

**WHO Technical Consultation on the Assessment of Prevention
and Treatment Systems for Substance Use Disorders**

Report

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Department of Mental Health and Substance Abuse

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Report of the WHO Technical Consultation on the Assessment of Prevention and Treatment Systems for Substance Use Disorders

1. INTRODUCTION

The WHO Technical Consultation on the Assessment of Prevention and Treatment Systems for Substance Use Disorders was held at WHO headquarters in Geneva, Switzerland, from 18-20 December 2006. The meeting arose from recognition that the development and implementation of prevention and treatment programmes is a crucial part of a societal response to the problems associated with substance use disorders, and that the structured analysis of prevention and treatment systems for these disorders is a prerequisite for the development of these systems. The primary goals of the consultation were to examine methods and technologies for assessing, monitoring, and evaluating prevention and treatment systems for substance use disorders, in relation to population needs; to discuss the main principles and areas of such an analysis; to discuss the development of an instrument to aid in this analysis; and to develop a work plan to guide instrument development. The meeting programme is in Appendix A.

The meeting was opened by introductory remarks by Dr V. Poznyak (Department of Mental Health and Substance Abuse, WHO) followed by an opening address by Dr. S. Tomas Dols (Director-General of Drug Dependence for the autonomous region of Valencia, Spain). The meeting was attended by representatives from Australia, Egypt, Finland, Italy, Netherlands, Spain, South Africa, Switzerland, Thailand, and U.S.A.; representatives of non-governmental organizations (e.g. Trimbos Institute, Netherlands) and international funding agencies (e.g. NIDA international programme); and the WHO Secretariat. Participants were representatives of health ministries, academia, medical and allied professions, and non-governmental organizations. The consultation was organized and facilitated by Dr V. Poznyak. The meeting was chaired by Professor T. Babor (University of Connecticut Health Center, U.S.A.), and co-chaired by Professor J. Besson (Department of Psychiatry of CHUV, Switzerland). The rapporteur was Dr B. Myers (Alcohol and Drug Abuse Research Unit, Medical Research Council of South Africa). The list of participants is in Appendix B.

During the three-day consultation, the delegates outlined current methods and assessment technologies for the description, monitoring and evaluation of alcohol and drug service systems; provided situational assessments of prevention and treatment systems for substance use disorders in various member states; and described challenges to the monitoring and evaluation of these systems. They also debated the main principles of prevention and treatment systems analysis; as well as the feasibility of adapting the WHO-AIMS, a tool for the assessment of mental health systems in low and middle income countries, for this purpose. The consultation was held to aid the WHO Mental Health and Substance Abuse Directorate in detailing a work plan for the development, testing, and implementation of a suitable instrument for the structured analysis of these systems.

2. UNDERSTANDING PREVENTION AND TREATMENT SYSTEMS FOR SUBSTANCE USE DISORDERS

According to the World Drug Report,¹ the high prevalence of substance-related problems poses a significant challenge to health care systems and societies. Effective national responses to these problems include the development and implementation of prevention and treatment policies and programmes. To assist countries in effectively designing and implementing alcohol and drug services to meet population needs; information is required for each level of the health system. At the macro level, information regarding policy frameworks for service provision is needed. At the meso level, information is required on the organization of prevention and treatment systems for substance use disorders. And at the micro level, information concerning existing alcohol and drug services is needed. Such information can reflect gaps in service delivery and resource allocation, can aid in the strengthening of substance-related programmes and policies, and can provide benchmark data for monitoring progress in meeting population needs.

Dr Poznyak noted that information on responses to substance use disorders is generally only available for the micro and macro level. For example, at the macro level, the Global Status Report on Alcohol 2004² outlines the burden of harm associated with alcohol use disorders and policy responses to these disorders in various countries. At the micro level, international guidelines have been developed for the evaluation of treatment services and systems for psychoactive substance use disorders³, pharmacotherapy practices for opioid dependence have been examined in European countries,^{4,5} and treatment services have been examined in 23 countries.⁶ In contrast, at the meso level, little information is available on the organization of prevention and treatment systems for substance use disorders. This is partly due to the lack of standardized instruments for the structured analysis of these systems as well as confusion over what should and should not be included in such an analysis.

Professor Uchtenhagen put the treatment systems for substance use disorders in a historical perspective and provided an overview about the factors shaping the societal response to substance use problems, recent priorities, and trends.

2.1. Structural components and qualities of prevention and treatment systems

In order to clarify factors that should be included as part of a systems analysis, Professor Babor outlined the structural components of prevention and treatment systems for substance use disorders. Alcohol and drug services occur along a continuum of prevention activities, ranging

¹ United Nations Office on Drugs and Crime (2006). World Drug Report, 2006. Volume 1. Vienna, UNODC.

² WHO (2004). *Global Status Report on Alcohol 2004*. Geneva: WHO, Department of Mental Health and Substance Abuse.

³ WHO (2000). *International guidelines for the evaluation of treatment services and systems for psychoactive substance use disorders*. Geneva: WHO, Department of Mental Health and Substance Abuse.

