAR team was to make recommendations on how to reduce the spread of HIV/AIDS in Mongolia.

Agreement for performance of work¹

1. Review of literature and existing data sources related to HIV/AIDS and drug use in Mongolia
2. Conduct stakeholder analysis; interview stakeholders and other key informants including people who use drugs; conduct focus groups with key informants and members of the target population.
3. Assess existing interventions and identify gaps in services

¹ World Health Organisation, Agreement for Performance of Work, Project: WP/2006/MOG/HIV/1.4/001 02.01.01.AW.01

4. Develop, in consultation with stakeholders, recommendations on the content of and how an effective response to drug use and HIV/AIDS can be developed in Mongolia.
5. Conduct capacity building activities to enhance the ability of local organisations and staff to respond to issues relating to drug use and HIV/AIDS and contribute to the response.
6. Provide recommendations specifically from the Ministry of Health on how they may address drug use issues and the prevention of HIV/AIDS.”¹

People involved

The international study team was made up of the following members: Dr Alex Wodak², Dr Anthony Shakeshaft³, Dr Effat Merghati Khoei³, and Dr Bradley Mathers³. Members of the study team undertook research activities in Mongolia from the 4th of September 2006 involving a total of 59 person-days. A timetable of meetings, site visits and activities is included in Appendix I.

The international study team was assisted by Dr Bavuu Enkhjin and Dr Khun Tsevegmidin of the Ministry of Health and Dr Narantuya J. and Dr R. Jargalmaa from the World Health Organisation Country Office in Mongolia. Research and translation assistance was also provided by Dr Elena Kazantseva and Dr Davaasuren Oyunsuren from the Centre of Mental Health and Narcology in Ulaanbaatar and Ms Pujeusuren Losol and Ms Buyanjargal, students from the Ulaanbaatar School of Public Health, Dr Delgermaa Enkhdalai from the Association to Protect the Population from Drugs and Opium and WHO volunteer Ms Natasha Pulaski from the United States of America.

Scope and limitations of the RAR

This RAR is an attempt to gain a picture of illicit drug use and the related issue of HIV/AIDS in Mongolia in order to provide sufficient information to be able to recommend appropriate responses to these issues of concern. It is not an attempt to precisely estimate the prevalence of either HIV or illicit drug use in Mongolia.

The international team was able to spend only 59 person-days in Mongolia to conduct the research activities. No members of the team had any prior experience of Mongolian culture. None spoke Khalkha Mongol. Many key informants interviewed spoke limited English. The international researchers had to rely upon translators for communication in Mongolian and for assistance in reviewing documents not written in English.

It had been anticipated that representatives from the Ministry of Health would be able to work closely with the international team. At the time of the assessment there were significant internal changes taking place at the Ministry of Health and it was not possible for the team to have a Ministry of Health counterpart for the duration of the mission. This created some logistical difficulties. Available Ministry of Health staff went out of their way to be very helpful to this project although the other considerable

² St Vincent’s Alcohol and Drug Service, Sydney, Australia

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responsibilities of these staff limited the amount of time they were able to assist the project.

COUNTRY BACKGROUND

Mongolia is approximately 1,564,116 square kilometres in size, situated between Russia to the north and China to the south. It has a mean elevation of 1500 metres above sea level (5000 ft) which contributes to its harsh continental climate. With an average annual temperature of -0.5° C, the capital city of Ulaanbaatar is the coldest capital city in the world. The large daily and seasonal temperature ranges are somewhat offset by more than 250 days of abundant sunshine.

Mongolia is a country divided into 21 provinces or *aimags*, which are in turn divided into *soums* and further still into *baghs*. There are approximately 2,832,224 inhabitants with a population density of 1.4 persons per square kilometre. The average life expectancy is 64 years. Almost one third (32.6%) of the total population is made up of persons aged less than 16 years of age while 40% of the population comprises persons aged between 16-35 years. The high literacy rate of 97.8% of the entire population is attributed to compulsory schooling between the ages of 8-16 years. Despite this high rate of national literacy, unemployment remains at an obstinately high rate of 6.7%.

The population comprises three nationalities; Khalkha Mongols form the majority with 94%, Kazakhs account for 5%, and other nationalities such as Russian or Chinese make up the last 1%. More than 90% of the population speaks Mongolian, but many also speak Russian as a result of the occupation by the Soviet power until 1990. About half the population identifies itself as Tibetan Buddhist, with 6% classified as Shamanist or Christian sects, 4% Muslim, while 40% of the country does not officially practice any form of religion.

Mongolia was occupied by the Soviet Union between 1924 and 1990, a situation which consequently saw it operating as a Communist state during this time. After the fall of the USSR and the departure of the Russians, the country has become a representative democratic republic. The governing parliament consists of two parties: the Mongolian People's Revolutionary Party (MPRP) and the Democratic Union Coalition (DUC). Executive power is held by the government whilst the legislature is controlled by both government and parliament. The judiciary is independent of both the legislature and executive branches. The parliament has 76 members, all elected for a four-year term by free and popular vote.

The emphasis of the parliamentary outlook in recent years has seen the assumption of a human rights framework. The Mongolian constitution of 1992 ensured the "right of everyone to be recognized everywhere as a person before the law" and outlaws "discrimination of persons on the basis of ethnic origin, language, culture, race, age, sex, social origin or status, occupation or post, property, religion, opinion or education." In this constitution Mongolia declares human rights in conformity with human rights instruments and establishes mechanisms to protect and promote human rights. Mongolia has ratified a number of core international treaties and conventions on human rights including the International Covenant on Civil and Political Rights, International Covenant on Social and Cultural Rights, Conventions on the Rights of Children,

Convention Against Torture and Other Cruel or Degrading Treatments and Punishments.

Mongolia's economy is predominantly based on the raising of livestock and crop cultivation despite only 0.77% of its land being arable. The nation's agricultural industry overcomes this hurdle with livestock production mainly involving nomadic herding (sheep, goats, cows, horses, yaks and camels). The processing of the above products accounts for the bulk of goods manufactured nationally such as cashmere and varied food and beverage supplies. Alongside agriculture the mining industry is also a developing force, focusing at present on the extraction of coal, copper and gold amongst other minerals. Mining and quarrying grew by 34.4% in 2004.

These industries have managed to sustain themselves through rapid government upheaval and change. Prior to 1990 about one third of the nation's GDP was supplied through Russian financial backing. After the Soviet departure from Mongolia, this capital assistance abruptly stopped. Following a decade of recession Mongolia's economy is beginning to recover, as demonstrated by a GDP (or purchasing power parity) of USD5.24 billion in 2005. The GDP per capita (or purchasing power parity) was estimated at USD 2,303 for men and USD 1,950 for women in 2003. The inflation rate in 2004 was 10.6%. The steady growth and improvement of the economy is generally attributed to a switch in economic strategies towards those of the free-market as well as privatization of Industry which was formerly state-owned.

There are plans to establish free trading zone around Erlianhaut, on the Chinese side of the border and Zamiin-Uud, on the Mongolian side, which will certainly increase cross-border movement and activity between the two countries.

The means of transport within the country vary, but horseback still predominates in the countryside. The cities see more motorized transport, and the capital city uses a variety of cars, electric buses, and taxis. Domestic transport across the country is carried out by a combination of cart, motor vehicle or train. Internationally, the Trans-Siberian Railway carries passengers to and from Mongolia, as do regional flights on select airlines. However, the cost of travel is often a barrier to those in rural areas limiting their ability to receive basic and more advanced healthcare services.

Indeed an inequity in basic services available to urban and rural populations exists within the country in general. A third (33 %) of the population lives without access to electricity while 82% of these people are identified as rural dwellers. In urban areas 62% of households have access to clean water and 46% to improved sanitation facilities. By contrast, only 45% of rural households have access to clean water and 28% to improved sanitation facilities. The Mongolian government is trying to improve the accessibility of these energy services to those living below the poverty line, 36.1% of the population.

While the government hopes to see the use of modern energy sources benefiting the entire population, the production of such energy is problematic. Much of the power in Ulaanbaatar and throughout Mongolia is generated by the burning of coal. While coal is a cheaper form of energy than oil, the costs of burning the mineral on environmental and local health appears to override any immediate savings. In recent decades the air in the capital has become extremely polluted due to a lack of environmental regulations being enforced. This pollution in turn adversely affects the health of local residents,

contributing to high numbers of respiratory infections and exacerbating those already experiencing health problems.

Income disparity between rural and urban areas as well as between males and females has increased. Women face a much greater incidence of poverty than men across the country.

Mongolia has high maternal mortality, with 99 deaths per 100,000 live births in 2004. The infant mortality rate has declined from 64.4 per 1000 live births in 1990 to 48 per 1000 in 1994 and stands at 22.8 per 1000 in 2005. The total fertility rate at present is 2.0 children. The health of the general Mongolian population is adversely affected by excessive malnutrition, which translates into numerous cases of rickets, anaemia, and iodine deficiency. Infectious diseases are also prevalent in the general populace, most notably STIs, viral hepatitis, and tuberculosis. The prominence of STIs is a source of concern for the future spread of HIV. Non-communicable diseases have also been on the rise. High rates of alcoholism and tobacco consumption have contributed to the growing numbers of cases of cancer, cardiovascular disease, injuries, and street deaths, such as traffic accidents and people freezing to death (commonly attributed to alcohol consumption).

METHODOLOGY

Overview of the rapid assessment methodology

This research activity was based upon the Rapid Assessment and Response methodology outlined in the WHO Rapid Assessment and Response Guide on Psychoactive Substance Use and Sexual Risk Behaviour, the WHO Response Guide on Injecting Drug Use and the WHO Rapid Assessment and Response Technical Guide.

The rapid assessment methodology is a technique to gather information in a short period in order to inform the development of responses to a particular issue of concern. It has been used extensively in many settings to explore issues related to HIV/AIDS and drug use. The methods of information gathering are well recognised and used in many fields including applied anthropology, sociology and evaluative research. Various research tools are used and methodology aims to shorten the duration of the research process while providing comprehensive information about the subject. Existing data sources are explored; primary information is collected from different key players using a variety of different research tools. Both qualitative and quantitative methods are used. The process is based upon the principals of induction and triangulation. Tools are used only to explore the relevant information required to fill existing gaps in information.

Location of assessment

Approximately half of the Mongolian population lives in the capital city, Ulaanbaatar, and this is where existing evidence suggested most drug use occurs. Also, as the RAR team had only limited time to conduct the assessment, most research activities took place in Ulaanbaatar and focused on the situation in this city, judged to be the most important geographical location for this study.

Members of the RAR team also travelled to the cities of Erdenet and Darkhan, the second and third largest urban centres respectively as well as Sukhbaatar, the city closest to Mongolia's northern border crossing with Russia (see **Error! Reference source not found.**). In each of these locations the RAR team members met key stakeholders and informants from relevant organisations and government departments, visited treatment and support services and, where possible, held focus groups and conducted interviews with members of the target groups.

Review of literature, print media and existing material

Existing literature and data sources were located and reviewed. Both published and unpublished material was examined.

A search of the published medical literature was conducted using Medline. Other English language online material was searched using the <google.com> search engine

Reports produced by government ministries, international non-government and UN organisations and local NGOs were requested and reviewed. Many of these reports were available only in the Mongolian language; these were translated into English. We were unable to review official material from the Ministry of Justice, as we were unsuccessful in obtaining the necessary permission to access this information.

Media coverage of drug use and HIV/AIDS was reviewed. Local medical students were employed to review major Mongolian language print newspapers published in the last 12

months and extract relevant articles. Online Mongolian language news coverage of drug use and HIV issues was searched using the <google.mn> search engine.

Stakeholder analysis

With the assistance of WHO Country Office staff relevant stakeholders were identified. These stakeholders were assessed as to their suitability to join the advisory group and/or act as key-informants.

Convening of the Advisory Group

A wide range of key stakeholders were invited to join the RAR advisory group. A list of these organisations and individuals is included in Appendix II. The group met four times during the course of the RAR. Not all of the invited stakeholders were able to attend all the meetings.

It had been hoped that drug users would also participate in this group. Unfortunately those individuals invited to participate were not able to attend the meetings.

In the first meeting, held on the 11th of September, the international study team briefed the group on the intended purpose, objectives and methods of the RAR. The group gave feedback and advice on how the assessment might be conducted and suggested informants who should be contacted, other sources of information and strategies to recruit injecting drug users.

The group met again on the 25th of September and were briefed on the activities and findings of the assessment to date. The group provided feedback on these findings and recommended ways in which to overcome some of the challenges encountered, in particular the difficulties of recruiting injecting and other drug users.

Two meetings were held during the international team's final week in country on the 4th and 6th of October. Group members discussed the final findings and analysis and suggested corrections to any errors of fact or omission. The recommendations were debated and revised.

Site visits

A range of government and non-government services were visited by members of the RAR team. The team also visited a number of nightclubs and entertainment venues where key informants identified drug use might occur. Sites visited are detailed in Appendix II.

Meetings with key informants

The study team met with a wide range of key informants. This included government and law enforcement officials, treatment and support service staff and outreach workers in Ulaanbaatar, Erdenet, Darkhan and Sukhbaatar. A list of key informants met is included in Appendix II.

Recruitment of research assistants

Medical students from the School of Medicine in Ulaanbaatar were recruited to conduct interviews and assist with the research activities of the rapid assessment. These students were paid for their time working on this assignment. Specific tasks involved helping design and translate a questionnaire for interviewing drug users, recruiting drug users for

interviews, conducting interviews; reviewing media reports on drug use and HIV/AIDS and acting as interpreters.

Recruitment of injecting and other drug users

The RAR team attempted to recruit injecting and other drug users by use of the snowball technique.

The small number of injecting drug users that accessed treatment and support services were approached and invited to take part in the study and most were willing to participate. However, most were injectors of morphine that had previously been prescribed to them and as a result used drugs in isolation from other drug users and were unable to put the study team in contact with other potential participants. Drug use appears to occur primarily in private; there was no evidence of public injecting in Mongolia and as such drug users were not easily identified and accessed in public places

Students from the Ulaanbaatar School of Medicine, working as research assistants in the RAR, made contact with other university students in Ulaanbaatar via the extensive network of student clubs and again by the snowball technique recruited drug users to participate in the study.

A total of 23 injecting drug users and 20 non-injecting drug users were recruited and interviewed.

