Republic of Iraq
Ministry Of Health

Training Curriculum in Interpersonal Communication, Referral and Follow-up Process, and Selected Practices in Infection Prevention and Control

2006

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RTI INTERNATIONAL

Training Model Primary Providers

Training Curriculum
2006 Version

The pages that follow represent the hard work and dedication of the Physicians' and Nurses' Curricula Development Working Groups of the Ministry of Health in Iraq and the USAID funded TMPP Project staff.

The aim of this curriculum is to provide uniformity and standardization of practices and ensure the best appropriate practices based on each setting needs through the improvement of the performance of staff and their adherence to set standards of quality.

Effective management of this curriculum is contingent on trainers having completed successfully appropriate competency based training in its use to train service providers.

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PREFACE

The Ministry of Health supported the idea of developing training curricula and in service training modules, training trainers in the use of the curricula/modules, and the training of service providers as essential to strengthening the health care system in Iraq and improving the quality of care.

Accordingly the TMPP Project included in its work plan the development of training curricula and modules. The present curriculum including a trainer's guide, an Interpersonal Communication in Information, Education and Counseling module, a Referral and Follow-up Process module, and a module on Selected Practices in Infection Prevention and Control has been developed within this framework.

This curriculum was drafted by a Physicians' and Nurses' Curriculum Development Working Groups of the Ministry of Health with methodological and technical guidance from the TMPP Project Training Team Leader and Quality Assurance Advisor.

The draft was reviewed by TMPP technical staffs. The comments and recommendations from the reviews were integrated as appropriate in the document by the working groups before these materials were tested, edited and formatted. The finalized version was disseminated to partners.

This intervention is unique and innovative and needs commitment and support from the health authorities to ensure the implementation of and adherence to the standards in service delivery and the curriculum for training service providers to improve the quality of health care in Iraq.

This curriculum could not have been developed without valuable contributions from a number of Iraqi health professionals and experts who gave of their precious time and expertise.

Bringing such a large number of professionals with varied interests and aspirations to work together in small groups is an achievement by itself and is a credit to the Ministry of Health and to the TMPP in general, and the Training Team in particular.

Dr. Mohammed Shoueb

Director General
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INTRODUCTION

Access to quality health care is a basic human right. The performance of service providers is a key element in ensuring the quality of these services. However this performance is affected by several factors such as clear job expectations and immediate feedback, adequate physical environment and tools, motivation, support from the organization and appropriate skills, knowledge and attitudes. Appropriate systems in place to ensure that these factors have a positive impact and enhance staff performance is essential since providers can only perform as well as the systems within which they operate allow them. These systems will include management ones such as job/task description, technical such as guidelines and protocols and support such as training and supervision.

Therefore conducting needs assessment activities to identify issues with provider performance, their impact on quality of care and the appropriate solutions has been a priority for the Ministry of Health and the TMPP Project.

The assessment of the performance of different categories of service providers training has been conducted on an on-going basis since the beginning of the project. Various approaches and methods have been used to review performance of providers and systems in place to support the providers at various points of service delivery in the public sector at the primary health care level:

- Setting up technical working groups at the Ministry of Health
- Orientation and planning days/workshops for staff from various service delivery levels and points
- Review of existing material

The needs assessment allowed for the identification of different technical areas of needs. In addition to the clinical topics that need to be addressed under adult health, women health, emergency health services and Child health, technical areas, such as IMCI, gaps in the area of health behavior and practices in the areas of Interpersonal Communication in Information, Education and Counseling, Referral and Follow-up Process, and Infection Prevention and Control identified as priorities.

Based on the selected areas of needs, the Ministry of Health, with technical and financial support from the USAID funded TMPP Project set the following objective:

- Improve the quality of care in Information, Education and Counseling, Referral and Follow-up processes, Infection Prevention and Control, and Integrated Management of Childhood Illnesses (IMCI) through:

    1. The development/update of a training curriculum that includes modules in Interpersonal Communication in Information, Education, and Counseling, Referral and Follow-up Process, and Selected Infection Prevention and Control Practices.
    2. The adoption of the IMCI curriculum developed by WHO, and adapted to the Iraqi context, for the training of physician service providers.
    3. The development/adaptation of an IMCI curriculum in Arabic for nurses.

4. The training of trainers in these technical areas.
5. The training of service providers.

Thus, the goal of this curriculum is to serve as a basic tool and guide for trainers/facilitators to provide trainees/participants with the opportunity to acquire and update the knowledge and skills necessary to:

1. Use interpersonal communication to improve Information, Education and Counseling;
2. To use the referral and follow-up process to ensure effective referral of clients;
3. Implement selected practices in Infection Prevention and Control; and
4. Provide the participants with opportunities to be exposed to and initiate the development of attitudes favorable to the systematic use of the knowledge and skills acquired to improve the quality of care and services.

The draft curriculum was reviewed by the training team of the TMPP Project and the members of the Ministry of Health Physician Curriculum Development Working Group. Before being tested during the training of trainers and the training of service providers. The results of the testing were discussed with the members of the working group before being integrated in the draft. The updated draft was reviewed and validated by IntraHealth International, Inc., an affiliate of the University of North Carolina at Chapel Hill in North Carolina. The validated version has been approval by the Ministry of Health to be used to standardize the training of service providers.

This will greatly contribute to the improvement of quality of care in service provision at all levels, and especially in the Primary Health Care Centers.

Hammouda Bellamine

Team Leader
Training Team
TMPP Project

Dr. Bushra Nimry - Abbasi

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The development of this curriculum would not have been possible without the support and commitment of His Excellency the Minister of Health and Senior Staff from the Ministry, who believed in training as an important factor to improve the quality of care.

The Ministry of Health has the pleasure and wishes to extend deep and warm gratitude and thanks to the organizations and individuals who have participated in the development of this curriculum for their contributions and efforts in making this document a reality. The Ministry of Health wishes also to recognize the leadership role played by the TMPP Project and USAID, Iraq, during this process.

Special thanks go to all the members of the Ministry of Health Steering Committee, who provided overall guidance in the development and implementation of the TMPP Project, building support, and ensuring careful integration of expertise and experience from the Ministry. The Ministry is very grateful to Dr. Mohamed Shoueb, Director General, Directorate of Public Health and Primary Health Care, Dr. Mohamed Jabr, Deputy Director, Directorate of Public Health and Primary Health Care, Dr. Imad Atta, Directorate of Health Planning and Human Resources, Dr. Ahlam Aziz, International Health Section, Diwan Directorate, Dr. Sundus Jamal, Directorate of Public Health and Primary Health Care, and Mrs. Manal Thabet, Administrator.

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- Ms Farida Sadeque, Section of Nursing Affairs
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- Dr. Hani Riad, Community Mobilization Advisor, RTI International
- Dr. Ali Abdelmegied, Chief of Party, RTI International

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- Dr. Bushra Nimry – Abbasi, Quality Assurance Advisor, TMPP Project, RTI International
- Dr. Teweldebrhan Hailu, Training Medical Advisor, IntraHealth International

Also our thanks are extended to all others who have contributed to the development of this curriculum including the support staff. We apologize for not mentioning all of them by name.

Section 1

Trainer’s Guide

ABOUT THIS TRAINING CURRICULUM

This training curriculum is a guide to assist trainers in improving health care by training health professionals in:

- Interpersonal Communication in Information, Education, and Counseling
- Referral and Follow up Processes
- Infection Prevention and Control (IPC) practices focusing on immediate needs in the basics of an IPC system and selected procedures, namely hand washing, gloving, antiseptics, decontamination and cleaning

Materials in this document are designed for training service providers who work at a variety of health facilities in Iraq. The curriculum can be used to train health professionals including physicians, nurses, midwives and other health workers in group training or, with adaptation, as a basis for individualized or self-directed learning.

Trainers implementing this course should be thoroughly familiar with the procedures on which this training is based, skilled in the practices described and have a positive attitude about the participants and their work as trainers.

Training may be implemented either off-site or on-site. In off-site training, a group of participants come together from several health facilities and then return home to apply what has been learned. Off-site training may be the most appropriate way to reach individuals from many small sites. On-site training refers to training held in a health facility where the participants work. Both types of training can be very effective. When training is conducted off-site, it may be more difficult to observe actual clinical settings. On the other hand, when training takes place on-site, there may be interruptions due to participants being called away for other responsibilities.

APPROACH TO TRAINING AND LEARNING

The training course outlined in this document is based on adult learning principles, competency-based training and performance improvement. Selected elements of the strategies that guided the development of this material and should guide its implementation and use are listed below.

How people learn best

People learn best when the following conditions are met:

- Participants are motivated and not anxious, know what is expected of them and treated with respect
- Information and skills are interesting, exciting, meaningful, and build on what participants already know, encourage problem-solving and reasoning

- Experiences are organized, logical, practical, include a variety of methods, and protocols and procedures are available

- New learning experiences are relevant to work and training needs of participants, and are applied immediately

- Training involves every participant in active practice and participants share responsibility for learning

- Training is a team activity, including trainers and co-trainers, providing participants with a variety of experiences and limiting trainer's biases

- The trainer acts as a facilitator of the learning process rather than a teacher who "spoon feeds" the learner

- The role and responsibilities of the trainers/facilitators and those of the participants/learners are clearly defined with:

    - The facilitators responsible for providing the learners with the necessary opportunities to acquire the knowledge and skills necessary to perform the tasks for which they are being trained
    - The facilitators responsible for providing the learners with the necessary opportunities to be exposed to the attitudes necessary to implement the acquired skills in a systematic manner and initiate the process of internalizing these attitudes
    - The learner remains responsible for her/his learning

- The transactional relationships between the learners and the facilitators are at the level of adult to adult, characterized by mutual respect and support

- Trainers are knowledgeable and competent in the subject matter and skills, use a variety of training methods, pay attention to individual participants' concerns, and provide motivation through feedback and reinforcement

- Participants must be selected according to specific criteria, such as the relevance of the training content to the job expectations/tasks

- Participants must have the necessary prerequisite level to enable them to benefit from the learning experience

- Feedback is immediate and focused on behavior that the participants can control

- Assessment of learning and skills is based on objectives that the participants understand

Knowledge, skills and attitudes

This course aims to improve health care by changing health workers' knowledge, skills and attitudes.

Ø Knowledge includes the facts that the participants need to know to perform their jobs.

Tips on increasing **knowledge** through training

- Start with what the participants already know or have experienced
- Use a variety of educational resources, including participatory activities that require participants to use their knowledge
- Use learning aids
- Review and summarize often
- Assess knowledge to verify learning

Ø Skills include the specific tasks that participants need to be able to perform.

Tips on increasing **skills** through training

- Describe the skill
- Provide protocols and procedures
- Demonstrate the skill
- Have participants demonstrate the skill
- Verify that each skill is practiced correctly
- Assess skill by observation using a checklist

Ø Attitudes affect behaviors, such as whether learned skills are applied and interactions with clients.

Tips on changing **attitudes and behavior** through training

- Provide information and examples
- Include direct experience
- Invite discussion of values, concerns and experience
- Use role plays and brainstorming
- Model positive attitudes
- Assess changes in attitude by observing behavior

Methods

The training will use a participatory and "hands on" approach where the role of the trainers is to facilitate learning by the participants. The responsibility for learning remains with the participants.

Participants learn more and stay engaged in learning activities when they play an active role in their learning and a variety of training methods are used. The following methods are recommended in the curriculum/modules.

Selected Training Methods

Brainstorming	Individual assignments	Return demonstration
Case study	Individual exercises	Role play
Clinical session	Interview	Self-directed activities
Demonstration	Mini-lecture	Small group discussion
Discussion	Observations	Simulation
Field visits	Pairs exercises	Small group exercises
Plenary group exercises	Presentation	Summary
Group assignments	Questions and answers	Survey
	Research	Training room practice

IN EACH MODULE OR SESSION

This document contains an outline of a training plan for each of the key areas of content.

Each module contains the following sections:

- Front page with a module number, module objectives, module content by session and an estimated duration for the module.

- Session plans covering the various content areas.

Each session contains the following sections:

- **Trainer Preparation**: This section lists the specific preparations that trainers should make for the session. Preparations for every session include:
  - Making sure the room is properly arranged
  - Ensuring that markers and flip chart or a writing board with chalk or markers are available
  - Reviewing the training plan
  - Reviewing steps for the methods used in the training session
  - Ensuring that the resources needed to facilitate the learning process are available including copying materials that participants need

- **Methods and Activities:** This section lists the methods and activities that are used in the module. General instructions for methods that are frequently used are included in this introductory material. Instructions for participatory activities are included in the training plan.

- **Resources:** The relevant reference materials/handouts and other resources needed are listed here.

- **Evaluation/assessment:** Evaluation methods for the knowledge or skills included are listed. Questionnaires and skills checklists are included where needed.

- **Estimated Time:** The time that each session/module will require depends upon the particular group of participants, the amount of time available and other constraints. The module gives a general time range to allow for flexible scheduling.

- **Training Plan:** This section gives the specific learning objectives or purpose of a session, the key **"must know"** content, and the appropriate training methods and activities for each objective. All modules include one or more activities that give participants structured, participatory practice with the content of the module.

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- **Handouts:** When specific activities require handouts, these are included after the training plan and should be copied before the session in which they will be used.

- **Questionnaires:** Each session/module includes a questionnaire that is tied to the learning objectives and a key with the correct answers. It is not appropriate to assign a pass or fail designation to the questionnaire. Instead, use the questionnaire as a learning tool. It must be used for **formative evaluation**. If participants are not certain of the answers, they should be encouraged to use the training resources to find the correct answer. Answer key must be given to the participants after finishing the processing of the responses.

- **Skills Checklists:** Each session that includes skills objectives includes a skills assessment checklist. The checklist is used by the trainer to evaluate the participant's skill based on observation of the specific steps included in the skill. The skills checklists are also used by each participant to assess their performance and take charge of their own learning. They can also be used by other participants for peer assessment. It is recommended that these checklists not only be used during training to assess the acquisition of skills, but also for post training evaluation and supervision.

Note: There are various possible formats for modules and sessions. Provided the necessary information is included for the trainer to use, the selection of format will depend on how comfortable the trainers are in using it.

Methods Frequently Used in This Curriculum

Instructions for methods used frequently in this training course are included here. Activities for specific methods are included with the sessions where they are used.

Mini-lecture

Trainer makes a short (5 to 15minutes) presentation using the materials available. Mini-lectures are used to provide information and knowledge. They insure that all participants have an adequate level of information and insure standardization and uniformity of this information. Mini-lectures should be kept short and should be followed by questions and answers for clarification to enable participants to better understand the content of the session/module and clarify issues, and questions and answers for evaluation to ensure comprehension.

Questions and Answers (Q&A)

Questions and answers sessions are used to recall information or elicit participants' knowledge (in introductory sessions in order to assess training needs), for clarification (to ensure that participants understand information/content), presentation of information (to elicit information that participants may already know) and evaluation (to assess acquisition of knowledge and fill gaps in participants' knowledge).

Steps for Questions and Answers for clarification

1. Trainer asks participants if they have questions
2. If a participant has a question, trainer asks another participant to answer
3. If the participant's answer is correct and complete, trainer reinforces
4. If the participant's answer is incorrect and/or incomplete, trainer may ask questions that lead the participant to a more correct answer or ask another participant to answer
5. If the answer is still incorrect and/or incomplete after two or three trials, trainer corrects and/or completes and informs the participants where to find the information
6. If there are no questions, trainer asks questions to verify knowledge and follows the same steps (3, 4, 5)

Steps for Questions and Answers to elicit information from participant (s)

1. Trainer asks participants questions
2. If a participant's answer is correct and complete, trainer reinforces
3. If the participant's answer is incorrect and/or incomplete, trainer may ask questions that lead the participant to a more correct answer or ask another participant to answer
4. If the answer is still incorrect and/or incomplete after two or three trials, trainer corrects and/or completes and informs the participants where to find the information

Steps for Questions and Answers for evaluation

1. Trainer asks participants questions
2. If a participant's answer is correct and complete, trainer reinforces
3. If the participant's answer is incorrect and/or incomplete, trainer may ask questions that lead the participant to a more correct answer or ask another participant to answer
4. If the answer is still incorrect and/or incomplete after two or three trials, trainer corrects and/or completes and informs the participants where to find the information

Brainstorming

Brainstorming is an excellent way to find out what participants already know and gaps in their knowledge. Brainstorming brings participants experience into the classroom and lets the participants know that their experience is valuable.

Brainstorming is also a very effective way for problem solving.

A brainstorming session should always end with a summary.