⁴ WHO (2004). *The practices and context of pharmacotherapy of opioid dependence in Central and Eastern Europe*. Geneva: WHO, Department of Mental Health and Substance Abuse.

⁵ WHO (1990). *The content and structure of methadone treatment programmes: a study in six countries*. Geneva: WHO, Department of Mental Health and Substance Abuse.

⁶ WHO (1993). *National Drug and Alcohol Treatment responses in 23 countries. Results of a key informant survey*. Geneva: WHO, Department of Mental Health and Substance Abuse.

range from primary prevention activities that ensure a disorder or problem will not occur, through secondary prevention activities (including early identification and management of substance use disorders), to tertiary prevention activities that aim to stop or retard the progress of a disorder. In many countries, primary, secondary and tertiary prevention services have generally developed separately and are rarely integrated into a single system of service delivery. Yet, each of these systems consist of similar core elements: *resources* (facilities, personnel and programmes), *tasks* (prevention, care, cure, control), and *linking elements* that allow for the coordination of resources to accomplish tasks (including integration of specialist treatment services with other services such as mental health and criminal justice).

Professor Babor's presentation also highlighted how system qualities inform the organization of prevention and treatment service systems. These qualities include *equity*, or the extent to which population subgroups have equal access to services; *efficiency*, defined as the most appropriate mix of services for population needs; and *economy*, or the use of available resources to reduce the cost of substance use disorders. Professor Babor recommended that future assessments of prevention and treatment systems include an analysis of both the structural elements and system qualities that define alcohol and drug service systems.

2.2. A conceptual framework for the assessment of prevention and treatment systems for substance use disorders

Professor Babor also described how the structural resources and service qualities of prevention and treatment systems interact with macro and micro level factors to influence population health. In this public health model, alcohol and drug policies (a macro-level factor) are thought to determine the availability of structural resources for prevention and treatment as well as system qualities. In turn, system resources and qualities contribute to service effectiveness (i.e. the extent to which a specific service is responsible for positive changes in substance-related problems). As effective services hold long-term positive benefits in terms of population health; population rates for substance-related deaths, disease, disability, and social problems are convenient indicators of this factor. The availability of country-specific information on these population indicators (and the feasibility of including these indicators as part of an assessment instrument) was explored during the course of the consultation.

According to Professor Babor, the model also allows for the development level of a particular service system to be examined. In other words, prevention and treatment systems can be characterised in terms of their extensiveness, resources, mix of services, and integration. Professor Babor proposed four development levels, ranging from minimal/fragmentary (Level I); rudimentary, with some specialised services in medical and psychiatric settings and some delivered in primary care settings (Level II); Modest, with a variety of services delivered in most settings and some regional coordination and planning (Level III); to Mature, with a variety of integrated services in a range of services and stable financing for these services (Level IV). The specification of these levels is useful for suggesting ways in which these systems can be improved and for monitoring changes in system development over time.

3. DESCRIBING, MONITORING AND EVALUATING ALCOHOL AND DRUG SERVICE SYSTEMS

3.1. Research methods for alcohol and drug services research

Professor Babor described five kinds of research useful for describing alcohol and drug services.

3.1.1. Systems mapping research

This involves the description of system structures and qualities. According to Professor Klingemann, treatment mapping research can reflect a variety of perspectives as well as interactions between professionally-run and lay service providers. This approach allows for cross-country comparisons of treatment systems in various stages of development and is useful for service planning at local and national levels. Professor Klingemann gave examples of treatment mapping research in Hungary, Poland, the Russian Federation, France, Switzerland, Germany, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Finland, and Sweden. According to Professor Babor, a variety of data collection tools have been developed for treatment mapping purposes, but these instruments do not examine broad treatment systems issues.

3.1.2. Treatment service needs assessment

According to Professor Babor, the need for substance abuse services in the general population can be estimated through the use of health and social indicators, such as substance-related mortality, morbidity, and social problem statistics; population surveys that estimate prevalence rates; measures of treatment service demand; and expert opinion on treatment needs. At present, the use of these methods to estimate need has not been internationally standardized. Should a formula be developed for assessing need, it would be possible to identify the gap between existing services and population needs. In addition, delegates reported that many sources of information used for estimating treatment needs were not available in low and middle income countries, particularly prevalence data on substance use disorders in the general population and health and social indicators of substance-related harms.

3.1.3. Systems analysis

This involves identifying the gap between population-based treatment needs (see 3.1.1.) and current treatment services (see 3.1.2.). These analyses are rarely conducted, even though they allow the researcher to examine the extent to which services meet population needs.

3.1.4. System monitoring research

This involves the collection of quantitative data on system performance including: service utilization, continuity of care, attrition, service costs, and the impact of treatment services on health and social indicators. When these data are integrated with qualitative data on treatment system organization, they reflect the extent to which the system is meeting population needs.

When systems are monitored over time, questions regarding how resources should be allocated and organized within the system to meet population needs can be addressed. According to delegates, many of these performance indicators are not collected in low and middle income countries. This is partly due to a reliance on service providers for data collection, with many service providers lacking the human and financial capacity to monitor their performance.

