WHO-EM/MNH/181/E

Report on the

Sixth meeting of the Regional Advisory Panel on Impacts of Drug Abuse (RAPID)

Cairo, Egypt
16–19 October 2007

World Health Organization
Regional Office for the Eastern Mediterranean

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1. INTRODUCTION

The Regional Advisory Panel on the Impacts of Drug Abuse (RAPID) was established by the World Health Organization (WHO) Regional Office for the Eastern Mediterranean in 2002 to: review the current situation in the Region with regard to substance abuse; determine the key elements of a strategic plan of action; and advise WHO on the ways and means of achieving its objectives. Its establishment reflects recognition of substance abuse as a growing problem in the Region, which is one of the most important transit areas of the world for illicit drugs. Not only is drug use increasing, but the traditional patterns of abuse are also shifting to potentially more dangerous forms such as injecting drug use. There is a need for a strategic plan to improve information gathering systems and innovations addressing the drug abuse issue. RAPID's terms of reference are to:

- perform in-depth review of available data on substance abuse with particular emphasis on injecting drug use and its related health consequences, including HIV/AIDS;
- assist and advise on creating a unified data collection system for the Region; and
- advise on the development of a regional strategy on all health-related aspects of substance abuse, including demand and harm-reduction interventions.

The sixth meeting of RAPID was held in Cairo, Egypt, from 16 to 19 October 2007. The objectives of the meeting were to:

- conduct a technical review of transitions of patterns of drug abuse in the past;
- provide recommendations to prevent harmful pattern transition;
- discuss regional strategic directions to control *khat* use;
- conduct training on the alcohol, smoking and substance involvement screening test (ASSIST) for the management of alcohol and substance abuse.

The meeting was inaugurated by Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, who expressed appreciation of the technical contribution of RAPID in addressing regional needs in the area of substance abuse. He stressed that the Eastern Mediterranean Region was facing a diverse range of substance-related problems with particular complexities which call for technically prudent, ethically acceptable and culturally sensitive approaches. He emphasized that throughout the control efforts, care should be taken of the possible transitions in terms of type of substance and patterns of use. In some countries opiate use and injecting pattern of use was on the rise with serious health consequences, such as HIV/AIDS and hepatitis B and C. In others, there was a rise in the use of stimulants, and to some extent, alcohol among vulnerable groups of young people. There were other countries in which the dominant drug of use is cannabis or *khat*. Hence, he asserted there was a need to know how the less harmful drugs could be controlled without being replaced by the more harmful ones, especially those with potential of injection.

Dr Gezairy highlighted the resolution passed by the Regional Committee for the Eastern Mediterranean at its fifty-second session held in 2005, which called for a regional consultation on *khat*, the control of which is haunted with mixed attitudes among senior health leaders. That is why WHO prefers to avoid a simplistic and cross-sectional approach to *khat* which ignores the different cultural and socioeconomic aspects and the potential long-term

transition to more harmful substances or patterns of use. Therefore, he further emphasised that strategic planning on *khat* would rely partly on such useful consultations and partly on further generation of knowledge in the field.

He also underlined that based on resolution EM/RC53/R.5 that was passed by the Regional Committee in 2006 on the public health problems of alcohol consumption in the Eastern Mediterranean Region. This RAPID meeting would be holding a 2-day workshop on the alcohol, smoking and substance involvement screening test (ASSIST). This was done for the first time in the Region with the aim of obtaining the technical feedback of RAPID on how to streamline and adapt ASSIST for implementation on the young population of the Region.

The opening session ended with the election of officers and adoption of the agenda. Dr Abdulrahman Al Awadi (Kuwait) was elected Chair of the meeting and Dr Khalid Saeed (Pakistan) was elected as Rapporteur. The agenda, programme and list of participants are included as Annexes 1, 2 and 3, respectively.

2. OVERVIEW OF TRANSITION TRENDS IN THE EASTERN MEDITERRANEAN REGION

2.1 Changes in patterns and trends of drug use and how to deal with it: lessons learned from countries in the Region

Dr Ahmad Mohit

Globally, the use of alcohol, tobacco, and other controlled and illicit substances is increasing, and contributing significantly to the global burden of disease. Tobacco use is growing in developing countries and also among women. Whereas the level of consumption of alcohol has declined in the past 20 years in industrialized countries, it is increasing in developing countries. To a great extent, the rise in the rate of alcohol consumption in developing countries is driven by rates in Asian countries. The level of consumption of alcohol is much lower in the WHO African, Eastern Mediterranean and South-East Asia Regions.

According to the estimates of United Nations Office on Drugs and Crime (UNODC), approximately 200 million people use one type of illicit substance. Cannabis is the most common illicit substance used, followed by amphetamines, cocaine and opioids. Although increasing among women illicit substance use is still a predominantly male activity and is also more prevalent among young people. Injecting substance use is also a growing phenomenon, with implications for the spread of HIV infection.

The global burden of substance use is substantial, accounting for 8.9% of productive life lost annually due to disability and premature mortality, as measured in disability-adjusted life years (DALYs). The main health burden is due to licit rather than banned substances.

In the Eastern Mediterranean Region, substance use poses a major socioeconomic, cultural and public health problem. The most widely used substances are opium, heroin, cannabis, psychotropic medications and *khat*. Heroin causes the greatest health concern of all

through many effects, including injecting use. Other drugs used through injection are mainly stimulants and barbiturates. The facts about substance abuse in the Region are alarming. The absolute number of substance users is on the rise, while the percentage of injecting drug users is increasing. The average age of substance users is decreasing and more women are using drugs. The majority of substance users are not seeking treatment.

More alarming is that approximately 90% of the world's opium is produced in the Region. However, it must be noted that the upward trend of opium cultivation in Afghanistan, which prevailed throughout 2004, has demonstrated some decline in 2005. The extent of land under opium cultivation fell to 103 000 hectares in 2005, which is 21% less that 130 000 hectares in 2004. Yet the amount of opium produced is still 4100 tonnes, which is just slightly less than 4200 tonnes in 2004. As for cannabis, five of the ten top supplier countries are located in this Region. Moreover, the percentage of alcohol abusers in drug abuse treatment centres is on the rise. The use of *khat* is another multifaceted issue that needs careful consideration. In one Member State, 60% of the water is used for its cultivation.

Injecting drug use constitutes a serious public health issue with implications for the spread of HIV/AIDS. With HIV/AIDS and hepatitis, drug abuse has become a completely new phenomenon. There is evidence of an explosive HIV/AIDS among injecting drug users. In the late 1990s, an outbreak of HIV/AIDS occurred in a prison in the Islamic Republic of Iran, mainly caused by injecting drug use. This was soon followed by a similar outbreak in another prison. In the Libyan Arab Jamahiriya, it is now estimated that over 90% of all reported HIV cases are among injecting drug users. Some studies have shown the presence of similar reported and non-reported conditions in many other Member States.

In order to complete the picture, one cannot but take heed of the existing assets and constraints. Among the former are the aspects related to spirituality and religion, particularly the issue of prohibition in Islam, which is the religion of 90% of the people of the Eastern Mediterranean Region. The Islamic injunction of "No harm to yourselves and others" is no less crucial, let alone the religious tradition of community work and helping those under stress. Another important asset is the relatively high value of the family. However, constraints are present as well. Among these are the rapid social change beholding many countries in the Region, the disasters and stressful conditions striking many areas and the harsh economic realities, including unemployment, which have all become part and parcel of today's world.

As for alcohol, although the extent of its abuse in the Eastern Mediterranean Region is less than other Regions, it is on the rise, according to a recent WHO survey. This rise is across all countries; those where importation and production of alcohol are legal and those where it is illegal. Trends show that the number of alcohol abusers is increasing whereas the age of abuse is decreasing. Indirect indicators such as drunk driving are on the rise. The percentage of alcohol-related problems in drug abuse treatment centres is increasing. On the other hand, legal production is increasing alongside smuggling which is on the rise. Production of homemade alcohol and the quantities of legally imported alcohol are also increasing.

The regional strategy on substance use and dependence identified a number of strategic directions.