Steps for brainstorming

1. Trainer asks an open-ended question
2. Participants shout out their answers or ideas:
   - Until no more ideas are generated, or at least every participant has a chance to contribute or time allocated has run out
   - No ideas are discarded criticized or analyzed, but clarifying questions can be asked
3. Trainer records ideas on newsprint or in another format where all can see them
4. Trainer leads a discussion of each of the ideas generated
5. Trainer clearly marks ideas that are agreed upon
6. Trainer summarizes or asks participants to summarize points of agreement
7. Trainer moves to the next question only after finishing discussion of previous question
8. Ideas generated in brainstorming can be used for summarizing, as input to group exercises, and to relate content to participant experience

Case study

A case study is method of training whereas data/information about a case, preferably a real one or based on one, is presented to the participants for review and analysis. It includes specific questions to be answered. Case studies are a very effective way to allow participants to practice using information to solve problem, the highest level of knowledge objective. They are also effective in providing participants opportunities to explore their attitudes and confront/compare them with other participants and trainers' attitudes. Moreover case studies allow for the identification of gaps in knowledge.

Participants, individually or in small groups are asked to study the case and prepare responses to the questions. The responses are then processed. During the processing the trainer must encourage and ensure that all participants get a chance to provide inputs. Processing can be done using questions and answers and/or discussion.

The questions must be answered in an orderly manner in the sense that each question must be answered fully and the inputs summarized before moving to the next question. Answer key must be given to the participants after the processing of the case study.

Case studies can be presented in different format. They can be based on the presentation of a real patient, the files of a patient, a written description of a case, an illustration such as a photograph or slides of a case, or a video.

This method is not used in this curriculum but trainers can develop case studies based on local conditions/data as additional exercises if time permits.

Discussion

Discussion is indicated when the outcome is not predetermined in advance and is "still negotiable". Therefore using discussion to provide "scientific" knowledge/information or a decision that has already been made and not to be changed can lead to frustration.

Discussion in plenary or in small groups is recommended to explore attitudes, values and opinions. It is also indicated to confront/compare different options of "doing things" ensuring that the "why" is covered.

During the discussion the trainer's role is to facilitate the process, and ensure that the discussion remains "on track" and that every participant gets a chance to contribute.

When small groups do not have the same assignment/topic to discuss, each group presents their output(s) and discussion follows immediately after the presentation before moving to the next group. Time management is essential to ensure that no group gets "short changed" and has ample time for the presentation and discussion.

If all the groups have the same assignment, all groups present before discussion takes place. Only clarification questions are allowed during the presentation. Processing the output(s) must focus on the points of agreement before moving to the differences.

If time does not allow for all groups to present, one group can present and the other groups complete from their own group's output before discussion starts.

Every discussion must be followed by a summary.

Demonstration

Demonstration is a very effective way to facilitate learning of a skill or initiation of the development of an attitude. The facilitator should use this method to show the skill(s) and/or the attitude(s) addressing more than one sense at a time. Often a demonstration can effectively replace a presentation provided the facilitator explains as s/he is doing.

A demonstration should always be followed by a Q/A for clarification session before the learners are required to do a return demonstration.

Steps for a demonstration

1. Trainer assembles resources needed for the demonstration
2. Trainer ensures that participants are ready, can hear and see
3. Trainer explains what s/he is going to do
4. Trainer instructs participants on what is expected of them (e.g. to observe closely, to take notes if appropriate, to use the skills checklist when appropriate etc.)
   - To prepare for the Q/A, and
   - Because they are required to do return demonstration(s) for practice
5. Trainer demonstrates while explaining the skill(s)/attitude necessary for each step of the procedure being demonstrated
6. Trainer conducts a Q/A for clarification at the end of the demonstration

Return demonstration

Return demonstrations provide the learners with the opportunity to practice the skills necessary to perform the procedures they are being trained on. The trainer must ensure that each learner/participant has the opportunity to practice **enough times to reach a preset minimum acceptable level of performance.**

Steps for a return demonstration

1. Trainer reminds participants of what is expected of them:
   1.1 To practice the procedure/skills
   1.2 To observe when others are practicing to be able to ask for clarification
   1.3 To observe when others are practicing to be able to provide feedback and peer evaluation
2. Trainer divides participants into small groups, if more than one workstation (**Note:** each workstation requires at least one facilitator/trainer)
3. Participants take turns practicing the procedure/skills
4. Trainer ensures that all participants can hear and see
5. While each participant is practicing trainer can provide guidance as necessary provided it does not interfere with the process and confuse the participant
6. After each participant, trainer solicits feedback from other participants
7. After feedback from other participants, trainer reinforces what is correct and corrects and/or completes feedback
8. Each participant needs to practice more than once or until control of the skill, as time permits
9. If participant(s) need more than time permits, trainer arranges for additional practice opportunities

Simulation/simulated practice

A simulated practice is a very effective method to allow participants to practice procedures/skills in an environment that recreates as closely as possible the "real world" without the stress involved in practicing procedures/skills that they do not control yet in the field. It is recommended to have participants practice on models before they do perform the procedure/ use the skill in the work place. During a simulation the participant practices tasks that are part of her/his actual role in the workplace or that s/he will perform in the job s/he is being trained for.

Use the same steps as for a demonstration/return demonstration practice.

Role play

Role plays are a very effective method to practice procedures/skills in the training room. They are especially effective to practice procedures/skills that deal with human interactions such as health education and counseling sessions. They are also very effective when the learning objective deal with attitudes.

In a role play participants "play roles" that are not necessarily their roles in the "real world". Often they are asked to play the role of someone they would be dealing with. In this case it is called "role reversal" or "reverse role play". This allows the participants to explore and discover how other perceive/live the interaction.

A role play must always be processed to analyze the lessons learned.

Summary

Every time a training method allows for inputs through exchanges between the trainer(s) and the participants and between the participants themselves, it must be followed by a summary session to "tie up the loose ends" and provide the participants with clear answers. If this does not happen there is the likelihood that the participants will forget the "correct" answers.

A summary can be done by the trainer to ensure that there are "no loose ends". If time permits, it is recommended to use the summary for evaluation. In this case the trainer can use the Q/A method.

<u>Steps for a summary for evaluation</u>

1. Trainer asks a participant to summarize
2. Trainers reinforces if the summary is correct/complete
3. Trainer asks another participant to correct/complete if the summary is incorrect/incomplete
4. Trainer repeats steps 2 and 3
5. Trainer corrects/completes if after 2 or 3 trials the summary is still Incorrect/incomplete

EVALUATION

Evaluation of learning and training objectives

Evaluation or assessment of learning and of training objectives allows trainers, program managers and participants to know how successful a training program has been. On-going evaluation and assessment allows trainers to identify gaps in learning and to fill those gaps. Evaluation also assists in revising learning experiences for later trainings.
Many strategies can be used to evaluate learning. Some of the most useful methods include:

- Knowledge assessments: Written or oral questions that require participants to recall, analyze, synthesize, organize or apply information to solve a problem. The knowledge component of a skill objective should be assessed prior to beginning skill practice in a training room or clinical session.

- Questionnaires: Written exercises that assist trainers and participants to identify and fill gaps in knowledge. Questionnaires can be administered as self-assessments. In some situations, it may be reasonable to have participants use course materials or to work together on questionnaires.

- Skill checklists: Observation of a participant performing a skill and assessment of the performance using a checklist. Simulated practice (using real items or models in a situation that is similar to actual practice) should ideally be assessed prior to beginning clinical practice with clients. Checklists should be used by the trainer and other participants to observe simulated (training room) performance and actual practice and provide feedback to help improve the performance. The checklists can also be used by the participant for self assessment. During the training participants should be trained on how to use the checklists and encouraged to use them after the training to continue assessing their own performance and improving it.

Additional techniques for evaluation include: projects, reports, daily reflection, on-site observation, field performance, and discussion.

Each training module includes assessment of learning methods and tools:

- Questions and Answers should be used to frequently identify gaps in knowledge and fill them.

- Questionnaires are included with every module and can be used for self-assessment. To use them as self-assessment, participants fill out the questionnaire and then use any course materials to check their own answers. Trainers should work with participants filling out the questionnaires to make sure that all gaps in knowledge are filled before practicing and evaluating skills. When time permits, process responses in plenary to address any issues and fill the gaps in knowledge. At the end of this activity the answer key needs to be distributed to the participants.

- Skills Checklists are included for each of the skills that are included in this training curriculum. Participants can use the Skills Checklists as learning guides during

practice sessions in training room or clinical sessions. To evaluate skills, trainers should generally observe participants three times with coaching as needed to ensure the skills are learned.

Evaluation of the participants

The evaluation of the learning by participants will be done through questions and answers, synthesis of sessions done by selected participants, self-assessment following the micro-sessions, peer assessment through feedback provided by other participants following the micro-sessions and assessment of performance by facilitators.

Each participant will practice more than once, preferably three times" the use of the curriculum to plan, organize, conduct and evaluate the training through simulated micro-sessions. A checklist will be used both by participants for self and peer assessment, and by the facilitators.

Videotaping the micro sessions or at least significant segments of the micro sessions and reviewing the taped segments after each session will enable the participants to assess their own progress in terms of acquisition of training/facilitation skills. This approach to evaluation although time consuming is very effective in helping participants assess their own performance and stabilize feedback received from their peers and from the trainers/facilitators.

Post training evaluation of the learners must be conducted within three (3) to six (6) months after the end of the training. Further post training evaluation and follow-up can be integrated into routine supervision. It is highly recommended to use the skills checklists used during the training for post training evaluation and follow-up.

Evaluation of the training

The "End of Training" evaluation can be done through a questionnaire (form 1) whereby the participants are asked to respond and express their opinions about various aspects of the workshop, such as organization, the process, the facilitation, and a general assessment.

The "End of module" evaluation can be done through a questionnaire (form 2) whereby the participants are asked to respond and express their opinions about various aspects of the module, such as the relevance of the module objective to the course ones, the relevance of the content to the objectives, the adequacy of the content, the presentation of the content, the effectiveness of the methodology, the facilitation and the sequencing of the content.

A confidence/satisfaction index can be calculated to determine how confident the learners feel that they acquired the knowledge and skills necessary to perform the tasks they have been trained for, and how committed they feel to using those skills to ensure the quality of the services they are to provide. The confidence index applies to the training objectives and acquisition of skills and knowledge and to the degree to which the participants feel that they able to apply what they have learned during the training. The satisfaction index applies to the organization and implementation of the training.

The items are labeled in the form of statements followed by a scale 5 (Strongly Agree), 4 (Agree), 2 (Disagree), and 1 (Strongly Disagree), where 5 represents the highest level of satisfaction/confidence (agreement with the statement) and 1 represents the lowest. The participants are asked to select the level that expressed their opinion best. A space for comments is provided after each statement.

The confidence and satisfaction indices are calculated by multiplying the number of respondents by the correspondent coefficient in the scale, then adding the total. The total is multiplied by 100. The product is divided by the total number of respondents to the statement multiplied by 5. 60% represents the minimal acceptable level and 80% a very satisfactory level of performance.

For example, if the total number of respondents is 19 and 7 of them selected 5 on the scale, 6 selected 4, 4 selected 2, and 2 selected 1, then the index will be (5x7)+(4x6)+(2x4)+(1x2) multiplied by 100, divided by (5X19). A 100% index would if the total number of respondents selected 5. In this case it would be 95. In this example the index is 72.63%.

The training content and process are evaluated on a continuing basis through daily evaluations using methods such as "things liked the best" and "things liked the least" and/or "quick feedback" forms. The facilitators will use the results of this evaluation during their daily meeting to integrate the feedback and adapt the training to the participants needs.

"Where Are We?" sessions will be conducted with the participants to assess the progress in content coverage and process towards reaching the training goals and learning objectives.

Comments are analyzed and categorized. Only significant comments, those mentioned more than once and/or by more than one participant, are retained.

The facilitators need to use the results of this evaluation during their daily meeting to integrate the feedback and adapt the training to the participants needs.

Feedback and assessment of training experiences allows trainers and program managers to adapt training to better meet participants' needs.

Trainers can also assess their own performance in facilitating the learning experience of participants using a standardized "facilitation skills" checklist (form 4).

Form 1: End Of Course Evaluation Questionnaire

TRAINING CENTER: **DATE:**

COURSE TITLE:

INSTRUCTIONS

This evaluation will help adapt the course to your needs and to those of future participants.

It is anonymous. Please respond freely and sincerely to each item. The items are labeled in the form of statements followed by a scale where:

- 5 = **strong** agree
- 4 = agree

- 2 = disagree
- 1 = **strongly** disagree

Please circle the number that expresses your opinion; the difference between **strongly** agree and agree, and between **strongly** disagree and disagree are a matter of intensity.

Add your comments in a specific and concise manner, in the space provided after each statement. If that is not sufficient feel free to use extra paper. If you select 2 or 1, make sure to suggest how to make the situation better, practical, and offer solutions.

N.B: Course goals objectives and duration will vary based on the type of training conducted. Adapt the form to each specific course by including in it the relevant course items.

COURSE GOALS

The Course Achieved Its Goals

1. To provide the participants with the opportunities to acquire/update the knowledge and skills necessary to:

1.1. Use Interpersonal Communication to improve Information, Education and Counseling 5-4-2-1

Comments:

1.2. Use the Referral and Follow-up Process to ensure effective referral of clients 5-4-2-1

Comments:

1.3. Implement selected practices in Infection Prevention and Control 5-4-2-1

Comments:

2. Provide the participants with opportunities to be exposed to and initiate the development of attitudes favorable to the systematic use of the knowledge and skills acquired to improve the quality of care and services 5-4-2-1

Comments:

LEARNING OBJECTIVES

The course helped me reach the stated ob jectives:

1. Use the principles and process of Interpersonal Communication to ensure effective information, education and counseling 5-4-2-1

   Comments:

2. Use the Referral and Follow-up Process to ensure effective referral of clients 5-4-2-1

   Comments:

3. Implement selected practices in Infection Prevention and Control, i.e. handwashing, gloving, use of antiseptics, decontamination and cleaning in a systematic manner to reduce the risk of cross infection at the level of the PHC Centers 5-4-2-1

   Comments:

4. Explain the importance to use the knowledge and skills acquired in a systematic manner to improve the quality of care and services 5-4-2-1

   Comments:

5. The course objectives are relevant to my job description / task I perform in my job 5-4-2-1

   Comments:

6. There is a logical sequence to the units that facilitates learning 5-4-2-1

   Comments:

ORGANIZATION AND CONDUCT OF THE COURSE

1. Time of notification was adequate to prepare for the course 5-4-2-1

   Comments:

2. Information provided about the course before arriving was adequate 5-4-2-1

   Comments:

3. Transportation arrangements during the course were adequate (if applicable) 5-4-2-1

   Comments:

4. Training site (Training Center) was adequate 5-4-2-1

   Comments:

5. The educational materials (including reference material) used were adequate both in terms and quantity and quality in relation to the training objectives and content 5-4-2-1

   Comments:

6. The methodology and technique used to conduct the training were effective in assisting you to reach the course objectives 5-4-2-1

   Comments:

7. Clinic/ practice site, as applicable, was adequate 5-4-2-1

   Comments:

8. Relationships between participants and course managers and support staff were satisfactory 5-4-2-1

   Comments:

9. Relationships between participants and trainers were satisfactory and beneficial to learning 5-4-2-1

   Comments:

10. Relationships between participants were satisfactory 5-4-2-1

    Comments:

11. The organization of the course was adequate (Time, breaks, supplies, resource materials) 5-4-2-1

    Comments:

Additional comments:

GENERAL ASSESSMENT

1. I can replicate this training in my future work 5-4-2-1

   Comments:

2. I would recommend this training course to others 5-4-2-1

   Why or Why Not?

3. The duration of the course (4 days) was adequate to reach all objectives and cover all necessary topics 5-4-2-1

   Comments:

4. General comments and suggestions to improve the course

   (Please be specific)

Form 2: End of Module Evaluation Questionnaire

COURSE: **DATE:**

MODULE NUMBER & TITLE:

INSTRUCTIONS

This evaluation is intended to solicit your opinions about the modules.
Your feedback will help adapt the course to your needs and to those of future participants.
It is anonymous. Please respond freely and sincerely to each item. The items are labeled in the form of statements followed by a scale where:

- 5 = **strongly** agree
- 4 = agree

- 2 = disagree
- 1 = **strongly** disagree

Please circle the number that best expresses your opinion; the differences between **strongly** agree and agree, and between **strongly** disagree and disagree are a matter of intensity.

