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# Guide to Drug Abuse Epidemiology



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MENTAL HEALTH AND SUBSTANCE DEPENDENCE DEPARTMENT  
NONCOMMUNICABLE DISEASE AND MENTAL HEALTH CLUSTER  
WORLD HEALTH ORGANIZATION

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**CHAPTER 10**

**FIELD ASSESSMENT OF MODEL CORE  
QUESTIONNAIRE**

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## 1. Introduction and background on the NIDA/WHO Expert Revision

This chapter provides a detailed description of the field assessment project and research protocol used to produce a cross-culturally applicable model core questionnaire suitable for use in drug abuse epidemiology research. The model questionnaire is intended to be a multi-purpose instrument including core standardised questions relating to drug use that can be administered with minimal training and supervision to a range of different target populations, and which can be utilised in both interviewer administered and self administered formats (see Annexes 7 and 8). The questionnaire is not a diagnostic instrument. This protocol and summary findings from the field assessment are directly applicable to the development of parallel questionnaires for other language and cultural groups. The primary objective of this project has been to assess the cross cultural utility of the draft model core questionnaire that was compiled according to the specifications of the Initial Consultation Group for the Revision of the WHO Manuals on Drug Abuse Epidemiology Project. Additional revisions were recommended by the field assessment site Principal Investigators during a field assessment preparation meeting, October, 1994. The field assessment focused on key cross-cultural issues related to questionnaire development such as: language, concepts conveyed, and topics covered. The field assessment at six sites (one in each of the six WHO regions) utilised systematically applied qualitative research methods.

The field assessment phase described here is one part of the NIDA/WHO expert revision of the WHO Offset Publications on drug abuse epidemiology, originally produced in 1980 and 1981. An Initial Consultation Group (ICG) of international experts in drug abuse epidemiology was convened in November, 1992, to review existing publications and develop recommendations for the implementation of the revision project. The ICG recommended the creation of a consolidated manual, to include detailed guidelines for the compilation of a model core questionnaires for drug abuse data collection. The specifications for the proposed questionnaire were constructed to be consistent with the standards for drug abuse information reporting set by the United Nations International Drug Abuse Assessment System (IDAAS). The key agreements and recommendations emerging from the ICG are as follows:

- It was agreed that valid substance abuse questionnaires already exist and many questions have been used in different cultural settings as, for example, in studies conducted in the United States, Mexico, and by the Pompidou Group in Europe. The questionnaires used in these studies were reviewed by the group and it was recommended that the final document should utilise the existing technology and not attempt to develop new questions.
- It was recommended that questions be identified from the existing valid questionnaires and compiled into a model "core" questionnaire which would cover areas identified as key for assessment by the ICG. The ICG provided guidelines for the compilation (including content, structure, and formats) of the model questionnaire. It was agreed that the model questionnaire should be developed so that it could be utilised in both interviewer administered and self administered formats. It was further recommended that the simple question format utilised in

the questionnaire presented/ in the original WHO Offset Publication 50 be retained.

- It was stressed that the questionnaire should be clearly identified as a “model” which, if utilised appropriately, could generate data consistent with current recognised international standards. In order for the model questionnaire to be utilised appropriately, the ICG stressed that it must be carefully reviewed and evaluated relative to the specific social and cultural context in which it would be used, with adaptations incorporated where necessary.
- It was recommended that a field assessment be used to illustrate the process of review and revision involved in questionnaire adaptation. This would include the identification of specific questions and topical areas which the field assessment indicates may require local adaptation.

## **2. Design Elements for the Field Assessment Project**

The primary objective of the field assessment was to evaluate the cross cultural utility of the draft model core questionnaire compiled according to the recommendations of the ICG. The cross-cultural field assessments were subsequently designed to meet the conditions and requirements set out by the ICG. The group designing the field assessment created the following set of objectives to achieve these goals.

### **i) Assess the linguistic and cultural applicability of the core questions for local language and cultural variation**

Linguistic differences (problems in translation and conceptual transfer between cultures) constitute some of the primary cross-cultural barriers to adoption of a core questionnaire. The primary method used to meet this technological transfer objective is the translation/back translation protocol. It was used to assess each question and to locate specific conceptual problems in the questionnaires. Each field site identified questions which posed problems in the process of translation and noted the type and severity of translation problems encountered. This allowed cross-site comparisons to be made for each core question.

