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BASIC SUPPORT FOR INSTITUTIONALIZING CHILD SURVIVAL II
(BASICS II)

SAFE INJECTION GLOBAL NETWORK (SIGN)

**TOOL "A" TO IDENTIFY
DETERMINANTS OF POOR AND
GOOD INJECTION PRACTICES**

THIS DOCUMENT IS PART OF A TOOLBOX TO ASSESS AND EVALUATE INJECTION PRACTICES. THE COMPLETE TOOLBOX INCLUDES THE RAPID ASSESSMENT AND RESPONSE GUIDE AND FOUR ADDITIONAL TOOLS (A, B, C, AND D)

This toolbox addresses broad concepts of assessment and evaluation of injection practices that were discussed during a workshop of expert consultants held at BASICS, Arlington, VA, USA in March 2000. It constitutes a dated draft circulated for comments and suggestions. Although it is made widely available at an early stage, it is not yet intended to be a "how-to" manual for field use. Later versions of this document will be adapted for wider readership level once consensus has been reached on broad concepts and after field testing.

Comments and suggestions should be directed to the Secretariat of the Safe Injection Global Network (SIGN),
World Health Organization, Department of Blood Safety and Clinical Technology,
Avenue Appia 20, Geneva 27, Switzerland 1211. Fax +41 22 791 4836. E-mail: sign@who.ch

Intended use and proposed timeline for this document

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Review of the draft 1 by a group of experts and preparation of draft 2	April 30 th , 2000
Review of draft 2 by workshop participants to prepare draft 3	May 31 st , 2000
Field testing of draft 3 in few countries to prepare draft 4	September 1 st , 2000
Wider dissemination of draft 4 for broad use and ongoing feedback	2000-2002
Preparation of a final version after two years of feedback from the field	End of 2002

A- TOOL TO IDENTIFY DETERMINANTS OF POOR AND GOOD INJECTION PRACTICES

BACKGROUND

Focus group discussions are useful tools for collecting qualitative information on attitudes and practices regarding injections. [1,2,3,4,5] They can be used to explore collective norms and practices regarding injections and to understand people's perceptions of advantages and risks associated with injections. Focus group discussions are used to formulate hypotheses or to better understand quantitative data. They produce rich data in a limited amount of time although the analysis of this data can be time consuming. Ideally focus groups are combined with other data collection methods, for instance in-depth interviews with key informants (community leaders, popular injection providers, medical stock keepers etc) to allow for a greater depth of data or surveys to quantify information. Although this tool does not contain any guide to conduct them, more information regarding in-depth interviews can be found elsewhere. [6]

The focus group guides and methods presented in this document are intended to help people who wish to carry out injection assessments in their countries. A number of methods are necessary to gain an understanding of the problem of unnecessary and unsafe injections in specific contexts. However, the focus group guides described will enable health planners to understand how injections and injection safety are perceived by patients, communities, prescribers, different types of injection providers, auxiliary staff / workers handling healthcare waste. Such an understanding is crucial in order to frame information, education and communication interventions and to adapt medical knowledge and practices to identified needs. Information from focus groups can also be used to inform the design of other data collection methods or provide additional information on a certain subject. Focus groups should therefore be conducted early on in the assessment exercise so that the obtained data can be used to phrase specific questions in other tools such as survey instruments or observation guides.

OBJECTIVES

The objectives of the focus group sessions with communities and patients are:

- 1) To explore the socio-cultural meaning of injections (including identifying local terms for "injection" and for the various injection providers);
- 2) To identify the people's perception of the therapeutic rationale behind the injections;
- 3) To understand the direct and indirect costs of injections;
- 4) To understand people's perception of injection safety.

The objectives of the focus group sessions with injection prescribers and providers are:

- 1) To understand prescribers' therapeutic rationale and other motives for prescribing injections;
- 2) To explore the prescribers' and provider's understanding of overuse and safety issues relating to injections;
- 3) To understand how the working environment of the prescriber and provider may impact on the prescription and safety of administered injections.

The objectives of the focus group sessions with auxiliary workers / workers handling medical waste are:

- 1) To understand the staff perception of the risks related to accidental needlestick injuries;
- 2) To understand the reasons why healthcare waste is not disposed of adequately;
- 3) To understand which risk may occur in the community.

The focus group guides included in this document include:

- 1) The instrument for patients and communities (Instrument 1, page 15);
- 2) The instrument for injection prescribers (Instrument 2, page 19);
- 3) The instrument for injection providers (Instrument 3, page 15);
- 4) Instrument 4: Guide for focus group discussions on injections (auxiliary staff / workers handling healthcare waste), page 29.

These tools must be adapted to local capacity and need before application. The training and tasks of moderators and note-takers working with focus groups on injections as well as suggestions for the analysis of focus group data, report writing, and recommendations are described below (page 3 and 9, respectively).

GUIDELINES FOR MODERATORS OF FOCUS GROUP DISCUSSIONS ON INJECTIONS

PURPOSE OF FOCUS GROUP DISCUSSIONS

A focus group consists of a number of people brought together to discuss a certain number of subjects. The participants will be selected according to certain criteria but it is important that they feel at ease with each other. A moderator and a note-taker will normally guide the focus group discussion.

In the context of injection assessments the focus group discussions will be used to explore the attitudes and practices of patients, communities, injection prescribers, injection providers, and auxiliary staff / workers who handle healthcare waste with regard to the use and safety of injections. The purpose of the different focus group discussions is to stimulate discussions between the participants, not between the moderator and the participants. The results from the focus group discussions will be used to frame and define the interventions.

RECRUITMENT OF MODERATORS AND NOTE-TAKERS

Moderators

Moderators need to have strong interpersonal skills and a good degree of confidence and sensitivity. This is very important for their ability to conduct focus group discussions. They need to know the local culture and language well and some previous experience with focus groups is an advantage. In addition, to conduct focus groups among injection prescribers and injection providers, they need a certain level of expertise in rational use of medications and in infection control practices.

Note takers

Note-takers should also have good knowledge of the local culture and language. They should be able to take extensive and comprehensible notes.