Add your comments in a specific and concise manner in the space provided after each statement. If that space is not sufficient feel to use extra paper. If you select 2 or 1, make sure to write specific comments on how to improve the module.

Evaluation Items

1. The module objectives are relevant to the course objectives 5- 4- 2- 1

   Comments:

2. The content / topics covered in the unit are relevant to the objectives 5- 4- 2- 1

   Comments:

3. The content / topics were adequate to help me achieve the objectives 5- 4- 2- 1

   Comments:

4. The content / topics were clear and well presented 5- 4- 2- 1

   Comments:

5. The training methods and activities were effective in facilitating learning 5- 4- 2- 1

   Comments:

6. The training methods and activities were conducted adequately to facilitate learning 5- 4- 2- 1

   Comments:

7. These are important topics that will enable me to better perform my job 5- 4- 2- 1

   Comments: (specify these points)

8. There is a logical sequence to the sessions and topics that facilitates learning 5- 4- 2- 1

   Comments:

9. There are certain topics that need further clarification 5- 4- 2- 1

Comments: (specify these points)

10. The training materials and resources provided were adequate 5- 4- 2- 1

Comments:

11. The training materials and resources were provided on time to facilitate learning 5- 4- 2- 1

Comments:

12. The training materials and resources used were adequate to facilitate my learning 5- 4- 2- 1

Comments:

13. The training site was adequate 5- 4- 2- 1

Comments:

14. The clinic/ practice site was adequate (if applicable) 5- 4- 2- 1

Comments:

General comments (if any not covered):

Form 3: Quick Feedback Form

TRANING COURSE: **DATE:**
LOCATION:

MODULE NUMBER AND TITLE:
SESSION NUMBER AND TITLE:

INSTRUCTIONS

This evaluation is anonymous. Please respond freely and sincerely to each item. The items are labeled in the form of statements followed by a scale where:

5 = **strongly** agree
4 = agree

2 = disagree
1 = **strongly** disagree

Please circle the description that expresses your opinion best; the difference between strongly agree and agree, and between strongly disagree and disagree are a matter of intensity.

Add your comments in a specific and concise manner, if you have any, in the space provided after each statement. If that space is not sufficient feel free to use extra paper. If you selected 2 or 1 please make sure to give comments (e.g. why? Solutions? …)

1. The session objectives are relevant to the tasks in the job description 5- 4- 2- 1

   COMMENTS

2. The methods/learning activities were adapted to the objectives 5- 4- 2- 1

   COMMENTS

3. The materials provided were adequate to cover all of the content 5- 4- 2- 1

   COMMENTS

4. The time allocated to the session was adequate to cover all the topics 5- 4- 2- 1

COMMENTS

5. The facilitation (conduct of the session) helped reach the session objectives 5- 4- 2- 1

COMMENTS

6. The content of the training was clearly presented 5- 4- 2- 1

COMMENTS

7. The materials/resources were used in a way that helped me learn 5- 4- 2- 1

COMMENTS

8. There are points of content that need further clarifications (Specify what specific content areas)

Other comments:

Form 4: Training Skills Checklist

This checklist is used with the relevant curriculum to give feedback on the trainer's performance.

The checklist contains a list of items to be observed:

- If they are observed a check mark (**v**) is entered in the column observed under **adequate** or **inadequate** depending on the performance.
- Comments are entered in the appropriate column to clarify/specify what is observed or not observed.
- If not observed a check mark (**v**) and comments are entered in the appropriate columns.

The finding and comments are analyzed and discussed with the trainers supervised. Any immediate corrective action(s) taken and further action(s) needed must be entered in the spaces provided.

The trainers supervised must be given an opportunity to comment, and the comments must be entered in the appropriate space. The form must be dated and signed by the trainer and the supervisor. It is then filed in the trainer's file for future follow-up and reference.

Legend: A = Adequate NA = NOT adequate NO = NOT observed

Items	Observed		NO	Comments
	A	NA		
1. <u>Planning the session</u> • Selects relevant session plans from curriculum • Organizes, conducts training in conformity with curriculum (based on observation during the session)				
2. <u>Organizing the session</u> • Arrives before beginning of session • Ensures that all training resources are in place • Ensures that equipment is in working condition • Ensures that training site is set up in accordance with the requirements of the training objective (s) and methodology • Prepared/rehearsed for the training (based on observation of mastery in conducting activities and using resources during training)				

Items	Observed		NO	Comments
	A	NA		
3. <u>Conducting the session</u> **3.1 <u>Introduction</u>** • Introduces self - Name - Job - Experience relevant to topic • Introduces/lets team members introduce themselves • Module: - Introduces topic - Presents objective - Clarifies topic and objectives - Lists sessions - Establishes link with job/task • Session - Introduces topic - Presents objectives - Clarifies topics and objectives - Establishes link with module - Establishes link with preceding session(s) - Explains methodology • Presents evaluation methodology • States estimated duration **3.2 <u>Facilitation skills</u>** Ø **<u>Clarifying</u>** • Makes sure participants are ready before starting on any content item • Makes sure participants can hear: - Trainer - Other participants • Makes sure participants can see: - Writing - Illustrations/ educational aids - Trainer - Each other • Looks at participants • Makes sure s/he can hear participants • Uses appropriate educational material • Summarizes after each content topic before moving to next topic • Uses examples relevant to objectives, content, and participants' learning				

Items	Observed		NO	Comments
	A	NA		
Ø **Ensuring Active Participation** • Asks participants questions • Allows participants to ask questions • Allows/encourages participants to ask questions/discuss/make contributions • Ensures that all participants contribute • Provides participants with opportunities to practice • Adapts to participants' learning capability (speed, learning activities, use of educational materials) • Encourages participants through: - Listening - Letting participants complete their interventions - Refraining from making judgmental statements - Maintaining cordial relationships with participants Ø**Mastering Training** • Conducts the learning activities as per session plan • Uses the training resources/ materials as per plan • Covers content adequately (relevant, clear, concise, complete, concrete, credible, consistent and correct) • Follows curriculum for learning/training activities • Uses content as per curriculum **4. Evaluating learning/training process** • Checks that participants understand • Checks that participants learn skills • Provides supportive feedback by: - Reinforcing positive learning - Correcting any errors - Correcting incomplete learning • Listens to participants comment about his/her performance (without making it personal) • Adapts his/her performance based on feedback from participants • Allows participants to answer questions asked by the group				

Additional comments or observations

Analysis of findings

Action (s) taken

Further action (s) needed

Trainer's comments

Date:

Trainer's name & signature **Supervisor's name & signature**

SYLLABUS/PROGRAM

TRAINING OF PHYSICIANS WORKING IN PHC CENTERS IN SERVICE DELIVERY

INTERPERSONAL COMMUNICATION

REFERRAL AND FOLLOW-UP PROCESS

SELECTED PRACTICES IN INFECTION PREVENTION AND CONTROL

GOALS:

1. To provide the participants with the opportunities to acquire/update the knowledge and skills necessary to:

1.1. Use Interpersonal Communication to improve Information, Education and Counseling

1.2. Use the Referral and Follow-up Process to ensure effective referral of clients

1.3. Implement selected practices in Infection Prevention and Control

2. Provide the participants with opportunities to be exposed to and initiate the development of attitudes favorable to the systematic use of the knowledge and skills acquired to improve the quality of care and services

LEARNING OBJECTIVES:

At the end of the training the participants will be able to:

1. Use the principles and process of Interpersonal Communication to ensure effective information, education and counseling

2. Use the Referral and Follow-up Process to ensure effective referral of clients

3. Implement selected practices in Infection Prevention and Control, i.e. handwashing, gloving, use of antiseptics, decontamination and cleaning in a systematic manner to reduce the risk of cross infection at the level of the Model PHC Centers

4. Explain the importance to use the knowledge and skills acquired in a systematic manner to improve the quality of care and services

CONTENT/TOPICS:

The following content/topics will be covered:

Interpersonal Communication in Information, Education and Counseling

- Concept and principles of Information, Education and Counseling
- The adoption process
- Interpersonal Communication in Information, Education and Counseling

Referral and Follow-up Process

- The Referral Process
- The Follow-up Process

Selected practices in Infection Prevention and Control

- Infection Prevention and Control basics
- Handwashing
- Gloving
- Use of antiseptics
- Decontamination
- Cleaning

METHODOLOGY:

The training will use a participatory and "hands on" approach where the role of the trainers will be to facilitate learning by the participants. The responsibility for learning remains with the participants.

To ensure that this happens, a variety of training methods will be used:

- Individual assignments (e.g. reading assignments…)
- Small-group work and Q/A in plenary
- Small-group work and Q/A in plenary for clarification
- Q/A in plenary for discussion
- Role plays
- Brainstorming
- Training room practice
- Clinic based practice

To assist the participants in going through the learning process, the following reference materials were provided:

- Proposed Syllabus
- Concepts and principles of training and learning
- Handouts from the curriculum and selected modules

All the reference documents will be read by the participants as an individual assignment, clarified in plenary session and small group discussions, and used to prepare, conduct, and evaluate the practical sessions.

SCHEDULE:

1- Workshop

Topics are not covered in the same sequence as they are prepared in the curriculum. This is due to the fact that the IP&C Module requires nine (9) hours of training where as the IPC and Referral and Follow-up require six (6) hours each. Since there are no logical sequencing issues, this day the administrative activities (3 hours), and the IP&C Module (9 hours) are covered during day 1 and 2, the IPC Module (6hours) and the Referral and Follow-up Module (6 hours each) are covered during days 3 and 4 respectively.

The following is a proposed tentative agenda/schedule:

Day 1

- Opening
- Introduction of participants and facilitators
- Orientation to the training
- Infection prevention and control basics

Day 2:

- Handwashing and Gloving
- Use of antiseptics
- Decontamination and cleaning

Day 3:

- Concept and principles of Information, Education and Counseling
- Interpersonal Communication in Information, Education and Counseling

Day 4:

- Referral Process
- Follow-up Process
- Wrap up and evaluation
- Evaluation of the training
- Closing

2- Daily Schedule

The daily schedule will include 6 hours of training room structured activities and/or field activities. Starting and ending times, and specific daily schedules will be discussed and finalized with the participants.

Evening Assignments include continuation of individual reading and of preparation of micro sessions.

EVALUATION:

1. Evaluation of the training

The "end of training" evaluation will be done through a questionnaire whereby the participants are asked to respond and express their opinions about various aspects of the workshop, such as organization, the process, the facilitation, and a general assessment.

The items are labeled in the form of statements followed by a scale 5 (Strongly Agree), 4 (Agree), 2 (Disagree), and 1 (Strongly Disagree), where 5 represents the highest level of satisfaction/confidence (agreement with the statement) and 1 represents the lowest. The participants are asked to select the level that expressed their opinion best. A space for comments is provided after each statement.

Confidence and satisfaction indices are calculated by multiplying the number of respondents by the correspondent coefficient in the scale, then adding the total. The total is multiplied by 100. The product is divided by the total number of respondents to

the statement multiplied by 5. 60% represents the minimal acceptable level and 80% a very satisfactory level of performance.

For example, if the total number of respondents is 19 and 7 of them selected 5 on the scale, 6 selected 4, 4 selected 2, and 2 selected 1, then the index will be (5x7)+(4x6)+(2x4)+(1x2) multiplied by 100, divided by (5X19). A 100% index would if the total number of respondents selected 5. In this case it would be 95. In this example the index is 72.63%.

The confidence index applies to the training objectives and acquisition of skills and knowledge and to the degree to which the participants feel that they are able to apply what they have learned during the training. The satisfaction index applies to the organization and implementation of the training.

The training content and process are evaluated on a continuing basis through daily evaluations using methods such as "things liked the best" and "things liked the least" and/or "quick feedback" forms. The facilitators will use the results of this evaluation during their daily meeting to integrate the feedback and adapt the training to the participants needs.

"Where Are We?" sessions will be conducted with the participants to assess the progress in content coverage and process towards reaching the training goals and learning objectives.

2. Evaluation of the participants

The evaluation of the learning by participants will be done through questions and answers, summaries of sessions done by selected participants, self-assessment following the practice sessions, peer assessment through feedback provided by other participants following the practice sessions and assessment of performance by facilitators.

Each participant will practice the various skills, preferably more than once. Skills checklists will be used both by participants for self and peer assessment, and by the facilitators.

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Section 2

Training Modules

Module 1

Interpersonal Communication
In
Information, Education and Counseling

Module 1: Interpersonal Communication in Information, Education and Counseling

Module Objectives:

At the end of this module, participants will be able to:

1. Explain the principles and procedures necessary to conduct effective communication in Information (I), Education (E), and Counseling (C) activities.

2. Explain why it is important to apply these principles and procedures in systematic manner in conducting I, E, and Counseling activities.

3. Demonstrate the ability to apply the principles and procedures of interpersonal communication to improve the effectiveness of I, E, and counseling activities.

Module Content:

Session 1: Concepts and Principles of I, E, and Counseling

Session 2: Interpersonal Communication in I, E, and Counseling

Duration: 6 hours

Module 1: Interpersonal Communication in I, E and C

SESSION 1: CONCEPTS AND PRINCIPLES OF INFORMATION, EDUCATION AND COUNSELING

Session Objectives

At the end of the session, the participants will be able to:

1. Distinguish between information, education and counseling in terms of objectives and process.
2. Describe the role of information, education and counseling in the adoption process.

Trainer preparation

- Review the reading material and the session plan
- Prepare, as appropriate and recommended in the method column of the session plan, slides or overhead transparencies, or write the information on a flipchart or board where all participants can see them
- Prepare copies of the reference material/handout
- Arrange training room

Methods and activities

Demonstration, discussion in plenary session, participatory presentation, questions and answers for clarification

Resources

- Reference material/handout: Concept and Principles of Information, Education and Counseling
- Resources described under trainer preparation

Evaluation/assessment

Questions and answers, summary

Trainer:

Trainer experienced in I, E, and Counseling

Estimated training time

1 hour 30 minutes

SEESION PLAN

Objective	Content	Learning/Training Methods and Activities
1. Distinguish between Information, Education, and Counseling in terms of objective and process for each of the 3 concepts . (45 minutes)	**1. Definition of Information, Education, and Counseling** **Information** The process whose objective is to transfer knowledge from sender to receiver. • Process: one way communication • Objective: to transfer knowledge **Education** The process by which there is an exchange of messages between two or more people in order to make a decision • Process: two-way communication • Objective: decision making **Counseling** The process by which there is an exchange of messages between a provider and client(s) intended to facilitate or confirm informed and voluntary health decision making and the implementation of decisions by the client(s) • Process: two-way communication • Objective: To facilitate decision-making and implementation of decisions Counseling Tasks: • Helping clients to assess their needs • Providing appropriate information • Assisting clients in making voluntary decisions • Helping clients develop needed skills	**Role Play** 1. Using volunteer participants, create a 5-minute role-play demonstration of each of the following: • An information session • An education session • A counseling session 2. Do not tell participants what these demonstrations represent 3. Ask participants to observe the objectives and the process of each demonstration **Discussion in plenary session** 1. Lead discussions by asking participants to present their observations about the distinguishing elements: • Objectives • Process 2. Write the observations on newsprint in three columns, one for each demonstration 3. If using chalkboard, do not erase any points until end of discussion and consensus 4. Lead a brief discussion of each column 5. Ask participants which demonstration corresponds to: • Information • Education • Counseling 6. Leads a brief discussion of each definition **Summary for Evaluation** 1. Trainer asks participant(s) to summarize content of session objective 1 2. If correct and complete, reinforce 3. If incorrect/incomplete, ask other participants 4. After 2 or 3 trials, corrects/complete as needed

Objective	Content	Learning/Training Methods and Activities
2. Describe the role of I, E and C in the adoption process (45 minutes)	**2.1 Definition of the adoption process** The process by which people decide to try on new health behaviors and/or practices and either adopt or reject them **2.2 Stages in adoption process** 1. Awareness • A problem/ issue exists 2. Sensitization • How does it affect me? • Why should I be concerned? The problem concerns me either directly or indirectly. 3. Motivation • Risks in not acting on the problem • Advantages of acting on the problem • Existence of accessible/applicable solution(s) 4. Action • 1st trial • 1st evaluation of 1st trial • 2nd trial • 2nd evaluation • Adoption or rejection **3. Roles of I, E, and C to the adoption stages** 1. Information as knowledge is necessary for all stages 2. Information as a process to transfer knowledge is best suited for the 1st stage to create awareness 3. Education is best suited to sensitization and start motivation 4. Counseling is best suited for motivation and action	**Questions and answers for clarification** 1. Display pre-written definition, stages and links to I, E, C 2. Ask one participant to read through pre-written definition and stages 3. Ask participants for any questions for clarification 4. In case of any questions, ask a volunteer participant to answer • If the answer is correct, reinforce. • In case the answer is incomplete and/or incorrect, ask another participant to complete or correct 5. If after 3 to 4 trials the participants' answers are still incomplete and/or incorrect, provide complete and/or correct information 6. Distribute a handout on definition, stages and relationship of I, E, and C to the stages **Summary for Evaluation** 1. Cover (hide) the definition, stages and linkages on newsprint 2. Ask participant(s) to summarize content of session objectives 1 and 2 3. Reinforce, if correct and complete. 4. If incorrect/incomplete, ask other participants 5. After 2 or 3 trials, correct/complete