### **ii) Identify potentially threatening questions and potentially culturally sensitive questions**

Since drug use and drug abuse are morally and legally interdicted in many cultures, it was necessary to assess the questions in the core questionnaire for their sensitivity to data distortion stemming from cultural barriers to accurately answering the questions. Focus group interviews were used to identify sensitive or threatening questions, in order to determine how the wording could be made less threatening, or to identify other approaches to collecting this type of data. The recommendations were designed to identify the differences between misinformation resulting from question ambiguity, which may be identified during the

translation process, as compared with deliberately false answers caused by sensitive or threatening questions, which were identified through qualitative cultural analysis of the focus group interview data.

**iii) Identify whether and to what extent the questions address the range of drugs and drug using behaviours specific to the social and cultural context.**

Changing patterns and trends in local drug use have been identified world-wide. It was felt that some mechanism should be included in the field assessment to determine the most current configuration of drug use, and the most current information on attitudes towards illicit drugs. Free listing data collection and focus group interviews were used to collect the data needed to meet this objective. These two qualitative techniques allowed the sites to conduct a cultural domain exploration of the types and the range of drug use in the local cultures, and to determine the need for extended coverage of the drugs surveyed in the core questionnaire.

**iv) Assist in the development of annotations for the questionnaires, particularly regarding specific issues and topical areas which may require local adaptations**

The overall field assessment data collection process was designed to collect direct, culturally sensitive, data that would allow field based examples of both cross-cultural problems and cross-culturally comparable questions to be identified and presented as a guideline for the use of the core questionnaire. Focus group data, the methodological questionnaire, and the field assessment summary reports (including translation issues, results of focus group, and free listings) were used to construct the annotations.

**v) Obtain the input/recommendations from field investigators regarding methodological issues in the development of annotated model self administered and interviewer administered questionnaires**

The Principal Investigators were chosen for their expertise in alcohol and drug research at both an international and local level. These individuals constituted an expert panel on the methodological issues associated with the construction of the model questionnaire. They were consequently asked to respond to methodological questions which arose during the development of the model core questionnaire, based on the field assessment data collected by their site, and their experience with constructing cross-culturally applicable epidemiological instruments.

### 3. Methodology

The cross-cultural field assessment of the core questionnaire required the use of several systematic qualitative data collection techniques. Research Centres in six culturally different locations (Egypt, Greece, India, Mexico, Malaysia and Zimbabwe) agreed to participate in the field assessment. The data provided by each site included: i. an initial information assessment that provided contextual information about the culture and drug use in the local area, ii. data collected through the translation/back translation protocol, iii. data collected using the freelisting protocol, iv. focus group interview data, and v. the Principal Investigator methodological questionnaire. This common format allowed for successful cross-site comparison of qualitative data, in addition to generating excellent data for individual site modification of the core questionnaire as a cross-culturally valid instrument.

#### 3. Initial Information Assessment

Each field site was asked to provide descriptive information on the local area and country; and, a brief description of substances used and patterns of use within the country, drawing on existing sources of information such as government reports, research literature, and special studies such as the WHO Cultural Applicability Research (CAR) Project. The initial information assessment consisted of a secondary data and literature review that provided information about the demographics, cultural parameters, and key issues pertaining to drug abuse at the local site. This information was gathered and summarised prior to or during the process of translation and served as a useful background for the process of translating and adapting the questions. These data provided important cross-cultural, contextual, and comparative information for the field assessment. Field sites were also asked to provide a brief description of official social policies related to the use of drugs, (i.e., which are legal, illegal, restricted by age or other condition) and a brief description of cultural values associated with each drug (a positive or negative view of use). A standard reporting format was utilised to facilitate the consistency of reporting this information across the six field sites. The completed initial assessments provided a standardised framework across the participating sites for the interpretation and comparison of findings.

#### 3.2 Translation/Back Translation

Each site translated the self administered and interviewer administered core questionnaires into one major local language. Standard translation/back translation methods were used to produce an acceptable language version of the questionnaires. A small systematic data collection module was added to record the type and severity of translation problems encountered. This information was used to identify the cross-cultural, or cumulative, issues relating to the translation process and the linguistic issues relating to the core questionnaire, as well as site specific issues. The original questions for the English version of the questionnaire were chosen to be as simple, clear, and concise as possible, based on the use of questions that had previously been used in studies in which they had been tested for validity and reliability.