- Developing national policies on substance use and dependence. The policy should be multisectoral with equal representation of sectors concerned with supply, demand and harm reduction. It should be realistic and flexible enough to respond to new situations with innovative actions. It should also include mechanisms for sharing and networking.
- Developing mechanisms for better understanding of specificities within each country and the underlying factors, the harmful consequences and interventions currently provided.
- Promoting psychosocial well-being and diversifying means of primary prevention. This would include making use of religion and beliefs as well as school-based interventions such as life skills education.
- Developing human resources through curricula, specialization and presentation of health aspects of the issue to other sector.
- Making available a wide range of health and social care services for secondary prevention (treatment and rehabilitation) and harm reduction. This should include inpatient and outpatient services, occupational rehabilitation, community outreach programmes, needle exchange, replacement therapy, etc.
- Recognition of the fact, at all levels, that alcohol abuse exists and is a public health problem.
- Development of a reliable data collection and reporting system on availability (manufacturing, import, smuggling and home-based alcohol production), patterns of use and more reliable estimates of the number of alcohol abusers.

Hence, there is a need to develop or strengthen national strategic plans through a truly multisectoral mechanism led by the highest levels in the government; to ensure availability of a range of integrated interventions to address supply, demand and harm; and to develop national databases on substance use and alcohol consumption.

Innovative approaches to prevention, treatment and rehabilitation of individuals with substance dependence have been initiated in the Eastern Mediterranean Region. One approach has been school-based interventions and life skills education. This approach deals with the everyday behaviours of children and adolescents. It addresses emotional skills similar to work skills and intellectual skills. It is meant to provide inner strength and self-esteem enabling individuals to stand, question and say ‘No’. Another innovative approach is that of the triangular clinics which comprise centres of treatment for substance abuse, AIDS and sexually transmitted infections. It took off as a pilot project in the Islamic Republic of Iran four years ago but is a nationwide programme at the present. This comprehensive approach forges many lines of intervention, including education, voluntary counselling and testing, treatment and care (for drug use, HIV, sexually transmitted infections, opportunistic infections), care for family members, referral for other needs and harm reduction (needle exchange, condom distribution, options in drug use treatment, including methadone substitution).

Substance abuse is a complex, multifaceted condition that changes with time and presents different challenges in different countries. While addressing the issue is necessary to bear in mind that what worked yesterday does not necessarily work today and what works in one country does not necessarily work in another. This does not negate the importance of learning from other countries’ experiences while respecting cultural considerations. There are

always ways to adapt the best of cultural assets to innovative approaches in order to save lives.

2.2 Progress in the area of substance abuse in the Eastern Mediterranean Region and objectives of the present meeting on transition of patterns and trends

Dr M.T. Yasamy, RA/MNH, WHO/EMRO

The advice of the members of RAPID has always contributed to the regional efforts to address the problem of substance abuse. In response to the recommendations of its fifth meeting, a technical paper on the harmful use of alcohol was presented to the Fifty-third Session of the Regional Committee of the Eastern Mediterranean Region in September 2006 resulting in resolution EM/RC53/R.5. Since the fifth meeting a number of efforts have been made along this line. A regional database was prepared on substance abuse and alcohol in the Region. Regional adaptation of the global alcohol surveillance questionnaire has been completed and submitted to Geneva. WHO technical support was extended to Member States for the control of alcohol and substance abuse in 2006.

The World Drug Report 2007 issued by UNODC stated that "For almost every kind of illicit drug—cocaine, heroin, cannabis, amphetamine-type stimulants (ATS)—there are signs of overall stability, whether we speak of cultivation, production or consumption. Hopefully, within the next few years evidence to support this claim will become statistically and logically inconvertible." Our review here supports global stability but will share some serious regional concerns.

Over the past three years, the estimated overall global drug use has remained more or less the same. Approximately 200 million people, making up 5% of the world's population, between the ages of 15 and 64 years have used drugs at least once in the previous 12 months. Nevertheless, there have been indications of increasing abuse in some regions. Hence, in order to succeed in bringing about reduction, a better understanding of related existing conditions, be they enabling or constraining is crucial.

In the Region, there is greater consumption of cannabis in the west, greater consumption of stimulants and abuse of prescription drugs in the centre and greater consumption of opiates in the east. Five of the ten top producing countries of cannabis belong to this Region. According to the World Drug Report 2007, although 2005–2006 witnessed a global stabilization of use, the time to anticipate an end to an increase in the use of cannabis is not close. The report also states that there are indications of some emerging markets for amphetamines and ATS in the Region.

Afghanistan will remain a major determinant when it comes to global opiate production, as the country accounts for 92% of global illicit opium production. According to the World Drug Report 2007, opiates from Afghanistan provide the supply for neighbouring countries, Europe, the Near and Middle East, as well as Africa. Despite the overall stability in consumption, there is an increase in heroin usage in countries bordering Afghanistan: Islamic Republic of Iran and Pakistan from this Region, which is a dangerous trend.

Information regarding alcohol in the Region is inadequate. According to the global burden of disease study for 2000, alcohol is not among the first 15 causes of disability-adjusted life years (DALYs) lost in the Region, compared to Europe where alcohol-related problems rank fourth and the Americas where they rank second.

Yet despite that available information gives a low consumption rate among the general population, a hazardous pattern of alcohol consumption in groups of young people, is also reported. Add to this the figures depicted by several epidemiological studies conducted in different countries. These show that approximately 22%–50% of students have used alcohol and that its use has been rising among them in some countries. Research has also demonstrated that within vulnerable groups, patterns of use might be quite hazardous, such as among medico-legal referrals and police referrals related to injuries and violence. Although alcohol cannot be defined as a major imminent public health problem in the Region, it can be perceived as a potential threat for the future.

The second day of this meeting entitled Regional consultation on *khat* comes in response to recommendation of resolution EM/RC52/R.5 of the Fifty-second Session of the Regional Committee to convene a regional consultation to consider the magnitude of the problem of the use of *khat* in the Region, conduct an evidence-based study of its impact on the individual and the community, and propose suitable solutions to remedy this problem.

*Kha*t is widely used in three countries of the Region: Djibouti, Somalia and Yemen. It has been variously estimated that about 60%–80% of adults in these countries consume *khat* on a daily basis. What differentiates *khat* from other drugs is the wide social and cultural acceptance it enjoys. Yet this theme is not in total isolation from the issue of transition. In their paper entitled Development of a rational scale to assess the harm of drugs of potential misuse, *khat* was ranked as the least harmful of drugs of potential misuse (*The Lancet*, 369 (9566), pages 1047–1053). Ranking was based on the three main factors that collectively determine the harm caused by a drug of potential misuse: the physical harm incurred on the user, the tendency of the drug to cause dependence, and the consequences of drug use on families, communities and the society.

This shows that “although all drugs are bad, some are worse”. Some concerns have been voiced regarding the possibility of transition into more harmful drugs or patterns of use if the practice on less harmful ones is harshly or stringently banned. Hence, it is of utmost importance to take heed of all related cultural and social considerations while drawing public health interventions to address the issue prudently, sensitively and realistically. Moreover, it might be advisable that interventions on the less harmful substances and patterns are integrated within the broader programmes on substance abuse prevention and treatment in order to avoid the danger of neglecting more harmful substances and patterns of abuse and the possibilities of harmful transitions.

Sufficient evidence is present with some types of substances showing that a transition may occur when one substance is withdrawn, for example heroin–cocaine transition. There is also some regional experience that starting stringent prohibition of some substances does not necessarily mean eradication of all harmful substances. There is some regional experience of

how transition occurred from a diverse use of substances to opiates and heroin use and ultimately heroin injection and the spread of HIV/AIDS. This has to be noted while keeping in mind that the Region is the main producer of opium in the world, and that the use of heroin is very common in some countries. Moreover, injecting drug use has been reported to be on the rise in many countries of the Region.

2.3 Transition to injection and its consequences in countries of the Region

Ms Joumana Hermez, TO/ASD, WHO/EMRO

DALYS represent the basis for all development on alcohol as it clarified its important negative public health impacts ranking it with tobacco. DALYS thus represented a starting point for taking many political and technical decisions on alcohol in the Region. As one of the 12 leading risk factors for causes of the burden of disease, alcohol tops the list in developing countries with low mortality rates and is ranked third in developed countries, according to the World Health Report, 2002. Based on the global burden of disease attributed to alcohol in 2003, it ranged from 0.35% to 1.0% in the Eastern Mediterranean Region, figures which are low compared to other regions.

Abuse of alcohol is included in the list of lifestyle-related risk factors as stated in the World Health Report 2002, and Member States were urged to give attention to the prevention of alcohol-related harm and the promotion of strategies to reduce the adverse physical, mental and social consequences of harmful consumption of alcohol, particularly among young people and pregnant women and at the workplace and when driving.