Interviews with injecting and other drug users

A structured questionnaire was developed exploring drug use history, drug using and sexual risk-behaviours, HIV knowledge and experience of treatment services. The questionnaire was piloted with three respondents, then revised and translated into Mongolian. The English version of the questionnaire is included in Appendix III. Information from completed questionnaires was entered into SPSS.

Focus groups

Focus group discussions were held with Chinese migrant labourers, men who have sex with men, university students and commercial sex workers. Unfortunately the team was unsuccessful at recruiting injecting and other drug users to participate in a focus group. Many reported they were unwilling to participate, as they were reluctant to disclose their drug use to others.

Methodological constraints

Most of the information obtained was gathered from interviews with key informants as only a small number of injecting and other drug users were accessed. The study team believe that this difficulty in accessing injecting drug users indicates that there are few injecting drug users in Mongolia and that this small population is very well hidden. These views are consistent with the consensus opinion of experienced local experts.

Capacity building and training activities

The international team members conducted a training session on drugs, harm reduction and drug treatment. The session was attended by workers from NGOs, the Ministry of Health and the Centre of Mental Health and Narcology.

Students from the School of Public Health, and staff from the Centre of Mental Health and Narcology and the Association for the Protection of the Population From Drugs and Opium worked alongside the international study team and assisted with the research activities. It was hoped that this participation would also enhance local capacity.

One member of the RAR Team assisted a Ministry of Health representative and a medical doctor based at the first Maternity Hospital in Ulaanbaatar with the design of an evaluation strategy with which to assess the effectiveness of a brief intervention addressing alcohol use and pregnancy.

During the RAR it became apparent that there was a lack of resources for a perceived increase of problematic cannabis use amongst young people. Consequently the RAR team arranged for a series of relevant resources from the National Drug and Alcohol Research Centre to be sent to the Ministry of Health and the MHNC for adaptation and use as appropriate.

FINDINGS

Current national policy and strategies

HIV/AIDS prevention strategy and policy

Since 1987, the Mongolian government has developed a number of HIV/AIDS policies. A National AIDS Committee responsible for leadership and management of HIV/AIDS prevention and control has been disbanded. Currently a Public Health Committee chaired by the Prime Minister was established in 2002 and is responsible for coordinating public health programs including HIV/AIDS. The committee has representatives from the Mongolian Red Cross and the Trade Union of Health Professionals but does not have representatives from the private sector or civil society organisations working in the HIV/AIDS field or people living with HIV/AIDS.

Legislation has been adopted to strengthen HIV/AIDS prevention and control and to address related human rights, equality and confidentiality issues. There had been incidents previously where confidentiality had been breached and the names of HIV positive people released publicly.

The first National AIDS program approved by the National AIDS Committee was initiated for the period of 1992-2000. At the time of preparing this report, a draft National AIDS Strategy: Strategy to control HIV/AIDS/STI 2006 – 2010 was being considered by the Government. This draft strategy lists a number of priority areas including HIV/AIDS awareness and education activities, increasing condom usage, targeting of at risk groups, expanding VCT and HIV/AIDS treatment and care services and continued monitoring of HIV. There is little mention of measures relating to HIV transmission through injecting drug use.

Legislation pertaining to illegal drugs

The Law of Mongolia on Control of Trafficking in narcotic drugs and psychotropic substances, dated 28th of November 2002, defines the legitimate and illegitimate use of narcotic drugs in Mongolia as well as the restrictions on manufacture, importation and sale of these and other illicit substances. The RAR team understands that those found to have committed an offence under this law are not subject to ‘criminal’ liability but may have an administrative penalty consisting of a fine ranging from MNT30,000 – MNT250,000 (approximately USD25.00 – USD215.00) imposed depending on the nature of the violation and whether the offender is a citizen, official or organisation.

Under this law a person who has been assessed by a health institution to be addicted to a drug may be forced to undergo medical treatment.

This law also states that the curriculum of secondary and high school classes must include information on the hazards of narcotic and psychotropic drug use and prevention of drug use. It also states that the mass media has an obligation to disseminate information on the hazards of drug use.

Decree Number 306 by the Minister of Health, dated December 25th 2003, outlines the rules related to procurement, manufacture and use of narcotic drugs and psychotropic substances. Appendix IV of this decree lists narcotic drugs and substances that can be used for medical purposes in Mongolia. This list includes buprenorphine, methadone, oxycodone and oxymorphone, drugs that may have some place in the treatment to

opioid dependence. The RAR team understands that while drugs listed under this decree can be lawfully used for medical purposes in Mongolia, they are currently not available.

National anti-drug program

The Government of Mongolia had a National Program for Fighting Narcotics and Drugs for the period 2000-2005. At the time of preparing this report the 2006-2010 National Program has not yet been finalised. The National Council headed by the Chief of Police coordinated the implementation of the 2000-2005 program which aimed to prevent drug addiction, drug related crimes, create a legal basis for fighting drugs, implement counter narcotics policy, and raise public awareness of the issue of drug abuse. Under this program the Ministry of Justice, Ministry of Education, Ministry of Health, General Customs Department, the General Department of Police, Central Intelligence Agency, mass media, NGOs and City and *Aimag* Government Offices were all identified as having a responsibility to contribute to this process. The Program focused primarily on law enforcement and drug supply reduction and to a lesser extent on reducing the demand for drugs. It is likely that the 2006- 2010 National Program will be of a similar nature.

International conventions and treaties

Mongolia is a party to the 1988 UN Drug Convention, the 1961 Single Convention As Amended by its 1972 Protocol, and the 1971 UN Convention on Psychotropic Substances. Mongolia also has obligations under the UN General Assembly Resolution S-26/2 (Declaration of Commitment on HIV/AIDS from the United Nations General Assembly Special Session on HIV/AIDS).

Mongolia became a member of the Asia Pacific Group on Money Laundering in 2004 and has committed to adhere to Financial Action Taskforce (FATF) standards, while seeking participation and eventual membership in the FATF.

HIV/AIDS in Mongolia

Prevalence of HIV/AIDS:

As in most other countries, it is generally considered that HIV infection in Mongolia is under-reported. The WHO and UNAIDS currently estimate that the number of HIV infected persons in Mongolia is fewer than 500 cases, rating it as 'low level' epidemic (UNAIDS 2006).

The print media has also covered the issue of HIV/AIDS. Estimates in the popular press of the number of HIV cases were as high as 2500. There appeared to be little coverage of the nature of the virus and how it is transmitted.

As of the 31st of August 2006 there were 25 reported cases of HIV infection in Mongolia. Single new cases were reported in 1992, 1997, 2001, 2003 and 2004. In 2005 eleven new cases were reported and nine to date in 2006.

Twenty three of these 25 people were resident in Ulaanbaatar at the time of diagnosis and two were from Huvsgul province in northern Mongolia.

Details of all 16 cases of HIV/AIDS officially reported up until the end of 2005 are presented in Table 1.

Table 1: Reported cases of HIV/AIDS (UNAIDS 2006)

Cases	Reported Month & Year	Route of infection and known risk factors	Current status
1	August 1992	Sexual. MSM, had lived abroad	Died of AIDS 1999
2	December 1997	Sexual. CSW	HIV+ve
3	July 2001	Sexual. Female, cross border trader, had multiple partners	Died of AIDS 2001
4	January 2003	Sexual. Female, had lived abroad	Died of AIDS 2005
5	October 2004	Sexual. MSM	HIV+ve
6	March 2005	Sexual. Male, detected through screening of TB patients	HIV+ve and TB
7	April 2005	Sexual. MSM	HIV+ve
8	April 2005	Sexual. MSM	HIV+ve
9	April 2005	Unknown.	HIV+ve
10	June 2005	Sexual. MSM	HIV+ve
11	July 2005	Sexual. Female, had lived abroad, detected through screening of pregnant women	HIV+ve
12	August 2005	Sexual MSM	HIV+ve
13	September 2005	Sexual MSM	AIDS patient
14	October 2005	Sexual. Male, had lived abroad	HIV+ve
15	November 2005	Sexual. Female had lived abroad	HIV+ve
16	November 2005	Sexual. MSM, detected through screening of TB patients	HIV+ve and TB

As of September 2006, four of the 25 people diagnosed with HIV in Mongolia have died. Currently one person has been diagnosed to have AIDS and is currently receiving anti-retroviral (ARV) treatment at the National Centre for Communicable Diseases (NCCD).

Demographic characteristics of HIV cases

Eight of the people infected (32%) were female and 17 (68%) were male. The majority were between 25 and 35 years of age at the time of diagnosis. The age at the time of diagnosis is given in Table 2. Marital status, employment and level of education are detailed in tables 3, 4 and 5 respectively.

Table 2: Age at time of HIV diagnosis

Age	Number of cases
20 – 24 years	1
25 – 29 years	9
30 – 34 years	7
35 – 39 years	4
40 – 44 years	4

Table 3: Marital status at time of HIV diagnosis

Marital status	Number of cases
Single	11
Married	6
De-facto relationship	2
Divorced	5

Unknown	1
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Table 4: Employment at time of HIV diagnosis

Occupation	Number of cases
Unemployed	14
Employed	6
Self-employed	2
Student	3

Table 5: Level of education of people diagnosed with HIV

Highest level of education attained	Number of cases
1 – 4 Grade	5
5 – 8 Grade	6
9 – 10 Grade	7
University	7

HIV transmission

All cases of HIV infection in Mongolia to date have been attributed to sexual transmission. Twelve cases have been attributed to sex between men and nine to heterosexual transmission. Transmission in an additional four cases has been attributed to commercial sex work – it is not clear from the information provided whether or not this involved heterosexual or male-to-male sex nor whether those infected were commercial sex workers or clients. It is more likely that these cases involved heterosexual contact.

HIV and STI co-infection

At the time of diagnosis, HIV positive individuals were also tested for sexually transmitted and other infections. The proportion with a combination of sexually transmitted infections and HIV is extremely high (see Table 6).

Table 6: Incidence of other infection at time of diagnosis

Other infection	Number of cases
Syphilis	10
Gonorrhoea	1
HPV	2
HBV	4
HCV	1
TB	2

HIV/AIDS education and knowledge

The 2005 UNGASS Country Report for Mongolia (UNAIDS 2006) reported low levels of HIV knowledge among the general population. Three percent of males and 5% of females aged 15–24 were able to both correctly identify ways of preventing the sexual transmission of HIV and rejected major misconceptions about HIV transmission. Rural youths are considerably less knowledgeable than young people in urban centres.

Among the sample of drug users that were interviewed during this RAR, all had heard of HIV/AIDS. Seventeen of the 23 IDUs interviewed considered themselves not to be at risk of contracting HIV. Nineteen of 23 IDUs and 10 of 20 other drug users had been tested for HIV.

It has been estimated that 68.1% of MSM and 58% of CSWs were reached by HIV prevention programs such as community outreach programs that include peer education; exposure to targeted mass media; sexually transmitted infection screening and/or treatment (UNAIDS 2006). These figures are based on fairly low estimates of the size of the MSM and CSW populations and as such may overestimate the coverage of these programs.

Again, it seems likely that these estimates are too high due to an underestimation of the total number of MSM and CSWs in Mongolia.

HIV testing

Government health centres and some private health care services conduct HIV testing. Health centres in all *aimags* are expected by the Government of Mongolia to have the capacity to test for HIV. In practice however, many health centres lack testing kits some or all of the time. Most HIV testing is funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) as part of HIV surveillance activities (discussed below).

Every year between 30 000 and 60 000 HIV tests are performed on high- and low-risk populations. A senior health official reported to this Mission that HIV testing is sometimes involuntary and that pre- and post-test counselling is not always adequate. The National AIDS Foundation (NAF) is attempting to improve these practices so to achieve acceptable standards of VCT. People in Mongolia who consider themselves to be at risk of HIV are able to request and usually obtain a free HIV test. All new cases of TB infection, STI patients, pregnant women and blood donors are routinely tested for HIV. Men who have sex with men (MSM) and CSWs are encouraged by NGOs who work with these groups to undergo testing for HIV. From 2005, mobile HIV testing has been conducted and proven to be a successful way of reaching a widely distributed population. This commonly involves organising a social event in an *aimag* capital where information on HIV/AIDS is provided and VCT is offered.

In 2005 it was estimated that 67% of MSM and 23.2% of CSWs have had an HIV test in the previous 12 months and were advised of the results (UNGASS Report 2005). Again it is possible that these estimates may be somewhat high due to underestimation of the total number of MSM and CSW in Mongolia.

HIV surveillance

The Ministry of Health and the GFATM conducts second-generation surveillance (SGS) of HIV/AIDS. Fifty percent of the reported cases of HIV in Mongolia were detected by this surveillance activity. To date surveillance has included the investigation of the following sentinel groups:

- Male STI clients – men, aged 24 – 29 years, who attended public STI clinics selected as sentinel sites during the sample period
- Mobile men – men, aged 24 – 49 years, who have been away from their home communities for more than one month in the last 12 months for employment (mobile traders, informal miners, and truck drivers)
- Men who have sex with men (MSM) – Men aged 24 – 49 years, who have had anal sex with men in the last twelve months

- Female sex workers – Females who received money for sex services in the last twelve months
- Youth – young unmarried people of both sexes enrolled in secondary or higher education institutions and aged 15 – 24 years.
- Pregnant women – women attending antenatal care for the first visit during the year of study
- Blood donors – people donating blood at selected health facilities during the year of study
- TB patients – patients diagnosed with TB for the first time during the year of study

The inclusion of IDUs as a separate sentinel group in this surveillance has been considered. Those responsible for this surveillance considered that because the number of IDUs in Mongolia is so small, including this population would add little value and their recruitment would be very difficult. The RAR team concurred with this judgement.

In the 2005 round of SGS, participants were asked whether or not they had ever used, or specifically, whether they had ever injected drugs. The findings are discussed below in the section on drug use.

Government response to HIV/AIDS

The national policy relating to HIV/AIDS in Mongolia is discussed in the ‘HIV/AIDS Prevention Strategy and Policy’ section of this document.

In 2005, the Government of Mongolia spent an estimated US\$ 172 867 from domestic funds on responses to HIV (UNAIDS 2006). Considerable funding for activities addressing HIV/AIDS is provided from international donor sources including from the Global Fund to Fight AIDS, Tuberculosis and Malaria.

Non-government sector response to HIV/AIDS

The National AIDS Foundation (NAF) was established in 2000. It receives funds from the Alliance, the GFATM and other UN agencies. The NAF is the peak HIV/AIDS non-government organisation in Mongolia. It acts as a link agency for international HIV surveillance and prevention activities, provides technical, organisational and financial support to various community based organisations and advocates on behalf of people at risk of HIV and people living with HIV/AIDS.