3.1.5. Comparative research

When standardized research methods are used, data collected at national levels can be compared to answer policy questions. Professor Klingemann provided some examples of comparative cross-national treatment research. He also outlined some of the difficulties of conducting comparative cross-national research, including securing funding for international collaborative studies, defining the unit of analysis due to the heterogeneity of treatment systems across country contexts, and variability in the availability and quality of treatment-related information.

3.2. Data sources: the role of indicators in alcohol and drug services research

The meeting identified population and treatment indicators as important sources of data for each of the research methods outlined in section 3.1. According to Dr Degenhardt, treatment systems research often relies heavily on the use of treatment indicators. This is cause for concern, as researchers run the risk of misinterpreting findings when they fail to consider population indicators which provide a context for interpreting findings from the treatment system.

3.2.1. Population indicators

According to Dr Degenhardt, population-based indicators include those relating to alcohol and drug *availability*, alcohol and drug *use*, and the *harms associated with use*. Dr Degenhardt, also outlined sources for this data. For example, data on *availability* can be obtained from alcohol sales, user surveys, police seizures, and key expert opinions. Data on *use* can be obtained from household surveys, school-based surveys, psychiatric epidemiological surveys, and sentinel population surveys. Finally data on substance-related *harms* can be obtained from statistics on alcohol- and drug-related injury and mortality, drug-related arrests, substance-related emergency room admissions, nonfatal and fatal overdoses, and reportable communicable diseases (e.g. HIV, hepatitis). When considered together, these indicators reflect treatment needs within the population. In a well-resourced system with good access to care, indicators may also reflect the impact of treatment on population health. As these sources of information often provide indirect measures of population needs and treatment impact, the importance of using multiple sources of data on availability, use, and harms was outlined.

3.2.2. Treatment indicators

Dr Degenhardt also described types of treatment indicators that are useful for treatment systems research, including indicators relating to the *nature of treatment provided* (e.g. treatment intensity, treatment modality, pharmacotherapy, and specific types of services), *the types of substances treated*, *client population characteristics* (e.g. sociodemographic factors, substance

use histories, prior treatment experiences), and *treatment outcomes* (e.g. abstinence; reductions in use; and improvements in health, social, and occupational functioning). When considered together, in the context of data from population indicators, treatment indicators may reflect unmet needs, gaps in service provision, and treatment outcomes. According to Dr Degenhardt, treatment indicators should be collected from a number of sources including client census surveys, targeted/random client surveys, surveys of treatment facilities, key expert interviews, hospitals, and government departments. The use of these multiple sources also allows for the triangulation of data from sources that are often subject to bias.

3.3. Situational analysis of alcohol and drug services research

During the course of the meeting, delegates provided situational analyses of treatment research in their respective countries. These analyses described the types of research that have been conducted, the availability of population and treatment indicators, and gaps in treatment-related information and research efforts.

3.3.1. Australia

Dr Degenhardt described a well resourced system where multiple sources are used to collect data on population-based indicators of substance use and related harms on an annual basis. These include: national household and school surveys; a drug use among arrestees monitoring system (DUMA); as well as statistics from emergency room departments, hospital admissions registers, and infectious disease registers. Australia also has a national illicit drug reporting system (IDRS) and an Ecstasy and related drugs (EDRS) reporting system. These monitoring systems integrate findings on drug availability, use and related harms from three sources: sentinel surveys of drug users, key expert opinions for each drug class, and indicator data. Data on treatment indicators are also collected from treatment facility surveys. These data include statistics on treatment use, client characteristics, and treatment outcomes.

3.3.2. Italy

According to Dr Scafato, a standardized treatment and client survey is used to collect population and treatment indicators on an annual basis. This annual systems monitoring exercise examines population indicators such as alcohol consumption patterns, number and regional distribution and availability of services and related personnel, patients description (age, gender, regional distribution), modality of treatment, and alcohol attributable hospital discharges. In Italy, treatment indicators relate also to the use of services (e.g. uptake of services, and number treated on an annual basis), characteristics of service users (e.g. types of substances used), distribution of services, and types of treatment services received (inpatient, outpatient, and/or pharmacotherapy). Many of these indicators are obtained from formal governmental treatment mapping studies. According to Dr Scafato, the role of performance indicators (treatment outcomes) is rarely considered. Furthermore, monitoring efforts do not examine indicators relating to system qualities and service integration.

3.3.3. Valencia, Spain

Dr Tomas Dols described Valencia's well resourced prevention and treatment system. In this region, treatment services are mapped regularly, and as a result numerous treatment indicators are available, including service utilization indicators and indicators relating to treatment population characteristics, service distribution, and resources within the treatment system. This information is mainly collected through treatment provider and client census surveys. Dr Dols did however identify a gap in this treatment system information, namely indicators relating to the quality and functioning of these systems. In addition, although some population indicators are routinely collected, these could be expanded to include substance-attributable deaths and injuries.