WHO is paying serious attention to the issue of alcohol consumption and according to World Health Assembly (WHA) resolution 58.26 "Public health problems caused by harmful use of alcohol" it states that public health problems as a result of alcohol have reached alarming proportions as assessed through the disease burden and social costs. It highlighted the association of high-risk behaviours with alcoholic intoxication, the beneficial effects of low-risk drinking, changing patterns of alcohol use, particularly among young people and effective strategies to reduce alcohol-related harm.

It is worth mentioning that WHA resolution 58.26 public-health problems caused by harmful use of alcohol was initiated by a group of European countries and cosponsored by more than 50 countries. It was further adopted by all Member States after several rounds of discussions. Additionally, the resolution took due consideration of religious and cultural sensitiveness of a considerable number of Member States with regard to the consumption of alcohol, and emphasizing that use of the word "harmful" in this resolution refers only to public-health effects of alcohol consumption, without prejudice to religious beliefs and cultural norms in any way.

It should be noted that there is mounting evidence that alcohol consumption is proportionate with practices of unsafe sexual behaviour, which explains why WHA 58.26 resolution was preambled by an emphasis on that issue. Notably, the resolution reinstated the importance of risk of harm in the context of a vehicle while driving, in the workplace and

during pregnancy. It is important to note that unintentional injuries, particularly road traffic injuries are as important as the neuropsychiatry disorders attributed to alcohol.

The resolution requested Member States to develop, implement and evaluate effective strategies and programmes for reducing the negative health and social consequences of harmful use of alcohol and to encourage mobilization and active and appropriate engagement of all bodies concerned in reducing harmful use of alcohol. It further requested that the Director-General provides support to Member States in monitoring alcohol-related harm and to reinforce the scientific and empirical evidence of effectiveness of policies, to consider intensifying international cooperation, to mobilize the necessary support at global and regional levels and also to consider conducting further scientific studies pertaining to different aspects of possible impacts of alcohol consumption on public health.

WHO recognizes its essential role in reinforcing evidence-base data, which could be achieved in several different ways; through conducting a series of reviews commissioned by the Secretariat, including reviews of non-English literature with a focus on the effectiveness of policies, supporting new global and regional estimates for disease burden attributable to alcohol, as well as estimates of the prevalence of alcohol use disorders.

WHO is currently working on several issues concerned with alcohol. This involves indicators of alcohol-related harm which is an essential too for monitoring alcohol consumption and the effectiveness of various measures, an international guide on monitoring alcohol-related harm, as well as community-based interventions encompassing pricing and taxation, and patterns and trends of use in indigenous populations. It is worth noting that in different regions of the world important activities and strategies have been adopted and there is a need to combine these activities into a global plan of action on alcohol. This is one of WHO's future directions.

2.4 Discussion

It takes a great deal to move beyond individual awareness to collective health awareness but without this nothing could be achieved. The community has to accept that substance abuse and related problems exist. Several factors need to be considered such as the perception of a drug user as victim or criminal? The controversial role of the media can at times give conflicting and even harmful messages, etc.

Being aware of the constant state of transition can assist in looking at a problem in a more practical manner. Work should be done along two axes: primary prevention and harm reduction. The concept of substance abuse and dependence itself is changing very rapidly. Before HIV/AIDS became a public health issue, there was mostly a negative attitude towards replacement therapy. However, with the impending threat of HIV/AIDS, hepatitis C and other bloodborne infections, other issues have emerged. If substance abuse is haunted by the same previous concepts and approaches, it may easily become a vehicle for spreading a deadly disease.

While addressing the problem, the Region's cultural and religious heritage, as well as best practices from other regions, should be drawn on. Different Member States need to be addressed differently based on their level of response and social acceptability of proposed approaches. Moreover, care has to be taken while tackling the issue of destigmatization in our society considering the young population and high illiteracy rates. Multisectoral efforts are important to address the related social challenges and for mobilizing the community. Involving civil society should be backed by a clear official stand. A preliminary step would be to educate stakeholders because they are the ones to open the doors. The challenge is to synchronize activities conducted by different stakeholders to get a comprehensive response.

Of importance is increasing public awareness in order to unify concepts, definitions and understanding related to the problem. There is a need to build social concept, social consent and social commitment. It is also important to raise the awareness of children and caregivers while helping them to find alternatives to drugs that would help them deal with their anxiety. The media is one crucial player in the process. Within the arena of the media, drugs are addressed as one entity. There is a need for media guidelines in order to keep the message clear: all drugs are bad. Yet people need to know which drugs are worse and which routes are most dangerous and identify the hazards. It was suggested that in this era of communications and media, focus should be on the individual and how to make him/her stronger in the face of the messages he/she is exposed to.

There is a need to look into reasons behind the increased rates of drug abuse in Afghanistan and Lebanon, in order to be able to convince politicians and scientists of the case. The Islamic Republic Iran's good expertise in educating decision-makers can be made use of in this regard. The need for capacity-building in management and treatment was also discussed. It was also pointed out that to put recommendations into action, a great deal of work and courage is required from WHO and Member States. There is a need for a follow-up tool to provide feedback on the implementation of different recommendations.

3. PRESENTATIONS OF PANEL MEMBERS AND ADVISERS REGARDING PROGRESS IN THE AREA OF SUBSTANCE ABUSE IN MEMBER STATES OF THE REGION

3.1 Current situation of substance abuse in Egypt

Dr Tarek Abdel Gawad

During 2007 services for addiction in Egypt have witnessed a major change aimed at better networking and integration, notably the announcement of the national addiction research results, the submission of the third national strategy to the Parliament, the ongoing efforts to update the Mental Health Act, including addiction and the implementation of the plan of action regarding the updating and integration of national addiction services.

The results of the Egyptian National Epidemiology of Drug and Alcohol Abuse (2005–2006) were released on 20 October 2007. The sample of 40 083 people were recruited from eight governorates (not including Cairo (second phase)). 9.8% reported using drugs, of whom % were regular users and 1.6% reported dependency. Cannabis and its derivatives was the

drug of choice (93.5%), alcohol (22.6%), medicinal drugs (11.7%), opium and derivatives (7.2%), nicotine (5.5%), stimulants (5.3%) and synthetic drugs (0.31%). Females comprised 1.1% of the sample studied.

Another aspect was the submission of the suggested third national strategy for parliamentary approval. The most notable points were the involvement of the nongovernmental organizations and delivering and auditing the services, the adoption of the WHO recommendations on harm reduction technique that can fit with social demands and norms and the adoption of prevention concept as a cornerstone of the strategy.

The General Secretariat of Mental Health in the Ministry of Health and Population is spearheading efforts to establish the new Mental Health Law in Egypt, including addiction as an integral part of psychiatric illnesses. Involuntary admission is attracting a great deal of interest. The training skills programme, adopted by the addiction department of the General Secretariat of Mental Health, is ongoing and proving efficacy as has been reflected by the patients' better outcome. The psychiatrists involved became more eager to update their knowledge and skills through sitting for specialized exams; participating in international conferences and enrolling in the specialized continuing medical education programme.

3.2 The situation of substance abuse in Iraq

Dr Sirwan Kamil Ali

Substance abuse has become one of the main public health problems affecting the population due to its direct and indirect effects on health. Many indicators suggest a relation between crimes, terrorist attacks and kidnappings and substance abuse. Some of the factors which have lead to an increase in substance abuse include:

- weak control and almost open borders with neighbouring countries;
- changes in cultural norms and values of the population after overthrow of previous regime and breakdown of existing social welfare;
- internal conflicts, fighting and violence;
- breakdown of legal system and procedures;
- educational decline;
- collapse of health services, especially mental health and substance abuse care;
- population instability, internal displacement, immigration, destruction of existing resources; and
- unemployment.

Commonly abused substances according to the latest reports are: benzhexol (31%); benzodiazepines (29%); codeine contains medication (19%); cocaine (14%); cannabis (5%); teiac (opium) (2%). The consumption of alcohol in Iraq has also increased. Iraq has one of the weakest treatment and follow-up regimes for alcohol abusers, particularly in Baghdad where the most specialized centre for alcohol and drug abuse exist due to the lack of professional staff and investment.

Violence, unemployment and poverty are the main reasons for the increase in alcohol abuse, furthermore, alcohol is widely available and alcoholic drinks can be found in many districts of the capital and are relatively inexpensive, a bottle of whisky costs less than US$ 3 and a can of beer about US$ 2.0, arak (traditional spirit) is also widely available. There have been many initiatives implemented on substance abuse.