Currently the NAF works in collaboration with a number of organisations including the APPDO, Together Centre, Association of Public Health Professionals, Association Against Alcoholism and Drug Abuse and a community based organisation targeting CSWs.

Drug use in Mongolia

The use of illicit as well as diverted controlled drugs does occur in Mongolia. However by far the most commonly used drugs are the legal substances alcohol and tobacco. This is consistent with other countries in the region and developed countries and is a reflection of the cultural acceptance, relative affordability and wide availability of these legal drugs.

Prevalence of illicit drug use in Mongolia

A small number of studies have been conducted in the last seven years to determine the nature and extent of illegal drug use in Mongolia.

Since 1999, the Association for the Protection of the Population from Drugs and Opium has conducted a number of surveys of high school and university students and other young people in Ulaanbaatar, Erdenet, Sukhbaatar and Darkhan. Few details of the methodology and only very general descriptive results from these investigations were available. Some key informants highlighted the methodological limitations of these studies. The key findings from these surveys are outlined below:

In 1999, 1000 young people, aged between 13 and 25 years were interviewed. Forty five reported ever having used a drug, 28 had used a drug only once, 13 had used occasionally and four reported using drugs regularly. The types of drugs used and the route by which they were taken were not specified.

In 2000, 1000 young people aged between 13 and 25 years were interviewed. Fifty two reported ever having used a drug, 28 had used a drug only once, 18 had used occasionally and six used drugs regularly. The types of drugs used were not specified but 22 reported smoking drugs, eight sniffing, 20 drinking and two injecting.

In 2002, 1000 young people aged between 14 and 18 years of age were interviewed. Thirty reported ever having used a drug, 16 had used a drug only once, seven had used occasionally and seven used drugs regularly. Again the types of drugs used were not specified but 19 reported smoking drugs, five sniffing and six drinking while none reported injecting a drug.

In 2003, 1500 people were interviewed. Forty five people reported ever having used a drug, 32 had used a drug only once, 13 had used occasionally and 15 used drugs regularly. Thirty nine reported having smoked a drug, 16 had taken a drug by sniffing and 27 had injected a drug. The most commonly injected drug was morphine. The injection of fentanyl and pentazocine, a partial opioid agonist, was also reported.

In 2004, 840 people were interviewed. Sixty reported ever having used a drug, 32 had used a drug only once, 13 had used occasionally and 15 used drugs regularly. The types of drugs used were not specified but 19 reported smoking drugs, five sniffing, six drinking, none had injected a drug.

These studies were conducted with limited resources. Due to the methodological limitations of these studies it is not possible to determine any significant trends over time.

The most extensive recent assessment of psychoactive drug use in Mongolia was conducted in 2001 by the National Aids Foundation of Mongolia (National AIDS Foundation 2001). This Participatory Situation Assessment examining HIV and drug use found evidence of only limited illicit drug use in Mongolia. Drug use was found to occur mainly in Ulaanbaatar with cannabis, morphine and diazepam being the most commonly reported drugs. Only limited injecting drug use was found.

Medical treatment and other service providers reported having little contact with drug users. Accordingly there is little clinical experience of treating patients with injecting and other illicit drug using issues.

In 2005, a total number of 43 officially diagnosed and registered cases of psychoactive drug use related disorders, excluding alcohol and tobacco, were recorded from all government medical facilities in Mongolia. These results are displayed in Table 7.

Table 7: Officially diagnosed and registered cases of substance use related disorders in Mongolia in 2005, excluding alcohol and tobacco.

ICD – 10 classification		Number of cases
F11	Mental and behavioural disorders due to use of opioids	9
F12	Mental and behavioural disorders due to use of cannabinoids	1
F13	Mental and behavioural disorders due to use of sedatives or hypnotics	24
F18	Mental and behavioural disorders due to use of volatile solvents	9

Currently the Centre of Mental Health and Narcology in Ulaanbaatar have only four registered patients who are illicit drug users. All four are morphine injectors and all four began using morphine for the treatment of chronic pain following trauma or surgery.

The National Anti-Drug Centre has in the past offered support services to a very small number of injecting morphine users and cannabis users. Currently a larger number of young solvent users are receiving assistance from the organisation.

The Association Against Alcoholism and Drug Abuse has to date only had experience dealing with users of alcohol and has had very little contact with other drug users.

The Association for the Protection of the Population Against Drugs and Opium reported that between six and 18 IDUs attend the service every week to obtain sterile injecting equipment and other services.

Media reports reviewed suggest that illicit drug use is increasing in Mongolia. There are varied reports of drug dealers, with police reporting at least one apprehended dealer. Such cases reported in the popular press suggest that users come from wealthy families in Mongolia. The drug use referred to seems confined to non-injectable drugs and in particular cannabis.

There appears to be a growing sense of public concern that the Mongolian population is increasingly vulnerable to drugs. Many newspaper articles provided information to increase parental awareness of their children's use and experimentation with narcotics, alcohol and tobacco products. Many articles highlight the negative aspects of different drugs and to promote an understanding of their potential harm in an effort to encourage people to learn how to say 'No' to offers of drugs. One article went even further suggesting that the country should be rid itself of drug addicts entirely.

Socio-demographic characteristics of drug users

Key informants believed that most drug users were either injectors of pharmaceutical morphine who began using the drug after having been prescribed it for chronic non-

malignant pain and most are over thirty years of age or were aged between 17 and 30 years of age and users of other drugs, particularly cannabis. It was felt by many that illicit drugs were expensive and at that only those with disposable incomes such as young people from wealthy families were likely to be able to afford them.

Six of the 22 IDUs interviewed and only one of the 13 non-injecting drug users interviewed were female. Age distribution of the two groups is detailed in Table 8.

Table 8: Age distribution of interviewed IDU and non-injecting drug users

Age (years)	Number of IDUs	Number of Non-IDUs
≤20	2	1
21-25	6	11
26-30	3	0
31-35	1	1
36-40	1	0
41-45	3	0
46-50	1	0
51-55	5	0

Among the IDUs, eight were married or in a de-facto relationship, seven were divorced and six had never married. Fourteen had no religion, seven identified as Buddhist and one as Christian.

Fourteen IDUs had attended university and the remaining eight had received at least eight years of schooling. All but one of the non-injecting drug users interviewed had attended university, which was unsurprising as most were recruited via tertiary student networks.

Of the IDUs interviewed, daily income ranged from MNT1000 (USD0.85) to MNT100,000 (USD85.00).

Thirteen out of 14 non-injecting drug users lived in an apartment and one in a “small house”. Around half of the IDUs lived in apartments or “large” houses, and half in “small houses”. Small houses referred to include *gers* (felt tents) and other small shelters or shacks.

Drug related forensic and mortality data

In an effort to find evidence of injecting and other illicit drug use the RAR team reviewed forensic and mortality data that might indicate a cause of death attributable to drug use.

According to records provided by the Department of Forensic Medicine National Centre of Forensic Investigation between 2000 and 2005, 11.7% of all deaths investigated by the department were attributed to poisoning. Of these, alcohol was responsible for 72.3% of cases, medications for 5.8%. Of poisoning from medications 86.1% were due to diphenhydramine hydrochloride (*Dimedrol*), 9% from the tricyclic antidepressant amitriptyline and 4.5% due to acetyl-salicylic acid (*aspirin*). The age breakdown of these deaths attributed to poisoning from medications is detailed in Table 9.

Table 9: Age breakdown of deaths attributed to poisoning from medications

Age (years)	Percentage
10-19	36.3%

20-29	40.9%
30-39	18.1%
≥40	4.7%

Of the deaths due to “alcohol poisoning” 87.2% were male and 12.8% female. 57.5% of these deaths occurred at home. The age breakdown of these deaths attributed to alcohol poisoning is detailed in Table 10.

Table 10: Age breakdown of deaths attributed to poisoning from alcohol

Age (years)	Percentage
10-19	2.2%
20-29	13.4%
30-39	31.7%
40-49	34.3%
50-59	11.9%
60-75	6.3%

The remaining poisoning deaths were due to carbon monoxide inhalation and other poisonous chemicals such as fertilisers.

No deaths were recorded as having resulted from poisoning by illicit drugs.

In Ulaanbaatar all acute poisoning cases are referred to the Poisoning Hospital. Clinicians at the hospital reported that they treat very few opiate overdoses - only one such case occurred in the last two years. Admissions for drug poisoning between 2003 and 2005 are detailed in Table 11.

Table 11: Admissions to the Ulaanbaatar Poisoning Hospital for drug poisoning, 2003-2005

Drug	2003	2004	2005
Dimedrol	86	70	42
Benzodiazepines	25	26	23
Mixed	57	63	45
Other	120	112	128
Unknown	9	4	-
Alcohol	46	42	56

‘Street death’ is a common phenomenon in urban centres in Mongolia. A large proportion involve a person being found frozen in the street. Most street deaths involve men. Between 2000 and 2004 alcohol was a contributing factor in 60% of all street deaths. A common scenario involves an intoxicated person becoming unconscious in the street and then dying of exposure. A similar chain of events might well involve intoxication by other substances. In the data available there were no street deaths recorded where any other drugs were found to be a contributing factor.

Pharmaceutical opiates

Medical use and regulation of pharmaceutical opiates

Mongolia is currently licensed under International Narcotics Control Board (INCB) regulations to import 10kg of opiates but currently imports well under this amount. Official figures from the Ministry of Health, Pharmaceuticals and Medical Devices Department show that in 2004, Mongolia imported the equivalent of 1080g of codeine, 1380g of morphine and 8.96g of fentanyl.

Morphine and fentanyl are used in hospitals in Mongolia for the treatment of severe acute and chronic pain following a major surgical procedure, serious injury or pain associated with malignancy.

The National Trauma Hospital in Ulaanbaatar uses more opiates for the treatment of non-malignant pain than any other facility in Mongolia. In 2004, the hospital used 1,300 ampoules of morphine and 1,470 ampoules of fentanyl. Clinicians reported that morphine and fentanyl are used only in cases of very severe pain and normally no more than 4-5 patients out of a total of 420 inpatients are prescribed morphine at any time. Hospital clinicians and administrators reported that they did not believe there was much chance of diversion of opiates from the hospital as all opiates are administered to inpatients under strictly supervised conditions. In 2006, doctors at the hospital became able to prescribe oral tramadol for the management of pain following a patient's discharge from the hospital. It is only in very rare instances that a patient will be prescribed injectable morphine as an out-patient.

Several regulations control the dispensing of opiates from community pharmacies. City and regional health departments are responsible for the licensing of pharmacies permitted to dispense morphine. There are over 300 pharmacies in Ulaanbaatar. In rural areas each *soum*, and in urban areas each district, may have only one, and in some cases two, pharmacies permitted to dispense morphine.

The National Provisional Inspection Agency is responsible for the monitoring of listed narcotic and psychotropic drugs dispensed by pharmacies and hospitals in Mongolia. Inspectors review pharmacy records and monitor how drugs are supplied, stored and dispensed. Due to limited resources, only a limited number of pharmacies are inspected and reviewed each year.

Representatives from the City Health Department in Ulaanbaatar and the National Provisional Inspection Agency reported that many pharmacies are reluctant to stock morphine as they fear either harassment from morphine users attempting to obtain morphine without prescription or having morphine stolen from their premises. Both representatives felt that pharmacies require greater security protection to protect against these threats.

The City Health Department representative believed that regulations and monitoring of pharmacies is good but suspected that around 10% of pharmacies might dispense medications inappropriately such as giving drugs to family members without a prescription or dispensing more of a medication than the amount stated on a prescription.

Some key informants also believed that it is possible to obtain medications including morphine without prescription from some pharmacies. Some also reported that morphine is sold illegally on the black market.

Of 22 morphine injectors interviewed, five reported obtaining morphine on prescription from a pharmacy or dispensed from a hospital. Nine reported acquiring pharmaceutical morphine from pharmacies without prescription. Six reported buying morphine from a drug dealer and five from the black market.

Non medical use of pharmaceutical opiates

Among the limited numbers of injecting drug users who attend treatment services and support organisations, almost all are morphine injectors. Service providers report that most of these injecting drug users have a history of major surgery or trauma resulting in chronic pain for which they were prescribed injectable morphine. These patients then go on to develop a dependence on morphine, using the drug in increasing doses and frequency, continuing to obtain the medication on prescription from pharmacies and supplementing this supply by other means.

Of the 22 IDU interviewed, 16 had used morphine regularly in the last three months. Ten reported also injecting other pharmaceuticals, including diazepam (*Seduxen*) and diphenhydramine hydrochloride (*Dimedrol*). Others reported occasionally using fentanyl but this appeared to be harder to obtain.

The use of injectable morphine with no history of prior medical use is less common. These individuals appear more likely to be primarily injecting drug users and consumers of other psychoactive substances such as cannabis.

Staff from the Narcology Hospital in Ulaanbaatar reported that in the last five years only five patients have been admitted for morphine dependence. These patients are often brought to the hospital, against their wishes, by police. In most cases the patients self discharge after twenty four hours before treatment can be completed. The current treatment protocol for morphine dependence involves supportive care and morphine administered in a reduction regime dependent upon the patient's level of drug use.

The Centre of Mental Health and Narcology provide out-patient treatment. To date it has also treated very few illicit drug dependent patients. In September 2006 the centre was seeing four drug dependent patients – all morphine injectors who had been previously prescribed the drug. The centre offers counselling and social support for these patients. The staff at the centre identified their limited experience and capacity to treat illicit drug dependent patients. Staff from the centre also believed that many drug users might be reluctant to seek help at the centre as it is a Ministry of Health facility and they fear that because it is a government institution they may be in danger of being turned over to the police.

The APPDO has offered drug dependence recovery programs involving a course based on the twelve step Narcotics Anonymous model for opioid dependent people.

CASE HISTORY:

B, 35 year old female

B began using morphine for the treatment of chronic pain following an injury. Became dependant upon the drug and gradually increased her intake. She was able to obtain 10 ampoules per day on prescription but would try and supplement this with morphine acquired without a prescription or diverted morphine on the black market. She would use on average around 20-25 ampoules per day but at times used up to a maximum of 40 ampoules per day. Illegally obtained morphine was expensive costing up to MNT10,000 per ampoule. When she was not able to get morphine she would drink alcohol.

B spent a short time in prison having been convicted of property theft. She had committed this theft in order to pay for morphine.