One of the difficult issues that the translation protocol had to accommodate was the use of colloquial or specialised language in the original questionnaire. In some cases, linguistic research had to be conducted prior to the development of the translated instrument, to determine appropriate replacements in the second language for the colloquial terms, or for special terms used by sub-populations, such as local names for drugs. In a number of cases it was necessary to provide multiple terms or variants, to cover regional and/or dialectical differences in the words used in the questionnaire. Alternately, the colloquialisms were identified and replaced in the original questionnaire with terms that are more generally understood. These more generic terms could then be translated into the second language using generally understood terminology in that language. One note of caution to this approach is that it may make any prior validity and reliability studies on the original questionnaire invalid for purposes of comparison, since the original questionnaire has been modified. The protocol used for the translation/back translation process is included in Annex 1.

### 3.3 Focus Groups

The focus group protocol, coupled with the focus group training in Athens, provided a standardised process for collecting and analysing interactive qualitative data at each of the sites. Several conditions related to the conduct of the focus groups were agreed upon by the Principle Investigators. Participants were given a copy of the translated Self Administered core questionnaire before the focus group discussions, so they could review it prior to the discussions. It was made clear to participants that they would not be asked to answer the questions in the questionnaire and that no information on their own use of substances would be collected, rather that they were helping to determine the cultural applicability of the questions. Appropriate flip charts/posters were prepared with the questions from the questionnaire sections, for use in the focus groups. This allowed the moderators to provide a point of reference for discussion on specific sections and specific questions, and it provided a reference for reading and reviewing questions for non-literate participants.

A minimum of six focus groups were conducted at each Centre, Each group included approximately 6-10 participants and lasted for approximately 2 hours. The Principle Investigator Group jointly designed the focus group questions to address the cross cultural applicability of the core questionnaires and to identify other issues related to the development of those instruments.

Focus Group discussions at each site were lead by a moderator and followed the content of the Focus Groups Guide Questions developed for the project. During the Athens Field Assessment Training Meeting, the Principle Investigators agreed to select comparable focus groups and to recruit individuals for those groups so that there would be at least one group discussion at each site where the participants were drawn from the following groups of respondents:

- health and social research professionals
- youth and adolescents
- members of the culture who have or have had alcohol or drug problems or who use alcohol or other drugs heavily
- treatment providers

The common focus group protocol used at all sites is provided in Annex 1 at the end of this chapter. Annex 1 also contains the focus group guide questions and examples of data collection forms.

### 3.4 Free Listings

The free listing data collection method is used in many different contexts where it is important to rapidly explore the content, limits, and the meaning of an important cultural domain, such as drug use in a particular culture. The data can be collected either as an interview, or as a self-administered listing exercise.

In the case of this study, it was important to do a site by site assessment of the types of drugs that were in use in each location, and to explore the meaning of those drugs in the local culture. Each site was requested to follow a systematic free listing protocol, as described in Annex 2. The focus group participants were asked to complete a free listing exercise as one special part of the data collection process, as a “warm-up” exercise prior to the focus group discussion. This exercise used a simple question format, such as “What are all of the types of drugs that are used in this region” The consolidated data, or listings, from each of the informants allows a thorough exploration of the elements (both the most salient drugs and the variety of drugs) in this cultural domain. These listings often identify new substances that are being abused, as well as providing an excellent, linguistically relevant, set of drugs that can be included in epidemiological surveys. The free listing protocol used at each of the Centres is in Annex 2 of this chapter.

### 3.5 Methodological Questions

The Principal Investigators were asked to respond to a series of methodological questions which arose during the process of developing the model core questionnaires. In addition, some of these questions were embedded in the focus group data collection and analysis, as well. The questionnaire contained a series of open ended questions in which the P.I. was asked to discuss the methodological issues for their culture and research area, and to provide a rationale for their recommendations. The questions were divided into general issues and section specific questions for the core instrument. These questions are included in Annex 3.

#### **4. Multi-site Co-ordination**

The successful application of these methods required both support to individual sites, and cross-site co-ordination. This co-ordination was undertaken by PSA/WHO Geneva staff. The process included i. establishing common personnel requirements, ii. cross site co-ordination, and iii. the implementation of quality control mechanisms. It was recommend that each site select appropriate personnel, in addition to the Principal Investigator, including one or more focus group moderators (one may be the Principal Investigator), up to four bilingual translators, and a social scientist for consultation in qualitative analyses.