Training programme on substance abuse have included: visits to the National Institute of Mental Health and Neurosciences, Bangalore, India, to understand the methods of monitoring and organizing the community-based substance abuse programme; training in substance abuse in the United Kingdom, the focus of the training was the development of services for substance abuse, harm-reduction measures, and the development of a national plan for substance abuse control; and the establishment of a hot line to reach the drug using community. A team of 12 mental health professionals consisting of a psychiatrist, clinical psychologist, social workers and nurses are participating in four-week training courses for creating a hot line services in the future. Last year a survey by Ministry of Health in collaboration with WHO was conducted on family health, including mental health and substance abuse were conducted but the final results are yet to be released.

3.3 Transition trends in Lebanon

Dr Antoine Saad

It is very well known worldwide that Lebanon is, and always used to be, a drug producing and using country for specific kinds of drugs, such as high-quality cannabis. The current trend of substance abuse in Lebanon is pretty substantial and is also of the poly-substance type, even though accurate figures are unavailable, ASSIST will represent a helpful tool for this purpose. In one follow-up study conducted during the past decade (1991–1999) on substance abuse in university settings, it has been shown that drug use has an earlier age of onset, particularly with regard to alcohol use (licit drug) and marijuana use (illicit drug). This was associated with a higher likelihood of transition to more harmful and harder drugs.

3.4 Substance abuse in Tunisia

Dr Mounira Nebli

In Tunisia, no national study has been conducted on substance abuse. However, many studies on knowledge and attitudes were conducted by several institutions, including schools, integrated children centres, etc. Generally speaking, in Tunisia there is limited access to hard drugs, such as heroin and cocaine. The most common drugs are cannabis and psychotic drugs. Alcohol is also consumed. In schools, glue and mixtures of many products are used by students. As for injecting drug use, in 2003 injecting drug users represented 21% of the total number of drug users, in 2004 they represented 23%, in 2005 18%.

In terms of policies and interventions, there is one centre which is specifically reserved for people with substance abuse problems coming from prisons. In schools, particularly within health clubs, the subject of substance abuse is discussed many times during the year. Within the mental health national programme much has been and is being done, including: radio and television emissions; training of general practitioners, social workers and nurses;

international technical support for general practitioners on psychosocial capacity development (through collaboration with WHO); and the production of two brochures on substance abuse and alcohol. One of major problems is the absence of substance abuse units at regional and tertiary hospitals. Another problem is the stigma against drug users.

Steps that need to be taken to strengthen existing policies are: conducting of a national study on substance abuse; allocating a separate budget for prevention and treatment; establishing a network of community-based facilities; strengthening the efforts for advocacy, public education and awareness to fight stigma; the creation of specialized units in general hospitals; continuous training of primary health care staff; and strengthening social interventions.

3.5 Drug use in Morocco

Dr Mehdi Paes

The authorities in Morocco are aware of the issue of drug use and acknowledge the problem. A lot of effort and initiative has been undertaken for the evaluation of the extent and the nature of the problem,as well as for the implementation of treatment and prevention programmes. Nevertheless, there are still gaps. There is a need for a more comprehensive and integrated national plan for the promotion of the health and social integration in favour of adolescents and youth. There is need also for a national drug prevention plan monitored by an effective coordinating body with the capacity for decision-making. Currently, there is no effective national data collecting system. Prevention and treatment programmes are scarce and rehabilitation facilities are almost non-existent.

The most common drugs of use by order of importance are: tobacco, cannabis, alcohol, psychotropics (benzodiazepines), inhalants, cocaine, amphetamines and heroine. In the absence of systematic data collecting, it is difficult to identify the trends in Morocco, but it seems, from what is observed in clinical practice, that there is an increase in the use of alcohol, cocaine and amphetamines and stimulants.

The Arrazi University Psychiatric Hospital of Sale has been involved this year in a programme which aims to progressively implement harm-reduction activities. In addition, a decision has been taken to build a new treatment centre. Furthermore, the Hassan II Fund for Solidarity decided to provide a budget for the building of a drug treatment and prevention centre attached to the University Psychiatric Centre of Casablanca.

The first national household survey on mental disorders use has been finalized during this year. In terms of drug use it appears that the results show a high rate of prevalence compared with others countries and with existing data in Morocco. These results are now being discussed.

3.6 Drug addiction in Palestine

Dr Bassam Ashab and *Dr Iyad Zaqout*

The situation in occupied Palestinian territory (oPt) is influenced by the political situation. The rate and type of substances abused vary from area to area and from time to time. Substance abuse is related to maladaptation to stressful situations as Palestinians caught in a cycle of self-medication are vulnerable to developing long-term drug dependency. No specific data are available for the West Bank, however, cannabis is thought to be most common drug to be abused. The situation is thought to be more severe in East Jerusalem as a result of the occupation in spreading drugs. Jerusalem is still under complete Israeli control while the rest of the West Bank is administered by the Palestinian Authority. The total population of Palestinians in Jerusalem is 250 000 with 6000 addicts and 1500 abusers.

The drug situation in Gaza varies according to which administering authorities are in power. Gaza has been under Egyptian, Israeli and Palestinian control. Hamas currently control Gaza. Egypt is the main source of drug trafficking to Gaza across the border, and over the sea. Cannabis seems to be most common drug. The rate of iatrogenic addiction is also significant as general practitioners tend to prescribe codeine-containing drug preparations and benzodiazepines for patients, with stress-related symptoms. Patients tend to keep using these medications after they have experienced their effects and recommend the drugs to others. There is a complete lack of drug control policy. In addition, no services exist except for a national committee in the Ministry of Social Affairs. Irregularly people are being treated in psychiatric facilities and mental health clinics of the Ministry of Health although no close monitoring system exists. It is proposed that next year a national survey of substance abuse will be carried out through the oPt.

3.7 Drug use in Pakistan

Dr Khaled Saeed

It is estimated that there are approximately 4 million cannabis abusers in Pakistan, with the highest number of users in Karachi and Lahore. Half a million people in Pakistan are heroine dependent. An IDU belt exists along the borders with Afghanistan and southern Punjab. There is an increase in injecting use of painkillers, especially among females, doctors prescribe these drugs for unexplained somatic symptoms. Street children use solvents. The nature of the drug problem differs from one place to another.

4. INTERCOUNTRY CONSULTATION ON *KHAT*

4.1 Regional consultation on *khat* and its objectives

Dr M.T. Yasamy, RA/MNH, WHO/EMRO

According to the Thirty-fourth expert committee on drug dependence of WHO (ECDD) 2006/4.3, *khat* (*Catha edulis Forsk*) is given different names in different areas: *qat*, *q'at*, *kat*, *kath*, *gat*, *chat*, *tschat* (Ethiopia), *miraa* (Kenya), *murungu*; the dried leaves of *khat* are known as Abyssinian tea or Arabian tea. The main components are cathinone, cathine and norephedrine.

The leaves of *khat* are chewed habitually in the south-western part of the Arabian Peninsula and in the East African countries between Sudan and Madagascar, namely Djibouti, Ethiopia, Somalia, Kenya, Tanzania and Uganda. Out of 67 countries that answered a questionnaire sent out by WHO in October 2005, nine countries responded that abuse in their country exists. Three countries in the Region namely, Djibouti, Somalia and Yemen are among the high *khat* users. In a study in Yemen, at least one lifetime episode of *khat* use was reported in 81.6% of men and 43.3% of women. Prevalence of *khat* use was 32% in Ethiopia.

Khat use has been growing worldwide with estimations as high as 10 million *khat* chewers. In Europe, Australia and the United States, *khat* use is seen amongst immigrants from Yemen, Somalia and Ethiopia. In the UK, *khat* is not illegal and it has been estimated that about 7000 kg of *khat* pass through Heathrow Airport each week from where it is distributed into the UK and into other European countries.

Many studies have been conducted on animals addressing the behavioural, cardiovascular, adrenocortical, reproductive and other effects of *khat*; and have also highlighted its harmful effects. In humans the subjective effects of *khat* include euphoria and elation with feelings of increased alertness and arousal, followed by an excited mood. Thinking is characterized by a flight of ideas without the ability to concentrate. However, at the end of a *khat* session the user may experience depressive moods, irritability, anorexia and difficulty in sleeping. Lethargy and a sleepy state follow the next morning.

In a study on adult healthy volunteers in Yemen, functional mood disturbances were reported during *khat* sessions. The effect was temporary and had disappeared by the next day. *Khat* chewing induced anorexia and insomnia resulting in waking late the next morning and low work performance. The euphoric effects of *khat* start after about 1 hour of chewing.