TRAINING OF MODERATORS AND NOTE-TAKERS

The training of the moderators and note-taker is very important. First of all the moderators and note-takers need to understand the purpose of the research and how the various subjects and questions will help in fulfilling the purpose of the research. They need to be familiar with the culture of the participants so that they can phrase their questions in meaningful ways and understand subtle nuances in answers, such as non-verbal communication. Next they need to understand that they are only facilitators of the group dynamics and that their primary role is to activate the participants. They need to be sensitive to status differences between participants and possible unforeseen biases in the venue chosen for the focus group discussion.

The training can be done in different steps. The below listed steps will achieve a sense of ownership as well as appropriate training of the moderators and note-takers. It takes approximately seven days including field practice. It is important that an experienced social scientist conducts the training as mere distribution of guidelines will be insufficient to train the group of moderators and note takers.

Day 1

A workshop is a good way of starting the initial thorough discussion of the purpose of the research, the background, methods and expectations of moderators. The participants should define the various key research themes or questions through a collective brainstorming interactive process. This exercise will shape the specific research tools and the later analysis of collected data. Translations of key terms into local language should be agreed upon between the principal investigator and the various moderators.

Day 2

Moderators and note-takers should be involved in the development of the focus group guides if possible. This helps them understand the objectives of the research and creates a sense of ownership. The major research questions have already been defined on day 1 and the workshop participants should now use these research questions to develop the actual research tools. The type of research tools will depend on the practicalities of the field. If for instance participants feel that it will not be possible to have focus group discussions with patients in private facilities, then they will need to develop exit interviews for patients instead.

It is useful to divide the participants into two smaller groups where one group develops tools for patients and communities and the other group develops tools for injection prescribers and providers. When this process has been completed the working groups can take a look at the SIGN research tools to see if there is anything that they wish to add to their guides and questionnaires. It should be stressed that during the field test other questions may be added as interviewers and moderators increase their understanding of the purpose and constraints of the research. A few role-plays should be conducted in which the moderators and note-takers try to moderate group discussions as well as try to play the role of participants in these discussions. The principal investigator should observe and advise the moderators on their conduct of these role-plays.

Day 3

This day combines the field training of moderators and note-takers with a field test of the guides. The workshop participants are divided into smaller teams of two people in such a way that the two team members have different experiences with the development of the tools. In other words, one team member comes from the group that developed the questionnaires for patients and community, and the other is from the group that work of the questionnaires for prescribers and dispensers. The principal investigator supervises the proceedings and everybody meets at the end of the day to discuss problems in application and compare notes. It is also important to start the preliminary analysis at this stage. This allows participants to reflect on their data and to identify new leads that should be followed up during fieldwork the next day.

Day 4

Another day of supervised field training. If all goes well there is no need for an extra day of field training. At the end of day 4 the participants meet again to continue the data analysis and to revise the questionnaires in the light of the field experiences.

Day 5 and 6

Day 5 and 6 are devoted to the finalization of the data analysis and the identification of major conclusions and new leads. This is a process that involves the entire group and often a lively discussion about the interpretation of results will occur. Specific and feasible interventions are defined for each major conclusion in terms of the contents of messages, the vehicles for intervention and the resources available for implementation.

Day 7

The final task is to define the audiences for the final report and how it will be used: for advocacy, fundraising, to document a problem etc. The outline for the report is discussed and agreed upon. The practical implementation plan for the interventions is drawn up with a timeframe and indication of who is responsible for following up. If further research is needed to validate conclusion then this should also be identified with a time frame.

PRE-TEST OF FOCUS GROUP GUIDES

Pre-testing the focus group guides before the actual field research starts is important. The guides can be pre-tested for each type of respondents on similar respondents outside the research area but within the same cultural and social circumstances. At least one and preferably two pre-tests of guides should be conducted. The guides should be revised according to the results of the pre-tests. As explained above, pre-testing of the guides and training of moderators and note-takers can be combined.

EQUIPMENT

The following equipment will be needed in each focus group discussion:

- The focus group guide

- A tape note-taker with labelled tapes (two extra tapes should be available)
- Extra batteries or batteries as a back-up
- Note block and pens
- Refreshments or snacks for participants

PREPARING FOCUS GROUP DISCUSSIONS

Recruitment

Recruitment of participants in the community

Homogeneity

As a general rule, participants in injection oriented focus groups should be of the same gender, of the same socio-economic status, and speak the same language. When a group seems to be heterogeneous, it can be broken down in smaller, homogeneous groups.

Sampling

Convenience sampling

Focus group on patients may be assembled using a convenience sampling technique (e.g., The selection of a number of patients who are waiting in specific health facility or patients who are just leaving the facility). While this is an easy way to sampling, this type of sampling may be biased. Waiting patients may have certain characteristics such as proximity to the health facility or a desire for a specific type of treatment for which the facility or provider is known. Such biases are often unavoidable when limited time is available for the assessment but they should be made explicit in the report.

Random sampling

Random sampling is the best way to sample participant for focus groups. It should be preferred whenever possible. Community members may also be assembled using a random sampling strategy. This could be done for instance by inviting a household member of every tenth house of a certain community to be present at a meeting at a certain time and date.

Recruitment of participants among injection prescribers, injection providers, auxiliary staff/ workers handling healthcare waste

There are different scenarios for selecting the participants of focus groups among prescribers and providers. In most cases focus groups are conducted with prescribers of the same status. While nurses and midwives can discuss together; it is probably better to conduct discussions with doctors separately. Otherwise the nurses and midwives may be intimidated. Providers of injections should also be of the same category to the extent possible. This category may include janitors, cleaners and general helpers at the health facilities. It may also include informal injection providers (e.g., pharmacy assistants, shop assistants) and traditional healthcare providers (e.g., traditional healers). Other options in the selection of prescribers are to include each type of prescriber (except doctors) so that different perspectives on injections are heard, or to mix community members with injection providers in some focus groups to identify differences between the two groups. If the plan is to conduct a large number of focus group discussions if it is thought that this option might elicit greater depth of comment, providers and prescribers can be segmented to constitute homogeneous groups of nurses, midwives, janitors, shop assistants etc. If several health facilities and informal settings are providing the sampling frame then it should be possible to put together a random sample of prescribers and providers. If the number of health facilities in the study is limited then convenience samples may be more feasible. The sampling decisions should be made in the context

of the specific objectives and resources of the assessment and they should be made explicit in the report so that possible biases can be identified.