REFERENCE MATERIAL

MODULE 1: INTERPERSONAL COMMUNICATION IN I, E AND C

SESSION 1: CONCEPTS AND PRINCIPLES OF INFORMATION, EDUCATION AND COUNSELING

1. Definitions of information, education, and counseling

1.1 Information: The process whose objective is to transfer knowledge from sender to receiver

- *Process*: one way communication
- *Objective*: to transfer knowledge

1.2 Education: The process by which there is an exchange of messages between two or more people in order to make a decision

- *Process* : two-way communication
- *Objective*: to make decision whether to act or not

1.3 Counseling: The process by which there is an exchange of messages between a provider and client(s) intended to facilitate or confirm informed and voluntary health decision making and the implementation of decisions by the client(s)

- *Process*: two-way communication
- *Objective*: to facilitate decision-making and implementation

When providing counseling, a health care worker is responsible for:

- Helping clients to assess their own needs for a range of health services, information, and emotional support
- Providing information appropriate to clients' identified problems and needs
- Assisting clients in making their own voluntary and informed decisions
- Helping clients develop the skills they will need to carry out those decisions (EngenderHealth 2003)

2. The adoption process

2.1 Definition

The process by which people decide to try on new health behaviors and/or practices and either adopt or reject them

2.2 Stages of the adoption process

1) Awareness
2) Sensitization
3) Motivation
4) Action

2.3 Relationship between the stages and outcomes

Awareness

Person becomes aware that a problem/an issue exists

Sensitization

Person realizes:

- How the problem/issue affects him/her
- That he/she should be concerned

Person becomes convinced that the problem:

- Concerns him/her directly
- Concerns him/her indirectly

Motivation

Person is convinced of:

- The risks in not acting on the problem
- The advantages of acting on the problem
- The existence of accessible solution(s) to him/her

Action

Person takes concrete steps for:

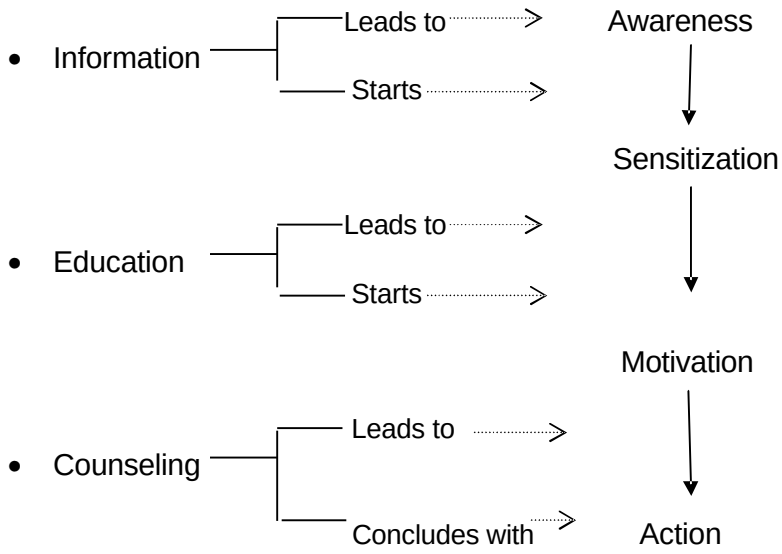
- 1st trial of the solution(s)
- Evaluation of 1st trial
- 2nd trial of the solution(s)
- Evaluation of the 2nd trial
- Adoption or rejection

Note

- If the results of 2nd trial are positive person adopts the solution(s)
- If results are negative person rejects the solution(s) and looks for alternatives

3. The roles of I, E, and C in the stages of the adoption process

- Information as knowledge is necessary at all stages
- Information as the process to transfer the knowledge is best suited for the 1st stage to create awareness
- Education is best suited to sensitization and starts motivation
- Counseling is best suited for motivation and action



MODULE 1: INTERPERSONAL COMMUNICATION IN I, E AND C

SESSION 2: INTERPERSONAL COMMUNICATION IN INFORMATION, EDUCATION AND COUNSELING

Objectives

At the end of the session, participants will be able to:

1. Demonstrate the ability to apply the principles and procedures of interpersonal communication for effective Information, Education and Counseling.

Trainer preparation

- Review the reading material and the session plan
- Prepare, as appropriate and recommended in the method column of the session plan, slides or overhead transparencies, or write the information on a flipchart or board where all participants can see them
- Prepare copies of the reference material/handouts and the skills checklist
- Arrange training room

Methods and activities

Role play/demonstration, discussion in plenary session, exercise in plenary, exercise in pairs, interactive presentation, questions and answers for clarifications, role play/training room practice

Resources

- Reference material/handout: Interpersonal Communication in I, E, and Counseling
- Resources described under trainer preparation

Evaluation/assessment

Questions and answers, summary, observation during training room practice using the Interpersonal Communication skills checklist

Trainer:

Trainer experienced in I, E, and Counseling

Estimated training time

4 hours 30 minutes

SEESION PLAN

Objective	Content	Learning/Training Methods and Activities
1. Define the communication process 2. Describe the elements of the communication process (30 minutes)	**1. Definition of the communication process** The process by which individuals exchange information, ideas, and/or feelings in order to produce an effect or reaction **2. Elements of the communication process** 2.1 The sender • Idea • Coding • Transmission 2.2 The receiver • Reception • Decoding • Idea/effect • Feedback	**Role Play** 1. Ask 2 participants to role-play a meeting between a provider and a client for 5 to10 minutes. 2. Do not specify the topic of the meeting ; let participants choose a topic based on their prior experience. 3. Ask the rest of the participants to observe and note their observations as to the process. **Discussion in plenary session** 1. Ask participants to present their observations 2. Write observations on the newsprint (do not allow discussion at this point) 3. Lead discussion of the observations and ask participants to regroup the answers 4. Lead participants in identifying the elements of the communication process 5. Continue discussion until end of discussion and consensus is reached **Summary for Evaluation** 1. Ask participant(s) to summarize content of objectives 1 and 2 2. If correct and complete, reinforce 3. If incorrect/incomplete, ask other participants 4. After 2 or 3 trials correct/complete

Objective	Content	Learning/Training Methods and Activities
3. Describe the relationship between the elements (30 minutes)	**3. <u>Relationships between elements</u>** • There is a sequential relationship • Obstacles to effective communication can arise at any of the elements • Any obstacle in any of the elements will affect the following ones • If any of the elements is affected it reduces the effectiveness of the communication • Feedback reflects whether communication has been effective or not	**<u>Exercise in plenary</u>** 1. Ask 10 volunteer participants to stand in a line 2. Ask other participants to observe the other participants who are in line 3. Whisper a pre-written message to the first participant in line 4. Do not repeat, clarify or answer any question of any kind 5. Ask participant to relay the message to the person next to him/ her, until the message reaches the last one in line 6. Ask participants not to repeat, clarify or answer any question of any kind 7. Ask the last participant to say the message loudly 8. Ask the first participant to read the original message loudly **<u>Discussion in plenary</u>** 1. Lead participants in a discussion to identify the differences between the last and the original message 2. Ask participants to identify reasons for differences and which element (s) of the process is/are in question **<u>Summary for Evaluation</u>** 1. Ask participant(s) to summarize content of objective 3 2. If correct and complete, reinforce 3. If incorrect/incomplete, ask other participants 4. After 2 or 3 trials, corrects/complete. 5. Distribute handout on relationships between the elements

Objective	Content	Learning/Training Methods and Activities
4. Identify factors that influence effective communication 5. List techniques to improve communication (30 minutes)	**4. Factors that influence communication** • Process - One way - Two ways • Focus - Full attention - Distractions/disruptions • Verbal and non-verbal • Environment/conditions: - Privacy - Physical (place, seating…) - Psychological (pressures...) • Personal perceptions/values **5. Techniques to improve communication** • Active listening • Using language client will understand • Speaking at pace appropriate for client • Reinforcement (Positive/negative...) • Use of educational materials and aids • Asking clients to repeat instructions or information • Use of effective questioning technique • Paraphrasing/summarizing	**Role Play/demonstration** 1. With another trainer or a volunteer participant, present a brief role-play of 2 people discussing a problem 2. The role-play should demonstrate aspects/factors that impact on communication such as: • interrupting, misinterpreting • not listening attentively • misunderstanding/interpretation • non-verbal communication • disruptions • setting • pressures **Discussion in Plenary Session** 1. After the role play, ask participants to identify the factors that interfered with communication 2. Write responses on board 3. Complete the list with items from content column of session plan, as needed 4. Lead a brief discussion on each of the factors 5. Summarize discussions 6. Explain to participants that the ability to communicate effectively can be learned 7. Explain that the following parts of the session will cover the techniques/skills **Summary for Evaluation** 1. Ask participant(s) to summarize content of objectives 4 and 5 2. If correct and complete, reinforce 3. If incorrect/incomplete, ask other participants 4. After 2 or 3 trials, corrects/complete

Objective	Content	Learning/Training Methods and Activities
6.Explain active listening in interpersonal communication (30 minutes) 7. Explain the importance of non-verbal communication in interpersonal communication (30 minutes)	**6. Active Listening** 6.1 Is an active process that allows you to and shows that: • You hear • You understand • Adapt the response to what you hear and understand 6.2 We listen actively/ effectively by: • Concentrating on the client • Being interested in what is being said • Paying attention • Avoiding distractions • Being patient • Avoiding interrupting the client • Showing interest (by nodding, smiling, leaning toward client) • Paraphrasing and summarizing **7. Non-verbal Communication** • All forms of communication that do not use words (examples: facial expression, body language...) • Plays an important role in inter-personal communication • Often non conscious • Needs to be synchronized with verbal communication • As providers interacting with clients, participants need to be aware that: - Clients communicate non verbally - They communicate non-verbally to clients	**Pairs Exercise** 1. Instruct participants to divide into pairs. Ask each pair to decide on a speaker and a listener 2. Give the pairs the following task: Tell the speaker to speak non-stop about a problem for 2-3 minutes; the listener should not say anything. After the speaker is finished, the listener should repeat what the speaker said. The pairs should switch roles and repeat the exercise **Discussion in Plenary Session** After the exercise, discuss the following questions in the large group: 1. How did it feel to talk for several minutes without being interrupted? 2. Did the listener find it difficult to listen? "Why"? 3. Did the listener repeat correctly what was said? **Summary for Evaluation** **Exercise in Plenary Session** 1. Make a facial expression suggestive of being annoyed 2. After about 30 seconds, ask participants to describe what they think you were feeling 3. Possible responses would include bored, irritated, annoyed, disapproving or uninterested **Role Play** 1. Ask two participants (volunteers) to act out a brief role play on non-verbal communication 2. After the role-play, discuss what techniques the listener used to communicate non-verbally (include eye contact, posture, nodding, encouraging sounds) **Summary for Evaluation**

Objective	Content	Learning/Training Methods and Activities
8. Explain the importance of paraphrasing and summarizing in interpersonal communication (20 minutes)	**8. <u>Paraphrasing/summarizing:</u>** Repeating back to the "client" what you heard him/her say in • Other words is paraphrasing • Short form is summarizing Helps: • Make sure you understand correctly • Show you are paying attention and listening • Clarify what the client is saying so you can prepare relevant response • Refocus the exchange	**<u>Role Play:</u>** 1. Ask for a volunteer for a role play 2. Instruct the volunteer to play the role of a woman who has come to a PHC center to find out about using family planning. As the trainer, you will play the role of the service provider 3. Paraphrase and summarize what the client says to you as much as possible 4. After the role play, discuss what participants noticed about the way the service provider was communicating 5. Introduce and define the terms paraphrasing and summarizing 6. Lead a discussion in plenary on how these help improve communication **<u>Summary for Evaluation</u>**
9.Describe at least 5 signs of being comfortable (10 minutes)	**9. <u>Signs of "being comfortable"</u>** • Freely asks questions • Freely responds to questions • Is at ease and calm • Maintains eye contact • Does not laugh continuously/nervously • Does not fidget or squirm • Does not look around to see who else might be listening	**<u>Questions and Answers in Plenary</u>** **<u>Summary for Evaluation</u>**

Objective	Content	Learning/Training Methods and Activities
10. Describe the interpersonal communication elements and skills that can help prevent rumors and misinformation from starting and/or dispel existing ones (30 minutes)	**10. Rumors and misinformation** **10.1 Rumor:** A rumor is a false statement that has been passed along from person to person until no one remembers who started it. Often the information changes as it moves from one person to another. Even if the information was correct to begin with, it becomes distorted until no longer correct **10.2 Misinformation:** Incorrect information or wrong interpretation of information **10.3 Causes:** • Inadequate information • Deliberate rumors • Dissatisfied clients • Illiteracy leading to distortion **10.4 Preventing rumors:** • Give clear and complete information • Consistent information • Encourage clients to ask questions • Give honest responses **10.5 Steps in dispelling rumors and misinformation:** • Obtain correct information • Discover origin of rumor/misinformation • Understand the basis • Act quickly • Provide correct information	**Discussion in plenary** 1. Ask participants the meaning of rumor and misinformation 2. Write the responses on newsprint 3. After 5 responses for each term, facilitate a discussion about the responses, highlighting areas of agreement and discussing areas of disagreement, to identify a common meaning for each of the terms **Interactive Presentation** 1. Present information on causes and prevention of rumors and misinformation **Questions and answers for clarification** 1. Allow participants to ask questions for clarification 2. In case of question(s), ask other participants to answer 3. Reinforce correct responses 4. In case of incorrect answers, ask other participants to try answering 5. After 2-3 trials, complete or give correct answer(s) **Summary for Evaluation**

Objective	Content	Learning/Training Methods and Activities
11. Demonstrate the ability to apply the principles and procedures of interpersonal communication for effective Information, Education and Counseling (60 minutes)	**All module content**	**Role play** (Training room practice) an education session with a client : 1. Ask participants to break up into small groups of no more than 8 people. Distribute skills checklists 2. One participant plays the role of the client while another is the provider 3. Ask participant who plays the role of the provider to choose a topic with which s/he is familiar 4. The other participants in the group should observe the role play using the content covered during sessions 1 and 2 5. The observers should use their knowledge of what constitutes effective client provider interaction skills and the skills checklist to evaluate the role play 6. After the observers provide feedback to the actors in the role play, the members of the group should switch roles and do the exercise again, until each participant has practiced **Summary for Evaluation** 1. Ask participant(s) to summarize content of Session 2 2. If correct and complete, reinforce 3. If incorrect/incomplete, ask other participants 4. After 2 or 3 trials, correct/complete

REFERENCE MATERIAL

MODULE 1: INTERPERSONAL COMMUNICATION IN I, E AND C
SESSION 2: INTERPERSONAL COMMUNICATION IN INFORMATION, EDUCATION AND COUNSELING

1. Definition of communication

The process by which individuals exchange information, ideas, and/or feelings in order to produce an effect or reaction.

2. Elements of the communication process

The sender	The person who is transmitting a message	
	Idea	A thought in the sender's mind
	Coding	Putting the idea into a form (word, picture, sample) that can be transmitted
	Transmission	Process, procedures and channels used to send the message to a receiver
Receiver	The person to whom the message is sent	
	Reception	Process, procedures and channels by which a person gets the message
	Decoding	Analyzing and interpreting the message to give it a meaning
	Idea, effect	A thought resulting from the decoding
	Feedback	A return message from the receiver to the sender that shows whether the communication has been effective (produced desired effect) or produced an effect different from the desired one.

3. Relationship between the elements of the communication process

- There is a sequential relationship between the elements.