Reported and suggested adverse effects of *khat* include the following:

- Cardiovascular system: tachycardia; palpitations; hypertension; arrhythmias; vasoconstriction; myocardial infarction; cerebral haemorrhage; pulmonary oedema.
- Respiratory system: tachypnoea; bronchitis.
- Gastro-intestinal system: dry mouth; polydipsia; dental caries; periodontal disease; chronic gastritis; constipation; haemorrhoids; paralytic ileus; weight loss; duodenal ulcer; upper gastro-intestinal malignancy.
- Hepatobiliary system: fibrosis; cirrhosis.
- Genito-urinary system: urinary retention; spermatorrhoea; spermatozoa malformations; impotence; libido change.
- Obstetric effects: low birth weight; stillbirths; impaired lactation.
- Metabolic and endocrine effects: hyperthermia; perspiration; hyperglycaemia.
- Ocular effects: blurred vision; mydriasis.
- Central nervous system: dizziness; impaired cognitive functioning; fine tremor; insomnia; headaches.
- Psychiatric effects: lethargy; irritability; anorexia;, psychotic reactions; depressive reactions; hypnagogic hallucinations.

As for effects on mental health and *khat*-induced psychosis, *khat* chewing can induce two kinds of psychotic reactions. First, a manic illness with grandiose delusions; second, a paranoid or schizophreniform psychosis with persecutory delusions associated with mainly auditory hallucinations, fear and anxiety, resembling amphetamine psychosis.

Both reactions are infrequent and associated with chewing large amounts of *khat*. Symptoms rapidly abate when *khat* is withdrawn. In fact, *khat* withdrawal consistently appears to be an effective treatment of *khat* psychosis and anti-psychotics are usually not needed for full remission. *Khat* psychosis, however, is an infrequent phenomenon, probably due to the physical limits of the amount of khat leaves that can be chewed. *Khat* psychosis may be accompanied by depressive symptoms and sometimes by violent reactions. It has been argued that *khat* chewing might exacerbate symptoms in patients with pre-existing psychiatric disorder. The impact of *khat* use on psychosis is very important as mental health services in Djibouti, Somalia and Yemen are quite limited and the quality of services is poor. According to interviews with patients with mental illness in Somalia, most of them use *khat* on a regular basis.

Furthermore, *khat* chewing on a daily basis may induce moderate but often persistent psychological dependence. Several authors have argued that regular consumption of *khat* seriously affects the social and economic life of the user. However, habitual users do not show serious problems when stopping use. Discontinuation results in improvement of sleep and appetite and fewer constipation problems. Although tolerance has been confirmed in animal studies, it is difficult to evaluate in humans because chewing sets an upper limit to the amount of *khat* that can be consumed. Nevertheless, a certain degree of tolerance seems to develop to the increases in blood pressure, heart rate, respiratory rate and body temperature, and to insomnia.

Withdrawal is not found in animals and there is no definite withdrawal syndrome in humans. A habitual user may feel hot, lethargic with the desire to chew *khat* in the first two days. During sleep, nightmares are common but these stop after a few nights. In one study, 0.6% of *khat* chewers reported taking *khat* because of dependence. However, no signs of *khat* dependence were found in a survey held in Kenya among outpatients attending rural and urban health centres. Withdrawal symptoms after prolonged use are mild and may consist of lethargy, mild depression, slight trembling and recurrent bad dreams.

Recently, it has been reported that *khat* chewing is associated with acute myocardial infarction and acute cerebral infarction. Another cardiovascular complication of *khat* chewing is the higher incidence of haemorrhoids and haemorrhoidectomy found in chronic *khat* chewers. Furthermore a high frequency of periodontal disease has been suggested as well as gastritis. Epidemiological studies, however, have yielded conflicting results. It has also been suggested that *khat* consumption, especially when accompanied by alcohol and tobacco consumption might be a potential cause of oral malignancy. In terms of reproductive functions, available data suggest that chronic use may cause spermatorrhoe and may lead to decreased sexual functioning and impotence. In chronic chewers, sperm count, sperm volume and sperm motility were decreased. In pregnant women, *khat* consumption may have detrimental effects on uteri-placental blood flow and as a consequence, on foetal growth and

development. Lower mean birth weights have been reported in *khat*-chewing mothers compared to non-using mothers indicating an association between *khat* chewing and decreased birth weight.

At present *khat* is not under international control, but two substances that are usually present in *khat*, cathine and cathinone are, as in the early 1980s all amphetamine-like substances were placed group-wise under international control. Cathinone was included in schedule I of the UN Convention on Psychotropic Substances in 1988, and cathine was included in schedule III of this convention at that time. *Khat* is illegal in France and Switzerland but legal, at the time of writing, in the USA, the UK, the Netherlands and in most African countries. It is illegal in the USA if it contains cathinone (schedule I) or cathine (schedule IV). Other countries that prohibited *khat* are Sweden (1998), Eritrea (1993), Finland and Jordan. In Australia, only licensed persons can import *khat* for personal use only up to a maximum of 5 kgs.

WHO has not been idle regarding the issue of *khat*. As early as 1933 an advisory committee discussed the subject, but no action was taken. Another commission convened in 1962 and stated that the "clarification on the chemical and pharmacological identification of the active principles of *khat* was needed before a sound medical appraisal of the chronic use of *khat* could be made." Again in 1964, the committee pointed out that "… the problems connected with *khat* and with the amphetamines should be considered in the same light because of the similarity of their medical effects, even though there are quantitative differences and specific socioeconomic features."

Five years later, in 1971, the Commission on Narcotics Drugs (CND) recommended to the Economic and Social Council (ECOSOC) to ask WHO to review *khat*, and requested that the UN narcotics laboratory should undertake research on the chemistry of *khat* and its components. These studies were reported in a series of internal UN documents from 1974 through 1978. In 1978 an expert group convened to consider the botany and chemistry of *khat* and in 1983 an international conference on *khat* took place in Madagascar.

More recently, in 2002, the thirty-third WHO Expert Committee on Drug Dependence (ECDD) pre-reviewed *khat* and concluded that there was sufficient information on *khat* to justify a critical review. In 2006, a *khat* consultation organized by WHO Regional Office convened in Hargeisa, Somalia, came out with the following key messages.

- Widespread and excessive use of *khat* especially starting at an early age is considered to be harmful from a health and socioeconomic point of view.
- The religious leaders attending the meeting emphasized that using *khat* as a justification for conducting religious rituals was inappropriate.
- There is a need to raise awareness in the community on the health and social consequences of *khat* use.
- Translation of available internationally-accepted research results to local language is recommended.
- Local research on the health and social consequences of *khat* needs to be supported.

- Containing the use of *khat* is more feasible than banning it totally. It is recommended to plan for limiting availability. Interventions such as banning sale of *khat* to the under aged, limiting working hours of *khat*-selling shops and increasing official working hours, increasing taxes on *khat* may be considered, the international experience on controlling tobacco use may be taken as a model. Discouraging cultivation and supporting replacement by food crops is recommended.

The youth should be considered as the main target group for preventive measures such as awareness raising, life skills education and healthy lifestyle training. Sport clubs and other healthy pastime facilities should be provided for them. Such activities may also be incorporated into the educational curriculum. Job creation and promoting full adherence to working hours should be supported. Sensitization and knowledge sharing should not be limited to local communities. It should cover a wide audience, including key decision-makers in the government, parliament, judiciary system and religious leaders.

This regional consultation on *khat* comes as a response to resolution EM/RC52/R.5 issued by the WHO Eastern Mediterranean Regional Committee in 2005 which requested the Regional Director to convene a regional consultation to consider the magnitude of the problem of use of *khat* in the Region, conduct an evidence-based study of its impact on the individual and the community, and propose suitable solutions to remedy this problem. Hence, the objectives of this current meeting are to: review the physical, mental health and socioeconomic consequences of *khat* chewing; discuss challenges and opportunities in preventing health consequences of *khat*; agree on possible regional strategic directions; prepare a list of key messages on *khat*.

4.2 Public health, mental health and social consequences of using *khat*

Dr Ahmad Mohit

Three countries of the Eastern Mediterranean Region are seriously affected by chewing *khat* and some others are endangered by it with different degrees. Almost in all those countries that *khat* chewing is an endemic habit, no stigma is attached to it. In some countries chewing *khat* is even associated with some local positive beliefs, which, at times are reinforced by religious-like associations. For instance, in parts of Yemen it is believed that *khat* opens the mind to the real spiritual world, or in some African countries chewing *khat* is a part of some spiritual rituals.