Focus group size

Each focus group should consist of 6 to 12 people, not including the moderator and note-taker. They number will vary according to the setting and the objectives of the assessment. Normally one or two invited participants will not come or may leave during the discussion. There may also be situations where outsiders wish to join in the discussion. This must be handled with diplomacy as rejecting these outsiders may create a tense environment and therefore impact of the quality of the data from the focus group. Sometimes it is better to let these outsiders join. In general, if the objectives of the research are narrowly defined it may be better to have fewer rather than more participants. Using a site that is removed from traffic flow can help alleviate the problem of outsiders joining somewhat.

Number of focus group to be conducted

In terms of the number of focus group discussions to be conducted it depends on the area covered and the variation in answers between the various types of groups as well as the time and resources allotted. If several areas are covered, such as a rural, peri-urban and an urban setting, then of focus group discussions with patients, community, injection prescribers, injection providers, and auxiliary staff/ workers handling healthcare waste must be conducted for each area. Each type of focus group should be conducted at least two to four times. If data from the groups is consistent and no new hypotheses have emerged to be tested, then there is no need to conduct any more focus group discussions.

VENUE

It is important to choose a convenient and neutral venue for the focus group discussion. If patients are waiting in a waiting room they can be asked to join a focus group discussion in a separate private room or at a nearby meeting place. Community members may meet in a local school after school hours or another venue that is convenient for them. Injection prescribers, injection providers, and auxiliary staff / workers handling healthcare waste may be asked to meet after hours in the health facility or another appropriate local place. A refreshment (not alcohol) or snack should be offered to the focus group participants to appreciate the time given by people. In general it should be avoided that people have to travel long distances to get to the focus group meeting place, as many people will not show up. If people do travel they must be compensated for their travel costs. In some cases, in rural area, travel will have to be provided.

MODERATION OF FOCUS GROUP DISCUSSIONS

The moderator

The moderator's role is to ensure that the participants are relaxed and that everybody is contributing to the discussion. Before the discussion starts the moderator must ensure that the participants are seated comfortably and the moderator and note-taker are seated at the same level as the participants. The moderator can make efficient use of his/her own body language and the group seating arrangement to guide the discussion, for example by sitting where he/she can use eye

contact to encourage participation by more reticent group members, or where he/she can most easily control more verbose and domineering group members.

The moderator guides the participant through a list of subjects that can be covered in whatever order is natural. Questions aim at illustrating group norms and behaviour and should not try to identify individual behaviour unless participants bring such examples up themselves. If some group members speak too much while others are silent, the moderator must take statements from the dominant members and try to activate the more passive people by asking them what they think about the statements, if they agree or if they can add something to the statements.

The moderator probes with additional questions or examples when necessary. Although the guides contain a large number of probes in the form of questions, care must be taken not to turn the discussion into a question and answer session. Probes should stimulate discussion or statements by the participants. It is also important that the moderator appears to be neutral and does not in any way dominate or influence the discussion. There are no “right or wrong” answers, only opinions that are equally valid. It is important to follow up on any contradictions that may occur in the statements of participants or disagreements between participants. Such disagreements or inconsistencies often provide important insights.

The focus group discussion should not last more than an hour or maximum 90 minutes and the moderator must be attentive towards signs of fatigue or boredom of the participants. If the participants seem tired, the moderator may wish to shorten the list of questions for the next focus group session. After the end of the focus group session, the moderator should stay for a while in case any of the participants wish to add or clarify something in private.

The note-taker

The note-taker assists the moderator by taking careful and extensive notes during the discussion. He or she must note general themes and the group reactions and consensus. If there are particularly interesting statements, they should be written down using the words of the respondent. The note-taker is also responsible for tape-recording the discussions. Participants need to be assured that this tape recording will be kept confidential and that they have a right to refuse to participate. The note-taker will observe the group dynamics carefully and make notes about the interaction and the body language of the participants. The note-taker must also describe the setting in which the discussion is taking place and whether there are any factors that may introduce a bias into the answers (for instance the presence of a high level person or supervisor).

QUESTIONNAIRE GUIDES

Questionnaire guides for the proposed focus groups are proposed in Instrument 1, Page 15; Instrument 1, Page 19; in Instrument 3, Page 24; in Instrument 4, Page 29, and in Instrument 5, page 30).

ANALYSIS

The analysis can be conducted in several ways depending on the qualifications of the researchers and the time and resources available. If resources are not a constraint then all focus groups can be taped and transcribed and analysed. If this option is chosen then it is important that the moderators and note-takers transcribe the tapes of the focus groups immediately after the focus group session while they can still remember the interaction. If there is a need to translate the transcripts then this should be done by a translator in collaboration with the moderators and the principal investigator.

If human and time resources are limited then it may be better to listen to the tapes while improving on the notes taken during the focus group discussion. The notes will then be reviewed and analysed and the tapes will only be used for back up.

A third option is not to tape the focus group discussions at all but to discuss and consolidate the notes between note taker and moderator immediately after each focus group discussion. Minor details may be lost but the overall conclusions and observations will be captured. Likewise striking quotes can be captured this way.

GUIDELINES FOR ANALYSIS OF DATA FROM FOCUS GROUP DISCUSSIONS ON INJECTIONS

INTRODUCTION

The analysis of qualitative data is based on the inductive research method. [1,3 ,7]This means that hypotheses will be formed based on the analysis of the data. The outcome of such inductive research is a hypothesis that theoretically has to be proven or disproved through other types of qualitative or quantitative research. This is different from quantitative research in which a hypothesis is formulated before the research and the data analysis is used to test the validity of the hypothesis. Qualitative research is therefore particularly useful to explore new areas or to determine perceptions and values that inform the actions of groups of people. It aims at understanding issues from the respondents' point of view taking into consideration their specific social and cultural contexts. It is also worth adding that qualitative research such as focus group discussions can yield high-quality intervention-oriented data in a limited time.