SENDER RECEIVER

Idea ---Ø Coding ---Ø Transmission ---Ø Reception ---Ø Decoding ---Ø Idea/Effect

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Feedback

- Obstacles of effective communication can arise at any of the elements
- An obstacle in any element will affect the elements that follow, reducing the effectiveness of the communication
- Feedback reflects whether communication has been effective or not
- The process is not static. The original sender becomes the receiver when getting feedback and the receiver becomes the sender when sending feedback
- The original sender reinforces the message and/or corrects when reacting to the feedback

4. Factors that influence effective communication

1. **Process**

   Communication travels in two directions. There is a sender and a receiver of all messages

2. **Focus**

   For communication to be clear, both the sender and receiver must give their full attention. Distractions can be very disruptive and result in faulty communication

3. **Verbal and non verbal communication**

   - Communication is both verbal and non-verbal. Verbal communication includes tone of voice as well as the words used.
   - Non-verbal communication includes the actions (or sometimes the lack of actions) of all parts of the body: for example, facial expressions, posture, hand gestures, changes in appearance such as blushing or sweating, activity level, touch, eyes etc.
   - Indirect non-verbal behavior can also send a strong message, for example, how we dress, how we care for our own health, the spacing of our families, if we are organized or not, etc.

4. **Environment/ conditions**

   Includes degree of privacy, physical setting, and psychological pressures.

5. **Personal perceptions and values**

   Listening to responses and observing reactions (including one's own) during communicating is important. Be sensitive.

5. Techniques to improve communication

1. Practice active listening. (More on this on next page.) This includes paraphrasing/summarizing, demonstrating that you are attentive and interested through verbal and non-verbal expressions (maintaining eye contact, nodding of head, etc.), and avoiding interrupting.
2. Be patient.
3. Use language that client will understand and speak at a pace appropriate for the client
4. Use questions effectively. There are several kinds of questions:

   Ø Open ended questions:
   - For example *"How can I help you?"*
   - Uses:
     - To encourage conversation
     - To gather more information
     - To give more opportunity for people to express feelings

   Ø Closed ended questions:
   - For example *"How many children do you have?"*
   - Uses:
     - To obtain brief answers and conserve time
     - To help focus the response to questions
     - To clarify information

   Ø Probing questions:
   - For example: *"Can you tell me more about your headaches?"*
   - Uses:
     - To encourage more in-depth information
     - To obtain more specific information about issues

5. Use visual aids, including samples whenever possible, especially when instructing or giving information.
6. Ask the client to repeat instructions/information (and to demonstrate skills as appropriate) to assess whether the information was communicated well and understood by the client.
7. Word statements in a positive way whenever possible, because most people respond better to positive statements. For example, “Most children feel very good when take this medication,” (positive) and “Only a few children feel sick when taking this medication” (negative).
8. Use praise and positive reinforcement when the client shows that he/she is learning well or trying to accept new behaviors and practices.

6. Active Listening

A powerful communication technique that helps you to hear and understand the client, and adapt your responses appropriately. It includes:

- Maintaining eye contact as culturally appropriate
- Being attentive (not doing other things at the same time)

- Not interrupting
- Showing interest (by nodding, smiling, leaning toward client)
- Paraphrasing and summarizing (see details below)

7. Non-verbal communication

- All forms of communications that do not use words: facial expressions, body language, gestures, etc.
- Plays an important role in interpersonal communication.
- Is often communicated without a person being aware of what they are communicating.
- Needs to be congruent with verbal communication.
- Providers need to be aware of their non-verbal communication and that of clients.

8. Paraphrasing/summarizing

- Paraphrasing is repeating back to the client what you hear him/her say, using your own words.
- Summarizing is repeating back to the client what you heard, in shortened form.
- These techniques help:
  - Make sure you understand correctly
  - Show you are paying attention/listening
  - Clarify what the client is saying so you can prepare relevant response
  - Refocus the exchange

9. Signs of "being comfortable"

To effectively promote an idea, a service or a method, the service provider needs to think about how comfortable he/she is in discussing these topics. The more comfortable one feels, the better they will be able to assist clients. How you feel will be communicated to the client, often non-verbally. The service provider needs to make sure that the client is also comfortable. How can you tell if your client is comfortable and how can your client tell that you are comfortable in discussing a certain topic? These are some of the signs that a person is comfortable:

1) Freely asks questions
2) Freely responds to questions
3) Is at ease and calm
4) Maintains eye contact
5) Does not laugh continuously/nervously
6) Does not fidget or squirm
7) Does not look around to see who else might be listening

10. Rumors and misinformation

10.1 Rumor

A rumor is a false statement that has been passed along from person to person until no one remembers who started it. Often the information changes as it moves from one person to another. Even if the information was correct to begin with, it becomes distorted until it is no longer correct.

10.2 Misinformation

Incorrect information or incorrect interpretation of information

10.3 Causes of rumors and misinformation

- Inadequate or inaccurate information by provider or clinic and hospital staff
- Deliberate rumors by influential people who oppose the type of service provided
- Dissatisfied clients
- Illiteracy, which causes people to communicate mostly by word of mouth. After passing through a few people, the original information gets distorted

10.4 Preventing rumors from starting

1. Communicate information clearly and completely
2. Encourage clients to ask questions
3. Give consistent information and in easily understood language to avoid misunderstanding
4. Give accurate information. Be very honest. If you do not know the answer to a question, say so, and try to get the correct information

10.5 Dispelling rumors and misinformation

1. Obtain correct information
2. Try to discover the origin of the rumor. Is it very common or widespread?
3. Try to understand the "logic" or basis for the rumor
4. Once you have this information, try to act quickly to correct the misinformation
5. Provide correct information through:
    - Discussions with clients
    - Consumer brochures and product instruction sheets
    - Role modeling
    - Public media

SKILLS CHECKLIST: Interpersonal Communication

Participant Name: **Date:**

Evaluator name:

Evaluator signature:

Instructions

- **Observe participant performing the skill**
- **Place a v in the column indicating the step was performed correctly**
- **If the step was not performed correctly, give feedback on errors and add comments in the appropriate column**

Steps	Check	Comments
1. Pays attention to factors that influence Communication • Process - One way - Exchange • Focus - Full attention - Distractions/disruptions • Environment/conditions: - Assures privacy - Arranges physical space (place, seating…) - Psychological (pressures...) • Appropriate techniques to ensure effectiveness of communication - Active listening - Understandable language - Speaks at appropriate pace - Reinforcement - Use of educational materials and aids - Asks clients to repeat - Instructions/information - Clarifying perceptions/values		

Steps	Check	Comments
2. Listens actively/effectively by: • Concentrating on the client • Showing interest in what is being said • Paying attention (not doing other things at same time) • Avoiding distractions • Being patient • Avoiding interrupting the client		
3. Demonstrates appropriate non-verbal behaviors : • Nods, smiles, leans toward client • Appropriate eye contact, is calm and at ease		
4. Uses, to assess effectiveness of communication: • Paraphrasing • Summarizing • Asking questions		
Performs skills successfully		

Module 2

Referral and Follow-up Process

Module 2: Referral and Follow-Up Process

Module Objectives:

At the end of the module the participants will be able to:

1. Demonstrate the skills necessary to refer clients using referral general procedures and tools
2. Demonstrate the skills necessary to follow up clients using general procedures and tools

Module Content:

Session 1: Referral Process

Session 2: Follow-up Process

Duration: 6 hours

Module 2: Referral and Follow-Up Process

SESSION 1: REFERRAL

Session Objectives

At the end of the session, the participants will be able to:

1. Demonstrate the skills necessary to refer clients using the steps in the referral process

Trainer preparation

- Review the reading material and the session plan
- Prepare, as appropriate and recommended in the method column of the session plan, slides or overhead transparencies, or write the information on a flipchart or board where all participants can see it
- Arrange training room for plenary session
- Arrange training room/space for training room practice in small groups

Methods and activities

Brainstorming in plenary, discussion in plenary session, questions and answers for clarification, role play/training room practice

Resources

- Reference material/handout: Referral
- Resources described under trainer preparation
- Other:
  - Newsprint/flip chart
  - Markers
  - Masking Tape
  - Newsprint with pre-written definition of the referral process

Evaluation/assessment

Questions and answers, summary, observation during training room practice using referral skills checklist

Trainer:

Trainer experienced in referral and follow-up

Estimated training time

3 hours 30 minutes

SESSION PLAN

Objective	Content	Learning/Training Methods and Activities
1. Define referral (30 minutes)	**1. <u>Definition of referral</u>** A procedure in which a service provider sends client whose needs she/he cannot handle at her/his level to the most appropriate service delivery point, where the client can get the required service	**<u>Brainstorming in plenary</u>** 1. Ask an open-ended question about the definition of referral 2. Participants give their answers or ideas: • Until no more ideas are generated, or until every participant has a chance to contribute or time allocated has run out • No ideas are discarded, criticized or analyzed, but clarifying questions can be asked 3. Record ideas on newsprint or in another format where all can see them 4. Lead a discussion of each of the ideas generated 5. Clearly mark ideas that are agreed upon. 6. Summarize or ask participants to summarize points of agreement 7. Display pre-written definition and ask one participant to read it
2. Explain the importance of referral by giving at least three reasons for referral (45 minutes)	**2. <u>Reasons for referral</u>** • Client needs professional advice on health and other issues • Client requires services not available at the provider's level • Client experiences side effects and/or complications resulting from a service and/or treatment received at the provider's level • Client requests it and maintains his/her request after I, E and counseling	**<u>Small group discussion</u>** 1. Divide participants into small groups to identify and discuss reasons for referral 2. Ask groups to spend about 10 minutes discussing the topic and to write their answers on flip-chart paper **<u>Discussion in plenary</u>** 1. After 10 minutes in the small groups, ask participants to assemble in plenary session 2. Each group presents the outputs of their discussion before any discussion in plenary 3. Allow only clarification questions 4. After all the groups have presented, lead a discussion, focusing on the points of agreement before moving to the differences Note: If time does not allow each group to present, one group can present and the other complete before discussion starts **<u>Summary for Evaluation</u>**

Objective	Content	Learning/Training Methods and Activities
3. Identify referral points within provider's area of coverage (30 minutes)	**3. <u>Referral points</u>** (will vary depending on geographical area of operation) Referral can be to: • A health facility (hospital, clinic?) servicing the program • Nearest government facility to catchment area or other available service providers • Other	**<u>Brainstorming in plenary</u>** 1. Ask an open ended question about referral points 2. Participants give their answers or ideas: • Until no more ideas are generated, until every participant has a chance to contribute or time allocated has run out • No ideas are discarded criticized or analyzed, but clarifying questions can be asked 3. Record ideas on newsprint or in another format where all can see them 4. Lead a discussion of each of the ideas generated 5. Clearly mark ideas that are agreed upon **<u>Summary for Evaluation</u>**
4. Explain the importance of steps in the referral process to ensure an effective referral (45 minutes)	**4. <u>Preparing and conducting referrals</u>** Referral Procedure Steps 1. Screen/filter clients: • Put the client at ease • Collect information from client • Analyze and interpret information • Decide where to refer 2. Prepare client for referral: • Explain the reasons for referral • Explain where he/she is being referred • Explain the expected procedure(s) the client is likely to go through at the referral site • Explain the terms of service • Inform the client about the date, day and time of availability of services • Allow client to express her/his concerns/questions • Answer and/or respond to the concerns/questions	**<u>Discussion in plenary</u>** 1. Distribute a handout on the steps of preparing and conducting a referral 2. Ask a volunteer to read the steps 3. Facilitate a discussion, explaining one step at a time and allowing participants to ask questions 4. In case of questions ask other participants to answer 5. Reinforces correct responses 6. In case of incorrect and/or incomplete answers, ask other participants to answer 7. After 2-3 trials, give the correct answer and/or complete answers **<u>Summary for Evaluation</u>**

Objective	Content	Learning/Training Methods and Activities
	3. Conduct the referral • Fill in a referral form • Give the completed form to the client • Give client feedback form to referred client at the same time • Tell client to return signed feed back form to you (if applicable) • Ask client questions to make sure that he/she has the correct information 4. Ensure effective referral • Decide if the client needs escort to or needs to be met at the referral point • Prepare escort if required • Check at the point of referral • Register the referral outcome • Plan for a follow-up	
5. Demonstrate skills necessary to refer clients using referral procedures and tools/ forms in their program/ project (60 minutes)	**All session content**	**Role-play** a referral situation with a client: (training room practice) 1. Ask the participants to break up into small groups of 4 to 6 people. Distribute skills checklist 2. One person plays the role of the client while another is the provider 3. Ask participant who plays the role of the provider to choose a familiar topic 4. The other participants in the group should observe the role play using the content covered during session 1 and 2 5. The observers should use their knowledge of what constitutes effective client provider interaction skills and the skills checklist to evaluate the role play 6. After the observers provide feedback to the actors in the role play, the members of the group switch roles and do the exercise again until every participant has had a chance to practice **<u>Summary for Evaluation</u>** 1. Ask participant(s) to summarize content of session objectives 2. Reinforce correct responses 3. In case of incorrect and/or incomplete answers, ask other participants to answer 4. After 2-3 trials, give the correct answer and/or complete answers

REFERENCE MATERIAL

Module 2: Referral and Follow-up Process

SESSION 1: REFERRAL

1. Definition

An act whereby a service provider sends client whose needs she/he cannot handle at her/his level to the most appropriate service delivery point where she/he can get the required service, using the correct procedure

2. Reasons for referral:

- Client needs professional advice on health and other issues.
- Client requires services not available at the provider's level
- Client experiences side effects and/or complications resulting from a service and/or treatment received at the provider's level
- Client requests it and maintains his/her request after I, E and Counseling

3. Where to refer:

- A health facility servicing the program;
- Nearest government facility to catchment area or other available service providers
- Other, for example private service delivery point where applicable

4. Referral process steps (see details in handout on next page)

1. Screen/filter clients
2. Prepare client for referral
3. Conduct the referral
4. Ensure effective referral

Referral Process Steps

1. Screen/filter clients

1.1 Put the client at ease.
1.2 Collect information from client.
1.3 Analyze and interpret information.
1.4 Decide where to refer.

2. Prepare client for referral

2.1 Explain to the client the reasons why she/he is being referred including the benefits of referral.
2.2 Explain where he/she is being referred.
2.3 Explain the expected procedure the client is likely to go through at the referral place according to the problem at hand.
2.4 Explain the terms of service including service charge if any and mode of payment.
2.5 Inform the client about the date, day and time when services would be available, and the travel arrangements.
2.6 Allow client to express her/his concerns/questions.
2.7 Answer or respond to client's concerns/ questions.

3. Conduct referral

3.1 Fill in a referral form specifying the reason(s) for referral.
3.2 Give the completed form to the client and ask her/him to present the card to the service provider at the referral site.
3.3 Give client a client feedback form, with instructions to present it to the referral service provider to fill in and sign.
3.4 Tell client to return the signed feed back form to you for verification, if applicable.
3.5 Ask client questions to make sure that he/she has the correct information
- if complete and/or correct, reinforce;
- if incomplete and/or incorrect give complete and correct information.

3.6 Record the appropriate information in the relevant record.

4. Ensure effective referral

4.1 Decide if the client needs escort to or to be met at the referral point.
4.2 Prepare escort if required.
4.3 Ask client to return the form upon return from referral point if escort is not required.
4.4 For clients who do not return the feedback form, check at the point of referral on a regular basis to determine if the referred clients were attended to and what was recommended or done for them.
4.5 Register the referral outcome e.g. successful or defaulted.
4.6 Plan for a follow-up of clients to encourage defaulters to make referral visits and for those who went for referral, find out how they are doing.