Heroin

None of the service providers, NGOs or other key informants we interviewed had any first hand knowledge of heroin use in Mongolia. A very small number believed that heroin use may occur but had no evidence to support this view. No service providers had treated patients who had used heroin.

Of the drug users interviewed, only two reported having ever used heroin. Both reported only smoking the drug and both were regular morphine users. One was a morphine injector the other used only oral morphine. One stated that he had purchased the heroin from a friend, the other did not disclose how he obtained the drug. Of all the other drug users interviewed six claimed to know someone who had used heroin.

None of the service providers contacted had any experience treating heroin users.

Cannabis

Key informants consistently identified cannabis as the most frequently used illicit non-pharmaceutical drug in Mongolia. Most identified young people as the most common consumers of the drug. Many informants reported that use was prevalent amongst famous popular musicians and members of some youth sub cultures; ‘Rockers’ (‘rock’ and ‘heavy metal’ music enthusiasts) were identified in particular. Most informants had no evidence of this but held this belief based on anecdotal information.

Amongst the 23 injecting drug users interviewed 8 had also used cannabis. Six of these eight injecting drug users had used cannabis before they had ever injected morphine. The other 2 IDUs had been users of morphine prior to using cannabis. Amongst the group interviewed it was more common for regular morphine users to have never tried cannabis. Those who primarily used cannabis were also less likely to have used morphine or other opiates.

Treatment providers reported limited contact with cannabis users. The Centre for Mental Health and Narcology has received increasing numbers of enquires from parents concerned about the cannabis use of their children. The Centre offers advice and support where possible. Narcology clinics visited outside of Ulaanbaatar reported even fewer cases of cannabis users accessing their services.

The National Anti-Drug Centre has in the past had contact with a small number of cannabis users and offered Narcotics Anonymous meetings for these clients.

Other illicit drugs

There were several unverified anecdotal reports of ecstasy and amphetamine type substance use in Ulaanbaatar. Several key informants believed that young people from wealthy families, especially wealthy migrants, may use these drugs. A senior police representative reported that police believed ecstasy was used in some nightclubs in Ulaanbaatar and that the drug sold for USD50 per pill; as far as the RAR team could determine no person had been apprehended and charged with use of the drug to date. One key-informant not associated with any law enforcement agency mentioned there had been reports of individuals apprehended trying to import small amounts (four or five pills) into the country. One key-informant believed there may be a small amount of cocaine use among the expatriate community in Mongolia.

Benzodiazepines

Key informants reported that abuse of benzodiazepines, including injection, is known to occur. Clinicians from the Poisoning Centre reported that in the last four years there has been a significant increase in admissions due to benzodiazepine overdose. Ten of the twenty two IDUs interviewed reported using benzodiazepines; all had injected the drug.

Solvents

The abuse of solvents was widely reported by key informants to occur in Mongolia. This is thought to mainly occur among school aged children and particularly among the economically disadvantaged.

Staff from the Centre of Mental Health and Narcology reported seeing increasing numbers of solvent abusing patients. The centre offers information, counselling and support for these clients. The National Anti-Drug Centre also offers support and counselling to young people who abuse solvents.

Injecting practices in Mongolia

Injecting drug use in Mongolia differs significantly from that which occurs in almost all other countries in the region.

Different types of injecting practices were found to occur in Mongolia. Commonly when injecting within a community is investigated in order to assess the associated risks of HIV transmission, it is the injection of illegal drugs that is of primary interest. Other 'types' of injecting were also found to frequently occur in Mongolia. HIV transmission may occur in association with these different injecting practices. These are outlined below:

The different types of injection identified were:

1. *Medically supervised injecting of a pharmaceutical*: This involves injection of pharmaceutical medicines prescribed by a clinician and administered in a medical setting by trained medical personnel;
2. *Medically prescribed – self administered injecting of a pharmaceutical*: Injection of pharmaceutical medicines prescribed by a clinician, dispensed by a pharmacy and injected by the patient him/herself or by some other non-medically trained person;
3. *Self-medicated – self administered injecting of a pharmaceutical*: Injection of a pharmaceutical medicine obtained over the counter from a pharmacy without a prescription and injected by the individual themselves or by some other non-

medically trained person with the intention of treating some ailment or improving health.

4. *Non-medicated – self administered injecting of a pharmaceutical*: Injection of a pharmaceutical medicine obtained illegally from a pharmacy without a prescription or on the black market and injected by the individual themselves or by some other non-medically trained person for a non medical reason. This may be considered as diversion of pharmaceuticals.
5. *Injection of an illicit drug*: Injection of a prohibited substance or a controlled substance diverted to the black market.

Injection types 4 and 5 above might be described as ‘illicit injecting behaviours’.

The RAR team were not able to obtain any estimates of the number of people involved in these different types of medical injecting or even the approximate ranking of the size of these populations by key informants. We were also unable to obtain pharmacy records detailing the quantities of injectable medications dispensed.

Many key informants reported that there is a widely held perception among health care consumers and many medical practitioners in Mongolia (as in many other developing countries) that injectable medications have much greater efficacy than non-injectable medications. The belief that there is an association between injected medications and good health is also reported in many other developing countries (Reeler 2000). One key informant (a clinician) suggested that this belief may have arisen because oral medications available in Mongolia have historically been of inferior quality to injectable medications.

Consequently medical practitioners frequently prescribe injectable medications, and many people obtain these preparations over the counter in preference to non-injectable medications. Many key informants reported that often one member of a family is experienced at giving injections and injects themselves and other members of the family. A study of injection practices in Mongolia (Logez et al 2003) reported that re-use and sharing of injection equipment does occur among people injecting in the home, especially among the poorest of the population who cannot afford new equipment for every injection.

In a 2003 survey of drug users, the APPDO identified 27 people who had injected drugs. Considerable re-use of injecting equipment was reported by this group.

Of the 23 respondents interviewed during this assessment who reported ever having injected a drug, 19 used sterile injecting equipment for all injections, one reported using sterile injecting equipment for most injections and two used new equipment only rarely. Three had used injecting equipment that had been used by another person before them. All IDUs reported purchasing injecting from pharmacies and eight had obtained needles from the APPDO (note: most of the interviews with drug users took place at the APPDO centre). One respondent reported being supplied needles by a friend.

Only four injecting drug users interviewed had ever mixed up a drug with water prior to injecting. One of those injectors reported having shared this other injecting equipment.

Access to and availability of injecting equipment in Mongolia

As the use of injectable preparations of prescribed medications is very common in Mongolia, new sterile injecting equipment such as needles and syringes can be freely purchased in most pharmacies. There is reportedly no stigma attached to purchasing injecting equipment.

A number of pharmacies in Ulaanbaatar were visited during this assessment. Only a limited range of injecting equipment was available. Plastic disposable needles were stocked 3ml and 5ml volume syringes were available. In most cases syringes were sold with 23 gauge needles attached.

The cost of purchasing one new needle and syringe ranged between MNT700 (USD0.60) and MNT 1200 (USD1.00).

Some key informants believed that because many drug users have limited financial resources, they are more likely to use the money they have to purchase drugs.

The NGO APPDO implements a NSP under the guidance of the NAF with funding from the Global Fund. USD190.00 is provided each quarter for the provision of free, new sterile injecting equipment and condoms to clients of this NGO. This service only operates one day per week. Clients are required to register in order to receive equipment and must sign the register every time they collect injecting equipment. Most clients receive 10 needles and syringes each week. Three clients used 5ml syringes while the rest used 3ml syringes. The syringes provided have 23 gauge, 1 inch needles attached. During the seven week period beginning the 1st of August 2006, the organisation provided injecting equipment to between 6 and 18 clients each week. Over the entire period the service distributed a total of 675 needles and syringes and 966 condoms. Injecting equipment provided by the APPDO free of charge to clients is shown in Figure 1.

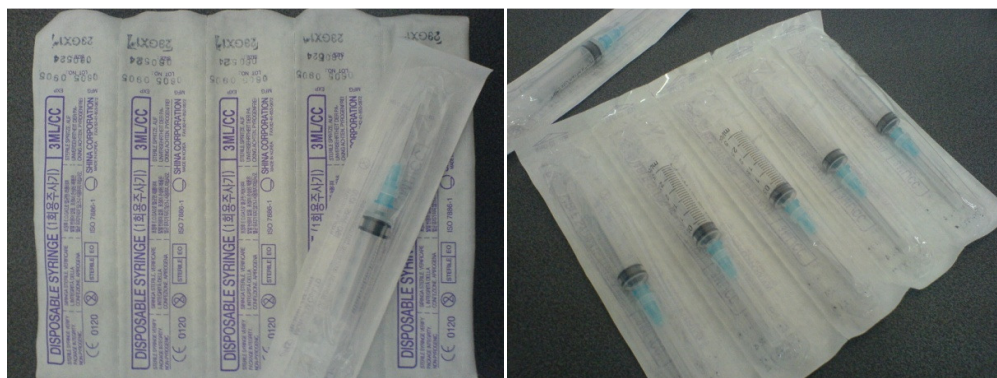


Figure 1: Injecting equipment provided by the APPDO to IDU clients free of charge.

Drug related crime, cultivation, production and sale of illicit drugs

There have been no reports to date of the manufacture of illicit drugs in Mongolia. A situation assessment conducted in 2001 (National AIDS Foundation 2001) reported that opium poppies and cannabis were previously cultivated by Chinese residents for personnel use and sale until the beginning of the twentieth century.

At present cannabis, opium poppies and the ephedra plant have been reported to grow wild in certain areas of Mongolia. The ephedra plant is a potential source of ephedrine which can be used to manufacture amphetamine. A number of years ago, a Chinese

commercial pharmaceutical company was found to be manufacturing ephedrine from ephedra plant in Mongolia. This manufacturer has since ceased operation. There were no reports of the public using opium poppies or the ephedra plant. Some informants believed that Mongolian people have no knowledge of how to use these plants.

Most key informants were aware of cannabis growing in areas close to the city of Erdenet. Among the key informants, estimates of the amount of cannabis growing wild in Mongolia varied between 300 and 800 hectares. Cannabis is collected and used locally in growing areas. It is also harvested and distributed to other centres where it is then sold.

Two young cannabis users were interviewed and both reported that cannabis is also harvested in Mongolia and transported to China where it is refined first to a substance they termed “mud”. It is then further purified to a form which they called “kash” or “gash” which from the description given appears to be hashish.

Hashish is imported into Mongolia and distributed for sale. One informant described how a “boss” imports a sizeable quantity of the drug and then distributes it among more junior drug dealers who then sell the drug to consumers. The junior drug dealers are most often young unemployed men who are grateful for the opportunity to make money.

Some of the drug users interviewed said that it can be difficult to obtain hashish as supplies are often inconsistent. In order to buy the drug, a potential customer must be known to the dealer and have his/her phone number.

The RAR team was unable to access official drug related crime statistics from the Ministry of Justice and Home Affairs. These records are classified as secret and the necessary clearance could not be arranged via our counterparts in the Ministry of Health.

The team was told informally that in the last ten years only 145 people had been convicted of drug related crime in Mongolia. Crimes included trafficking, possession and sale of prohibited substances. Customs officials in Sukhbaatar reported they have not intercepted many people attempting to traffic drugs across the land border. Police spoken to reported that it is difficult for police to enforce drug laws due to the weakness of the current legislation and the lack of guidance they receive on these matters.

The RAR team was also unable to obtain permission to visit any prison facilities in Mongolia. We were also unable to gain access to any data on the prison population held by the Ministry of Justice and Home Affairs. Two of the injecting drug users interviewed had been in prison in the past and reported that they were able to obtain drugs while in prison.

Other infectious diseases

Hepatitis C virus

Mongolia has a very high incidence of hepatitis C virus (HCV). Recent estimates of HCV prevalence range from 10.5% (Tellez et al 2002) – 24%. It is believed that this is may be due largely to the transmission from shared injecting equipment in the informal healthcare sector. One key informant believed that the sharing of shaving equipment is a

common practice among male family members and may also be a risk factor for infection.

Sexually transmitted infections

Sexually transmitted infections (STIs) account for almost half (47.4%) of all the infections reported in Mongolia (Thomas 2006). A total of 15,315 cases of STIs were reported in Mongolia in 2005. Many reports indicate an increasing trend in the incidence of STIs.

Between 1991 and 2005 the incidence of syphilis increased from 3.70 to 9.37 per 10,000 people in the general population. The incidence of syphilis was highest among the 15-24 year age group. (Thomas 2006)

Between 1991 and 2005 the incidence of gonorrhoea increased from 9.42 – 25.01 per 10,000 people in the general population. (Thomas 2006)

In 2005 among the general population the incidence of Trichomoniasis was 25.88 per 10,000. (Thomas 2006).

Availability of effective and early treatment for STIs is often limited, especially in rural areas where medical services may be poorly resourced and difficult for many people to access.

The first highly successful condom social marketing project in Mongolia was commenced in 1997 by the NGO Marie Stopes International Mongolia (MSIM). This programme operates four reproductive health centres: two in Ulaanbaatar, and one each in Darkhan and Erdenet. These centres provide a wide range of reproductive health services and family planning methods, well woman services, male services and services specifically aimed at young people. The centres also do outreach work to schools, universities, CSWs, homeless children and in the general community. MSIM has also developed an education programme for Mongolia's general and private practitioners aiming to increase the quality and extent of family planning and reproductive health services provided in Mongolia.

At-risk groups for HIV/AIDS and drug use

When asked to rank the top five most likely methods of HIV transmission in Mongolia over the next decade the members of the advisory group agreed on the following order:

1. Sexual transmission involving MSM and CSWs both equally most-at- risk
3. Heterosexual transmission
4. Medical injecting
5. Illicit injecting drug use

Other groups including migrant workers were also considered by key informants to be at risk of HIV/AIDS and drug use.

Men who have sex with men

Homosexuality in Mongolia is not illegal. There is no legislation however protecting homosexuals and other MSM from discrimination on the basis of their sexuality or sexual practices. These men are marginalised for their sexual practices and often face discrimination particularly from police.

The number of men who have sex with men in Mongolia is unknown. Workers from an NGO providing services for MSM in Ulaanbaatar estimated that there are currently 7600 men who identify as having sex with other men. The UNAIDS website cites an unnamed 2003 study in which 8.3% of male students reported having sex with other males. Notably only 50% of this group reported using condoms consistently (UNAIDS 2006)

Services specifically targeting MSM are limited in Mongolia. The Together Centre is an NGO that receives funding from the NAF. It offers support, education and counselling to MSM in Ulaanbaatar. It is affiliated with the NCCD and refers all clients to there for STI and HIV testing.