The analysis of data from focus group discussions can be demanding. It can be extensive and time consuming. However, as seen below there are two ways of doing this analysis depending on the purpose of the research and the resources available.

TRANSCRIBING THE TAPES

There are two ways of using the tapes from the focus group discussions depending on the human and financial resources available.

- 1) If the researchers are highly qualified and have enough time available then the tapes can be transcribed and analysed. They should be compared with hand written notes from the moderator and the note-taker. This is done to fill in any gaps or inaudible phrases as well as to add the flow of the discussion. Observations on whether the participants were at ease or nervous are an important addition to recorded information in order to understand the context and validity of the information. It must be noted that a full transcription of the tapes is very time-consuming and demanding.

Sometimes the focus group discussions are carried out in a language different from that required for analysis. If it has been decided to use the tapes rather than the notes as the basis for analysis it may be necessary to translate the transcripts. It is recommended that the translator work closely with the moderators in doing the translation with occasional quality checks by the principal investigator.

- 2) A less resource demanding way of using the tapes is to listen to them immediately after the focus group session and compare them with the notes taken by the note-taker. The moderator and note-taker will use the tapes as back up to extend and

improve on the written notes taken during the session. Themes and statements are added to the notes from the discussion and notes on emotional reactions from participants may illustrate the seriousness of a subject. The written notes will then become the basis for analysis. The advantage of this method is that it is fast and the analysis becomes much less cumbersome and time-consuming.

IF NO TAPE RECORDER WAS USED

If no tape recorder was used the team can use their notes and observations during focus groups and interviews in a collective approach to the analysis. The team draws up tables of analysis for each type of respondents, for instance patients (whether focus group or exit interviews) and communities in one table, another table for injection prescribers, possibly another for injection providers. The whole group fills the table together with each interviewing team reporting their conclusions for each interview conducted. The observations and data are discussed in the whole group and validated or queried in the context of the observations of the other teams.

WHO SHOULD DO THE ANALYSIS

It is important that the principal investigator, the moderators and the note-takers of the various focus groups participate in and discuss the analysis of the focus group data. This interaction enables the analysis to stay on track and it relates the data to the objectives of the research. It is also recommended that the principal investigator should have previous experience with the analysis of qualitative data, as this will facilitate the identification of new leads or new hypotheses.

ANALYSIS OF THE DATA

The analysis of the data can be conducted manually or by computer using word processing programmes such as ETHNOGRAPH ®. However, it is well to remember that the computer cannot do anything that cannot be done manually. It facilitates easy retrieval of data but computer analysis poses a risk of doing an oversimplified analysis through too early identification of marked text as key to the answers. It is crucial that the data are read carefully by the researchers to allow for identification of hidden meaning or new perspectives.

There are several complementary approaches to qualitative analysis and most or all of them should be used when analysing the focus group data. The first step is to do an initial superficial overview of the group data. The next steps are to conduct a content analysis and to develop an ethnographic summary of the data with direct quotes and narrative explanation. Deviant case analysis can provide further insights into the meaning of the data.

Overview of group data

A simple quantification by group can give an initial but superficial impression of the concerns of various groups. It may look like this:

Example 1

Frequency of specific concerns about safety of injections mentioned by groups of patients, community members, injection prescribers and injection providers. There were four groups of each type (Table 1)

Table 1: Specific concerns about safety of injections mentioned by groups of patients, community members, injection prescribers and injection providers

Concerns					% of groups mentioning* concern
	Patients	Community	Prescribers	Providers	
Abscesses	4	4	4	4	100
Fever	4	4	0	2	63
Hepatitis B	1	2	3	1	44
Hepatitis C	0	0	3	1	25
HIV	3	4	4	3	88
Rashes	2	2	0	1	31

The table could also be filled in with patient focus groups from different areas, ages or cultural groups only. The specific tables depend on the objectives of the research. However, it is important to note that this quantification does not capture the qualitative measure of how much something was stressed, or the context in which it was discussed/mentioned. It is therefore necessary to conduct a more in-depth qualitative analysis as described below.

Content analysis

Content analysis consists of the identification of particular themes, patterns or responses that are stated frequently by participants. The analysis looks at the number of times a theme is mentioned within a group or across all the groups and the importance and associations related to the theme. It is particularly useful to record specific reactions to themes and the context in which they were said rather than simply the themes themselves. This allows a qualitative impression of the general concerns of the groups or, in some cases, why and how they may disagree.

It is also important to note whether participants group together certain words or expressions in terms of meaning. If the participants regard Hepatitis B and C as synonymous then this indicates something about the local disease categories. Such leads to local categorization may open up new themes that can be investigated in the analysis of notes from other groups.

A. Transcript analysis with colour coding

The content analysis starts with the researchers reading through the notes or transcripts carefully. In the case of injections the researchers may be looking for perceived advantages of injections. Each of the advantages mentioned is coded in the text, for instance with colours or letters. "Quicker action" could be coded A while "when it hurts it must be powerful" could be coded B. Reasons associated with the various perceptions of advantages can be sub-coded with numbers. For instance "injections work quicker because the doctor told me so" could be coded A1 while "injections work quicker in my experience" would be A2. This enables the researchers to identify how perceptions are formed and the reasons behind them.

B. Group analysis with table for synthesis

Another way of going through this process as a group exercise is to make a table on the blackboard or white board with the vertical columns consisting of the major research themes and the horizontal columns consisting of each completed focus group or in-depth questionnaire. Each interviewing team summarizes the various conclusions for each interview and fills in the vertical column on the board. It is important that the group fills in the table with the meanings and intentions of the respondents so that the qualitative aspects emerge. When all the completed tools have been put into the table the group will discuss the major conclusions that can be draw and the table will facilitate a synthesis of the major conclusions in a systematic way. The advantage of this

method is that stimulates collective discussion and insight in the group and it is a fast and systematic way of doing the analysis.