SKILLS CHECKLIST: REFERRAL PROCESS

Participant Name:

Evaluator Name:

Evaluators Signature: **Da te:**

Instructions

- **Observe participant performing the skill**
- **Place a v in the column indicating the step was performed correctly**
- **If the step was not performed correctly, give feedback on errors and add comments in the appropriate column**

Steps	Check	Comments
1. Screens/filters clients for referral • Puts the client at ease • Collect information from client • Analyzes and interpre ts information • Decides where to refer 2. Prepares client for referral • Explains to the client the reasons for referral • Explains where he/she is being referred • Explains the expected procedure the client is likely to go through at the referral site • Explains the terms of service • Informs the client about the date, day and time • Allow clients to express her/his concerns/questions • Answers the questions and/or responds to concerns		

Steps	Check	Comments
3. Conducts referral • Fills in a referral form • Gives the completed form to the person being referred • Gives client feedback form • Tells client to return the signed feedback form (if applicable) • Asks client questions to make sure that he/she has the correct information • Records information in the relevant record		
4. Ensures effective referral • Decides if the client needs escort to or be met at the referral point • Prepares escort if required • Asks client to return the form upon return from referral point (if applicable) • Checks at the referral site • Registers the referral outcome • Plans for a follow-up		
Performs skills successfully		

Module 2: Referral and Follow-Up Process

SESSION 2: FOLLOW-UP

Session Objective

At the end of this session, the participants will be able to demonstrate:

1. Demonstrate the skills necessary to follow-up clients using the steps in the follow-up process

Trainer preparation

- Review the reading material and the session plan
- Prepare, as appropriate and recommended in the method column of the session plan, slides or overhead transparencies, or write the information on a flipchart or board where all participants can see it
- Arrange training room for plenary session
- Arrange training room/space for training room practice in small groups

Methods and activities

Brainstorming in plenary, discussion in plenary session, small group discussion, questions and answers for clarification, role play/training room practice

Resources

- Reference material/handout: Follow up
- Resources described under trainer preparation
- Other:
  - Newsprint/flip chart
  - Markers
  - Masking Tape
  - Newsprint with pre-written definition of the follow up process

Evaluation/assessment

Questions and answers, summary, observation during training room practice using follow up skills checklist

Trainer:

Trainer experienced in referral and follow-up

Estimated training time

2 hours 30 minutes

SESSION PLAN

Objective	Content	Learning/Training Methods and Activities
1. Define "follow-up" (30 minutes)	**1. Definition** Any planned, post-service contact between a service provider and a client	**Brainstorming in plenary** 1. Ask an open-ended question about the definition of follow-up 2. Participants give their answers or ideas: • Until no more ideas are generated, or until every participant has a chance to contribute or time allocated has run out • No ideas are discarded, criticized or analyzed, but clarifying questions can be asked 3. Record ideas on newsprint or in another format where all can see them 4. Lead a discussion of each of the ideas generated 5. Clearly mark ideas that are agreed upon 6. Summarize or ask participants to summarize points of agreement 7. Display pre-written definition and ask one participant to read it
2. Explain the importance of follow-up by giving at least 7 reasons for conducting follow -up (30 minutes)	**2. Reasons for follow-up** • To find out if clients on medication are using it correctly • To find out if clients on treatment are experiencing any problems • To manage identified situations or side effects • To find out if referred clients went to the referral site for services • To maintain/retain clients in the program • To bring clients who have defaulted or dropped out back into the program • To ensure that the person referred has received the appropriate services referred for • To ensure client satisfaction	**Small group discussion** 1. Divide participants into small groups to identify and discuss reasons for follow-up 2. Ask small groups to spend about 10 minutes discussing the topic and to write their answers on flip-chart paper **Discussion in plenary** 1. After 10 minutes in the small groups, ask participants to assemble in plenary session 2. Each group presents the outputs of their discussion before any discussion 3. Allow only clarification questions 4. After all the groups have presented, lead a discussion 5. Focus on the points of agreement before moving to the differences **Note:** If time does not allow each group to present, one group can present and the others complete before discussion starts **Summary for Evaluation**

Objective	Content	Learning/Training Methods and Activities
3. Describe the steps to: 3.1 Prepare a follow-up visit 3.2 Conduct follow-up 3.3 Record follow-up (30 minutes)	**3.1 Prepare for follow-up** • Identify clients who require follow-up • Prepare a list of clients identified, categorizing them by reason for follow-up • Identify, assemble necessary resources that might be required for the planned follow-up **3.2 Conduct follow-up** • Meet with the client according to system in place • Take appropriate action, based on the clients, decision • Provide client with the opportunity to ask questions and express any concerns • Respond to the questions and concerns • Evaluate client's understanding • Reinforce decision **3.3. Record follow-up** Enter the relevant information in the record	**<u>Brainstorming in plenary</u>** 1. Ask an open-ended question about preparation of follow-up 2. Participants propose answers or ideas: • Until no more ideas are generated, or at least every participant has a chance to contribute or time allocated has run out • No ideas are discarded criticized or analyzed, but clarifying questions can be asked 3. Record ideas on newsprint or in another format where all can see them 4. Lead a discussion of each of the ideas generated 5. Clearly mark ideas that are agreed upon 6. Summarize or ask participants to summarize points of agreement 7. Review or read aloud steps of follow-up
4. Demonstrate skills necessary to follow-up clients using follow-up procedures and tools/ forms in their program/ project (60 minutes)	**All session content**	**<u>Role-play</u>** a referral and follow-up situation with a client: (Training room practice) 1. Ask the participants to break up into small groups of 4 to 6 people 2. One person plays the role of the client while another is the provider 3. Ask participant who plays the role of the provider to chose a topic The other participants in the group should observe the role play using the content covered during session 1 and 2 4. The observers should use their knowledge of what constitutes effective client provider interaction skills to evaluate the role play 5. After the observers provide feedback to the actors in the role play, the members of the group switch roles

Objective	Content	Learning/Training Methods and Activities
		Summary for Evaluation 1. Ask participant(s) to summarize content of session objectives 2. If correct and complete, reinforce 3. If incorrect/incomplete, ask other participants to summarize 4. After 2 or 3 trials, give correct/complete information

REFERENCE MATERIAL

Module 2: Referral and Follow-up Process

SESSION 2: FOLLOW-UP

1. Definition

Any planned post-service contact between a service provider and a client

2. Reasons for follow-up

2.1 To find out if clients on medicines are using them correctly

2.2 To find out if clients on treatment are experiencing any problems with medicine

2.3 To manage identified situations or side effects through the following:

- Reassurance
- Re-supply
- Referral

2.4 To determine if referred clients went to the referral site to receive services

2.5 To maintain/retain clients in the program

2.6 To bring clients who have defaulted or dropped out back into the program

2.7 To ensure client satisfaction

3. Conducting follow-up

3.1 Prepare for a follow-up

a) Identify clients who require follow-up.
b) Prepare a list of identified clients, categorizing them by reason for follow-up
c) Identify; assemble resources that might be required for the planned follow-up

3.2 Conduct the follow-up

a) Meet with client (as appropriate).
b) Take appropriate action, based on the client's decision, to:
   - Reassure client
   - Counsel the client
   - Re-supply appropriately
   - Refer appropriately

c) Provide client with the opportunity to ask questions and express any concerns
d) Respond to the questions and concerns

e) Evaluate: Ask client questions to determine if he/she has the correct information. Reinforce correct information or complete and correct incomplete/incorrect information
f) Reinforce agreed-upon decision

3.3 Record the follow-up: Enter the information into the appropriate record, first explaining what you are doing and why, if you are doing this in front of the client

SKILLS CHECKLIST: FOLLOW-UP PROCESS

Participant Name: **Date:**

Evaluator Name:

Evaluator Signature:

Instructions

- **Observe participant performing the skill**
- **Place a v in the column indicating the step was performed correctly**
- **If the step was not performed correctly, give feedback on errors and add comments in the appropriate column**

Steps	Check	Comments
1. Prepares follow-up • Identifies clients who require follow-up • Prepares a list of identified clients, categorizing them by reason for follow-up • Assembles resources that might be required for the planned follow-up		
2. Conducts follow-up • Meets with the client (as appropriate) • Takes appropriate action, based on the client's decision • Provides client with the opportunity to ask questions and express any concerns • Responds to the questions and concerns • Evaluates understanding: asks client questions to determine if they have correct information, and reinforces, completes or corrects, as needed • Reinforces client's decision		
3. Records follow-up • Enters the relevant information in the appropriate record		
Performs skills successfully		

Module 3

Selected Practices in Infection Prevention and Control

Module 3: Selected Practices in Infection Prevention and Control

Module Objectives:

At the end of this module, participants will be able to:

1. Explain the importance of implementing an effective infection prevention control system
2. Demonstrate the procedures to implement selected infection prevention and control practices, i.e. handwashing, gloving, use of antiseptics, decontamination and cleaning

Module Content:

Session I: Infection Prevention and Control Basics

Session 2: Handwashing and Gloving

Session 3: Antiseptics

Session 4: Decontamination and Cleaning

Duration: 10 hours

Module 3: Selected Practices in Infection Prevention and Control

SESSION 1: INFECTION PREVENTION AND CONTROL BASICS

Objectives

At the end of the session participants will be able to:

1. Define Standard Precautions and explain the importance of applying them systematically
2. Describe the infection prevention practices included in standard precautions
3. Describe the 4 instrument processing procedures and the relationship between them
4. Explain the importance of implementing an effective infection prevention and control system

Trainer Preparation

- Review the reference material: Infection Prevention and Control Basics
- Prepare, as appropriate, slides or overhead transparencies, or write the information on a flipchart or board where all participants can see it
- Prepare copies of pairs activity: Disease Transmission, one copy for every 2 participants
- Prepare a copy of the questionnaire and the answer key for each participant

Methods and Activities

Mini-lecture, questions and answers, brainstorming, pairs activity, questionnaire

Resources

- Reference/reading material
- Resources described under trainer preparation

Evaluation/assessment

Questions and answers, questionnaire

Estimated training time

2 hours 30 minutes

SESSION PLAN

Objective	Content	Learning/Training Methods and Activities
Introduction (15 minutes)	The experience and knowledge each participant brings to the training	**Introduce the module** with a personal anecdote relating to the module topic **Brainstorming** Questions may include: 1. What problems with infection prevention have you experienced? 2. What do you think is the single most important aspect of infection prevention? 3. What affects whether health workers use infection prevention practices that they have been taught? (brainstorm questions sequentially) Review and post module and session objectives
1. Explain the purpose of infection prevention (15) minutes)	**1. Aim of infection prevention** The aim of infection prevention is to protect the health of • Workers • Clients • Community and environment	**Questions and Answers in plenary** to elicit information from participants **Summary for evaluation**
2. Explain how infections are transmitted using the disease transmission cycle (15 minutes)	**2. Transmission Cycle** Agents (microorganisms) move from susceptible host (persons who can become infected) to host (the reverse is also true) • Agents live in reservoirs (such as in blood, soil, plant, or air) • The opening where an agent leaves the host is called a place of exit • The place where it enters is called a place of entry • There are several methods of transmission and these are the ways that agents travel	**Questions and Answers in plenary** to elicit information from participants • What do we call microorganisms that cause infection? • Where do agents live? • Where do they exit? • Where do they enter? • How do they move from one place of exit or reservoir to a susceptible host? **Create illustration of the cycle** on the flip chart by drawing and labeling each item as supplied **Summary for evaluation**

Objective	Content	Learning/Training Methods and Activities
3. Define basic terms used in infection prevention (15 minutes)	**3. Basic terms** • Microorganisms • Protective barriers • Decontamination • Cleaning • Asepsis/aseptic technique • Antisepsis • Disinfection; High-level Disinfection • Sterilization	**Questions and Answers in plenary** to elicit definitions from participants Write terms and brief definitions on flipchart, or ask a participant to serve as recorder **Summary** Trainer summarizes using the flip chart
4. Define standard precautions 5. Explain why standard precautions are used systematically (15 minutes)	**4. Definition** Standard precautions: A system of barrier precautions carried out in a systemic and systematic manner by all personnel for contact with blood, all body fluids, secretions, excretions, non-intact skin and mucus membranes of all patients at all times, regardless of the patient's diagnosis, to prevent infection transmission Standard precautions assume that: ALL clients, ALL staff, and ALL body fluids are contaminated ALL the time **5. Importance** Impossible to know when blood-borne pathogens are present	**Mini-lecture** **Questions and Answers** for clarification **Summary for evaluation**
6. List 7 standard precautions practices (15 minutes)	**6. Standard precautions** • Handwashing • Glove use • Other physical barriers (e.g. protective clothes, masks, goggles) • Prevention of injuries from sharps • Environmental cleanliness and waste-disposal • Instrument processing (decontamination, cleaning, HLD, sterilization) • Handling, transporting, processing soiled linens correctly	**Questions and Answers in plenary** to elicit inputs from participants **Summary for evaluation**

Objective	Content	Learning/Training Methods and Activities
7. Describe the four instrument processing procedures and explain the relationship between them 8. State at least 2 principles of an effective infection prevention and control system (15 minutes)	**7. Definition of instrument processing procedures** Sequence of processes: • Decontamination • Cleaning • High-level disinfection • Sterilization (See reference text for definitions) **8. Principles** • Complementarity • Specificity of results • No crossing paths between contaminated items and items ready to be used	**Questions and Answers in plenary** **Write** correct answers on flipchart **Summary for evaluation**
Active practice and feedback to reinforce learning all session objectives (30 minutes)	**All session content**	**Pairs Activity** Instructions 1. Divide the group into pairs 2. Give each pair a copy of the activity 3. Review the instructions and give the pairs 10 minutes to work 4. As the pairs work, move around the room observing. Avoid doing work for the pairs, but be available if there are questions. When feasible, assist pairs by asking leading questions, rather than providing answers 5. Take notes about common problems or misunderstandings and clarify these points in plenary at the end of the exercise 6. Announce when there are 5 minutes left 7. Call on each pair to present its work 8. Summarize or review with Q&A as needed **Summary for evaluation** Key points: • Health care settings are an ideal place for the spread of infection • We all share the risk: (clients, health workers, and the community)
Evaluation (15 minutes)	**All session content**	**Questionnaire for evaluation**

PAIRS ACTIVITY: Disease Transmission

Instructions

With a partner, develop a scenario that is an example of the spread of infection in the health care setting:

1. Select three items or persons from the lists below
2. Discuss the questions below for your example
3. Decide who will share your example with the class
4. You will have 10 minutes to prepare and 1-2 minutes to share your scenario with the participants

List of people

A woman who comes to the clinic with severe postpartum hemorrhage
A newborn
An assistant who cleans the clinic after each session
A patient who had a minor surgical procedure
A doctor with a small cut on his left thumb
A young boy who scavenges in the trash cans behind the clinic
The husband of a woman who sat waiting for his wife to deliver a baby
A doctor with many clients to tend to and no running water available
A child with mild diarrhea whose mother comes to the clinic

List of items

A syringe used to give an injection
A pair of old, worn out utility gloves
A pair of new surgical gloves
Spilled vomit beside an inpatient bed
Bloody gauze from a medical procedure
Linens removed from a bed on the maternity ward
A tray used to hold used surgical instruments
Instruments taken out of an autoclave and set aside to dry
A cotton ball soaking in antiseptic solution
Used instruments collected in a tub to be taken for processing daily

Questions

1. What point of exit and point of entry did the microorganisms causing the infection use?
2. What was the mode of transmission?
3. Was a reservoir outside of a host involved? If so, what was it?
4. If standard precautions had been followed, could this infection have been prevented? If no, why not? If yes, how?