3.3.4. The Nordic countries

Dr Stenius reviewed the well-resourced substance abuse treatment systems in Norway, Denmark, Sweden and Finland. In these Nordic countries, data on treatment needs within the general population are routinely collected; with indicators of substance use and related harms being available in the following national registers: death registers, public health registers, patient registers, and criminal conviction registers. Regular household and school surveys also provide epidemiological data on substance use and related harms.

In addition, several Nordic countries regularly collect treatment system information. For example, Denmark has the Danish Rehabilitation and Information System, a system aiming at integrating information from national monitoring, treatment unit monitoring, and patient monitoring activities into a single database (see www.danris.dk). Indicators included in the system reflect centre organization, treatment methods, staffing, treatment costs, treatment completion, and length of stay. Sweden also collects client-level data and information from treatment units, although very little information is collected on service quality. Finland conducts a one-day census of all health, social welfare, and alcohol and drug treatment centres. This census includes questions about alcohol and other drug intoxication and problems related to substance use among clients seeking general health/social services. According to Dr Stenius, despite this extensive mapping of the treatment system, in practice existing services have not been extensively evaluated in these countries.

3.3.5. Thailand

Dr Perngparn reviewed the substance abuse treatment service sector in Thailand and the profile of drug use among clients attending these services. She also reflected upon ways in which the use of treatment services could be linked to Thailand's "War on Drugs" policy. Unlike well-resourced countries, population indicators on the availability, use and harms associated with substance use are not readily available. For example, school surveys examining the prevalence of substance use are not conducted on a regular basis; household surveys have not been conducted annually, but so far in 2001, 2004 and 2007. While some treatment indicators are available, these tend to relate to the use of services, characteristics of service users, distribution of services, and types of treatment services received. Many of these indicators are obtained from treatment mapping activities. Indicators relating to the structure (e.g. personnel), linkages, and qualities of

the treatment system are not readily available. In addition, performance and outcome indicators for the treatment system are rarely collected.

3.3.6. Egypt

Dr Gawad provided an overview of Egypt's substance abuse treatment system. Like Thailand, epidemiological data on drug use and related harms is rarely collected in Egypt. While some studies have examined the prevalence of substance use within sectors of the population, these surveys are not routinely conducted and the quality of data is variable. Egypt also lacks a treatment reporting system – although there have been efforts to record treatment admission data at several sites. Where treatment data are recorded, the focus is generally upon service use, client characteristics, and types of services provided. Indicators relating to the structure (e.g. personnel), linkages, qualities, and performance of the treatment system are not readily available.

3.3.7. South Africa

Dr Myers described the South African substance abuse treatment system and mapped this treatment sector in terms of services provided, facility characteristics, facility resources (including personnel), client characteristics, and facility qualities. Sources for this information include the SACENDU monitoring system, which collects biannual data on clients at almost all treatment facilities in the country; and national audits of treatment facilities that examine resources and service provision within these facilities. At present these sources of information exclude linkages with mental health, primary health and self help service providers. There is also a paucity of treatment evaluation research in the country- partly due to a lack of research capacity and the time and costs associated with collecting outcomes data. Dr Myers mentioned that population needs are difficult to estimate due to the limited epidemiological data available on substance use and related harms; even though once-off studies on barriers to treatment suggest that the current treatment system is failing to meet the need for treatment in the country.

3.3.8. United States of America

In the United States, substance abuse treatment needs in the general population are regularly assessed by means of household and school surveys. According to Dr Stein, the United States generally has good epidemiological data available on substance-related harms, due to surveillance and early warning monitoring systems such as DAWN (drug-related emergency room visits), and ADAM (a drug use among arrestee monitoring system).

Dr Stein presented on treatment system mapping exercises in the United States, including the TEDS and NSSATS studies. These studies map the treatment sector in terms of services provided, facility characteristics, facility resources, staffing, client characteristics, and facility qualities. To date these studies have not included indicators of treatment outcomes. Dr Stein described SAMHSA's efforts to address this shortcoming. He outlined SAMHSA's national outcome domains (and related measures) that can be used to monitor programmes. These domains include: abstinence from alcohol/drug use, increased/retained employment or attendance at school, decreased criminal justice involvement, increased stability in family and living conditions, increased access to services and service capacity, improvements in social supports,

cost-effectiveness of programmes, use of evidence-based practices within services, and retention in services. SAMHSA hopes that this set of shared outcomes measures will facilitate evaluation and comparative research. He also suggested that these outcome domains and measures could be included in an international instrument aimed at monitoring and evaluating substance abuse treatment systems.