The field testing was managed and co-ordinated at two levels. At the country level, the Principal Investigator was responsible for the implementation of all the activities and the overall supervision of the project. The Principal Investigator also ensured adherence to the testing plan schedule. At an international level, WHO/PSA project staff liaised with the Principal Investigators in the participating centres to ensure that the scheduled activities were undertaken in a timely manner, by maintaining regular contact with field site Principal Investigators and responding to problems which arose.

WHO/PSA project staff periodically contacted field centres regarding the progress of the studies and problems encountered. To generate the highest possible quality data and to assure consistency in application of methods across sites, the data collection phase was preceded by a centralised 3 day training workshop for Principal Investigators. During the workshop, field centres discussed and agreed upon the use of common reporting formats to facilitate and standardise the reporting of information to enable systematic detailed comparison of results across sites.

#### **5. Summary of Results from the Field Assessment Project.**

The field assessment allowed the project team to evaluate all of the objectives set out for this project by the initial expert group and the field assessment group. It allowed the project to evaluate the cross-cultural applicability of the model core instrument. The appended annotated instruments (Annexes 6, 7 and 8) are the primary products of the combined expert group and field assessment process. These instruments provide the basic questions; note where local variability may improve the overall quality of the data; and provide examples of how changes can be made to the basic questions, along with the rationale for making those changes.

The majority of core questions do not pose cross cultural validity and reliability problems. Some questions are more appropriate in one form for some cultures, as opposed to another form for others, but remain solidly comparable. In a few cases, specific questions pose problems for some individual cultures that they do not pose for others. In the case where these questions are identified as locally problematic, but broadly applicable, the field assessment process allowed reasonable substitution (or in some cases, elimination) for these questions.

The following sections provide examples of the results of the field assessment, as reported by the six participating sites.

## 5. Translation/Back Translation Procedures

The translation/back translation process was successfully completed at all six sites and produced key information on the applicability of the core instruments. Several areas of translation difficulties or complexities were identified by at least half of the sites, while other areas were more strictly localised. In many cases, the problems were not in finding suitable words to translate from English to the local language, the problems were caused by differences in social conditions and structures (family, living arrangements), by local interpretations of words and phrases, or by the difference in attitudes towards providing certain types of information in the culture. The summary statement from the Greek site exemplifies the experience of most of the sites:

“The translation back translation process showed that there were problems in the applicability of certain terms and items in the Greek cultural context”.

These difficulties included: the frequency questions (for example some sites proposed alternative coding frames for asking about the frequency of drug use based on the number of times a drug had been used rather than on the number of days); some questions relating to social relationships (in some countries the concept of "living together" is not recognised); and other socio-demographic questions such as those relating to education and occupation.. Other sites had similar findings, and at the same time, found that most of the questions and the translations went well and could be modified to accommodate the differences in cultural context.

In at least two cases, Malaysia and Mexico, one of the key translation problems was not the content of the questions, but their length and complexity once they had been translated. The resulting questions caused some confusion that could be eliminated by simplifying the question once it was translated. Some additional confusion was caused by some of the few remaining colloquialisms left in the English version. For example, the phrase “on the street” (in the context of where respondents were living) was not easily translated, even when the meaning was clear in English. In Malaysia, it was not possible to find generic terms for some social relationships, like spouse, and the term had to be translated into either husband (suami) or wife (isteri). It was also difficult to find some local equivalents of the drugs listed in the questionnaire. Another example of the concepts that are taken for granted in some cultures, but not of equal importance, or equal ease for translation, in others were found most frequently in the demographic section of the questionnaires. The Egyptian site noted that the ethnic minority groups in Egypt are very small, and are not a standard part of epidemiological surveys. They also noted the significant difference in attitude present in the construction of questions about alcohol, from the alcohol consuming cultures, compared with the conditions that arise in Islamic countries where alcohol is forbidden. The wording of those questions,

with the implied acceptance of alcohol as a legal substance, may cause some differences in the ways that the data are both collected and interpreted, cross-culturally. They also noted that, for local use, they had to eliminate the word "ever" because it can take on several different meanings when translated into Arabic. Translating the questions without the word caused no problems, since in Arabic one can deny or reject something in our language without using the word "ever".

The Indian site also noted some of the special difficulties of cross-cultural applicability of the demographic questions. They found problems with the list of types of residences that were provided, with some of the labels of relationships, and also with the question on age. This highlighted some of the differences found between literate and non-literate conditions. As the researchers state

"Nearly 50 percent of our people are illiterates and do not remember their date of birth. They may not even know their exact age. It is quite often experienced that they ask the interviewer to guess their age and record it. Thus, this the item may not elicit the right response".