REFERENCE MATERIAL

Module 3: Selected Practices in Infection Prevention and Control

SESSION 1: INFECTION PREVENTION AND CONTROL BASICS

INTRODUCTION TO INFECTION PREVENTION AND CONTROL

The aim of infection prevention is to protect the health of workers, clients, the community and the environment

To achieve such protection, health providers should carry out infection prevention procedures within a strategy of standard precautions. Infection prevention includes all of the strategies and practices used to avoid the spread of infectious diseases

STANDARD PRECAUTIONS (BODY SUBSTANCE ISOLATION/UNIVERSAL PRECAUTIONS)

Standard precautions is a system of barrier precautions to be used by **ALL** personnel for contact with blood, **ALL** body fluids, secretions, excretions, non intact skin, and mucous membranes of **ALL** patients, regardless of the patient's diagnosis. These precautions are the "standard of care." This system embodies the concepts of "Universal Precautions" and "Body Substance Isolation". (CDC 1996)

Key components of standard precautions and their use:

- **Consider every person** (patient or staff) as potentially infectious and susceptible to infection
- **Wash hands -** the most important procedure for preventing cross contamination (person to person or contaminated object to person)
- **Wear gloves (both hands) before touching anything wet—**broken skin, mucous membranes, blood or other body fluids, or soiled instruments and contaminated waste materials**,** or before performing invasive procedures
- **Use physical barriers** (protective goggles, face masks and aprons) if splashes and spills of any body fluids (secretions and excretions) are likely e.g. cleaning instruments and other items
- **Use safe work practices to avoid injuries from sharps** such as not recapping or bending needles, safely passing sharp instruments and suturing, when appropriate, with blunt needles
- **Maintain environmental cleanliness** (work surfaces, floors) and **safely dispose of infectious waste materials** to protect those who handle waste materials and prevent injury or spread of infection to the community
- **Process instruments, gloves and other items** after use by first decontaminating and thoroughly cleaning them, then either sterilizing or high level disinfecting them using the recommended procedures
- **Handle, transport, and process used/soiled linens correctly.**

Standard Precautions:

Wash hands (or use an antiseptic handrub):

- After touching blood, body fluids, secretions, excretions and contaminated items
- Immediately after removing gloves
- Before and after contacts with clients

Use gloves:

- For contact with blood, body fluids, secretions and contaminated items
- For contact with mucous membranes and non intact skin

Wear eye protection (masks, goggles, face shields) and other physical barriers:

- Protect mucous membranes of eyes, nose and mouth when contact with blood and body fluid is likely
- Use mouthpieces, resuscitation bags or other ventilation devices to avoid mouth-to-mouth resuscitation

Wear gowns:

- Protect skin from blood or body fluid contact
- Prevent soiling of clothing during procedures that involve contact with blood or body fluids

Handle, transport and process used/soiled linens correctly:

- Handle soiled linen to prevent touching skin or mucous membranes
- Do not pre-rinse soiled linens in patient-care areas

Correctly process instruments and patient-care equipment:

- Handle soiled equipment in a manner to prevent contact with skin or mucous membranes and to prevent contamination of clothing or the environment
- Clean reusable equipment prior to reuse

Maintain correct environmental cleanliness and waste-disposal practices:

- Routinely care, clean and disinfect equipment and furnishings in patient care areas

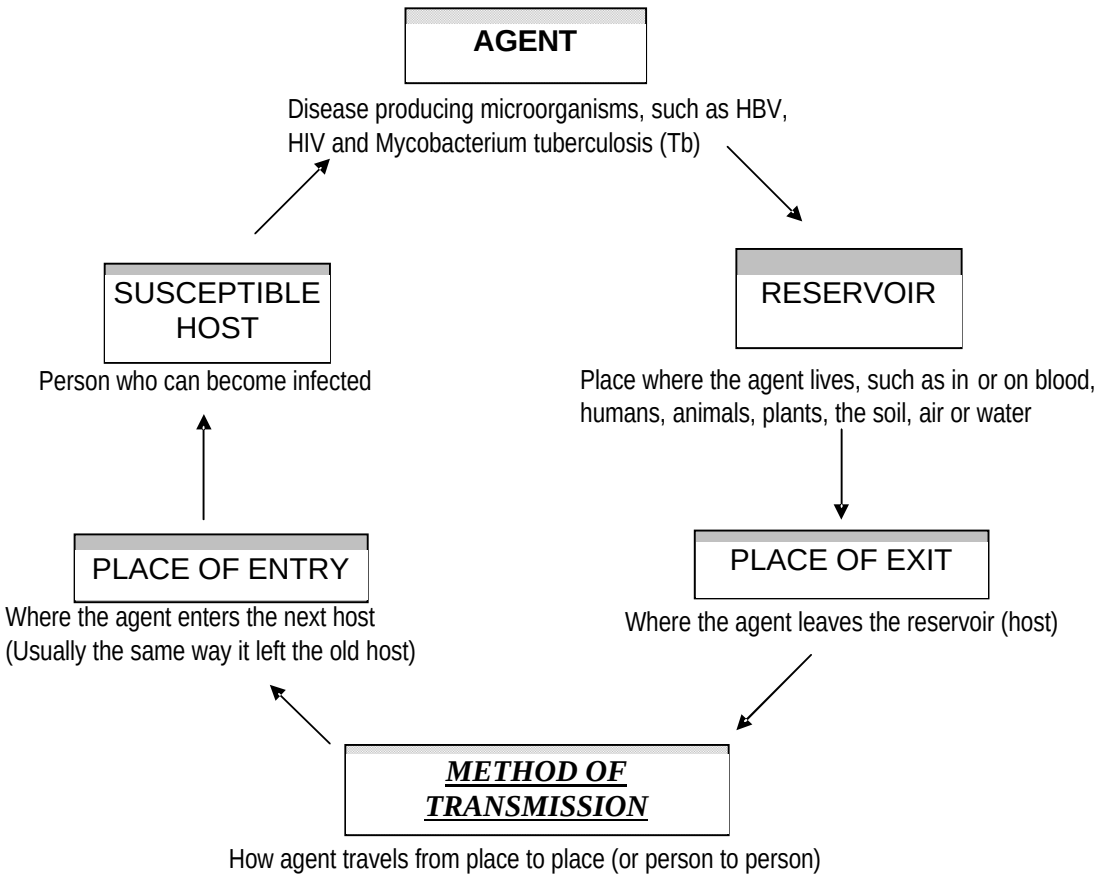
Prevent injuries with sharps:

- Avoid recapping used needles
- Avoid removing used needles from disposable syringes
- Avoid bending, breaking or manipulating used needles by hand
- Place used sharps in puncture-resistant containers

DISEASE TRANSMISSION CYCLE

To understand the importance of infection prevention procedures, it is helpful to review the disease transmission cycle.

Disease transmission cycle



Adapted from WPRO/WHO, 1990

Effective infection prevention breaks the disease transmission cycle. It prevents transmission:

- from client to health worker
- from health worker to client, whether directly or through surgical procedures
- from client to client

It is important to understand the factors required for transmission to occur and how to prevent it.

METHODS OF TRANSMISSION

An agent must have a way to move from its host to infect the next susceptible host. Infectious (communicable) diseases are spread mainly in these ways:

- **Airborne**: through the air (chicken pox or mumps)
- **Blood or body fluids**: if blood or body fluids contaminated with HBV or HIV comes in contact with another person, such as through a needle-stick, s/he may become infected
- **Contact**: either **direct** (touching an open wound or draining pustule), or **indirect** (touching an object contaminated with blood or other body fluids)
- **Fecal-oral**: swallowing food contaminated by human or animal feces (e.g., putting your fingers in your mouth after handling contaminated objects without first washing your hands)
- **Food borne**: eating or drinking contaminated food or liquid that contains bacteria or viruses (hepatitis A from eating raw oysters)
- **Animal- or insect-borne**: contact with infected animals or insects through bites, scratches, secretions or waste

DEFINITIONS OF KEY INFECTION PREVENTION TERMS

Microorganisms are microscopic organisms that can cause infection. They include bacteria, viruses, fungi and parasites. For infection prevention purposes, bacteria can be divided into three categories: vegetative (staphylococcus), mycobacteria (tuberculosis) and endospores (gangrene and tetanus). Of these three, the latter are the most difficult to kill, due to their protective coating.

Protective barriers are physical, mechanical or chemical processes that help prevent the spread of infectious microorganisms from client to client, clinic staff to client, or visa versa.

Decontamination is the process of removing or neutralizing infectious or injurious microorganisms from inanimate objects. Such objects include large surfaces (such as pelvic examination or operating tables,) surgical instruments and gloves contaminated with blood or body fluids. Decontamination makes these items safer to handle by the staff that cleans them.

Cleaning physically removes all visible blood, body fluids or any other foreign material such as dust or soil from skin or inanimate objects.

Asepsis/Aseptic technique: aseptic technique refers to the practices performed just before or during clinical or surgical procedures to reduce the client's risk of infection, by reducing the likelihood that microorganisms will enter areas of the body where they can cause infection. By reducing or eliminating infectious microorganisms on living surfaces (skin and tissue) and inanimate objects (surgical instruments), aseptic technique produces a state of asepsis, or sterility.

Antisepsis is the prevention of infection by killing or inhibiting the growth of microorganisms on skin and other body tissues.

Disinfection is a process that eliminates most, but not all, disease-causing microorganisms from inanimate objects. High-level disinfection, through boiling or the use of chemicals eliminates all microorganisms except some bacterial endospores.

Sterilization is the process that eliminates all microorganisms (bacteria, viruses, fungi and parasites,) including bacterial endospores, from inanimate objects.

REMEMBER

- Ø **Consider each person (client, patient or staff) as potentially infectious and susceptible to infection**
- Ø **Hand washing is the most single important procedure in preventing cross-infection**
- Ø **Always use one-way direction in any procedure regarding prevention of infection**
- Ø **Standard precautions must be applied at all times for the care of all persons**

PROCEDURES TO PROCESS INSTRUMENTS

Who is at risk?

Instruments used in clinical procedure can be a vehicle for transmission of infection to clients, providers, and health workers involved in processing instruments. After use, instruments are often grossly contaminated with blood or body fluids. Even when not visibly soiled, used instruments must always be considered possibly contaminated.

- Staff who use or process instruments can be exposed through:
    - Touching instruments with non-intact skin on hands or forearms (cuts, chapped skin, abrasions)
    - Sharps injuries from contact with needles or other sharps
    - Splashing of blood or body fluids that touch mucous membranes such as eyes
    - Handling instruments without gloves
- Clients who undergo procedures with instruments that are not properly processed can be exposed through transfer of microorganisms to tissue under the skin, the blood stream, or mucous membranes
- Community. Microorganisms from contact with contaminated or improperly processed instruments that leave the facility with clients or staff

Purpose of instrument processing

Proper instrument processing practices reduce the spread of infection by:

- Destruction and removal of microorganisms immediately after procedures
- Preventing contact with instruments during processing
- Making instruments safe to use for the next client

ALWAYS wear utility gloves when processing instruments.

Procedures

There are four procedures in instrument processing. The procedures must be performed in the correct order.

Decontamination is the first step in processing instruments and other items after use. Chlorine used for this step kills viruses (such as hepatitis B, other hepatitis viruses, and HIV) and many other microorganisms. This step makes instruments and other items easier to clean by preventing blood, other body fluids, and tissue from drying on them. Decontamination is performed by soaking instruments and other items in a 0.5% chlorine solution for 10 minutes immediately after use. All instruments should be decontaminated immediately after use.

Cleaning physically removes microorganisms, body fluids, and soil by scrubbing with a brush, detergent, and water before further processing. Cleaning greatly reduces the number of microorganisms (including bacterial endospores) on items and is a crucial step. If items have not first been completely cleaned, further processing may not be effective. Microorganisms present in organic material may be protected and not killed by further processing. The presence of organic material and soil can make the chemicals used in some processing techniques less effective. All instruments that are reused should be cleaned after decontamination.

Sterilization is the process that eliminates all microorganisms (bacteria, viruses, fungi, parasites, and bacterial endospores.) Options for sterilization include autoclaving, dry heat, or soaking in chemicals. Sterilization is recommended for all instruments that will come in contact with the bloodstream or tissues under the skin.

High-level disinfection (HLD) is the process that eliminates all microorganisms (bacteria, viruses, fungi, and parasites) but **does not** reliably kill bacterial endospores, which cause diseases such as tetanus and gas gangrene. Options for high-level disinfection include boiling, soaking in chemicals and steaming. HLD is suitable for instruments that come in contact with broken skin or intact mucous membranes.

Appropriate level of processing

All instruments must be decontaminated and cleaned. The level of further processing, and the status of the instrument when used, depends upon what the instrument will touch.

- For items that will touch tissue under the skin or the blood stream, sterilization is recommended. High-level disinfection is the only acceptable alternative.
- For items that contact intact mucous membranes or non-intact skin, high-level disinfection is required.

Use or store

Instruments can become contaminated after processing unless stored and managed appropriately. Therefore it is essential to either use instruments immediately, store to avoid contamination, or reprocess. For instruments to be sterile when used, they must be stored in sterile containers and must not touch non-sterile surfaces (hands, gloves, pick ups.) HLD instruments must be stored in HLD containers and must not touch non-HLD surfaces.

QUESTIONNAIRE

Name (optional): **Date:**

1. What are the aims of infection prevention?

2. Who is at risk of infection if proper infection prevention practices are not used?

3. Define the following terms in your own words;

   Microorganisms

   Protective barriers

   Decontamination

   Cleaning

   Asepsis

   Disinfection

   Sterilization

4. When are standard precautions used and why?

5. List at least four infection prevention practices that are included in standard precautions.

Answer Key for Questionnaire: Infection Prevention Basics

1. What are the aims of infection prevention?
   The aim of infection prevention is to protect the health of workers, clients, the community and the environment.

2. Who is at risk of infection if proper infection prevention practices are not used?
   Clients, health providers and housekeeping staff in health-care settings and community members are all at risk.

3. Define the following terms in your own words
   Correct answers do not have to have the exact wording below, but should express the main ideas of the following definitions.

   Microorganisms **are microscopic organisms that can cause infection, including bacteria, viruses, fungi and parasites.**
   Protective barriers **are physical, mechanical or chemical processes that help prevent the spread of infectious microorganisms (infections) from client to client, clinic staff to client, or visa versa.**
   Decontamination **is the process of removing or neutralizing infectious or injurious microorganisms from inanimate objects such as large surfaces, surgical instruments and gloves.**
   Cleaning **physically removes all visible blood, body fluids or any other foreign material such as dust or soil from skin or inanimate objects.**
   Asepsis **is the condition of being free from pathogenic microorganisms.**
   Disinfection **is a process that eliminates most, but not all, disease-causing microorganisms from inanimate objects. High-level disinfection, through boiling or the use of chemicals eliminates all microorganisms except some bacterial endospores.**
   Sterilization **is the process that eliminates all microorganisms (bacteria, viruses, fungi and parasites), including bacterial endospores, from inanimate objects.**

4. When are standard precautions used and why?
   Standard precautions are used with all patients; all body fluids, all of the time, because it is not always possible to tell who may be infected with HIV, HBV or other blood-borne pathogens.

5. List at least four infection prevention practices that are included in standard precautions. *Correct answer should include any 4 or more of the following:*
   Handwashing; using gloves; using other physical barriers; preventing injury from sharps; environmental cleanliness and waste disposal; Instrument processing

Module 3: Selected Practices in Infection Prevention and Control

SESSION 2: HANDWASHING AND GLOVING

Objectives

At the end of the session, participants will be able to:

1. Explain how handwashing reduces the transmission of disease.
2. Explain when routine handwashing is required.
3. Demonstrate two routine handwashing techniques.
4. Explain when gloves should be worn.
5. Explain when to use three types of gloves.
6. Demonstrate surgical scrub.
7. Demonstrate how to put on surgical gloves.

Trainer Preparation

- Review the reference/reading material
- Prepare, as appropriate, slides or overhead transparencies, or write the information on a flipchart or board where all participants can see them
- Prepare for demonstration and practice in a clinical setting or training room. Make sure that supplies are available:

  For routine handwashing: Soap, nail brush, running water, clean towels. If appropriate, a bucket with a tap

  For alcohol handrub: Alcohol, glycerin, and small container for mixing

  For gloves: Samples of examination gloves, sterile surgical gloves, household or utility gloves

  For surgical scrub: Antiseptic soap (liquid or bar), brush for cleaning under nails, several sterile towels

  For putting on surgical gloves: Several packages of surgical gloves (optimally 1 pair per participant)

- Prepare a copy of the Case Studies: Handwashing for every participant
- Prepare a copy of the questionnaire and answer key for each participant

- Make copies of the skills checklist: one for every participant and one to use to assess each participant's skills:

  - Routine handwashing
  - Surgical Scrub
  - Putting on Surgical Gloves

- Review general instructions for methods used in this module: mini-lecture, questions and answers, demonstration, return demonstration/practice

Methods and Activities

Demonstration, return demonstration, mini-lecture, paired interview, questions and answers

Resources

- Reference material
- Resources described under trainer preparation

Evaluation/assessment

Questions and answers, questionnaire, observation by trainer and peers using skills checklists, and self assessment using questionnaire and skills checklists

Estimated Training Time

3 hours

SESSION PLAN

Objective	Content	Learning/Training Methods and Activities
Introduction (15 minutes)	The experience and knowledge participants bring to the training In observations of handwashing, the consistent finding is that health professionals do not wash their hands as often or as thoroughly as they think they do	**Introduce the session** with a personal anecdote relating to the session topic or use an example generated by the pairs activity in session 1 **Paired interview** Instructions 1. Count off participants (1, 2, 1, 2, etc.) to form pairs 2. Assign the roles of interviewer and interviewee 3. The interviewer finds out three or four reasons health professionals in the interviewee's health facility may not wash their hands properly or at the proper times 4. Allow 10 minutes for the interview 5. Call on interviewers to share one or two reasons 6. Write reasons on a flip chart 7. Reinforce useful information that emerges from participants' experience 8. Ask the interviewer and interviewee switch roles 9. The interviewer finds out three of four reasons persons in the interviewee's health facility may not wear gloves or change gloves properly including surgical gloves 10. Process as in the first question (4, 5, 6, 7) **Summary** Points to include: • Lack of knowledge • Lack of time • Lack of supervisor support • Lack of understanding of the importance • Lack of supplies (gloves) • Lack of running water **Post session objectives** on the flipchart and review them