A focus group was held with MSM clients of the Together Centre. The MSM we met with described feeling isolated and unsupported. Many had not “come out” and were not openly gay; most had not disclosed their sexuality to their families. They described making contact with each other via the internet or at discrete gatherings and parties in Ulaanbaatar.

Very little drug use was reported among the MSM community. Only two of the MSM we interviewed reported having tried a drug, cannabis, each only on one occasion. Several of the MSM we spoke to had travelled overseas and had witnessed drug use in other gay communities.

The MSM we met at the Together Centre in Ulaanbaatar all had good knowledge of HIV risk and prevention and all reported using condoms when they had sex. They all received free condoms from this CBO.

There is evidence to suggest that unsafe sex is common amongst MSM. According to the 2005 UNGASS Report (UNAIDS 2006), 17.6% of men aged under 25 and 10.3% of men aged over 25, 13.0% overall, reported having used a condom on the last occasion that they had anal sex with another man.

Commercial sex workers

Commercial sex work is relatively common in Mongolia and many key informants believed it to be increasing. In Mongolia women face a much greater incidence of poverty than men. This economic disparity is a risk factor for engagement in sex work. A punitive environment towards commercial sex workers (CSWs) in many parts of the country limits service providers’ access to CSWs and also forms a barrier to sexual health education and promotion activities.

CSWs were considered by most key informants to be one of the most-at-risk populations for HIV infection in Mongolia at the present time.

Meetings and interviews with CSWs and organisations that work with this population were carried out in Ulaanbaatar, Darkhan, Sukhbaatar and Erdenet.

Key informants from NGOs providing services for CSWs estimated that currently there are around 3000 CSWs in Ulaanbaatar, 300 in Darkhan, 30 in Sukhbaatar and 80 in Erdenet. Most CSWs use mobile phones to remain in contact with hotels who act to broker services. In small towns like Sukhbaatar, women can be easily identified if they work openly as ‘commercial sex workers’. Many CSWs have regular clients and represent themselves as “casual sex partners”. There is a network of bosses (pimps) usually older,

female former sex workers who take a share of CSWs earnings for protection. CSWs may be forced to practice unsafe sex or service clients against their wishes if these bosses demand. Many of these bosses have arrangements with police.

The majority of CSWs stated that they have to work secretly due to fear of being arrested by police, making it hard for support services to access these women. Some sex workers live in hotels and are hidden by the hotel management also making access difficult.

CSWs see on average 3 clients per week (SGS 2004 data). Most clients of CSWs are Mongolian but many are foreigners most commonly Korean, Chinese and Russian. Many CSWs may travel overseas to work to earn better money; Russia and China are common destinations.

The majority of CSWs stated that they were aware of the need to practice 'safe sex' and frequently use condoms. According to the 2006 UNGASS Report, in 2005 94% of CSWs reported having used a condom with their most recent client. CSWs had limited knowledge concerning non-vaginal intercourse such as anal and oral sex and the risk of STI and HIV transmission associated with these behaviours.

These figures reported for condom use are high but may not be representative of all CSWs. STIs are also very common among CSWs. Some studies reporting as many as six out of 10 sex workers testing positive to an STI (UNDP, 2006). The high rate of STIs amongst most CSW populations in Mongolia suggests possibly lower condom use.

Sex workers reported that it was often difficult to insist upon using a condom when having sex with clients as many clients do not like sex with a condom, may offer to pay for sex without one and may even ask for another sex worker who will perform the service without using one. They also reported that clients are often drunk which makes it harder to negotiate for safe sex.

The majority of the CSWs drink alcohol with their clients. Excessive alcohol consumption is a common behaviour among sex workers. Comments by sex-workers included: 'We buy Vodka before we go to the hotel', 'Drinking alcohol before sex is something quite normal - it is part of our tradition and culture'. Some of the CSWs stated that they had to be careful not become drunk if they wanted to protect themselves from some harmful behaviours. Some commented that they were more likely to not use a condom if they are intoxicated.

Violent incidents including physical and verbal abuse experienced by CSWs were reported to commonly occur. CSWs said they generally accept this violence without reporting it to police as there is the risk that they may be arrested themselves.

Several key informants believed that CSWs operating in mining areas are at very high risk of syphilis due to the very high prevalence of syphilis among male mine workers and pregnant women in these areas.

There is little evidence of significant levels of drug use among CSWs in Mongolia. None of the participants in the group discussions reported ever having used drugs such as cannabis, heroin, morphine or other opiates, ATS, ecstasy or cocaine or any other legal or illicit drugs.

The majority of participants in the focus groups stated that they were also not aware of having any clients who had used drugs (apart from alcohol). Two participants reported knowing clients who used drugs but were unsure of what type of drugs. Participants in one group reported an incident that occurred 2-3 years ago in Ulaanbaatar when a client asked a CSW if she would like to inject drugs with him before having sex – it is understood that the CSW refused.

Some CSWs who had travelled to China to work reported that in some border areas seeing people “use a white substance” that is sniffed or taken orally that results in them looking ‘blank’ or ‘going stupid’.

The majority of interviewees stated that their principal source of information on HIV and safe sex practices is education and training provided by the local NGOs. The sex workers we spoke to were all literate, but the availability of written information material about HIV/AIDS and drugs is limited. The majority of CSWs have not seen educational TV programs about HIV/AIDS because they usually work at night time when these programmes are shown.

The interviewees felt there was insufficient information on drugs and related issues and places where they could get counselling or simply information about these issues. This is confirmed by the statements of other key informants

A number of NGOs receive funds from the NAF to work with CSWs. These include: the *Women’s Trust Association* in Darkhan, the *HIV/AIDS Protection Organization* in Erdenet and the *Public Health Professionals Association*. These NGOs have local as well as national programs with peer educators providing CSWs with group and individual counselling, advocacy and support.

A trial of the 100% Condom Use Program (100% CUP) was launched in Darkhan in 2002 with support from the WHO. The trial proved to be very successful. The syphilis rate among CSWs fell from 26% in 2002 to 14% in 2004. CSWs reporting consistent condom use increased from 26% in 2002 to 74% in 2004. Ongoing funding for the program was not secured. At the time of preparing this report there were plans for the GFATM to provide ongoing funding for this initiative and for eventual implementation across the country.

Sex workers in Darkhan are also issued with a “green card” when they attend a clinic for monthly sexual health screening. Holding this green-card renders them immune from arrest if apprehended by police for engaging in sex work. NGO workers feel this initiative in particular has been very successful in promoting safe sex and improved sexual health among sex workers and has fostered a more understanding among police towards sex workers.

Migrant workforce

Many key informants suggested that the increasing numbers of migrant workers, particularly from China employed in the construction and mining industries, may represent a population where injecting drug use and HIV may occur. A focus group was held with Chinese construction workers in Ulaanbaatar. This group had very little knowledge of injecting drug use. They were also very isolated. None spoke Mongolian and all of them described how they rarely left the building site where they worked and were also accommodated for fear of being harassed by police. They reported that it was

not uncommon for police to detain them and require payment of a fine before they could be released.

Drug use and HIV in neighbouring regions

Neighbouring China and Russia both have significant HIV epidemics and high levels of injecting drug use. The spread of HIV through injecting drug use is a major contribution to the HIV epidemics in both these countries.

There are increasing levels of trade and movement between Mongolia and as such the trends relating to HIV and drug use in these neighbouring countries especially in the nearby urban centres of Irkutsk and Ulan Ude in Russia and Hoh Hot in China may have some impact upon the Mongolia.

Russia

The number of people in Russia testing positive for HIV has grown exponentially in the last two decades.

Since 1999 there has been an increase in the prevalence of HIV in Irkutsk. According to the Russian Federal AIDS Centre there have been 19,887 cases of HIV registered in the Irkutsk region between 1 January 1987 and 30 June 2006. Of these, 85 people have died. The prevalence of HIV in Irkutsk is 778 per 100,000 which is considerably higher than the prevalence of HIV in the entire Russian federation which of 235 per 100,000. Sixty percent of people infected with HIV are aged between 20 and 29 years.

By far the largest at-risk group is IDUs. In 2005 IDU was the main risk factor for HIV infection in Irkutsk, associated with 80.7% of new infections. In 2004 5% of IDUs in Irkutsk tested by the Russian Federal AIDS Centre were found to be HIV positive – ten times greater than the rates measured in the general population in Irkutsk and more than 2.5 times the rate measured among overall IDU population in the Russian Federation.

Heterosexual transmission of HIV is also increasing as is the spread to the general population beyond IDU groups. Unsafe sex also increased in the commercial sex industry where drug use is also prevalent. A significant increase in STIs has also been reported in this region.

Harm reduction services are being introduced in the region despite the Irkutsk government having been originally opposed to such measures. The drug scene in Irkutsk is described as fairly open which affords services good access to IDU populations.

China

The HIV epidemic in China is recognised as having spread to all provinces by 1998. By the end of 2003 between 650,000 and 1,020,000 people were estimated to be living with HIV/AIDS in China, equivalent to a prevalence rate of around 0.07% in the general population (State Council AIDS Working Committee Office 2004).

Significant regional variation exists within the country. The incidence of HIV in the Inner Mongolia Autonomous Region is very much lower than many other provinces. By September 2004 the number of reported HIV cases in the province was fewer than 100. While in some regions the prevalence rate among IDUs is as high as 50%, it is lower than 5% in Inner Mongolia. The prevalence rate among CSWs in the region is less than

0.1%. The main route of transmission throughout China is via injecting drug use. There is evidence across the country that the sexual transmission is becoming increasingly common and the epidemic is spreading into the general population. This is especially true in areas with high rates of HIV among IDUs and CSWs. (State Council AIDS Working Committee Office 2004)

IDU is increasingly prevalent in China. Currently there are around 1.14 million registered illicit drug users in China (Chu & Levy, 2005). This figure is likely to represent only a small proportion of the drug using population. Others have estimated that there may be as many as 3.5 million IDUs in the country (Aceijas, Stimson, Hickman, & Rhodes, 2004). Significant regional variation in drug use is known to occur within China; however the RAR team was unable to obtain information concerning drug use in Inner Mongolia specifically.

Efforts have been made by the government of China to make Inner Mongolia 'drug free'. Authorities claim that in some areas these attempts have been successful through the implementation of strict prohibition laws and compulsory treatment strategies (National Narcotics Control Commission, 2005). The RAR team were unable to find evidence verifying these claims.

Discussion

Probable sources of HIV spread in Mongolia in the next decade

The starting point for any rational effort to develop an effective response to the threat of HIV in Mongolia has to be an attempt to identify the most serious sources of this threat.

Injecting drug use and HIV in Mongolia

There is a strong consensus that illicit injecting drug use, as seen now in virtually every other country in Europe and Asia, is fortunately still quite rare in Mongolia. We found no evidence of significant injecting drug use in Ulaanbaatar and the cities of Erdenet, Darkhan or Sukhbaatar, despite extensive efforts to identify injecting drug users or evidence of their existence. We found no evidence of the usual complications of regular and frequent injection of street drugs by young people such as fatal and non-fatal overdoses, local infections at the injection site (e.g. abscesses, cellulitis), distal infections (e.g. endocarditis, brain abscess) or social problems (e.g. property crime). It is not possible to ever completely exclude the possibility that a substantial population of injecting drug users exists but is well hidden or was missed. We believe this to be most unlikely. It was not possible to obtain an estimate of the number of illicit injecting drug users or even minimum and maximum estimates. It is generally agreed that there are more people in Mongolia involved in medical injecting with non-sterile equipment than illicit injecting drug users.

A significant issue in the health care sector is self administration of prescribed morphine by patients with chronic non-malignant pain (CNMP). Some inject 10-15 ampoules of 10 mg morphine a day intra-venously or intra-muscularly for many years. Most of these patients are known only to their doctors. Some go on to develop morphine dependence and supplement their prescribed morphine with additional supplies obtained from the black market. It is difficult to get estimates of the number of such patients in Mongolia or even minimum and maximum estimates. CNMP can be more effectively managed by oral slow release opiates or other non-opiate medications (Harden 2002). While cost may be a barrier to the introduction of such management in Mongolia these alternatives should be explored further especially as they avoid the risk of HIV and BBV transmission associated with injectable preparations.

Medical injecting and HIV in Mongolia

For the purposes of this discussion medical injecting refers to all forms of skin penetration in both the formal and informal or traditional health care sectors. This includes the very common practice in the formal health care sector in Mongolia of injecting a variety of medications including vitamins, antibiotics, analgesics and fluids although many of these can be administered just as well by oral or other non-parenteral means. In the traditional health care and other sectors, skin penetration includes a diverse range of practices including injections, tattooing and ear-piercing. It was not possible to obtain an estimate of the number of patients in Mongolia involved in medical injecting or even minimum and maximum estimates.

It is likely that in Mongolia as in many other developing countries injecting practices may sometimes involve the re-use of injecting and other skin penetration equipment without adequate sterilization. Such practices are a significant risk for the transmission of HIV and other BBVs. In Mongolia, these risks are clearly greater in the informal and traditional health care system where the re-use of inadequately sterilised injecting

equipment or other skin piercing equipment appears to be more common than in hospital settings.

Further support for the notion that medical injecting is a potential source of HIV comes from consideration of hepatitis C data in Mongolia. The prevalence of HCV in the general population is remarkably high in comparison with other countries. Widespread use of inadequately sterilised injecting and other skin piercing equipment in the formal and traditional health care and other sectors is the most plausible explanation for the high HCV prevalence reported in Mongolia. Although HCV is more easily spread via blood-blood transmission than HIV, this high prevalence of HCV is an indication that HIV has the potential to also be spread by injection related transmission in Mongolia.

Men who have sex with men and HIV in Mongolia

MSM account for almost half of all known HIV infections in Mongolia to date. This suggests that MSM have to be considered as a very likely source of a generalised HIV epidemic in Mongolia in the next decade. However, in most countries, the spread of HIV from MSM to the general population has only been moderate. This is likely to also be the case in Mongolia. In the absence of evidence to the contrary we have assumed that MSM in Mongolia are most likely to have similar sex behaviour to MSM in most other countries. If this is in fact the case, then the risk of a generalized epidemic being triggered by an earlier HIV epidemic among MSM is likely to be no more than moderate. In addition, estimates of the number of MSM in Ulaanbaatar (and then extrapolated out to the population of Mongolia) are surprisingly low. It may be that these estimates are reasonably accurate. Alternatively, the true number may be somewhat higher than these estimates. We doubt that the true number of MSM is lower than the estimates. It is very possible that under-reporting of MSM numbers may be a reflection associated stigma. Importantly stigmatised populations are harder to provide services for and are also at greater risk of engaging in riskier behaviours.