This site also noted that even where the same word is used, such as school, it may not have the same meaning, or may be divided differently than assumed in the original questionnaire. In this case, school means the first 10 years of education, and College is reserved for education beyond that level. If someone is asked how many years of school they have completed, they may answer 10, and may fail to add the additional years of schooling that they received in College, thus providing an inaccurate picture of their educational achievement. This clearly illustrates the need for questions that are sensitive to local variations in the schooling/ education systems.

One of the common issues that were brought to light by the translation/back translation protocol were the "hidden assumptions" of the English version of the questionnaire. There are relatively standard measurements for alcoholic beverages in English speaking cultures. While some variation occurs, the size of containers, and the social processes for consuming drinks remain relatively comparable. In contrast, the Zimbabwe Centre noted that there was a serious problem with the question "how much did you drink", since: "it is difficult to measure how much we drink here especially if it is a local brew like Scud, as this is shared by several people from one cup when drinking". Sharing a continuous round of local brew cannot be calculated in the same way as pouring glasses from a pitcher as is a common drinking practice in the United States. Given the importance of these local brews, and the difference in their consumption compared with commercial or "clear beers". the site recommended that there be a distinction between these and other beverages, and that the measurement of consumption be modified to fit the type of information that individuals could provide about these drinking occasions.

Each site indicated that the translation/ back translation process went well. In most cases the translation problems were relatively minor, and could be accommodated by a localisation of terms, by an explanation of what was desired, or by modifying the instrument to fit local social conditions that were not anticipated in the English language versions of the questions.

## 5.2 Free listing

The free listing protocol produced both expected and unexpected results for the field sites. The expected results were the successful listing, linguistic exploration, and identification of the variety and range of drugs that were being used in the local culture. The unexpected results were the discovery of drugs and other substances that were not formerly identified by the field sites as having the potential for abuse, or substances that were not formerly identified as being in use in that culture. This turned out to be a highly efficient and effective method for rapidly assessing the nature and extent of drug use in the cultures. In some cases, the free listing exercise was important because it pointed out key linguistic differences between different segments of the society. In Malaysia and Egypt the researchers noted that the health professionals and those providing drug related services had some knowledge of both scientific and street names for drugs, while former and current drug users tended to only know the street names and could not distinguish the drugs they were using by the generic terms used in the survey instrument. This would lead to under-reporting of drug use if the street and the scientific names were not both provided in the survey instrument. This exercise was also useful in demonstrating differing levels of both exposure to drugs and drug terminology, and knowledge about those drugs in different segments of the population.

The free-listing protocol was also successful in providing important information for localising the questionnaires. As a brief example, the question asking about all alcoholic beverages produced the following list from a single focus group conducted among social and health professionals in Zimbabwe : scud (local brew), Don Juan, wines, chibuku (local brew), beers, 7 days (local brew), chihwani day (local brew), vinyu (local be originally from Mozambique), skokiyana (local brew), methylated spirit. Even a short analysis of these data points out the existence of two different alcohol beverage production and consumption systems (local versus wider commercial production), which leads to a clearer understanding of alcohol consumption in that culture. The same condition was also true of the other sites and allowed key substances (such as Beedi smoking in India) to make the questionnaire both more comprehensive and more sensitive to local cultural conditions.

## 5.3 Focus Group Data

The focus group data identified both the strengths and the weaknesses of the core questionnaire. This process allows the group to discuss, negotiate, and to arrive at either a strong or a weak consensus on the issues being explored. These discussions provided important additions to the free listing questions, provided linguistic explanations for the

difficulties encountered in the translation/back translation process, and provided additional evidence to support the methodological recommendations provided by the field site Principle Investigators.