Table 2: Example of analysis table

Identifier	Respondents Location	Advantages injections	Disadvantages Injections	Preferred source of injections	Who initiates injection	Etc.....
FG 1	6 women, illiterate Mazur community	Fast relief of pain and fever Cheaper because able to return to work instead of taking pills for 4 days	Some risks but not sure what, Want disposable equipment but costly, TV says disposable equipment is better	“the doctor knows best” (1 women disagreed and said doctors were motivated by greed)	Always the doctor	
FG 2	10 labourers, Patan ethnicity, illiterate Mazur community	“We always get injections so that we can go back to work”	Sometimes we get abscesses and pain and swelling at the injection site	Etc.	Etc.	
Exit interview 3	Ect.					
FG 4						

Observations on similarities of group themes or differences between groups must be summarized and discussed by the researchers. What does the data mean and how does it relate to the specific backgrounds or experiences of the participants? Does the data make sense? What are the reasons for the differences or similarities between the groups? It is important that the researchers relate the analysis to the objectives of the research and that the conclusions are relevant.

The ethnographic summary

The ethnographic summary is developed through repeated open-minded reading of the transcripts. The researchers are not so much looking for specific themes as they are looking for underlying meaning or emergent themes. This is beyond a simple theme count and it involves the recognition of priorities or perceptions of the respondents that were not previously identified. The participants may not be answering the questions of the moderator but providing additional information that would not be picked up by a survey. Through the narrative of respondents researchers may gain insight into how people determine the efficacy of treatment or safety and sterilization. In the case of injections an emerging theme may be that of culture specific notions of sterility that differ from the biomedical view of how to sterilize. Such emerging themes may provide valuable clues for further in-depth research and validation. When the researcher has a clear view of what the focus group respondents are trying to convey then illustrations are selected from the text and presented with narrative explanations.

Deviant case analysis

Sometimes a specific participant may have radically different perceptions from the rest of the focus group participants. Such deviant cases may provide special insights into how perceptions are formed and sustained. If time allows an in-depth interview can be conducted with such an individual after the focus group session to understand better the reasons for the radically different perception.

VALIDATION OF DATA

The validity of focus group data is ensured through the comparison of responses from focus groups of the same type. If for instance all of the patient and community groups mention the same risks or advantages of injections then one can be fairly certain that the information is valid. If responses are very different the data may not be valid and it should be double-checked or investigated further. The data may also be compared with data from surveys, medical records or in-depth interviews to check the validity of results. This is called triangulation of data and it means that data on the same issue but from different sources are compared.

Narratives of data can also be used to check validity of data. Although presented differently from group to group the stories may reveal similar attitudes or behaviour with regard to a certain subject. For instance, although groups may be talking about different treatment strategies, the descriptions may reveal similar perceptions of risks associated with injections.

Sometimes an emerging conclusion or theme needs to be validated through more research of the same kind or through a different kind of research method. The need for additional research should be identified at the time of analysis.

REPORT WRITING AND RECOMMENDATIONS

Before the report is being written it is important to realize who are the main audiences for the results. Target groups may include health planners, policy makers, media, potential funding sources, medical institutions etc. Thus, the results should be linked to recommendations for action and, if needed, further research. The report should be as concise as possible and summarize the main conclusions across the various focus groups. It should highlight differences and similarities in perceptions between groups, for instance health workers' perception of safety of injections versus patients' perceptions. The report should contain examples and quotes but not attempt give all the ethnographic narratives at length. It must address the objectives of the assessment. The report should not be longer than 20- 25 pages and the conclusions must be linked to specific realistic recommendations. The main conclusions and recommendations should be presented in an executive summary.

The identified gaps in knowledge or unsafe practices must be linked to specific recommendations on the prevention messages needed and the form in which they should be delivered. Prevention or IEC messages should to the extent possible use the local terms and expressions and they should be pilot-tested before finalization. Messages should in general be positive and not start by telling people that everything they do is wrong. They should start with what people are doing right and try to build on this. For instance, if people are giving too many injections to their children then the message could start by acknowledging that parents care deeply about their children and that they spend scarce resources on them. Then it could go on to talk about the best use of these resources stressing that injections are not the best use of these or best for their children's health.

If the radio has been highlighted by participants as influential in forming their perceptions of health and treatment then it would be natural to make use of this media. Similarly, if religious figures are important as sources of treatment advice then special efforts must be made to reach this group or to involve them in the design and delivery of prevention messages. If material or policy factors are affecting injection safety in health facilities, then workshops with relevant health officials can be considered. Health workers may get in-service training in safe injections while at the same time improving their working conditions. Informal providers may be brought together for interactive sessions with posters on injections and given supplies for appropriate sterilization. In short, there will be different messages and different ways of delivering these messages for each type of audience

INSTRUMENT 1: GUIDE FOR FOCUS GROUP DISCUSSIONS ON INJECTIONS (PATIENTS AND COMMUNITY)

This focus group guide is used for both patients and community members. The patient focus group consists of patients either waiting to be treated at a health facility or just leaving. The community focus group consists of members selected from households in the community (see moderator guide). It is suggested that group members in each type of focus group should be of the same sex and cultural background.

OBJECTIVES OF THE FOCUS GROUP DISCUSSION

- (1) To explore the social and cultural meaning of injections
- (2) To identify the people's perception of the therapeutic rationale behind the injections
- (3) To understand the direct and indirect costs of injections
- (4) To understand people's perception of injection safety.

GENERAL INFORMATION

Date:

Name of note-taker:

Name of moderator:

Location:

Type, sex and number of respondents:

SUBJECTS TO EXPLORE IN SESSION

The below listed subjects and questions may be explored in any order. If the participants have already covered a subject then there is no need to ask the specific question relating to that subject.

What symptoms will make you seek help from a treatment provider?

- Probe for type of symptoms, perception of severity and cause.
- For which symptoms do you self-medicate?
- Are there symptoms for which you do not take any medication at all? In these cases, do you do something else?

How and why do you choose specific treatment providers?

- Probe for which formal as well as informal providers people choose and why.
- Why this provider was chosen and what type of treatment does he normally give?
- How do you know the qualifications of a specific provider and do these qualifications matter to you?

- Who do you see for getting injections?

How do you determine if a treatment is effective?