Khat, which is associated with euphoria and a nice feeling of exaltation, is also a very important economic reality. The production, transport, selling and maintaining the markets for *khat* are all economic realities that account for some millions of US dollars. Comparing with the usually very poor economies of the consuming and even producing countries, this is a monumental business.

In some communities chewing *khat* is a sign of a rather higher social status. In other counties, a woman who chews *khat* may be considered one with a free spirit and therefore, it is associated with another type of status. The new and increasingly more evident epidemiological patterns for *khat* are a growing increase in the total number of users and a

dramatic increase in the use of *khat* by women. Arguably the average age of the users is also on decrease.

The geography of *khat* production is rather extensive and expands from the Arabian Peninsula and Yemen to the horn of Africa, mainly Kenya and Ethiopia and beyond that into Tanzania, Ghana and places in Southern Africa. However, the geography of *khat* use is expanding further and faster. *khat* which, was traditionally used in the producing countries and their neighbours, has now been exported to wherever the migrants and asylum seekers from these countries have gone. So, *khat, miraa* or *jaad* are gradually becoming, with some degree of exaggeration as native a word in Amsterdam, London and Minneapolis as they are in Sana'a, Djibouti and Mogadishu. But the greatest burden is still on the poorer shoulders of the traditional countries in the two sides of the red sea and Bab el Mandab, Yemen in Asia, Djibouti, Eritrea, Ethiopia, and Somalia, and to an extent, Sudan in Africa, and to be more precise, basically the Horn of Africa. It is here that it is destroying traditional agriculture of fruits and coffee and stealing the best working hours of the workers and a large percentage of their income.

Studies on different sociocultural and economic aspects of *khat* are still few, and most of them come from Yemen. This, more than anything shows the higher level of interest about the issue. Here is some quotation as for the condition in Yemen "One reason for cultivating *kha*t in Yemen so widely is the high income for farmers. Some studies conducted in 2001 estimated that the income of *khat* cultivated in one hectare is about 2.5 million rials, while it is only 0.57 million if fruits were cultivated, which was a strong reason for farmers to leave cultivating coffee and fruits". Some researchers say that the time spent chewing *khat* is considered as "wasted work hours" for the economy of Yemen since Yemenis spend about 4 to 5 hours everyday chewing *khat*. It is also estimated that about 14 622 000 work hours are wasted every day.

Cultivating *kha*t uses excessive amounts of underground water. Studies estimate that the volume of water used in *khat* farms is approximately 55% of the whole water usage in Yemen, which is a high percentage that threatens the underground water in the north and the middle of Yemen. *Khat* is dangerous. It has physical, intellectual, emotional, social and economic side-effects of all kinds. From the low birth weight of the children of *khat*-chewing mothers, to high blood pressure, susceptibility to cancer to psychosis and economic burden are among the potential side-effects.

In short, *khat* use is a complicated issue, an open system with many determinants and effects and like all complex issues, can not be addressed with simplistic, one-sided, reductionist solutions. Instead, it is necessary to look at all aspects and find solutions according to the whole; and what works in one place and under certain conditions may not work in another place under another set of conditions. The complexity of this condition was one of the reasons that the Fifty-second Session of the Regional Committee mandated the Regional Office to prepare a report on the condition of *khat*.

Making the production of other agricultural products profitable is important. This entails the suggestion of different programmes for crop replacement but it needs tremendous effort

and resources. Wherever possible, it should be tried. Widespread education specially prepared to address the needs of different groups of people is always useful and necessary. Different techniques of harm reduction should also be taken into consideration.

Programmes for the training of general practitioners and other health workers of different levels about the harms caused by *khat* and how to reduce them, need to be considered. If the first signs of such complications and harms are discovered soon, early intervention would reduce the harms and protects the health of the person. And last, but not least, is the issue of possible replacement of *khat* with more dangerous drugs and the ones with the potential of being used as injection should be considered. *Kha*t is still decriminalized, enforcing very harsh laws and pushing it out of reach might immediately bring criminal and injectable drugs to the front line, and then come other side-effects, including HIV/AIDS and hepatitis.

4.3 Public health consequences of *khat* use

Mr John Corkery

The use of *khat* has a wide range of effects, including cultural, economic, pharmacological, physiological, toxicological and psychological. It has been used for centuries not only in social settings but also as a medication of physical and mental health problems. The main psychological effects emphasised in recent years—psychoses—have been in case reports. There is a lack of population-based studies looking at causality between excessive *khat* use and mental disorders. The evidence regarding *khat*'s potential to cause dependency appears to be contradictory, although there is good evidence for craving and withdrawal problems.

Khat affects the body in many ways: from cardiovascular (especially myocardial infarction) to gastro-intestinal; dental and oral; the reproductive system, pregnancy and neonates; psychophysical function; anorexia, loss of appetite, etc. *Khat* is both genotoxic and cytotoxic: hepatic cirrhosis, hepatitis, liver disease and failure have been reported. Dose-related lesions have been found in kidney material as well as acute tubular nephrosis.

Overdose due to *khat* ingestion has only been reported once since 1945. However, recent research in the UK has identified three deaths among Somali males resident in London due to medical complications following long-term *khat* use. Other types of mortality associated with *khat* use are suicides and/or homicides committed during/after psychotic episodes due to khat associated with *khat* consumption. Deaths have also been reported due to poisoning from pesticides used in cultivation of trees. It is likely that the full extent of these phenomena of *khat*-related mortality is not known since they are not identified, recorded or reported in *khat*-using countries or in the diaspora.

Other public health issues include: hepatic fascioliasis from fungi growing on imported plants; transmission of diseases (including tuberculosis) through sharing drinking vessels, hookahs and mouthpieces. Smoking commonly accompanies *khat*-chewing (as does alcohol consumption in some cultures) and has health consequences that also need to be borne in mind, along with sanitation and health and safety considerations.

Risks appear to be greater than previously realized. Lack of negative health results for *khat* in the literature should not lead to complacency or an assumption that *khat* use is free from toxic consequences. This absence of negative reports is due to a lack of population-based studies, particularly in respect of the toxicology of *khat*. Whilst anecdotal reports are informative, systematic investigations are needed to determine the incidence and prevalence of ill-effects of *khat* use. Only then can the best methods of supplying preventative and therapeutic interventions be considered in an informed way. More information on health issues due to *khat* use is needed through population studies and surveys. Calculations of burden of disease(s) and health conditions attributable to *khat* use should be undertaken. Dangers arising from *khat* use and its psychoactive constituents need to be brought to the attention of those in producing/growing countries and countries/regions that have become hosts to ever-increasing communities from these areas.

4.4 Mental health consequences of *khat* use

Dr Michael Odenwald

The leaves of *khat* are traditionally consumed in the Horn of Africa and in the surrounding region because of their stimulating properties. But it has always been a fragile commodity as the desired effects vanish when the leaves wither. Building on technological progress and improved means of transportation, it has become possible to supply consumers around the world with fresh *khat*, and thus, it has become a huge business. Recent decades have brought above a dramatic rise in the production and consumption of *khat* and it has become one of the major cash crops in the Region with millions of farmers and traders depending on it.

Over the last few decades, the patterns of *khat* use in Somalia have fundamentally changed from being socially restricted to a pattern of uncontrolled use. Now, it is often used in binge-like patterns, causing seemingly addictive behaviours; it is frequently used co-morbidly with other drugs, such as benzodiazepines, cannabis and alcohol. Binge-like use patterns appears to be more prevalent in southern than in northern Somalia.

Concerning mental health consequences, there is much controversy around *khat*, being further obscured by the fact that many studies that have been conducted under severe methodological shortcomings. The traditional view of *khat* and dependence is that it causes psychological dependence but only mild withdrawal symptoms and no development of tolerance. This builds upon studies that are 30 years old. Details from more recent studies and clinical observation in countries of the Region contradict the findings of these earlier studies. Thus, the dependence issue needs to be scientifically reevaluated.

The use of *khat* was several times studied in group and community-based studies with the intention to link it to general psychopathology. These studies often have a weak design although some associations were detected. However, it is difficult to identify the direction of a possible causal relationship. The alternative hypothesis that *khat* is used by people with mental disorders as means of self-medication has found support in recent years. In summary, this area needs to be further studied using robust methods and designs.