One of the most thorough discussions carried out at each of the sites was related to the sensitivity of the questions in the questionnaire, both in terms of producing cultural embarrassment or discomfort, and in terms of the likelihood that people would not answer the question honestly. The Egyptian site reported on some extensive discussions regarding the place of alcohol use, and abuse, in an Islamic society, and the acceptability of some forms of recreational drug use at celebrations that would not otherwise be allowed. The Malaysia site provided the view that: The only major barrier (in using the questionnaire) was the whole focus of study, specifically to identify extent of illicit drug use. Because of the legal sanctions against illicit drug use, the issue of obtaining reliable information from respondents always pose as a potential conflict for the study. This has to be given considerable thought and attention in the design of the study. These examples help clarify some of the issues of both social embarrassment caused by some of the questions, as well as addressing the issue of reliability of the data. Another area of questioning that produced discussions of social reluctance to answer was in the area of the demographic question on marital status. One of the options is the phrase, "living as a couple. While some of the discussants felt this might be allowed, they also noted it was something that people preferred not to recognise formally, since it went against local religious custom. This type of response could consequently cause problems with the data collected in the instrument.

The focus groups were also very useful in determining where there might be confusion or ambiguity in the wording of the questions. For example, in Egypt the term "unpaid work" was felt to be potentially derogatory or negative towards people who provide critical support of the family, at home, but are unpaid. In another example, the Malaysian site was able to determine that the term "tranquillizer" was unknown in major segments of the drug using population, and the focus group respondents were not able to determine which local drugs, if any, fall into this category. Thus, questions either generically about tranquillisers, or about specific tranquilliser would be difficult to answer.

The focus groups also confirmed the difficulties that were uncovered in the translation/back translation protocol, in terms of the variations in housing and social relationship categories, problems with age determination, ethnic group labels and descriptions, issues on the necessary labels for standard sized beverage containers, and even problems with the listing for the sizes of towns and cities in the instruments. They noted the need to simplify some of the questions, and noted a number of issues (lifetime use, social consequences of use, and cultural values and rationales for use, in particular) that they felt should be added to the core instrument. The priority placed on including these issues varied from site to site and in some cases from focus group to focus groups. These discussion were particularly valuable in producing the annotations for the core questionnaire. Whilst standardised questions across countries and cultures are highly desirable to enable comparability, the questions must be

sensitive to local variations. Focus groups are one way in which local definitions and coding frames can be constructed.

#### 5.4 Methodological Questionnaire

The results of the methodological questionnaire fall in the two categories of general issues and section specific issues. Within the general category, two questions were addressed. The first relates to the collection of data on the frequency of drug use, and the second requests recommendations for questions of local importance not listed in the core questionnaire, which would be important to add for research in the local cultures.

The cross cultural differences in the way that time is understood and described in various languages and cultures caused differences in the preferences at each site on the way the standard question requesting information on the frequency of use of drugs is worded. In some groups, it is clearer to the individual to ask the number of “times” drugs have been used, in others, the number of “occasions” drugs have been used in the past thirty days. This issue is complicated by the difference in preference to use 30 days, versus one month as the best frame of reference for recent drug use. These preference fall in at least four combinations: occasions in the past 30 days versus the past month, and times in the past 30 days versus past month. The overall cross-site assessment of these differences is that any of the four combinations provides sufficiently equivalent information to allow a judgement to be made in relation to the frequency of drug use in each particular culture, and that the actual format used in one culture is dependent on the social usage of these time frames.

The field assessment centres recommended the addition of a number of questions to the core interview. These fell into several categories. The first was some form of question on lifetime use, or lifetime frequency of use of each drug. This question was recommended in order to distinguish between individuals who are temporary experimenters from those who have a longer and more severe pattern of drug use. A question on the age of first use was included in the model core questionnaire, however this does not provide information on continuity of use or pattern of use since that first use. Other sites recommended the addition of questions that explored the motivation for drug use, again with the rationale that it would be important to distinguish infrequent and experimental users from those who have a more severe dependence on drugs. It was also felt at several sites that it was important to be able to distinguish between the non-medical use of prescribed or medically available drugs, from the use of illegal or interdicted drugs in that culture. This is further complicated by the fact that in some countries, “prescription” drugs are often sold without prescriptions. At least two of the sites felt that it would be important to include questions in the core questionnaire that gather data on the perceptions and attitudes of the respondents to drugs and drug issues, and to add a small section on the consequences of drug use, in order to provide information for drug policy development for the nation. While the recommendations for the wording of these questions varied by site, the rationales for including each of these areas of information in the core questionnaire, or certainly in the final questionnaire developed for each site, were uniform in

their justification of the importance of this type of information being asked in epidemiological surveys.