- Probe for efficacy in relation to injections

Are there any specific diseases or symptoms for which injections are most effective?

- Probe for which ones and why.

Are some providers better for providing injections than others?

- Please explain how the provider administers the injection
 - Intravenously or intramuscularly
 - Cleaning of site
 - Type of injection equipment used
- Are the reasons for people's preferences:
 - Safety
 - Convenience
 - Skills of the provider
 - Efficacy
 - Cost

What are the reasons for the advantages of injections and IV-fluids?

- Do you prefer injections and/or IV-fluids to other types of treatment?
- How did you form that opinion?
- Probe for who educates people on health, relevant personal experiences or other local sources of health information.

How do the direct costs (for instance provider fee) and the indirect costs (for instance cost of travel to provider) compare to the cost of other types of therapy?

- Indicate cost of prescription with injection compared to prescription without injection.

If injections are more expensive then probe for :

- Why people prefer injections, for instance perceptions of injections being a quicker cure and therefore worth more money/effort
- How often people travel for injections vs. how often they travel for other therapeutic treatment

How do you think the injection prescribers decide on whether or not to give an injection?

- Who initiates the injection in the therapeutic encounter, patient or provider?
- Probe for people's perception of the prescribers' therapeutic rationale.
- Do people request injections from the prescriber?
- Do these requests influence the prescriber?

Are there any risks associated with injections or circumstances where injections should not be given? How can you avoid these risks?

- Probe for what they are, for instance jaundice, HIV, Hepatitis B or C, abscesses
- How people know about these risks and what they do to prevent them
- What makes an injection dangerous:
 - Inadequate provider skills
 - Inadequate cleaning procedure (please describe how cleaning is done)
 - Reuse of equipment instead of using disposable syringes
 - Sharing of injection equipment among patients or family members

Have there been times when people in this area received too many or bad injections?

- Probe for examples, from which providers and reasons for the bad quality.

Are there differences in men, women and children receiving injections (not immunisations)?

- Probe for differences in prescribing patterns and perceived gender/age based reactions to injections.
- Are there circumstances (age groups or symptoms) where injections should not be given?

Do people have their own injection equipment for use in health facilities or at home?

If yes, probe for reasons:

- Why people have their own equipment. What type of injection equipment is it (disposable, reusable)
- Where they obtain it?

- If it is disposable syringes, how do people know that it is new? (Is it opened in front of the patients?)
- How they sterilize it if not disposable?
- Do people prefer a certain type of equipment for injections, for instance plastic or metal?
- Ask whether providers discuss people's sterilization practices with the patients
- What happens to disposable syringes after use?

Do people get injections outside health facilities? If yes, where and why does this happen?

Probe for:

- Who gets these injections?
- Who administers them (Relative, dispensary, traditional healer, hospital, other)?
- What are the conditions?
- Why this treatment or provider is chosen?

What do you think happens to syringes and needles after they have been used and discarded?

- Do you see used syringes lying around on tables and floors of health facilities?
- Can they be found in your environment?
- Do they lead to needle stick?
- Are needle sticks risky and why?

Do you have any suggestions for how injection practices can be improved in your community?

- Probe for credible sources of future health information (providers, teachers, religious figures etc.)

INSTRUMENT 2: GUIDE FOR FOCUS GROUP DISCUSSIONS ON INJECTIONS (INJECTION PRESCRIBERS)

This focus group consists of the health workers, midwives, nurses and doctors who prescribe the injections. They may not always be the ones who actually administer the injections to patients. In some cases it may not be possible to do focus group discussions with private doctors or providers. In these cases the present focus group guide can be used as a guide for an in-depth interview with the prescriber instead.

OBJECTIVES OF THE FOCUS GROUP DISCUSSION

- (1) To understand prescribers' therapeutic rationale and other motives for prescribing injections
- (2) To explore the prescribers' understanding of overuse and safety issues relating to injections
- (3) To understand how the working environment of the prescriber may impact on the prescription and safety of administered injections

GENERAL INFORMATION

Date:

Name of note-taker:

Name of moderator:

Location:

Type, sex and number of respondents:

SUBJECTS TO EXPLORE IN DISCUSSION

The below listed subjects and questions may be explored in any order. If the participants have already covered a subject then there is no need to ask the specific question relating to that subject. One subject that may deserve additional attention is safety of injections. Focus group moderators may wish to develop an additional data collection instrument on safety issues in order to identify underlying reasons for lack of safety in injection administration. This should be decided after the data on safety from the focus groups have been analysed and discussed.

Where were you trained and how long have you been practising medicine?

The purpose of these questions is to identify whether this prescriber is medically qualified or not.

- Training institution if any
- Practising in general
- Practising in this area

What are the main diseases in the area?

- How often do you see patients with Hepatitis B or C?

- What advice (prevention, care) do you give them?
- How do you treat them?

How many patients do you treat per day? How many of these receive an injection? How many receive IV-fluids?

Are there any specific diseases, symptoms or situations for which injections (other than immunisations) and IV-fluids are most needed?

Injections, probe for:

- Which ones?
- What makes injections needed in these situations?
- Which ones do not require injections?

IV-fluid, probe for:

- Which ones?
- What makes IV-fluid needed in these situations?

What are the advantages and disadvantages of injections and how do providers form this opinion?

Probe for:

- Sources of therapeutic knowledge
- Perceptions of efficacy
- Patient compliance etc.

What is the cost of a prescription with and without injections?

- With injection:
- Without injection:

What is the cost of IV-fluid?

What types of injectables and IV-fluid do you use most often?

- List the injectables and IV-fluids mentioned and the indications for which they are use.

Are there any risks associated with injections?

Probe for knowledge of:

- Hepatitis B
- Hepatitis C
- HIV transmission
- Allergic reactions
- How do prescribers get this type of knowledge?

Are there factors in your health facility that promote or constrain the prescription of injections? How can rational prescribing of injections be promoted?

- Are there any differences between your government and your private practice in this respect? (This question is only relevant for providers with both public and private practice).
- The below listed probes are particularly relevant for government prescribers where supplies may be a major issue. Probe for the impact of
 - Resources
 - Medical supplies
 - Injection equipment supplies
 - Health system structures
 - Policies/treatment guidelines
 - Patients resources

Do patients demand injections?