3.4. Recommendations for addressing gaps in treatment systems research

In summary, the meeting identified uneven degrees of implementation of treatment system research and recommended that future efforts to monitor and assess treatment systems address the following gaps:

- (1) *The use of inconsistent terminology.* Treatment service providers, researchers, and countries often differ in how they understand and define terms such as “success”, “effectiveness”, and “equity”. In order to facilitate the successful implementation of an international research tool, this terminology needs to be clarified with the use of examples and disclaimers;
- (2) *Gaps on the effectiveness and functioning of treatment systems* – especially in terms of treatment outcomes and the impact of each individual component of the system on population health. Delegates emphasised the need to identify both the essential and nonessential elements of the treatment system so that the redistribution and allocation of resources can be facilitated;
- (3) *The lack of capacity among treatment providers in low and middle income countries to conduct research.* In middle and low income countries especially, financial and human resource constraints (both in terms of skills and time) often hamper staff from collecting data relating to performance indicators (e.g. client outcomes). The consultation recommended the (i) training of counsellors and service providers on treatment systems research and data collection methods to increase the sustainability of these efforts and (ii) ring-fencing 5% of treatment grant monies for monitoring and evaluating system performance;
- (4) Related to this, often *monitoring and evaluation tools are excessively lengthy and complicated.* To facilitate service providers’ monitoring and evaluating their practices, delegates called for the development of monitoring tools that are short and easy to use;
- (5) *The need for multiple sources of data to facilitate triangulation and critical interpretation of findings.* To enable triangulation of data, delegates recommended that an international instrument include a range of different perspectives, such as that of treatment providers, policy makers, researchers and clients;
- (6) *The limited availability of population indicators of availability, use and harms* associated with substance use in low and middle income countries raised concerns about the feasibility of using these indicators to measure population-related treatment needs. The delegates recommended developing a core set of indicators that can serve as a minimum

standard for assessing treatment services and for which information can be obtained from low, middle and high income countries;

- (7) *The lack of reliable, valid and standardised tools for measurement of treatment need* has also made it difficult to measure the extent to which services match population needs. Participants strongly recommended facilitating the development of such a tool.

4. DEVELOPING A TOOL TO ASSESS, MONITOR AND EVALUATE SUBSTANCE ABUSE PREVENTION AND TREATMENT SYSTEMS

In order to address these gaps, delegates discussed the possibility of adapting the WHO-AIMS, an instrument currently used to describe, monitor and evaluate mental health treatment systems, for the assessment of prevention and treatment systems for substance use disorders. This internationally validated instrument is described in the following section.

4.1. The WHO-AIMS: A tool for assessing mental health treatment systems

According to Drs Saxena and Morris, the purpose of the WHO-AIMS is to gather baseline information on mental health systems in low and middle income countries and to help these countries monitor system changes over time, and to allow for cross-country comparisons to be made. Ultimately, it is hoped that information gathered from this process will inform guide mental health system improvement in participating countries. Dr Saxena outlined other benefits to the use of the WHO-AIMS, including building capacity for mental health systems research in low and middle income countries, stimulating systems-level thinking and planning in these countries, and building a network for mental health action in these countries.

More specifically, the WHO-AIMS was developed by a process of iteration between experts and mental health service managers and was piloted in 12 middle and low income countries. In its present form, the instrument consists of 150 indicators in 6 domains: policy and legislative framework, mental health services, mental health in primary care, human resources, public education and links with other sectors, and monitoring and research. The instrument has good content validity and comprehensively assesses each aspect of the mental health system. Drs Morris and Saxena recognised that some countries were unable to provide information on all of the quantitative indicators, specifically indicators relating to system qualities such as equity, efficiency and economy. To address this shortcoming, the WHO-AIMS team is currently developing a developmental list of qualitative indicators that reflect these system qualities.

The instrument is accompanied by a glossary of terms and detailed instructions for its use, as well as a template for reporting purposes. Data obtained from the assessment are packaged into a report that can be used by countries to stimulate system improvement initiatives. According to Drs Saxena and Morris, this enables countries to develop information-based mental health plans with clear, feasible targets and enables countries to monitor progress in achieving these targets. (A copy of the WHO-AIMS report on the mental health system in Ethiopia was distributed to delegates⁷). Delegates were also informed about the WHO-AIMS website that

⁷ WHO-AIMS report

includes more information about the WHO-AIMS, country reports, and access to technical assistance (see www.who.int/mental_health/evidence/WHO-AIMS).

At present 55 countries are using the WHO-AIMS. According to Dr Saxena, the popularity of this tool is due to the fact that the assessment is fast and relatively inexpensive and that the instrument is available in five languages. Dr Saxena noted that most of the costs associated with the assessment process relate to researchers' time as the assessment does not involve the collection of new data but rather the collation of existing information and secondary data analysis. In terms of budgeting for researchers' time, costs generally include 50% of a researcher's time for one month, 25% of the time of more senior people over three months, and 50% of a research assistant's time over the course of the project.

Drs Saxena and Morris noted that the successful use of the WHO-AIMS is indicated by the hosting of national workshops on the outcomes of the assessment. During these workshops, targets for mental health system development and improvement are discussed and national action plans for mental health are refined. More long-term indicators include measures of the degree to which countries have achieved the targets set out in these action plans. Dr Poznyak added that while this assessment process is particularly useful in poorly resourced countries, it is also useful for better resourced systems where it can stimulate system improvement.