The section specific recommendations were more diverse from site to site, than the general recommendations, often reflecting local concerns and priorities. There were a number of issues raised including: the diversity of use, attitudes towards use, consequences of use, and legal processes in the local cultures. Most of these issues were appropriately accommodated through translation, and through the ability of each centre to interpret the research findings in a way that made them cross-culturally applicable. The following information provides some examples of the section by section recommendations.

The demographic section produced by far the most common and most difficult issues for cross-cultural applicability. The differences centred on core cultural processes that, by their very nature are highly diverse. These include local categories for educational attainment, methods for reporting age, occupational categories, residence patterns, issues about ethnic identification and gender identification, as well as marital (or family) status. A small number of examples are helpful. In terms of residence, one site noted, "In the response set for the item "Where do you presently live (most of the last 12 months)?" the item hut or shack (temporary dwelling) is important" to capture information that is appropriate for rural or low socio-economic population.

The Mexican site noted that "the questions on residence lacks options such as shelters or street" which are often important in urban settings. For several sites, it was felt that asking respondents about illegal income was threatening, and for others, any requests for information on income of any sort were problematic. There were also a number of occupational categories that were recommended for inclusion in the questionnaire. Since these occupations have a strong relationship to socio-economic status, this type of addition may provide a significant improvement in the data base, if they are accommodated.

There were also recommendations for additions to the demographic section. At least two sites recommending adding additional information on respondents living arrangements, both in terms of the number and the social relationships to the respondents (i.e., number of people respondent lives with, and the numbers who are family, etc.). At least one site recommended adding a question to identify the respondents religion, and another recommended adding a question on the number of rooms in the respondents home (again as a proxy for socio-economic status).

The sites noted that the primary list of drugs found in the questionnaire were focused on those for which there is a significant level of international trafficking, and that many of those drugs are found in very low percentages in the local culture. While there was strong agreement that the so called "international drugs" should be surveyed, it was also noted that each of the sites should add locally significant elements of drug use as well, both to capture local use patterns, and to suggest forms of use that may be present in other countries, but are

not captured by the current lists. Some local examples of substances and behaviours recommended for inclusion were: betel nut chewing, snake bite addictions, and Beedi cigarettes, to name a few. In most cases this information can be gathered by adding locally relevant drugs to the questionnaire.

As a second issue, almost all of the sites made recommendations to modify the language used in the questionnaire in regard to the local cultural differences in prescription versus non-prescription use of drugs, and the illegal versus legal use of drugs. There are significant differences among the sites in terms of the drugs that are legal and those that are interdicted for use. In some cases, alcohol is legal, and in others it is not, as one example. And there is the problem of “quasi legal versus legal or illegal drugs”. In some cases there are laws that restrict the use of substances, most often plants such as ganga or hallucinogenic mushrooms, but there is such an extensive local history of use of these substances that they become defacto legal substances in some social settings. Finally, there is extensive variation in the types of control that are placed on the distribution of pharmaceuticals in each area. Many of these manufactured drugs have both medical uses, and non-medical abuses. The core questionnaire attempts to capture both the non-medical uses of legal drugs, and the illegal uses of interdicted drugs. In some cases, the cross-cultural variation at the various sites necessitates locally specific wording to accomplish this task. For example, one site noted, “In our country, “over-the-counter drug” is a difficult concept. A sizeable number of prescription drugs (like antibiotics, tranquillisers, smooth muscle-relaxants) are sold without doctors prescriptions. Because of the ignorance of people, and poor enforcement of laws related to drug sales, it is difficult to differentiate over the counter drugs and prescription drugs. Another site reported “All legal drugs (inclusive of controlled drugs) are available over the counter. Thus it is necessary to specify the types of drugs being referred to”. However, in general the use of culturally appropriate translation protocols were highly successful in overcoming these issues and allowed the field sites to produce appropriate core questionnaires.

## 6. Conclusions

This project included the use of four qualitative research techniques for the investigation of the cross-cultural applicability of the core epidemiological questionnaire recommended by this study. The four methods (translation/back translation with assessment, free listing, focus group interviews, and qualitative methodological questionnaires) complement each other and provide both overlapping, and unique data sets. The overlap was a deliberate and successful attempt to “triangulate” the key issues and findings. This is one form of qualitative research reliability and validity testing. In the case of this project, the triangulation provided in depth confirmation of the primary findings from at least three methodological approaches in the course of the project. At the same time, each method covered sufficiently unique information that the overall coverage of all of the key issues was much broader than would have been possible using only one of the research techniques.

The final results of the cross cultural applicability study were incorporated into the