Commercial sex workers and HIV in Mongolia

There appears to be a sizeable population of CSWs in Mongolia, many of whom, on the available data, appear to have unprotected sex. In turn, it can be safely assumed that clients of CSWs have sex with many other female partners (including their wives and girl friends). Accordingly, we rate CSWs as at least an equally likely source of an HIV epidemic in Mongolia in the next decade to MSM even though MSM have accounted for more HIV cases in the country thus far.

STIs are a potent potential risk factor for the spread of HIV in the country and thus STIs are rightly considered a serious public health problem in Mongolia (UNDP, 2006)

The fact that 11 of the 25 (44%) reported cases of HIV infection in Mongolia also had Syphilis or Gonorrhoea, that the prevalence of STIs in Mongolia is known to be alarmingly high, and that the important role of STIs as facilitators of sexual transmission of HIV is well established suggests the urgent need for rapidly expanding and improving the effectiveness of STI policy and practice in Mongolia. The very high prevalence of STIs in Mongolia will unfortunately facilitate HIV sexual transmission both among MSM and also between CSWs and their clients, and beyond.

Sexual transmission of HIV among the heterosexual population

In addition to the potential spread of HIV from CSW to the wider heterosexual population as discussed above it is important to consider factors likely to increase the sexual transmission of HIV within the heterosexual population.

Although the high prevalence of STIs in Mongolia is a great concern, heterosexual transmission independent of CSW appears a much less likely source of significant numbers of new HIV infections in Mongolia, at least for the next decade. However, given heterosexuals represent a large proportion of the population and the high prevalence of STIs in Mongolia, even a low incidence of HIV in this population could potentially over time account for a large number of cases.

Specific risk factors likely to increase the spread of HIV within the heterosexual population include widespread injecting practices and unsafe sex. Alcohol intoxication is a well documented risk factor associated with risky sexual behaviours. This is of particular concern in Mongolia given the relative affordability, availability and widespread use of alcohol.

Accordingly, our ranking of the most likely sources of significant HIV infections in Mongolia in the next decade is:

1. Sexual transmission involving men who have sex with men (MSM) & Commercial Sex Workers (CSWs)
3. Sexual transmission among the heterosexual population
4. Medical injecting
5. Illicit injecting drug use (IDU)

Is injecting drug use likely to increase in Mongolia in the foreseeable future?

Experience in other countries has demonstrated the difficulty of controlling IDU triggered HIV epidemics. HIV epidemics amongst IDU populations in the community and prison populations can rapidly spread to the general population.

At present the risk of an IDU driven HIV epidemic in Mongolia is low given the likely number of IDUs in Mongolia is very small. However there are a number of readily identifiable factors which suggest that Mongolia could experience a rapid growth in the number of injecting drug users in the foreseeable future. Mongolia's two neighbours, Russia and China, had virtually no injecting drug use until the last couple of decades. Both countries experienced an epidemic of injecting drug use quickly followed by an HIV epidemic among and from these injecting drug users. Other risk factors include: the very young age of the Mongolian population with 70% of the population under the age of 35 years and around 33% under the age of 16 years; youth unemployment is very high; there are an increasing number of pockets of wealth; Mongolia has become a transit country for the trafficking of drugs between Russia and China; and road and rail communication is limited now but is improving rapidly.

Certain factors exist that may limit the increase of injecting drug use in Mongolia in the near future. Given alcohol is a prevalent and culturally accepted drug in Mongolia it is unlikely that a large proportion of the population would commence using an alternative intoxicant such as injectable drugs such as heroin that are harder to obtain, more expensive and less culturally acceptable. Mongolia appears to lack any significant existing illicit drug market and drug distribution network of and is a long way from the major heroin producing countries. There is some evidence however that such drug distribution

networks are beginning to be established but are currently limited to the distribution of cannabis and related products. These networks have the potential to expand and be the basis of a larger drug distribution mechanism. Counter to the development of such drug distribution are factors such as Mongolia's long and very cold winters, poor transport infrastructure and common nomadic lifestyle practiced in rural areas and relatively small and low density population.

RECOMMENDATIONS

- 1. The Government of Mongolia should recognise the potentially severe health, social, economic and security costs of an uncontrolled HIV epidemic in the country and accept that HIV control is of paramount importance.**
- 2. Strong political leadership is needed to ensure that pragmatic responses to the HIV epidemic are formulated and adopted rapidly. These responses must be implemented now and expanded to scale as soon as possible. For this to occur, strong political support and adequate funding is essential.** Countries that have been successful in controlling HIV acted quickly in the early stages of the epidemic. This was possible only with strong political support by the country's leaders.
- 3. Increased funding must be made available for health and social interventions in HIV prevention. These interventions must target the wider community and have particular focus on at risk groups including commercial sex workers, men who have sex with men and injecting and other drug users.** It is important to recognise that while the costs of these exercises may be considerable, the future costs of inadequate action will be many times greater. It is also important to recognise that many of those most at risk are members of marginalised groups in Mongolian society.
- 4. The Ministry of Justice and Home Affairs and the Ministry of Health should collaborate to formulate policy relating to illicit drug use and HIV/AIDS. A harm minimisation approach to issues should be taken.** The prevention of HIV transmission associated with injecting drug use has been demonstrated in other countries to be most successfully achieved by taking a harm minimisation approach and has been explicitly endorsed by numerous United Nations and WHO statements and Declarations⁴.
- 5. Within the general community awareness of HIV/AIDS and its associated risks and the effectiveness of prevention must be raised and maintained.** Current levels of HIV/AIDS knowledge are low. The community must understand and support the need for pragmatic measures to control HIV in Mongolia.

⁴ 1974, 1992 & 1996 reports of the WHO Expert Committee on Drug Dependence; 1988 UN Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances; 1998 Declaration on the Guiding principals of Drug Demand Reduction by the UNGASS on the World Drug Problem; Preventing the Transmission of HIV among Drug Abusers: A Position Paper of the UN System, 2000; 2001 UNGASS on HIV/AIDS Declaration of Commitment on HIV/AIDS; 2003 WHO Global Health Sector Strategy for HIV/AIDS; 2003 WHO Regional Committee for the Western Pacific Resolution WPR/RC54.R5: Sexually Transmitted Infections Including HIV/AIDS; 2003 Treating 3 Million by 2005: Making it Happen: The WHO Strategy; 2004 WHO/UNODC/UNAIDS Position Paper on Substitution Maintenance Therapy in the Management of Opioid Dependence and HIV/AIDS Prevention; 2005 UNAIDS Committee of Cosponsoring Organisations Joint UNAIDS Statement on HIV Prevention and Care Strategies for Drug Users; 2005 Intensifying HIV Prevention: UNAIDS Policy Position Paper as well as numerous other documents and statements.

6. **Continue and strengthen HIV surveillance measures. Assess yearly the need to include IDUs as a sentinel group in second generation surveillance of HIV in Mongolia and continue to question other sentinel groups about injecting drug use.** Improving the quality and quantity of data will assist Mongolia to respond to the HIV epidemic successfully. Currently there are insufficient numbers of IDUs to warrant their inclusion as a separate sentinel group but this may change.
7. **Surveillance should be carried out to detect the emergence of IDUs in Mongolia.** Surveillance should involve the following indicators: drug overdose deaths; incidence of possible IDU related illness (admissions for unexplained abscesses and cellulitis in arms and legs that may be associated with IDU; endocarditis, brain abscess, lung abscess); drug related crime; drug treatment statistics; interviews with families of young people who have died suddenly to assess whether the number of injecting drug users is increasing. Methods used should complement and extend any existing reporting procedures.
8. **Strengthen STI policy and practice as a matter of urgency, including prevention, treatment and care, particularly amongst CSWs, MSM and IDUs.** There are very high rates of STIs in Mongolia; STIs facilitate the transmission of HIV and must be brought under control as soon as possible. School and community based education improved access to early diagnosis and care would be included in a comprehensive STI control strategy.

In particular condom use must be promoted in the general community, and with a particular focus on at-risk groups. There is a need to rapidly reduce the risk of further HIV infections and greater condom use will assist with this. It is important to ensure that particular groups, such as MSM, have access to condoms and it may be necessary to expand availability to cater to the needs of this and other groups. It is important to recognise that the high prevalence of STIs in Mongolia will not substantially decline for some time even if vigorous efforts are made soon. Efforts need to be sustained to bring about a benefit in the long term.

9. **Preparations should be made to expand ARVT.** While there is currently only a very small number of people requiring ARVT, given the rate of increase in the incidence of HIV in Mongolia this is likely to change in the near future. It is important to ensure that the necessary clinical capacity exists and access to medications is guaranteed.
10. **Expand capacity to treat HCV, especially in HIV positive people.** Given the high incidence of HCV in Mongolia it is likely that there will be increasing numbers of HCV positive HIV patients. Treatment of both infections is essential but can be complicated.
11. **Encouraging increased use of voluntary counselling and testing (VCT) by CSW, MSM, IDU and in the wider community.** It is critical to ensure that testing is voluntary and that appropriate counselling is available. Those at risk of HIV infection should be made aware of the benefits of testing and early detection. Access to VCT should be made as straightforward as possible.

- 12. Targeted education campaigns must exist for MSM, CSWs and IDUs.** The particular needs and risks experienced by these groups must be addressed in targeted education campaigns. To effectively reach these groups and communicate important information the material produced may not be suitable for the distribution to the general population. Sensitive distribution may be necessary but should not hinder communicating important messages to these groups.
- 13. Ensure further expansion of the 100% condom utilisation programme (CUP) in the commercial sex work industry** The most urgent requirement for reducing the risk of HIV spread between CSWs and their clients is to make the 100% Condom Utilisation Programme (CUP) national with 100% implementation. Localized implementation has been very successful. This is not surprising as the Mongolian programme was modelled on a highly successful programme implemented in Thailand.
- 14. Encourage community development within IDU, CSW and MSM populations and develop an anti discrimination framework for these at risk groups.** Protecting the human rights and reducing the stigma experienced by target populations will facilitate HIV prevention. Encouraging collective action through community development can enable CSWs to resist pressures to engage in unsafe sex with clients. Safe spaces for MSM to gather are important and can facilitate access to HIV prevention services.
- 15. Review legislation concerning CSWs and MSM to ensure that their legal status does not impair the objective of HIV control.** Laws criminalising sex work and/or discriminatory action against these groups by police can hinder access to services and further marginalise these groups consequently increasing the likelihood of engaging in risk behaviours. Offering police training regarding these difficult issues and introducing police liaison officers to work with these communities has proved successful in other countries. It is necessary to educate police on the rationale and importance of HIV prevention measures such as harm reduction, so that they can use this knowledge in their application of the law.
- 16. Consider methods, such as regulating commercial sex work, to encourage a shift from street based sex work to fixed sites.** Street based sex work offers the least protection for CSW and provides the most difficult environment for to decline clients who refuse to use a condom. In other countries regulation which shifts CSW from the street to fixed sites has been shown to reduce HIV infection.
- 17. Reducing the re-use of un-sterile injecting equipment in the formal and informal health care systems as well unsupervised household injecting.** High rates of HCV in the general population suggest unsafe injecting and skin penetration practices particularly in the informal health sector.
- 18. Increase the availability and decreasing the price of appropriate injecting and other skin piercing equipment.** Access to new sterile injecting equipment is an optimal way to prevent injecting related BBVs infection. Shorter small gauge needles are more appropriate for intravenous drug use than the long, large gauge

needles currently available as small needles result in less tissue and vein damage and contain less dead space.

19. **Introduce regulation of body modification services (including piercing and tattooing services) and provide guidance on safe practice to these service providers.**
20. **Reduce the incidence of avoidable injections by educating health care providers and the wider community of the associated risks of this practice and the benefits of non-injectable medications.**
21. **Improve regulations controlling the distribution of pharmaceutical opiates so to prevent the diversion of these drugs.** Evidence of significant amounts of pharmaceutical opiates available on the black market suggests tighter controls are required.
22. **Identify patients who are managed for prolonged periods with frequent opiate injections for the treatment of chronic non-malignant pain.** Many patients who receive injectable opiates for the management of chronic non-malignant pain remain hidden. This group is at risk of developing drug dependence and BBV transmission.
23. **Develop protocols for management of patients with chronic non-malignant pain who are prescribed injectable opiates.** This should aim to achieve a gradual transition to treatment using non-injectable sustained release opiates and non-steroidal anti-inflammatory drugs which are more effective in the management of pain and do not carry the associated risks of BBV transmission.
24. **Increasing the provision of non-judgemental, factual and evidence based drug education in schools and in the community.** It is critical that this education does not pass judgment on people who use drugs. It should also be balanced and factual. Young people often have an intuition that drug education is inaccurate and strongly biased against drugs. If this is how they perceive drug education, then they will be wary about accepting it and any future drug education messages.
25. **Improve the quality of drug treatment by expanding the range of evidence based treatment options available and enhance staff capacity.** Effective treatment requires reasonable treatment facilities and motivated well trained staff who are kept up to date with developments in the alcohol and other drug fields. It is essential that clinicians receive ongoing training and have access to international literature. Local research must also be encouraged as this improves quality of services offered and enhances the capacity of staff and improves their practice. This will required increased funding.
26. **Consider international training for key drug treatment staff.** Current drug treatment available in Mongolia is limited considerably by the lack of experience of healthcare professionals responsible for providing care. The most effective way to quickly increase their capacity is provide these professionals with exposure to practices in other countries where drug treatment services are more developed.