4.2. The WHO Substance Abuse Instrument for Mapping Services (WHO-SAIMS)

Following this, delegates discussed the feasibility of using the WHO-AIMS as a platform for the assessment, description, and monitoring of prevention and treatment systems for substance use disorders. Delegates agreed that rather than developing a new tool, it would be easier to use the WHO-AIMS as a starting point for the development of a similar instrument for use in the substance abuse field. Delegates were presented with a draft copy of the **WHO Substance Abuse Instrument for Mapping Services (WHO-SAIMS)**, which was used to guide discussion around the objectives and functions of the tool, the scope of enquiry, and the content domains to be included in the instrument.

4.2.1. Functions of the WHO-SAIMS

According to Dr Poznyak, the overall purpose of the WHO-SAIMS is to provide information on prevention and treatment systems to decision-makers so that information can be used for policy planning, service design and service improvement. Delegates debated the functions of the WHO-SAIMS in the light of this purpose. Given the limited availability of population and treatment indicators in many countries, delegates decided to initially limit the functions of the WHO-SAIMS. More specifically, the following decisions were made:

- (1) The WHO-SAIMS will have a descriptive function. This will allow for gaps in service delivery and areas for system improvement to be identified;
- (2) The WHO-SAIMS will have monitoring and process evaluation functions. This will allow countries to identify changes in the system over time and will also enable countries to assess the extent to which system improvement strategies have been implemented;

- (3) At present, the WHO-SAIMS will not have an impact evaluation function. In other words, it will not assess the impact of alcohol and drug services on population health. Delegates reached consensus that this was not feasible due to the lack of population-level indicators in many countries;
- (4) At present, the WHO-SAIMS will not provide comparative cross-national analyses of alcohol and drug service systems. While these comparative analyses would be useful for assessing country progress (relative to others) and for stimulating international systems research, delegates recognised that these analyses would not be feasible due to large differences in ways alcohol and drug service systems were developed and resourced.

4.2.2. Scope of enquiry for the WHO-SAIMS

During the course of the consultation, delegates agreed that the boundaries of the proposed assessment instrument should be broad enough to reflect cross-country variations in alcohol and drug service systems and should be applicable to both Level I and Level IV treatment systems. This is important as several delegates from less developed country settings (e.g. Egypt, South Africa and Thailand) expressed concern that indicators suitable for assessing mature treatment services may not be relevant for middle and low-income countries with less developed treatment systems. In summary, the meeting recommended that the scope of the WHO-SAIMS should:

- (1) Include prevention services:
 - a. Delegates decided on a narrow focus on prevention which excludes health promotion activities from the instrument;
 - b. Delegates recommended that the WHO-SAIMS examine the extent to which prevention services are provided, the types of prevention services provided, and the setting in which they occur;
 - c. Delegates also suggested that the WHO-SAIMS examine the functional interface between prevention and treatment systems, for example, primary and secondary prevention activities provided in treatment settings.
- (2) Exclude a focus on tobacco and other addictive behaviours
 - a. Delegates decided the WHO-SAIMS should focus narrowly on psychoactive substance use, excluding a focus on tobacco;
 - b. Consensus was reached that the WHO-SAIMS should not include other behavioural addictions, such as gambling;
 - c. Delegates agreed to the development of a set of questions relating to tobacco and other addictive behaviours for inclusion in later versions of the WHO-SAIMS.

- (3) Examine the structural and functional aspects of prevention and treatment systems
- a. Delegates agreed that the WHO-SAIMS should examine the structure of alcohol and drug service systems in terms of resources, facilities, personnel and programmes;
 - b. Consensus was reached that the WHO-SAIMS should also include a functional assessment of these systems;
 - c. This functional assessment should describe *how* the system functions. Possible indicators include pathways to care, patient flow through the system, continuity of care, and service coordination;
 - d. A functional assessment should also assess *how well* the system functions. Possible indicators include: equity, efficiency, and accessibility as well as system malfunctions such as waiting times for services, underutilization of services, and gatekeepers to access.
- (4) Examine the provision of alcohol and drug services in multiple sectors and settings
- a. Delegates agreed that the WHO-SAIMS should describe the provision of prevention and treatment services in multiple sectors including primary health care, mental health (e.g. psychiatric clinics), social welfare settings, and in the criminal justice sector so as not to exclude country variation in service provision;
 - b. Consensus was reached that treatment should be defined broadly in the WHO-SAIMS to include services provided by self-help groups, traditional healers, and other “lay” service providers;
 - c. The WHO-SAIMS should describe the provision of alcohol and drug services in a range of settings, including specialist inpatient facilities, outpatient settings, and community settings.
- (5) Describe the linkages between various components of alcohol and drug service systems
- a. Delegates agreed that the WHO-SAIMS should describe the professional substance abuse treatment sector’s linkages (and integration with services provided by) the primary care, mental health, criminal justice and social welfare sectors;
 - b. The WHO-SAIMS should describe the professional substance abuse sector’s linkages with mutual help organizations and other lay service providers, where possible;
 - c. The WHO-SAIMS should examine interactions between different levels of care, such as patient movements from less intensive to more intensive levels of care.