From 20 published case reports, mostly from developed countries, and from pre-clinical studies it can concluded that the excessive of *khat* use can create short psychotic episodes, which usually fully remit within several weeks, mostly upon cessation. However, it also appears that these episodes re-occur as most users testify. The prevalence of such episodes in countries of the Region, and their consequences in terms of increased vulnerability for other mental health problems, has not yet been studied.

A few case reports and many observations reveal that the use of *khat* has a negative influence on pre-existing psychotic disorders, seemingly often leading to relapse and re-admission to psychiatric hospitals. However, there are no prevalence data available on this specific group.

The use of *khat* and its effects on long-lasting psychotic disorders, such as schizophrenia, have only been studied in one single research project. Derived from this study it has been hypothesized that the early consumption of *khat* in life and excessive use might be a risk factor for the later development of schizophrenia. However, longitudinal studies need to be conducted to prove this hypothesis.

4.5 *Khat* use in Yemen

Dr Najeeb Saeed Ghanem

In Yemen one in every four individuals is suffering from schizophrenia compared to Egypt where one in every 800 suffers from schizophrenia, and the USA, where one in every 100 individuals suffers from the condition.

The widespread use of *khat* in Yemen was given more attention after the unification of the country in 1990. *Khat* plays an important role as a contributing factor in some psychological disorders, such as schizophrenia and compulsory obsessive disorders. There is a need to look into the intensity and distribution of poverty in different governorates and its link to the *khat* habit and the impact of such linkages. There is also a need to look into the chemical effects of *khat*, such as the induction of fear and feeling of misery, and the physiological effects and their implications on social behaviour and relations.

The effects of *khat* occur in three phases. The first phase lasts for approximately an hour with a feeling of euphoria. The second phase lasts from between 50 minutes and one hour. In this phase, the individual becomes talkative, which is a side-effect similar to the effects of hallucinatory drugs. This second phase terminates with depression. The third phase lasts for approximately 14 hours and is called the block phase. During this long-lasting phase, the *khat* chewer feels depressed and is unable to react normally to the surrounding environment. He or she stops talking and prefers to keep silent for several hours during which he or she suffers from loss of appetite and experiences insomnia.

In terms of the neurological effects, *khat* tends to induce nicotine-like effects on parasympathetic drives (*khat* has a nicotine-like effect on presynaptic receptors leads to the inhibition of the parasympathetic nervous system). This effect can be noticed from the delay in mental response among *khat* chewers. *Khat* chewing has adverse effects on different body

systems and plays an important role in the induction of various diseases, including dental and oral effects.

The use of pesticides during *khat* cultivation adds to the potential dangers to health leading to a high incidence of cancer in Yemen. Some of the health problems that have been associated with *khat* chewing include early geriatric appearance, early loss of teeth, general body weakness, loss of body weight, mouth dryness, dryness of the skin of the hands leading to ulcers and inflammation, etc.

Spending on *khat* accounts for 17% of domestic income every month compared to 2% for education. 812 million cubic metres of water are utilized for *khat* irrigation per year. This is for one time irrigation. Eighteen types of dangerous pesticides are used in *khat* farming areas and the result is the high incidence of cancer (mainly gastrointestinal cancer). It is to be noted that 50–60 cases of cancer are recorded daily at the cancer therapy cancer in Sanaa, the capital of Yemen. In 1970, 7000 hectares were used for cultivation of *khat*, rising in 2000 to 110 000.

4.6 The situation of *khat* in Djibouti

Mr Mahmoud Daoud Dabar

Khat dependence is predominantly present among the male population across different social classes. Young people are increasingly using *khat*. The problem is growing within the Djiboutian population to the extent that it has become a national public health problem. The dangers and potential dangers of its use are clear and there is awareness of the danger among consumers. *Khat* represents a big problem for a small country with limited resources. Its consumption has become a strong habit which is difficult to fight as a result of high levels of social tolerance and public support. In order to fight this widespread problem, special measures need to include even greater public awareness and political commitment.

4.7 Discussion

RAPID members stressed that the issue of *khat* should be dealt with very carefully and sensitively so as to avoid any adverse social repercussions or disruption. Another issue to take into account is the possibility of transition to other more harmful drugs and replacement if drastic prohibitive measures are undertaken to address the problem. It was further stressed that government commitment is all but essential in any efforts to address the abuse of *khat*. At least in the case of *khat* the issue of criminalization does not exist, however it must be noted that *khat* has harmful effects and rationale and prudent ways to address these harmful effects must be undertaken through educational and legal means.

The issue of how strong the undesirable effects of *khat* were in comparison to other drugs, particularly alcohol and tobacco, was raised as was the socioeconomic elements linked to the use or abuse of *khat*. Participants asked if there were any regulations in *khat*-producing Member States regarding the use of land and water used for *khat* cultivation.

More in-depth and precise studies on the social consequences of *khat* are still needed. *Khat* is not without side-effects, but the magnitude and extent of the problem are still unknown. A first step would be to conduct an intensive and comprehensive literature review on the subject before embarking upon new research. Some participants also thought that it would be interesting to investigate why *khat* did not spread to neighbouring countries as was the case with cannabis. The social and cultural set up may be contributing factors. It was suggested that *khat* has a very specific subculture which is difficult to transfer to other societies.

Some emphasized that care must be taken while associating *khat* with different diseases and cancer. If *khat,* as claimed by some researchers is a direct cause of psychoses, would that mean a higher number of cases in a country such as Yemen in comparison to the rest of the Region? The same applies to cancer. In the case of cancer, it was suggested that certain points need to be considered such as the pattern of pesticide use and the concomitant use of alcohol and tobacco. Some of the consultants advised that a review of the thirty-fourth expert committee on drug dependence was sufficient to show that *khat* was harmful, but the issue of pesticides required greater elaboration. However, as the results of research are awaited, it is necessary to raise awareness on the negative aspects of the drug. It is also important to handle the process of changing attitudes in a participatory, rather in a compulsory manner, and to present alternatives.

5. THE ALCOHOL, SMOKING AND SUBSTANCE INVOLVEMENT SCREENING TEST (ASSIST) TRAINING

This is the first time that ASSIST training has been conducted in the Region. The tool was first presented to the members of RAPID to discuss and revise their feedback regarding its applicability and feasibility in primary health care settings in countries of the Region. Then RAPID members and experts provided their feedback on the tool and proposed suggestions for its adaptation to the Region in order to facilitate its application in different Member States.

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) was developed for WHO by an international group of substance abuse researchers to detect and manage substance use and related problems in primary and general medical care settings. Primary health care professionals are well positioned to provide interventions targeted to all substances irrespective of their legal status.

The ASSIST project went through three phases. Phase I (1997–1999 included planning and development, as well as the conducting of an international study of its feasibility and reliability). Phase II (2000–2002) comprised an international validity study of ASSIST and a feasibility study of brief interventions linked to it. Phase III (2002–to date) comprises an international study of efficacy of brief interventions linked to the ASSIST. This phase consists of a randomized controlled clinical trial of brief interventions with people who screen positive on the ASSIST for low and intermediate risk for cannabis, cocaine, amphetamine or opiate use. The model for this project is the one used by WHO to advance alcohol screening and brief interventions through the development of the alcohol use disorders identification test (AUDIT).

Sixteen participants responded to the feedback form distributed at the end of the ASSIST sessions. Ten responded positively to the feasibility of the implementation of the ASSIST in primary health care centres in countries of the Region. Six gave a negative response, with concerns regarding resources, cultural sensitivities, the casting of extra burden on the already overloaded primary health care personnel and the availability of a referral system to cater to the increased demands which may follow. Some countries are not in possession of the necessary specialized centres or professionals. Hence, it may not be feasible in all primary health care settings across the Region and such centres are thought to be among the most appropriate places and levels for implementation of such an intervention.

Most experts thought that the ASSIST was applicable in the Region due to its ease of use which meant it could be accommodated in most countries with some training for paramedical staff. Suggestions on the groups among which the ASSIST may be applied included the whole population, health system personnel only, general practitioners, paramedics, primary care health consultants and among special groups such as adolescents, pregnant women, students, psychiatric patients, etc. Suggestions for settings included: prisons; universities; schools and clubs; youth centres during voluntary screening of HIV; health education centres; court services; services sector; job testing; as a credential for receiving a driving license; dispensaries giving general medicine for outpatients; obstetrics and gynaecology clinics, etc.

Other experts thought that it might be appropriate to conduct field trials in a small number of countries in order to evaluate the feasibility of the tool in different models of primary health care prevalent in the Region. Some also reiterated the need for some pilot testing in countries that are willing to apply the tool to accommodate potential implementation. It was also suggested that to render it applicable to the Region, ASSIST needs to be translated into local languages starting with Arabic with all the necessary adaptations and modifications, while taking heed of specific cultural specificities.