- 27. Prepare for methadone maintenance treatment for when the needs arises.** Currently there is little need for Mongolia to provide MMT. However this need may well occur very quickly in the near future. It is important that Mongolia has the capacity to respond to such a need promptly. Having available an evidence based response such as MMT is an important step to reducing drug demand and preventing HIV.
- 28. Be prepared to expand Needle and Syringe Program quickly for when there is some indication of increasing injecting drug use.** To respond to an emerging IDU population it may be most efficient to develop ‘secondary’ NSPs that operate through existing health services. This requires minimal additional resources but achieves wide coverage.
- 29. Review legislation and law enforcement concerning drug use and ensure that this does not impair the objective of HIV control.** It is critical that people who use drugs can access drug treatment and HIV prevention services such as NSP programs without fear of being charged for drug offences. Police should receive guidance on how to enforce drug laws while also taking a harm reduction approach and ensuring that HIV prevention measures are successful.
- 30. A balanced approach to drug law enforcement must be taken.** Ensuring that law enforcement assists rather than undermines HIV prevention is critical. By focusing all efforts on drug supply reduction and too little on demand and harm reduction there is a very real risk of precipitating an increase in the transition from non-injecting drug to injecting drug use. The unfortunate failure of such an unbalanced approach has been demonstrated in a number of countries.
- 31. The Government of Mongolia needs to consider a comprehensive range of approaches to reduce the severe problems associated with the excessive consumption of alcohol including the exacerbation of unsafe sex practices by intoxicated persons.** Alcohol clearly increases the likelihood of unprotected sex. While the risks of HIV transmission associated with this may be considerably less than those seen in other at risk groups it is still critical to address this issue especially as Mongolia has very high rates of alcohol consumption.
- 32. The Government of Mongolia must conduct ongoing evaluation and monitoring of HIV control programs.** This will ensure higher quality programs and will allow for any negative consequences to be identified and minimised. Evidence of the success of HIV control programs is necessary to justify their operation. This is particularly important when some measures may be controversial and may be seen as objectionable by some critics. This evidence can safeguard the political sustainability of such programs.

In summary, it is critical for Mongolia that the current low prevalence of HIV in the country is maintained indefinitely. Early and vigorous action responding to the multiple areas of risk will avoid an HIV epidemic in the country. As in other countries which have managed the HIV epidemic well, this will require strong political leadership and effective collaboration between health and justice ministries and government and non-government sector. The cost of action may seem rather high but this does not compare with the much higher cost of inaction.

References

- Aceijas, C., Stimson, G., Hickman, M., & Rhodes, T. (2004). *Global overview of injecting drug use and HIV infection among injecting drug users*. AIDS, 18, 2295-2303.
- Chu, T. X., & Levy, J. A. (2005). *Injection drug use and HIV/AIDS transmission in China*. Cell Research, 15, 865-869.
- Ebright, J. R., Altantsetseg, T., & Oyungerel, R. (2003). *Emerging infectious diseases in Mongolia*. Emerging Infectious Diseases, 9(12), 1509-1515.
- Harden RN (2002). *Chronic opioid therapy: another reappraisal*. American Pain Society Bulletin, 12(1).
- Logez S, Soyolgerel G, Fields R, Luby S, Hutin Y (2004) *Rapid assessment of injection practices in Mongolia*. American Journal of Infection Control, 32, 31-37.
- National AIDS Foundation (2001). *HIV/AIDS and drug use participatory situation assessment report*. Ulaanbaatar: National AIDS Foundation.
- National Narcotics Control Commission. (2005). *Annual Report of Drug Control in China, 2005*. Beijing: National Narcotics Control Commission.
- Reid, G., & Costigan, G. (2002). *Revisiting 'The Hidden Epidemic': A Situation Assessment of Drug Use in Asia in the Context of HIV/AIDS*. Melbourne: Centre for Harm Reduction.
- Schwebke, J. R., Aira, T., Jordan, N., Jolly, P. E., & Vermund, S. H. (1998). *Sexually transmitted diseases in Ulaanbaatar, Mongolia*. International Journal of STD & AIDS, 9(6), 354-358.
- State Council AIDS Working Committee Office & UN Theme Group on HIV/AIDS in China (2004). *A joint assessment of HIV/AIDS prevention, treatment and care in China*. Beijing: UNAIDS
- Tellez, I., Altankhuu, M., Vermund, S., Gnann, J. W., Hook, E. H., & Schwebke, J. (2002). Hepatitis, syphilis, and HIV sentinel surveillance in Mongolia, 1999–2000. *Sexual Transmitted Infections*, 78(3), 223-224.
- Thomas, J. (2006). *HIV / AIDS and STIs prevention among young vulnerable population group in Ulaanbaatar*. Ulaanbaatar: FXB International prepared for UNDP & UNV, Mongolia.
- UNAIDS (2005). UNGASS Indicators Country Report 2004: Mongolia. Geneva: UNAIDS.
- UNAIDS (2006). UNGASS Indicators Country Report 2005: Mongolia. Geneva: UNAIDS.
- World Health Organization - Substance Abuse Department (1998). *The rapid assessment and response guide on injecting drug use (IDU-RAR)*. World Health Organization: Geneva

World Health Organisation (2002). *SEX-RAR guide: the rapid assessment and response guide on psychoactive substance use and sexual risk behaviour*. World Health Organization: Geneva

World Health Organisation (2003). *Rapid Assessment and Response Technical Guide*. World Health Organization: Geneva

Appendix I: Timetable of meetings, site visits and activities

Day and date	Time	Activity
Monday 04/09/06	09.30-10.30	Meeting with WHO Country Office staff: Mr Hagan (WR), Dr Govind, Dr Jargalmaa
	11.00-12.30	Meeting with Dr Kazantseva, Centre for Mental Health and Narcology (CMHN)
	15.00-15.15	Meeting with students from the School of Public Health
	16.00-16.30	Meeting with Dr Munkhdelger, Head, Pharmaceuticals and Medical Devices Department, Ministry of Health
Tuesday 05/09/06	10.00-11.30	Meeting with Mr Bayaraa, President, Association Against Alcoholism and Drug Abuse
	12.00-13.15	Meeting with the Vice-Minister of Health, Ministry of Health
	16.30-17.30	Meeting with Dr Enkhjin, Officer in charge HIV/AIDS, Ministry of Health GFATM projects
Monday 11/09/06	10.00-10.50	Meeting with Dr Khongorzul, Dr Nai Tuya and Dr Kazantseva, CMHN
	11.00-13.00	Advisory Group Meeting
	14.00-16.00	Site visit to CMHN
Tuesday 12/09/06	11.00-13.30	Site visit to APPDO
	14.30-17.45	Meeting with WHO volunteer
	16.00 – 16.45	Teleconference with WHO REGIONAL OFFICE FOR THE WESTERN PACIFIC
	17.00 - 18.00	Meeting with students from School of Public Health
Wednesday 13/09/06	09.00 -09.45	Interview training with students from School of Public Health
	10.00-16.00	Interviews with drug users at APPDO
Thursday 14/09/06	09.30 -11.30	Meeting with Dr Enkhjin, Ministry of Health
	14.30-17.00	Interviews with drug users at APPDO
	14.30 – 17.00	Focus group with CSWs
	17.30 -19.00	Interview training and briefing with students from School of Public Health
	19.30 – 20:30	Meeting with Clinicians from international SOS clinic
Friday 15/09/06	09.00 - 10.00	Meeting with Dr Kazantseva, CMHN
	10.15 - 11.00	Meeting with Ms Munkhdelger, Ministry of Health
	11:00 – 12.15	Meeting with Major Nyamdorj Nyamtseveen & Ms Chimedregzen, Criminal Police Department
	13:15 – 14.15	Meeting with Ms Batsukh Altantsetseg, director NAF

	17:00 – 17:30	Meeting with Dr Enkhjin Ministry of Health
Monday 18/09/06	11:00 – 12:30	Meeting with Mr Dashtudev and Mr Bat-Amgalan, Ministry of Justice and Home Affairs
	13:30 – 15:00	Meeting with students from School of Public Health
Tuesday 19/09/06	10:00 – 11:00	Meeting with Mr Enkhbayar, City Health Department
	14:00 – 15:00	Meeting with Ms Munkhtsatseg, Inspector, National Inspection Agency
	22:00 – 23:30	Meeting with CSW, Women’s Trust Association and Sexual Health Specialists, Darkhan Focus group with CSWs
Wednesday 20/09/06	10:00 – 11:30	Site visit to HIV/AIDS and Sexual Health Departments, Government Health Centre, Darkhan
	11:00 – 12:00	Site visit to Narcology Centre, Darkhan, Dr Oyunchimeg
	12:00 – 13:00	Site visit to Women’s Trust Association Centre, Darkhan
Thursday 21/09/06	09:00 – 10:30	Meeting with Mr Azbayar, Head, The National Anti-Drug Centre
	10:30 – 11:30	Meeting with Dr Enkhjargal, Railway Hospital
	18:30 – 20:00	Interview with drug user
Friday 22/09/06	14:00 – 16:00	Meeting with Dr Janchimeg, Ms Narentuya, HIV/AIDS Protection Organisation,
	16:00 – 17:00	Teleconference with NDARC
Monday 25/09/06	10:00 – 12:00	Advisory group meeting
	13:00 – 14:00	Meeting with student from School of Public Health
	14:30 – 15:30	Meeting with Mr Dungerej, National Officer HIV/AIDS, UNICEF
	15:30 – 16:30	Meeting with Ministry of Health representative in charge of SGS of HIV
	17:00 – 17:30	Meeting with Students from School of Public Health
	17:30 – 18:30	Interviews with drug users
Tuesday 26/09/06	09:00 – 10:00	Meeting with Dr. Unur, Statistician, Department Of Health, Sukhbaatar
	10:00 – 11:00	Site visit to Narcology Centre, Sukhbaatar, Dr Ganchimeg
	11:00 – 13:00	Site visit to STIs/HIV Training & Prevention Centre, Sukhbaatar, Dr. Delgersaikhan
	13:00 – 14:00	Meeting with Mr U. Sainnyam, Head, Branch Office of the Association Against Alcoholism & Drug Abuse, Sukhbaatar
	15:30 – 16:30	Meeting with Head of Police Department, Sukhbaatar.

	15:30 – 16:30	Meeting with Ms Byambaa & Dr Bayannas, Ministry of Health, Global Fund supported projects to fight HIV/AIDS & TB, Ulaanbaatar
	16:30 – 17:30	Meeting with Mr Mendbayer and Mr Gartogoo, Together Centre, Ulaanbaatar
	17:00 – 19:30	Meeting with officer in charge of customs at Mongolia - Russia border crossing
Wednesday 27/09/06	09:00 - 09:30	Meeting with Dr. Unur, Statistician, Department Of Health, Sukhbaatar
	09:00 – 09:30	Meeting with Dr Khun, Ministry of Health, Ulaanbaatar
	10:00 – 11:30	Meeting with Delia Barcelona, Representative, & Dr Enkhjargal, UNFPA
	10:00 – 11:00	Meeting with Dr Ganchimeg, Narcology Centre, Sukhbaatar
	12:00 – 13:00	Meeting with Dr Erdenebeyr, Director, CMHN
	11:20 – 13:45	Meeting with Mrs. Horolsorin, Director, NGO (branch) Against Violence, Sukhbaatar
	14:00 – 13:00	Meeting with Dr Daigiymaa, Director, Department of Forensic Medicine, National Centre of Forensic Investigation
	16:00 – 16:30	Meeting with Gundalai Lamjov, Minister of Health
	16:30 – 17:30	Meeting with Dr Naymjav, Director HIV/AIDS STI department, NCCD
	18:00 – 19:30	Meeting with Dr. Dolzmaa, psychologist & head, Centre for Alcohol & Narcology, Erdenet
	19:30 – 20: 30	Meeting with senior police officer, Erdenet
	20:45 – 23:00	Meeting with CSW NGO, Erdenet Focus group with CSWs, Erdenet
Thursday 28/09/06	08:30 – 09:00	Meeting with Dr. Ganhuyag, Director, Health Department, Erdenet
	09:00 – 10:00	Meeting with Dr. Cowelmae, head, STIs Department, Government Health Centre, Erdenet
	09:00 – 11:00	Site visit to National Trauma Hospital, Ulaanbaatar, Dr Nansalma
	10:00 – 11:00	Meeting with Dr Dolzmaa, Narcology Centre, Erdenet
	11:30 – 12:30	Meeting with Mr Jargalsaikhan, head, Foundation Against HIV/AIDS and Drug Abuse
	11:30 – 12:30	Meeting with Dr. Oyanchimeg, psychologist, Narcology Hospital, Erdenet
	12:30 – 13:30	Meeting with school Social Worker, School 8, Erdenet
	12:30 – 14:00	Meeting with Mr Yurnaa, head of youth division, APPDO

	13:30 – 14:30	Meeting with trauma physician, Erdenet
	16:00 – 17:00	Meeting with Dr Batgombo & Dr Tsen Sengelmaa, Poisoning Hospital, Ulaanbaatar
Friday 29/09/06	09:00 – 10:00	Meeting with Dr Munkhdelger, Ministry of Health
	11:00 – 12:45	Meeting with Dr. Ganchimeg, head, CSW NGO & Dr. Enkctuya, gynaecologist, Future for Adolescents & Reproductive Health NGO
	14:00 – 14:30	Meeting with Gundalai Lamjov, Minister of Health
	19:00 – 21:00	Focus group with Chinese construction workers
Monday 02/10/06	09:00 – 10:00	Meeting with Dr Khun, Ministry of Health
	10:00 – 12:00	Site visit to Narcology Hospital
	13:00 – 15:00	Site visit to Homeless Persons' Hospital
Tuesday 03/10/06	10:00 – 11:30	Meeting with Mr Dashtudev and Mr Bat-Amgalan, Ministry of Justice and Home Affairs
Wednesday 04/10/06	10:00 – 13:00	Advisory Group Meeting
	16:30 – 17:30	Meeting with Gundalai Lamjov, Minister of Health
Friday 05/10/06	09:00 – 13:00	Advisory Group Meeting and training.