4.2.3. *The structure of the WHO-SAIMS*

During the meeting, the structure of the WHO-SAIMS was discussed at length. Participants recognised the need to consider the limited availability of information relating to system performance and population needs within low and middle-income countries. Based on this recognition, delegates recommended that:

- (1) The WHO-SAIMS should consist of a core instrument appropriate for use in all countries, irrespective of developmental level;
- (2) The WHO-SAIMS should include optional supplementary questionnaires, to be completed by countries that routinely gather data on population needs and/or system performance;
 - a. This should include data on population needs, including the prevalence of substance use disorders and related harms in the general population;
 - b. This should include system performance measures, such as the outcome measures recommended by SAMHSA;
 - c. Where possible, these complimentary modules should reflect both the consumer and the service provider's perspectives on the structure and functioning of alcohol and drug service systems. This would necessitate reflecting data from consumer surveys as well as programme census data.

4.2.4. *Domains to be included in the WHO-SAIMS*

Although consensus was reached that the basic domains covered by the WHO-AIMS were relevant for prevention and treatment systems for alcohol and other drugs, delegates noted that this instrument would still need to be revised to include items specific to alcohol and drug services. Based on this recognition, and guided by discussion on the functions, scope and configuration of a potential instrument, delegates made the following recommendations:

- (1) The policy and legislative domain should include items about national alcohol and drug policies; legislation governing drug control, prevention and treatment; strategic plans that address substance use disorders, work-force development for substance abuse professionals, and resource allocation to and the financing of alcohol and drug services.
- (2) A description of the country's substance abuse situation and current alcohol and drug service needs within the population should be added in an additional domain. Delegates noted that an overview of population-related alcohol and drug service needs and current services provided would (i) help identify whether current services match needs and (ii) allow for some claims to be made about service coverage. Due to the limited availability of population indicators in low and middle income countries, delegates recommended the use of qualitative indicators or a narrative overview of available information.

- (3) A description of the country's current alcohol and drug treatment system should be added in an additional domain.
- a. This domain should describe the current substance abuse system's level of development in terms of the typology and mix of services provided, service integration, and system complexity.
 - b. This domain should include a description of the *functional aspects* of alcohol and drug services that reflect how the system operates, such as items relating to referral pathways and ideal treatment algorithms as well as linkages between different actors in the substance abuse system.
 - c. Given, the limited availability of quantitative indicators on the functioning of alcohol and drug service systems, the functional aspects of these systems will be examined using qualitative methods.
- (4) The alcohol and drug services domain should include additional items on:
- a. Other residential services for alcohol and drug problems such as half-way houses and sober living environments;
 - b. Alcohol and drug services provided by other sectors such as mental health facilities, primary health care services and the criminal justice sector;
 - c. The linkages between these services and the extent to which services in different sectors are integrated with each other;
 - d. The availability of psychosocial treatments;
 - e. The availability of psychotropic medications in these facilities;
 - f. The treatment modalities used in each setting
 - g. The availability of harm reduction services such as substitution therapies for opioid dependence and needle exchange ;
 - h. Equity of access to alcohol and drug services
- (5) The substance abuse in primary care domain should include items relating to: physician-based alcohol and drug services; non-physician-based alcohol and drug services (e.g. nurses, health care workers); the types of interventions used in primary care settings; linkages and integration with services provided in other settings; and capacity to provide alcohol and drug services in primary care settings (e.g. training, skills in the work-force, competing priorities).
- (6) The human resource domain should include items relating to the quantity of human resources; human resource development such as training and accreditation of professionals for the substance abuse field and training of lay service providers; and

user/consumer and family associations in the alcohol and drug field, including mutual-help organizations and recovering communities such as AA and NA.

- (7) The public education and links with other services domain should include items relating to public education services on substance use disorders and treatment options, as well as formal links between the speciality substance abuse treatment sector and the mental health, social welfare, and criminal justice sectors - link with other sectors.
- (8) The monitoring and research domain should examine current efforts to monitor alcohol and drug services in each of the identified sectors (i.e. primary care, mental health, criminal justice, social welfare and specialised alcohol and drug service sector) as well as other relevant research activities that are taking place in the country.

4.2.5. Implementation and use of the WHO-SAIMS

The meeting also outlined the role of government agencies and programme administrators in the implementation of the WHO-SAIMS and the use of findings obtained from the assessment process. Dr Gust suggested that Ministries of Health or similar government agencies needed to be considered and consulted in both the assessment process and in the dissemination of findings. Dr Gust argued that this consultation process could create a sense of ownership, which may prompt these Ministries to act upon recommendations. While recognising the role of these Ministries, several participants expressed concern about the capacity of government agencies to conduct research and the tendency of these agencies to downplay unfavourable findings. These delegates recommended that responsibility for the assessment process be given to independent academic organizations. Consensus was reached that government departments and programme administrators are the main audience for the assessment, as these officials have the resources to implement recommendations regarding service improvement; but that these agencies should be encouraged to contract the research process out to more suitably qualified, independent organizations.

The consultation agreed that for the WHO-SAIMS objectives to be realised, the WHO needs to support the end-users of the WHO-SAIMS in developing and implementing service plans based on the recommendations of the assessment process. This would necessitate the involvement of multiple role players including academic institutions, governmental departments, non-governmental organizations, and civil society.