- Why do you think patients demand injections?
- Are there specific situations or symptoms that normally lead patients do demand injections?
- Are there differences between patients in this respect? (Probe for socio-economic groups, age, and sex).

Is the interaction with a patient different if you are prescribing an injection rather than other types of medication?

Probe for:

- The amount of time spent with patient
- Dialogue

- Cost of visit with and without injection
- Do patients come in demanding injections for themselves? For children?
- How do you handle that?

Does the prescription of injections have an effect on the status, income or popularity of prescribers among patients or colleagues?

Probe for how it affects relations with:

- Colleagues
- Incentives
- Why they think patients want injections

Are there differences in injection prescribing patterns for women, men, children (not counting immunisations) or the elderly?

- Probe for type of differences and reasons

Do people in this community/area receive too many or bad quality injections?

- Probe for examples and sources of bad injections as well as explanations
- How do you sterilize your injection equipment? Please explain the procedures. Probe for factors affecting safety such as:
 - Reuse of syringes and needles
 - Resources
 - Personnel
 - Sufficient supplies of syringes, needles, sterilization equipment and materials
 - Structures and policies
 - Time constraints
 - Lack of knowledge
 - Supervision etc

Do people have their own injection equipment for use in health facilities or at home?

If yes, probe for:

- Why people have their own equipment?
- What type of equipment is it (disposable, reusable)?
- Where do they obtain it?
- How do they sterilize it?

- Ask whether providers discuss people's sterilization practices with the patients

Do people get injections outside health facilities and home? If yes, where and why does this happen?

Probe for:

- Who gets these injections
- Who administers them
- What are the conditions
- Why this treatment or provider is chosen

What happens to syringes and needles after they have been used and discarded?

Probe for:

- If and how and where they are disposed off
- Whether there are any risks for health workers or community
- Suggestions for improvements

Do you have any suggestions for improving injection practices in this area?

INSTRUMENT 3: GUIDE FOR FOCUS GROUP DISCUSSIONS ON INJECTIONS (INJECTION PROVIDERS)

This focus group will consist of the people who actually administer the injections. In some health facilities these may be lower level health workers or even other types of employees associated with the health facility (e.g. janitors). If it turns out that the injection prescriber also administers the injections, there is no need to interview the dispenser.

In other settings it may be informal providers such as pharmacy or shop assistants or traditional healers who give injections as part of their business/practice. Preliminary investigation should identify who the local injection providers are so that all types can be represented in the relevant focus group. The objectives of this guide are to understand the providers' perception of safety issues in connection with administering injections.

OBJECTIVES OF THE FOCUS GROUP DISCUSSION

- (1) To explore the providers' understanding of injection safety issues.
- (2) To understand how the working environment of the provider may impact on the safety of administered injections.

GENERAL INFORMATION

Date:

Name of note-taker:

Name of moderator:

Location:

Type, sex and number of respondents:

SUBJECTS TO EXPLORE IN THE DISCUSSION

The below listed subjects and questions may be explored in any order. If the participants have already covered a subject then there is no need to ask the specific question relating to that subject. One subject that may deserve additional attention is safety of injections. Focus group moderators may wish to develop an additional data collection instrument on safety issues in order to identify underlying reasons for lack of safety in injection administration. This should be decided after the data on safety from the focus groups have been analysed and discussed.

Where were you trained and how long have you been working in his field?

The purpose of these questions is to identify whether this dispenser is qualified or not:

- Training institution if any
- Training in general
- Practising in this area

How many patients do you dispense medicines to per day? How many of these receive an injection? How many receive IV-fluids?

Are there any specific diseases or symptoms for which injections are most effective?

- List each of the diseases/symptoms for which injections are most effective.
- Why are injections most effective for these conditions?

Are there any specific diseases or symptoms for which IV-fluids or blood products are most effective?

- List each of the diseases/symptoms for which IV-fluids or blood products are most effective.
- Why are IV-fluids or blood products most effective for these conditions?

What is the cost of a prescription with and without injections?

- With injection:
- Without injection:

What is the cost of IV-fluid?

Are patients able to pay the doctor's fee?

- Are there credit possibilities?
- Can poor people be exempted from paying?

What types of injectables and IV-fluid do you inject most often?

- List the injectables and IV-fluids mentioned and the indications for which they are used.

What are the advantages and disadvantages of injections for patients and providers and how do providers form this opinion?

Probe for:

- Sources of therapeutic knowledge
- Perceptions of efficacy

- Patient reactions etc

Are there any risks associated with injections?

- What viruses are most easily transmitted through unsafe injections?
- What about hepatitis B?
- What about hepatitis C?
- What about HIV
- What about abscesses?
- What about needle stick injuries?
- How did you find out about risks associated with any of the above conditions?

What types of syringes are normally used to administer injections?

- Disposable syringes, new or used
- Reusable syringes with new needles
- Auto-disable

Please explain what makes an injection safe or unsafe.

Probe for which procedures precautions should be employed to administer a safe injection:

- Washing hands
- Clean preparation surface
- Sterile needle and syringe
- Safe handling of multi-dose vials
- Skin disinfecting
- Sterilisation of needles and syringes
- Storage of needles and syringes
- How feasible are the above procedures in your setting?

If syringes and or needles are reused between patients in your setting/facility, please explain how they are sterilized and stored for later use.

Probe for:

- Adequate procedures,
- Equipment
- Materials and
- Knowledge

Is safety of injection administration a problem in your setting/facility?

Probe for factors affecting safety such as:

- Resources
- Personnel
- Sufficient supplies of syringes, needles, sterilization equipment and materials
- Policies and guidelines
- Time constraints
- Lack of knowledge
- Supervision etc

How are syringes and needles collected in the treatment room after they have been used and what happens to them afterwards?

Probe for:

- If, how and where they are disposed off?
- Whether there are any risks for providers or community?
- Whether there are needle stick injuries in the specific setting/facility?
- Who is affected by it?
- Why do people get these injuries?
- Suggestions for improvements.