Modifications may be undertaken after field-testing. However, they should be minimal for the sake of comparability. Also, there should be one version for the whole Region, otherwise, it might be difficult to compare individual countries. In the process, the training of screeners is important. Suggestions for possible modifications included:

- Preamble to indicate no possibility for a criminal claim to be issued against individual respondents. Also, to clearly state the reason for which it is being implemented and the related consequences.
- Reformulation of some questions to ensure they are more user-friendly and Region-specific.
- Further simplification may be necessary.
- Role play needs to focus on Region-specific problems, which may arise.
- Pre/post-assessment test: asking specific questions about the ASSIST in pre-assessment could make participants less open and more reserved.
- Typical western concepts need to be adapted to the Region, e.g. examples of studies from the Region, objective testing might not be applicable, pictures in the training manual.

- Role playing: identification of specific problems at a national level and how to react to address them in order to assure compliance and openness.
- Street names for drugs.
- *Khat* may be placed under stimulants in the questionnaire.
- Wording of introduction and items needs to be modified in order to avoid that the person being interviewed feels humiliated or irritable.
- Videotaping may be necessary for training purposes.

6. CONCLUSIONS

Transition is a common dynamic process and it may take beneficial or harmful directions. There is worldwide evidence and strong regional indications that transition from one type or group of drugs to others or from one route of administration to another is taking place. Much needs to be known about the factors leading to such transitions but the following factors may contribute positively or negatively: national substance and drug policies; availability and access; religious and cultural background; political and societal changes as well as technological advancements; market influences (such as manipulation of availability and purity); drug subcultures; geographic proximity; co-morbidity; individual characteristics; and iatrogenic causation.

Transitional issues can be addressed through a synchronized, integrated, holistic and comprehensive approach involving national and international stakeholders across all sectors. There is a need to focus on capacity-building; empowering communities; and the establishment and strengthening of information sharing networks. There is a need to set up coordinated reliable surveillance systems and to generate evidence on transitional trends and effective interventions to prevent wherever possible, and avoid and minimize the harmful aspects of transitions. Social acceptability and capacity should be catered for but health and education systems should work to promote positive attitudes through participatory, culturally and socially sensitive interventions.

7. RECOMMENDATIONS

RAPID members observe that the newly-emerging, socially-unrestricted patterns of *khat* consumption are different from the traditional, socially-restricted patterns; and have negative health and socioeconomic consequences. Simultaneously, members believe that any action in the areas of prevention and reducing harm in this respect should be prudent and should take into consideration the possibility of transition of *khat* use to other more dangerous substances and/or means of using these substances. In order to achieve this balanced approach, the following is recommended to Member States.

1. Contain the use of *khat* through interventions such as restricting the sale of *khat* to the under aged, limiting opening hours of *khat* retail outlets, increasing taxes on *kha*t. Consider whether legislative and administrative measures are appropriate drawing on the international experience of controlling tobacco use.

2. Conduct advocacy and awareness-raising covering a wide audience, including key decision-makers in the government, parliament, criminal justice system, religious leaders and the community, on the health and social consequences of wider availability, new trends and patterns of *khat* use.

3. Ensure that special attention is given to the protection of vulnerable groups (such as children and adolescents, women, people with pre-existing mental disorders, etc). Young people should be considered as one of the main target groups for evidence-informed preventive measures, including awareness-raising campaigns, life skills education and healthy lifestyle training. Provide sport clubs and other healthy pastime facilities for young people.

4. Translate available international literature on *khat* into local languages to maximize accessibility and benefits.

5. Establish and maintain appropriate surveillance and monitoring systems for different aspects of *khat* cultivation, trade and use.

6. Generate evidence through research to guide informed policies and interventions. Areas of particular interest include: epidemiological, pharmacological, toxicological, cost analysis, burden of disease (morbidity and mortality), social determinants, clinical and interventional studies with robust designs.

7. Undertake coordinated interagency, inter- and intragovernmental and nongovernmental organization efforts involving all stakeholders to tackle the multisectoral and interdisciplinary issues related to *khat* in the aforementioned areas, as well as such aspects as information generation and dissemination, agriculture and environment and income generation.

Annex 1

AGENDA

1. Opening session
2. Regional Director's Message
3. Introduction of participants
4. Introduction to the meeting and adoption of agenda
5. Changes in pattern and trend of dug use and how to deal with it: lessons learned from countries of the Region
6. Progress in the area of substance abuse in the Region and objectives of the present meeting on transition of patterns and trends
7. Transition to injection and its consequences in countries of the Region
8. Presentations of panel members and advisers regarding transition of trend and pattern of drug use in countries of the Region
9. Key messages on transition of trend and pattern of drug use in countries of the Region
10. Intercountry consultation on *khat*
11. Objectives of the intercountry consultation on *khat*
12. WHO global policy on substance abuse, an update
13. Public health consequences of *khat* use
14. Mental health consequences of *khat* use
15. Social consequences of *khat* use
16. Key messages to be used for a regional strategy on *khat* use
17. ASSIST training
18. Introduction to the screening and brief intervention: Rationale for screening and brief intervention, what is screening, settings of screening, types of screening, characteristics of a good screening tool.

19. Examples of screening tools: CAGE, TWEAK, AUDIT, AUDIT-C, DAST-10, CRAFFT, ASSIST

20. ASSIST basics

21. ASSIST question by question and scoring

22. Principles of motivational interviewing

23. Role playing ASSIST

24. Feedback on feasibility and possible regional adaptation

25. Closing session

Annex 2

PROGRAMME

Tuesday, 16 October 2007

08:30–09:00	Registration
	Opening session
09:00–09:15	Regional Director's Message, *Dr Mohamed Abdi Jama, DRD, WHO/EMRO*
09:15–09:30	Introduction of participants and election of officers
09:30–09:40	Introduction to the meeting and adoption of agenda *Dr Haifa Madi, DHP, WHO/EMRO*
10:10–10:35	Changes in pattern and trend of dug use and how to deal with it- lessons learned from countries of the Region *Dr Ahmad Mohit, WHO Consultant*
10:35–11:00	Progress in the area of substance abuse in the Region and objectives of the present meeting on transition of patterns and trends *Dr M.T.Yasamy, RA/MNH, WHO/EMRO*
11:00–11:45	Discussion
11:45–12:15	Transition to injection and its consequences in the Region countries *Ms Joumana Hermez, TO/ASD, WHO/EMRO*
13:15–15:00	Presentations of panel members and advisers regarding transition of trend and pattern of drug use in countries Region
15:30–16:30	Key messages on the transition of trend and patterns of drug use in countries of the Region.

Wednesday, 17 October 2007: Intercountry consultation on *khat*

09:00–09:45	Objectives of the consultation *Dr M.T.Yasamy. RA/MNH, WHO, EMRO*
10:15–10:45	Public health consequences of *khat* use *Dr John Corkery, National Programme on Substance Abuse Deaths, St. George's University of London, UK*
10:45–11:15	Plenary discussion on public health consequences of khat use
11:15–11:45	Mental health consequences of *khat* use *Dr Michael Odenwald, University of Konstanz, Germany*
11:45–12:15	Plenary discussion on mental consequences of *khat* use
13:15–14:00	Plenary discussion on social consequences of *khat* use
14:00–15:00	Plenary discussion on key messages to be used for a regional strategy on *khat* use
15:15–16:30	Finalization of key messages to be used for a regional strategy on *khat* use

Thursday, 18 October 2007 "ASSIST training"

9:00–09:45	Introduction to the screening and brief intervention: Rationale for screening and brief intervention, what is screening, settings of screening, types of screening, characteristics of a good screening tool.
9:45–10:15	Examples screening tools: CAGE, TWEAK, AUDIT, AUDIT-C, DAST-10, CRAFFT, ASSIST
11:00–11:45	Brief intervention, ASSIST basics
11:45–12:30	ASSIST question by question and scoring
13:30–14:15	Brief intervention and principles of motivational interviewing
14:15–15:00	Role playing ASSIST and brief intervention
15:00–16:00	Feedback on applicability and feasibility of ASSIST and possible regional adaptations

Annex 3

LIST OF PARTICIPANTS

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Dr M. H. Khayat, Senior Policy Adviser to the Regional Director, WHO/EMRO
Dr Haifa Madi, Director, Health Protection and Promotion, WHO/EMRO
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