Appendix II: Advisory Group, invited members

(Organisations listed in alphabetical order)

Organisation	Representative
Association Against Alcoholism and Drug Abuse	<i>Bayaraa D., President</i>
Association to Protect Population From Drug and Opium	<i>Sb. Lkhagvasuren, Head</i>
Centre of Mental Health and Narcology	<i>Prof. Erdenebayr Luwsandorj, General Director</i> <i>Dr Elena Kazantsena, Clinician</i> <i>Dr Davaasuren Oyunsuren, Clinician</i>
Criminal Police Department	<i>Nyamdorj Nyamtseveen, Police Major, Chief of Section</i> <i>Ms Chimedregzen</i>
Foundation Against HIV/AIDS and Drug Abuse	<i>Mr Jargalsaikhan, Head</i>
Institute of Public Health, Health Service University	<i>Dr Sumberzul</i>
Ministry of Health	<i>Gundalai Lamjav, Minister of Health</i> <i>A. Otgonbold, Vice Minister of Health</i> <i>Munkhdelger Chimedtsereen, Head Pharmaceuticals and Medical Devices</i> <i>Dr Khun Tsevegmidin, HIV/AIDS Department</i> <i>Dr Bayannas Head of Ministry of Health Global Fund Supported Projects to fight HIV/AIDS & TB</i> <i>Dr Bavuu Enkhjin, HIV/AIDS/STI Officer, Ministry of Health Global Fund Supported Projects to fight HIV/AIDS & TB</i> <i>Chultemsuren Byambaa, HIV/AIDS/STI Officer, Ministry of Health Global Fund Supported Projects to fight HIV/AIDS & TB</i>
Ministry of Justice and Home Affairs	<i>Gongoriin Dasbtudev, Chief Secretary</i> <i>Bat-Amgalan Bazargochoo, Senior expert, Police Major</i>
National AIDS Foundation	<i>Altantsetseg Batsukh, Executive Director</i>
National Anti-drug Centre	<i>Azhyayar L., Head</i> <i>B Tumendemberel</i>
Railway Hospital, Ulaanbaatar The Together Centre	<i>Dr Enkhjargal</i> <i>Mendbayar, Social Worker</i>
United Nations Children's Fund	<i>Ider Dunderdorj, National Officer, HIV/AIDS</i>
United Nations Population Fund	<i>Delia Barcelona, UNFPA Representative</i>

Organisation	Representative
World Health Organisation	<p data-bbox="889 212 1224 268"><i>Enkhjargal Khorloo, Technical Advisor STI/HIV/AIDS and LMIS</i></p> <p data-bbox="889 296 1344 323"><i>Mr Robert Hagan, WHO Representative in Mongolia</i></p> <p data-bbox="889 350 1252 378"><i>Dr Salik Govind, Public Health Specialist</i></p> <p data-bbox="889 405 1333 462"><i>Dr Narantuya, Communicable Diseases Surveillance and Response Project Officer</i></p> <p data-bbox="889 489 1149 516"><i>Dr R. Jagalmaa Project Officer</i></p>

Appendix III: Questionnaire, English Language Version

RAR - Drug Use and HIV – Mongolia

Questionnaire: IDU, DU

Location	
Date	
Interviewer	

A. Demographic Information

A1	How old are you?	_____	years old
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A2	SEX	Male	1
		Female	2
		Other	3

A3	What city or province do you live in?	_____
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A4	What type of accommodation do you live in?	Homeless	1	Specify: _____
		Small house	2	
		Apartment	3	
		Large house	4	
		Other	5	

A5	What is your marital status?	Never married	1
		De-facto relationship	2
		Married	3
		Divorced	4
		Widowed	5

A6	What is your religion?	None	1	Specify: _____
		Buddhist	2	
		Christian	3	
		Muslim	4	
		Other	5	

A7	Can you read and write?	Yes	1
		No	2

A8	How many years of school have you completed?	School	_____	years
		University	_____	years

A9	Do you have a job?	Yes	1	Specify: _____
		No	2	

A10	How much do you earn in a day?	Average:	T
		Maximum:	T
		Minimum:	T

A11	How much do you earn in a month on average?	_____	T
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A12	If you do not have an income how	Family	_____	1
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	do you support yourself?	Spouse	2
		Friends	3
		Welfare	4
		NGO	5
		Theft	6
		Selling drugs	7
		Other	8

B. Drug use history

B1	How old were you when you first drank alcohol?	0	Never
			Years

B2	How old were you when you first used any other drug (not including alcohol or tobacco)?	0	Never
			Years

B3	What was this drug?	
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B4	How did you take this drug when you first used it?	Inject – intra-muscular	1
		Inject – intra-venous	2
		Swallow or Drink	3
		Smoke	4
		Keep under lips/tongue	5
		Sniff	6
		Other:	7

B5	What other ways have you taken this drug? <i>(more than one answer possible)</i>	Inject – intra-muscular	1
		Inject – intra-venous	2
		Swallow or Drink	3
		Smoke	4
		Keep under lips/tongue	5
		Sniff	6
		Other:	7

B6	Why did you start using this drug?
----	------------------------------------

What other drugs have you **ever** used? (Show FLASH CARD to prompt):

B7a	Name of drug	How old were you when you first used this drug?	How have you taken this drug? <i>(more than one answer possible)</i>		
			Inject – intra-muscular	1	
			Inject – intra-venous	2	
			Swallow or Drink	3	
			Smoke	4	
			Keep under lips/tongue	5	
			Sniff	6	
			Other:	7	
Have you used this drug in the last 3 months?		Yes	1	No	2

B7b	Name of drug	How old were you when you first used this drug?	How have you taken this drug? <i>(more than one answer possible)</i>		
			Inject – intra-muscular	1	
			Inject – intra-venous	2	
			Swallow or Drink	3	
			Smoke	4	
			Keep under lips/tongue	5	
			Sniff	6	
			Other:	7	
Have you used this drug in the last 3 months?		Yes	1	No	2

B7c	Name of drug	How old were you when you first used this drug?	How have you taken this drug? <i>(more than one answer possible)</i>
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		years of age	Inject – intra-muscular	1
			Inject – intra-venous	2
			Swallow or Drink	3
			Smoke	4
			Keep under lips/tongue	5
			Sniff	6
			Other:	7
Have you used this drug in the last 3 months?	Yes	1		
	No	2		

B7d	Name of drug	How old were you when you first used this drug?	How have you taken this drug? <i>(more than one answer possible)</i>	
		years of age	Inject – intra-muscular	1
			Inject – intra-venous	2
			Swallow or Drink	3
			Smoke	4
			Keep under lips/tongue	5
			Sniff	6
			Other:	7
Have you used this drug in the last 3 months?	Yes	1		
	No	2		

B7e	Name of drug	How old were you when you first used this drug?	How have you taken this drug? <i>(more than one answer possible)</i>	
		years of age	Inject – intra-muscular	1
			Inject – intra-venous	2
			Swallow or Drink	3
			Smoke	4
			Keep under lips/tongue	5
			Sniff	6
			Other:	7
Have you used this drug in the last 3 months?	Yes	1		
	No	2		

B8a	What drug have you primarily used in the last month?		
B8b	For how long have you used this drug regularly?	Months:	
		Years:	
B8c	How many times do you use this drug in a day?	Average:	
		Maximum:	
		Minimum:	
B8d	How much of this drug do you use each day?	Average:	
		Maximum:	
		Minimum:	
B8e	How have you taken this drug in the last month? <i>(more than one answer possible)</i>	Inject – intra-muscular	1
		Inject – intra-venous	2
		Swallow or Drink	3
		Smoke	4
		Keep under lips/tongue	5
		Sniff	6
		Other:	7

B9a	When was the last time you used a drug?	_____ days ago
B9b	What was this drug?	

B10	How much money do you spend on drugs each day?	Average:	T
		Maximum:	T
		Minimum:	T

B11	Does anyone else in your family use drugs?	No	1	Who?	Mother	1
		Yes	2		Father	2
					Sister	3
					Brother	4
					Husband or Wife	5
					Son or Daughter	6
					Other:	7
					What Drug?:	

B12	How many of your friends use drugs?	None of my friends	1
		A few of my friends	2
		Some of my friends	3
		Most of my friends	4
		All of my friends	5

B13	Where have you ever bought drugs from?	Pharmacy – with a prescription	1
		Pharmacy – without a prescription	2
		Hospital	3
		Directly from a doctor or nurse (no script)	4
		From a drug dealer	5
		From friends	6
		From a bar	7
		Other	8

B14	Where do you most often buy drugs from?	Pharmacy – with a prescription	1
		Pharmacy – without a prescription	2
		Hospital	3
		Directly from a doctor or nurse (no script)	4
		From a drug dealer	5
		From friends	6
		From a bar	7
		Other	8

B15	Has anyone you know used any of the following drugs IN Mongolia?	Heroin	1	Describe:
		Cocaine	2	
		Amphetamine type substances	3	
		Ecstasy	4	
		Other	5	

B16	Do you want to stop using drugs	No	1
		Yes	2

C Injecting Drug Use

Complete this section if in Section B the participant reports having injected any drug at any time.

C1	Have you ever injected a medicine at home to improve your health?	Yes	1	
		No	2	
C2	Have you ever injected a medicine or drug that has not been prescribed for you by a doctor?	Yes	1	
		No	2	
C3	When you inject any drug how often do you use a new clean needle and syringe?	All of the time	1	→C8
		Most of the time	2	
		Some of the time	3	
		Very rarely	4	
C4	When you inject any drug how often do you share the needle and syringe?	Never	1	
		Very rarely	2	
		Some of the time	3	
		All of the time	4	
C5	How many different people have you shared a needle and/or syringe with in the last 3 months?			
C6	If you do not use a new needle and syringe, how often do you clean the needle and syringe before using it?	All of the time	1	
		Some of the time	2	
		Very rarely	3	
		Never	4	
C7	How do you clean the needle and syringe?	With bleach		1
		By boiling		2
		With clean water		3
		With hot water		4
		With any water available		5
		Wiping with a cloth		6
		Other:		7
C8	Where do you get new needles and syringes? <i>(more than one answer possible)</i>	Pharmacy		1
		Hospital		2
		NGO		3
		Friends		4
		Other		5

C9	Do you ever mix up your drugs with water before injecting?	Yes	1	→ Section D
		No	2	

C10	When mixing up drugs before injecting how often do you share the mixing up equipment (e.g. spoon or vial or cooker, filter, water vessel)	All of the time	1
		Some of the time	3
		Very rarely	4
		Never	5

D. Disease History

D1	Since you began using drugs have you suffered from any of the following?	Tuberculosis	1
		Jaundice <i>(explain that this means eyes and urine turn yellow and remain so for approximately one month)</i>	2
		Weight loss	3
		Diarrhoea for more than a month	4
		Fever for more than one month	5
		Abscess	6
		Any other illness:	7

D2	If yes to above what did you do for a cure?	See doctor	1
		Treated yourself	2
		Did nothing	3
		Other:	4

A drug overdose is when a person takes too much of a drug and suffers a serious negative effect. When a person overdoses on morphine or another opiate they pass out and stop breathing.

D3	Have you ever overdosed on morphine or another opiate?	No	1	How many times?	
		Yes	2		

D4	Have you ever overdosed on any other drug?	No	1	→ D6
		Yes	2	What drug?

D5	When you overdosed did you receive medical assistance or help from a friend	No	1	Specify:
		Yes	2	

D6	Do you know what to do if somebody overdoses on	No	1	Describe:
		Yes	2	

	morphine or another drug?
--	---------------------------

D7	When you go and see a doctor or go to a hospital do you feel that you are treated differently because you are a drug user?	No	1	Describe:
		Yes	2	

Section E. Sexual behaviour

“The following questions are about sexual behaviour. This topic is often embarrassing and difficult to talk about. Everything you tell us will be kept confidential. You do not have to answer questions that you do not want.”

E1	Have you ever had sex?	No	1	How old were you when you first had sex?	
		Yes	2		

For married participants only: others →E3

E2	Have you ever had sex with anyone other than your husband or wife?	No	1
		Yes	2

E3	Have you ever had sex with a prostitute?	No	1
		Yes	2

E4	Have you ever had sex with somebody of the same sex as you?	No	1
		Yes	2

E5	How many sexual partners have you had in the last year?	
----	--	--

E6	When you have sex how often do you use condoms?	All of the time	1
		Some of the time	2
		Very rarely	3
		Never	4

E7	If you have had sex with a prostitute: Did you use a condom?	All of the time	1
		Some of the time	2
		Very rarely	3
		Never	4

E8	When you have sex with your husband/wife or boyfriend/girlfriend how often do you use a condom?	All of the time	1
		Some of the time	2
		Very rarely	3
		Never	4

E9	If you have sex with people of the same sex how often do you use a condom?	Never	1
		Very rarely	2
		Some of the time	3
		Most of the time	4

Section F. HIV/AIDS

F1	Have you ever heard of HIV/AIDS?	No	1	→ Section G
		Yes	2	

F2	Do you know how HIV/AIDS is spread?	No	1	Describe how you believe HIV is spread:
		Yes	2	

F3	Do you think you may get HIV/AIDS?	No	1	Why do you think this:
		Yes	2	

F4	Have you ever been tested for HIV/AIDS?	No	1	→ F7
		Yes	2	

F5	Do you know the result?	No	1	→ F7
		Yes	2	

F6	What was the result?	Positive	1
		Negative	2

F7	Do you know any other people who are HIV positive?	No	1	Are they drug users?	No	1
		Yes	2		Yes	2

Section G. Existing Services

G1	Have you ever tried to stop using drugs?	No	1
		Yes	2

G2	Have you ever received any help for your drug use?	No	1	→ G5
		Yes	2	

G3	Have you ever received any help for your drug use from a health service, an NGO or any other place?	No	1	→ G5	From where?
		Yes	2		

G4	Was it difficult to get help for your drug use	No	1	Describe why it was difficult::
		Yes	2	

G5	Can you name the places where you think you could go for treatment of drug problems?	No	1	List these services:
		Yes	2	

G7	What kind of help do you think you would need to stop using drugs?
----	--

G7	If you inject drugs what kind of help do you think you would need to stop injecting drugs?
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G8	Have you ever been in police lock up?	No	1	→G10
		Yes	2	

G9	Have you been in police lock up in the last year?	No	1
		Yes	2

G10	Have you ever been in prison?	No	1	→End
		Yes	2	

G11	Have you been in prison in the last year?	No	1
		Yes	2

G12	Was it possible to get drugs inside prison?	No	1
		Yes	2

END



NATIONAL DRUG AND ALCOHOL RESEARCH CENTRE

The National Drug and Alcohol Research Centre (NDARC) is a premier research institution in Australia and is recognised internationally as a Research Centre of Excellence. The Centre is multidisciplinary and collaborates with medicine, psychology, social science and other schools of the University of NSW, as well as with a range of other institutions and individuals in Australia and overseas.

The overall mission of NDARC is to conduct high quality research and related activities that increases the effectiveness of Australian and International treatment and other intervention responses to alcohol and other drug related harm.

In addition to the research conducted at the Centre, other NDARC activities include an Annual Symposium and a range of special conferences and educational workshops. As well as contributing to scientific journals and other publications, NDARC produces its own Research Monographs and Technical Report Series. In conjunction with the National Drug Research Institute in Perth, NDARC also produces a free quarterly newsletter, CentreLines, to increase communication between the national research centres, other researchers and workers in the alcohol and other drug field.



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