Do people have their own injection equipment for use in your setting, in health facilities or at home?

If yes, probe for reasons:

- Why people have their own equipment

- Where they obtain it and
- How they sterilize it. Ask whether providers discuss people's sterilization practices with the patients

Do people in this community/area receive too many injections?

- Please give some examples
- Where do people go for their injections?
- Why do they go there?
- Why do people receive too many injections?

Do people in this community/area receive bad quality injections?

- Please give some examples
- How do you know that it is a bad quality injection?
- Why do people get bad quality injections?
- Who administers such bad quality injections?
- Why do they do so?

INSTRUMENT 4: GUIDE FOR FOCUS GROUP DISCUSSIONS ON INJECTIONS (AUXILIARY STAFF / WORKERS HANDLING HEALTHCARE WASTE)

This short focus group will consist of the people handle healthcare waste, including used injection equipment. In some health facilities these may be lower level health workers or even other types of employees associated with the health facility (e.g. janitors).

OBJECTIVES OF THE FOCUS GROUP DISCUSSION

The objectives of the focus group sessions with auxiliary workers / workers handling medical waste are:

- 1) To understand the staff perception of the risks related to accidental needlestick injuries;
- 2) To understand the reasons why healthcare waste is not disposed of adequately;
- 3) To understand which risk may occur in the community.

SUBJECTS TO EXPLORE IN THE DISCUSSION

The below listed subjects and questions may be explored in any order. If the participants have already covered a subject then there is no need to ask the specific question relating to that subject.

How are syringes and needles collected from the healthcare facility and what happens with them afterwards?

Probe for:

- Do needlestick injuries occur when people are handling waste?
- Why do needlestick injuries occur?
- Do needlestick injuries cause illnesses?
- Where is the storage are located?
- Who has access to the storage area?

How does the waste get disposed of?

Probe for:

- Have you ever been injured while operating the waste disposal facility?
- What do you do when the disposal facility does not function, or when the waste is not collected?
- Is the waste treated in an adequate way? If not, why?
- Do you think the community is at risk from needlestick injuries because of the waste?

INSTRUMENT 5: EXIT INTERVIEW FOR PATIENTS

If it is difficult to conduct focus group discussions with patients in the waiting rooms of private doctors, then an exit interview can be chosen instead. An exit interview means that an interviewer interviews a number of patients, one at a time, as they leave the health care facility. It is important to do so out of sight of the doctor or provider so those patients can speak freely. Certain criteria can be employed in selecting patients for exit interview, for instance every third patient should be interviewed or a certain number of men and a certain number of women should be interviewed.

The research advantage of an exit interview is that the interviewer can ask questions about the therapeutic interaction that just took place. This enables the patient to give very concrete answers in additions to the general opinions. This may facilitate contact and insights into common injection practices.

Exit interviews can provide an easy way of collecting baseline information before interventions. They can be repeated at regular intervals to measure changes in the number of patients who receive an injection or IV fluid (or other relevant indicators).

GENERAL INFORMATION

Date:

Name of note-taker:

Name of moderator:

Location:

Type of respondent:

SOCIO-ECONOMIC INFORMATION

- What is your age?
- Gender and ethnicity if possible:
- Did you ever go to school and to what grade?
- What work do you do?
- What brought you to a doctor?

TREATMENT JUST RECEIVED

Do you know about the qualifications of the doctor? If yes, how did you obtain this information? Is this important for you?

What treatment did the doctor prescribe?

- Ask about the treatment procedures that he/she has experienced in the facility

What was the total cost of the treatment?

- Probe: cost of medicine, doctor, time cost, distance covered and time spent

If injection is mentioned as part of the treatment then ask about the cost of the injection.

If injection is not mentioned or was not given in the just received treatment, then ask that whether injections have been received before:

- Who suggested for injection? (Doctor/himself or herself)
- Probe: Why
- Who gave you the injection?
- Where did the syringes come from and what type was it?
- Was the syringe new or used? Was it opened in front of you?
- Is cleaning of the syringes equipment is required? How does this normally take place?
- Are you satisfied with the injection procedure?
- How the dispenser administered the injection?
 - Intravenously
 - Intramuscularly
 - Cleaning of site of injection
- In your opinion how should the syringes be cleaned?
- Did you see used syringes lying around in the clinic?
- Probe: on floor, tables, in waste-basket etc

QUALITY OF TREATMENT

Are you satisfied with the treatment?

- Probe: Why or why not?

What in your opinion is good quality treatment?

- Probe: What should be included and excluded in the treatment?

OPINION ABOUT DRIPS / BLOOD PRODUCTS / INJECTION

What is your opinion about giving injections for treatment?

- Probe: Why do you have this opinion?

Can you name the diseases/conditions for which injections should be given?

- Probe: Why

What is your opinion about giving drips for treatment?

- Probe: Why/how

Have you ever been given/taken any drip?

- Probe: For what conditions and why?

In what conditions should drips be given to patients?

- Probe: Why?

HAZARDS AND BENEFITS OF INJECTIONS

Are there any hazards or benefits of injections?

- Probe: What / Why for each hazard and benefit.
- For abscesses and pain etc
- How can you avoid these?

Are there any hazards and benefits of IV-fluids?

- Probe: What / Why for each hazard and benefit.
- How can you avoid these?

Are there any hazards and benefits of taking blood?

- Probe: What/why for each hazard and benefit.
- How can you avoid these?

Have you heard about hepatitis before?

- Probe: If yes, what do you know about it and where did you get the information?

SOURCE OF INFORMATION

From where do you get information on health care?

Where do you get most of the information about injection use and its benefits and hazards?

FACILITY INFORMATION

Why do people come for treatment to this facility compared to elsewhere?

- Probe: advantages and disadvantages/cost/ reason of preference

Do they go anywhere else?

- Probe: Why and when?

SUGGESTIONS FOR IMPROVEMENT

Do you have general suggestion for improvement in the quality of treatment/health care in your community?

Do you have any suggestions for improvement for injection use?

- Probe: when should injections be used or when not?
- How should used syringes be cleaned? Please explain the cleaning procedures.

Ask whether the patient has any questions regarding anything

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