5. CONCLUSION

There was general agreement that prevention and treatment systems for substance use disorders form a vital part of effective national responses to these problems. Delegates noted that while information on the structure and functioning of these systems is needed to guide service development and system modification, this information is often not available in low and middle income countries. In well-resourced countries, there is a relatively integrated body of treatment-related research that includes an examination of services in relation to population needs, treatment mapping, and systems monitoring. In less-resourced settings, information on

prevention and treatment systems and service needs in the general population is scanty. Regardless of resources, almost all delegates reported a dearth of research relating to system performance and the impact of prevention and treatment systems on population health.

Based on these observations, delegates identified the need for a simple assessment tool that can be used to describe and monitor national prevention and treatment systems for substance use disorders. Delegates emphasised that this tool should collect basic information on the structure and functioning of these systems, with items being appropriate to both well-resourced and less-resourced nations. Participants agreed that the WHO-AIMS could serve as a platform for the development of a similar tool for assessing and describing alcohol and drug service systems.

Although the proposed WHO-SAIMS will rely heavily on the use of secondary data from key informant surveys (the reliability of which could be challenged in low and middle-income countries), this should not be a deterrent for the development of such a tool. Instead, the development of a user-friendly instrument that collects “reasonably reliable” information on existing alcohol and drug service systems may provide a basis for future evaluation research and may stimulate system reform in some countries. The consultation agreed that for these objectives to be realised, the WHO needs to support the end-users of the WHO-SAIMS in developing and implementing service plans based on the recommendations of the assessment process. Policy makers and government agencies responsible for alcohol and drug services were identified as particularly important stakeholders with whom dialogue around this assessment process should be enhanced

5.1. Next steps in the development of the WHO-SAIMS

Dr Poznyak outlined the next steps in the development of the WHO-SAIMS:

- (1) To establish a small working group to elaborate the development of the instrument. This working group includes Professor Babor, Professor Besson, Professor Klingemann, Professor Uchtenhagen, Dr Gossop, and Dr Weisner.
- (2) To develop a draft instrument for discussion by April 2007.
- (3) To finalise this draft instrument for field-testing by August 2007. Several countries have been chosen as sites for field-testing, including: Switzerland and Valencia (Spain). Less resourced countries will also participate in the field-testing process.
- (4) Based on findings from the field-testing process, the instrument will be refined and a first version released in 2008.

The meeting was closed by Dr B Saraceno who reiterated the potential of the WHO-SAIMS for guiding the development and refinement of alcohol and drug service systems at a national level.

APPENDIX A

PROGRAMME

DAY I: Monday, 18 December

- 9:00-9:45 *Opening of the meeting*
Welcoming remarks and introduction (*V. Poznyak, D. Rekve, S. Tomas*)
Election of chairs and rapporteurs
Background and objectives of the meeting (*V. Poznyak*)
- 9:45-10:30 WHO Assessment Instrument for Mental Health Systems (WHO-AIMS):
development, testing, and utilization (*S. Saxena; Jodi Morris*)
- 11:00–12:30 Treatment systems for substance use disorders in historical perspective (*A. Uchtenhagen*)
Conceptual framework for assessment of prevention and treatment systems
for substance use disorders (*T. Babor*)
Discussion
- 14:00–16:00 Comparing drug treatment systems in different countries: lessons learnt (*H. Klingemann*)
Indicators for monitoring the impact of and need for, the treatment of
alcohol and illicit drug dependence (*L. Degenhardt*)
Monitoring and evaluating substance abuse treatment in South Africa:
barriers and challenges (*B. Myers*)
Discussion
- 16:30–18:00 Monitoring prevention and treatment systems for substance use disorders:
Italy (*E. Scafato*)
Treatment systems for substance use disorders in Egypt (*T. Gawad*)
Treatment systems for substance use disorders in Thailand (*U. Perngparn*)
Discussion

DAY II Tuesday, 19 December 2006

- 9:00-10:30 Summary of earlier discussion (*Chairs, V. Poznyak*)
Assessment of treatment systems in selected Nordic European countries
(*K. Stenius*)
Technical consultation on assessment of prevention and treatment systems
for substance use disorders: The autonomous region of Valencia (*Sofia
Tomas Dols*)
Discussion

- 11:00-13:00 Assessment tool for prevention/treatment systems: suggested outline (*T. Babor*)
Discussion on the assessment instrument
- 14:00-15:30 Discussions on the assessment instrument (continuation)
- 16:00-17:30 Teleconference – Assessment tools for treatment/prevention systems
(*SAMHSA, USA; J. Stein*)

DAY III Wednesday, 20 December 2006

- 9:00-9:30 Summary of the previous days (*Chairs*)
Discussion
- 9:30-10:30 Revised and elaborated outline of the assessment instrument (*T. Babor*)
Discussion
- 11:00-11:30 Plan of future work (*V. Poznyak*)
- 11:30-12:00 Final discussion and closure of the meeting
Presentation of main outcomes of meeting (*V. Poznyak*)
Closing address (*B. Saraceno*)

APPENDIX B

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