Objective	Content	Learning/Training Methods and Activities
1. Explain how handwashing reduces the transmission of disease (10 minutes)	**1. Purpose of handwashing** • Handwashing is the single most important infection prevention procedure • Physical removal of soil and microorganisms by friction. (removes transient flora) • Reduction in the number of microorganisms present	**Mini-lecture** **Questions and Answers for clarification** **Summary for evaluation**
2. Explain when routine handwashing is required (10 minutes)	**2. When to wash hands** • When arriving at work • Before, after examinations • Before and after gloving • Before performing aseptic technique • Before eating • After touching anything that might be contaminated • After touching mucus membranes, blood, body fluids • After removing gloves • After handling specimens • After using the toilet	**Questions and Answers in Plenary** to elicit information from participants • Ask questions to bring out any items that are not mentioned • Write answers on flip chart • Ensure that correct answers are clearly identified **Summary for evaluation**
3. Explain five tips to ensure effective handwashing (15 minutes)	**3. Tips** • DO NOT store bar soup in a puddle • Use running water; do not dip hands in a basin • Dry with clean towel or air • Discard water in drain or latrine • Keep fingernails short • If soap is big, cut in smaller pieces	**Questions and Answers in Plenary** to elicit information from participants **Summary for evaluation**

Objective	Content	Learning/Training Methods and Activities
4. Demonstrate two handwashing techniques: • Routine handwashing • Alcohol handrub (25 minutes)	**4.1 Handwashing** Ø **Routine handwashing:** 1. Remove jewelry if wearing any 2. Wet hands with running water 3. Rub hands together with soap and lather well, washing all parts of hands 4. Vigorously weave fingers and wash 10-15 seconds 5. Rinse under running water 6. Dry with a clean towel 7. If towel not available air dry hands Ø **Handwashing with antiseptic soap:** • Steps same as routine handwashing • Scrub for 15-30 seconds Appropriate before invasive procedures, and with immunosupressed clients **4.2 Alcohol handrub** Ø **Principles:** • Does not physically remove microorganisms • Destroys many microorganisms • Appropriate when hands are not visibly soiled Ø **Composition of solution** • 2 ml glycerin; 100 ml alcohol Ø **Steps:** 1. Pour 3-5ml of solution into palm of hand 2. Rub the solution over hands for about 2 minutes 3. Use total of about 6-10 ml. 4. Rub hands until dry	**Demonstration** While explaining steps of**:** 1. Routine handwashing 2. Alcohol handrub **Questions and answers** for clarification **Return demonstration** Coach as needed using skills checklist **Summary**
5. Explain when gloves should be worn (10 minutes)	**5. Wear gloves** • When contact with blood or body fluids is possible • To avoid cross-contamination	**Questions and answers** in plenary to elicit information for participants **Summary**

<table>
<tr><th>Objective</th><th>Content</th><th>Learning/Training Methods and Activities</th></tr>
<tr>
<td>6. Explain when to use each of the three types of gloves

(15 minutes)</td>
<td>
<u>6. Indications for use of different types of gloves</u>

Ø Sterile surgical gloves
For contact with tissue under the skin

Ø Examination gloves
For contact with mucous membranes and non-intact skin

Ø Utility or heavy-duty household gloves
For handling contaminated items, linens, medical or chemical wastes, instrument processing
</td>
<td>
<u>Questions and answers</u>

1. List the tasks and procedures on the flipchart with columns asking if gloves are required and what type of gloves to use as in the chart below
2. Ask participants to fill in the blanks
3. Reinforce the rationale (use gloves whenever contact with contamination is expected)
4. Write correct answers on chart when supplied by participants

<table>
<tr><th>Task/procedure</th><th>Gloves required?</th><th>Type of glove</th></tr>
<tr><td>Take blood pressure</td><td>no</td><td></td></tr>
<tr><td>Pelvic exam</td><td>yes</td><td>Exam</td></tr>
<tr><td>Clean surgical instruments</td><td>Yes</td><td>Utility</td></tr>
<tr><td>Clean spilled blood/body fluid</td><td>yes</td><td>Utility</td></tr>
<tr><td>Cut umbilical cord</td><td>yes</td><td>surgical</td></tr>
<tr><td>Give injection in arm</td><td>no</td><td></td></tr>
<tr><td>Inspect placenta</td><td>yes</td><td>Exam</td></tr>
<tr><td>Waste disposal</td><td>yes</td><td>Utility</td></tr>
<tr><td>Dispose of used sharps</td><td>yes</td><td>Utility</td></tr>
</table>
Ø Emphasize that:

• Examination gloves and heavy duty gloves do not require special technique to put them on

• Surgical gloves require special technique
</td>
</tr>
</table>

Objective	Content	Learning/Training Methods and Activities
7. Demonstrate surgical scrub (30 minutes)	**7. Steps in surgical scrub:** 1. Take off jewelry 2. Adjust water, wet hands 3. Clean under fingernails 4. Apply antiseptic soap (2-3 presses) 5. Lather and scrub both hands (1 minute), both wrists (1 minute) 6. Lather and scrub forearms to elbow (1 minute) 7. Scrub hands again (1 minute) 8. Rinse each forearm and hand 9. Dry hands and arms 10. Do not touch anything before putting on surgical gloves; hold hands and arms above waist	**Demonstration** Review and explain steps **Questions and answers** for clarification **Return demonstration** Coach as needed using skills checklist **Evaluation** using skills checklist **Summary**
8. Demonstrate putting on surgical gloves (30 minutes)	**8.1 Steps** 1. Prepare area 2. Open inner glove wrapper 3. Pick up glove by the cuff 4. Slip hand in glove 5. Pick up second glove under the cuff 6. Put on second glove **8.2 Tips** • Do not let sterile item touches not sterile (hand touches cuff) • Sterile touches sterile (sterile glove surface touches sterile glove surface)	**Demonstration** Review and explain steps **Questions and answers** for clarification **Return demonstration** Coach as needed using skills checklist **Evaluation** using skills checklist **Summary**
Evaluation (20 minutes)	**All session content**	**Questionnaire for evaluation**

REFERENCE MATERIAL

Module 3: Selected Practices in Infection Prevention and Control

SESSION 2: HANDWASHING AND GLOVING

HANDWASHING

HANDWASHING IS THE SINGLE MOST IMPORTANT INFECTION PREVENTION PROCEDURE

Purpose

The microbial flora of the skin includes both transient and resident microorganisms. Some microorganisms are acquired through contact with people or items during the day. These are called “transient” flora and are easily removed by mechanical friction or by washing with plain soap or detergent. Resident flora live on the skin and within the hair follicles and cannot be completely removed, even by vigorous rubbing and rinsing. Therefore, in situations where the number of microorganisms on the hands must be minimized, such as during surgical procedures, health workers must use a handwashing product containing an antiseptic and wear gloves.

When to wash your hands

- Immediately when arriving at work
- Before and after examining a client
- Before putting on sterile or high-level disinfected gloves for surgical procedures
- Before performing an aseptic technique
- Before eating
- After touching anything that might be contaminated (such as soiled instruments)
- After touching mucous membranes, blood and body fluids
- After removing gloves
- After handling specimens
- After using the toilet

NOTE: To encourage handwashing program managers should provide soap and a continuous supply of fresh water from the tap or a bucket. Recruit staff at all levels of the organization to demonstrate their commitment to handwashing and encourage institution-wide participation.

Handwashing tips

- **If bar soap is used, provide small bars and soap racks that drain**
- **Always use running water. Avoid dipping hands into basins containing standing water, even with the addition of an antiseptic**
- **Dry hands with a clean towel or air dry. Shared towels readily become contaminated**
- **Collect used water and discard in the latrine if a drain is not available**
- **Keep fingernails short and do not use artificial nails**

HANDWASHING PROCEDURES

1) Routine handwashing with plain soap and running water

To wash hands properly, rub all parts of the hands and wrists with soap and warm water.

- **Wash hands for at least 15 seconds or more in warm water.**
- **Pay special attention to the areas of the hand most frequently missed.**
- **Keep nails short.**
- **Avoid wearing rings.**
- **Avoid artificial nails or nail varnish.**
- **Remove watches and bracelets.**
- **Wash wrists and forearms if they are likely to have been contaminated.**
- **Make sure that sleeves are rolled up and do not get wet during washing.**

Wet hands and wrists.

Use a sufficient amount of soap.

Lather soap and scrub hands well, palm to palm.

Scrub in between and around fingers.

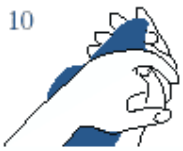
Scrub back of each hand with palm of other hand.

Scrub fingertips of each hand in opposite palm.

Scrub each thumb clasped in opposite hand.

Scrub each wrist clasped in opposite hand.

Rinse thoroughly under running water.



Wipe and dry hands well with paper towel.

Turn off water using paper towel.

Note: From Leeds Grenville and Lanark District Health Unit home page – June 15, 2004. (www.healthunit.org)

2) Washing with antiseptics and running water

This is appropriate before invasive procedures and before contact with clients at high risk of infection (newborns, immunosupressed clients, etc.). The process for handwashing with antiseptic soaps is the same as that for routine handwashing. Lather all surfaces of hands with antiseptic soap or solution and rub together vigorously for 15 to 30 seconds, then rinse thoroughly in running water.

3) Alcohol handrub

This kills or inhibits microorganisms, but does **not** remove microorganisms or soil. Use an alcohol handrub when washing with soap and water is not possible, but only if hands are not visibly dirty.

To make an alcohol handrub solution

Prepare a non-irritating alcohol handrub solution by adding 2 ml of glycerin, propyl glycol or Sorbitol to 100 ml of 60%-90% alcohol.

To use

Pour 3-5 ml of the solution into the palm of your hand and rub the solution over the hands for about two minutes, using a total of about 6-10 ml, until your hands are dry.

GLOVING

When to wear gloves

Gloves should be worn by all staff prior to contact with blood and body fluids from any client. Use a separate pair of gloves for each client to avoid cross-contamination. Wearing gloves prevents transmission of microorganisms from service provider to client and reduces contamination of service provider's hands by infectious microorganisms from client. Gloves do not provide complete protection against hand contamination by agents such as HBV or HIV.

Three types of gloves:

Preferably, use new, single-use (disposable) gloves. Use good quality gloves. They last longer and are less likely to have invisible holes and tears from routine use. Vinyl exam gloves tend to leak more frequently than latex after a single use (Korniewicz, 1989), but are acceptable when latex gloves are not available. Never use gloves that are cracked, peeling or have detectable holes or tears.

Advantages and disadvantages of different types of gloves

Type of glove and use	Advantages	Disadvantages
Sterile surgical gloves: Use for all procedures involving contact with tissue beneath the skin (for example for minilaporotomy, or Norplant insertion.)	Gloves are sized to fit, permitting dexterity during surgical procedures	Expensive; do not use for tasks where other types of gloves can be worn
Examination gloves: Use new exam gloves for contact with intact mucous membranes and non-intact skin (For example, IUD insertion and removal). Disposable exam gloves are available in latex or non-latex	Inexpensive; disposable exam gloves are one–third the cost of disposable surgical gloves	**Come in only small, medium and large sizes, not available in every country** Can cause contact dermatitis
Utility or heavy-duty household gloves: Use when handling items contaminated with blood or body fluids, and for handling medical or chemical waste and linens	Inexpensive; can be rewashed and reused many times Thick rubber surface protects cleaners and waste handlers from needle stick injury	Not available in every country

Note: Ideally, exam and surgical gloves should not be washed or reused.

Choosing gloves

- Clean, thick household (utility) gloves can be used for cleaning instruments, equipment and contaminated surfaces.
- High-level disinfected gloves are acceptable for medical procedures such as pelvic exams, inserting or removing IUDs, or touching wounds or open sores.
  Sterile gloves should be used for surgical procedures such as a minilaporotomy, or insertion and removal of implants.

SURGICAL HANDSCRUB AND GLOVING

Sterile gloves must be worn during surgical procedures. Perform a surgical hand scrub before putting on sterile gloves to minimize the number of microorganisms on hands under the gloves. This is important because gloves may have invisible holes or may be nicked during surgery.

A five-minute scrub with a chlorhexidine solution or an iodophor is recommended. (Chlorhexidine is less irritating than iodophors). When antiseptics are not available or when surgical staff is allergic to the available antiseptic, perform a surgical scrub with plain soap, apply an alcohol handrub solution and rub until dry. (Larson, 1988, Pereira, 1990).

Note: Avoid allergic reactions on skin.

STEPS OF SURGICAL SCRUB

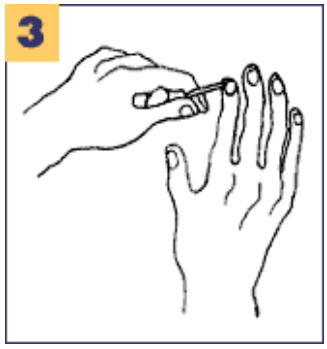
1. Remove jewelry on hands and wrists.
2. Adjust water temperature and open faucets, then wet hands and forearms thoroughly.
3. Clean under each fingernail with a stick or brush. (All surgical staff should keep their fingernails short.)
4. Apply 2-3 presses of antiseptic solution. (If using antibacterial soap bar, keep bar in hand until you produce a good lather and continue holding it until you finish the entire scrub. Then place bar on soap drainer and do not pick it up again.)
    - Using circular motions, lather and scrub all surfaces of the hands for approximately one minute and then scrub the wrists for one minute.
    - Lather and scrub the forearms down to the elbows, **not** including the elbows, for about one minute.
    - Return to the hands and scrub for another minute. Pay special attention to the thumbs, the backs of the hands and between the fingers. These areas are frequently missed
5. Rinse each hand and arm separately under running water, keeping the hands in front of you and in an upward position above the level of your elbows. Rinse the fingertips first and then work down to the wrist and the arm, rinsing in a circular motion. Do not go back and forth from arms to hands.

    Note: Use your elbow to turn off the faucets. If faucets are small then have someone else do it for you.
6. Dry your hands and arms, from fingertips to elbow, with a sterile paper towel or cloth, using a different paper towel for each arm. If only one paper (or cloth) is available, dry the hands together then hold with one hand and dry the wrist and one arm staying away from the elbow. Fold the towel, holding the clean area with the other hand and dry the wet wrist and arm, then discard. Always keep your hands higher than your elbows and away from your body, so the water does not travel from an unclean area to a clean area.
7. Do not touch anything before putting on surgical gloves, keeping hands above elbows.

STEPS OF SURGICAL SCRUB:

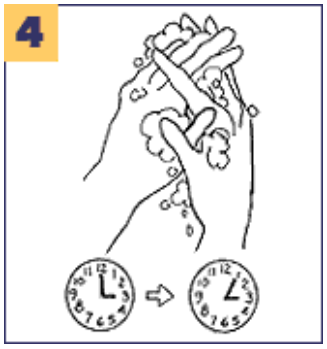
1) Remove all jewelry on your hands and wrists.

2) Adjust water to a warm temperature and wet your hands and forearms thoroughly.

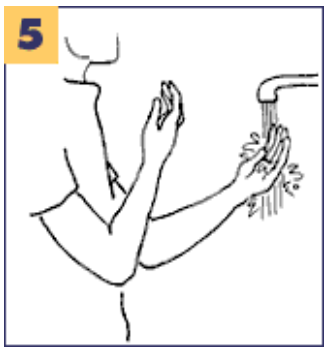


3) Clean under each fingernail with a stick or brush*. Use the brush for fingernails only, then rinse hands.

It is important for all surgical staff to keep their fingernails short.

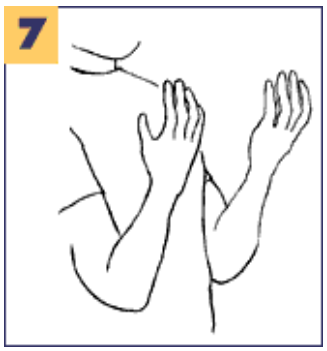


4) Holding hands up above the level of elbows, apply 5-15 ml antiseptic. Using circular motions, lather and scrub hands together, starting between the fingertips. Continue scrubbing hands for 1 minute, scrub the wrists for 1 minute, then scrub the forearms to the elbow for 1 minute. Return to the hands and scrub for another minute.



5) Rinse each hand and arm separately, fingertips first, keeping your hands above the level of your elbows. Do not go back from arm to hand.

6) Dry your hands and arms—from fingertips to elbow—with a sterile paper towel or cloth, using a different towel—or different side of towel—for each arm.

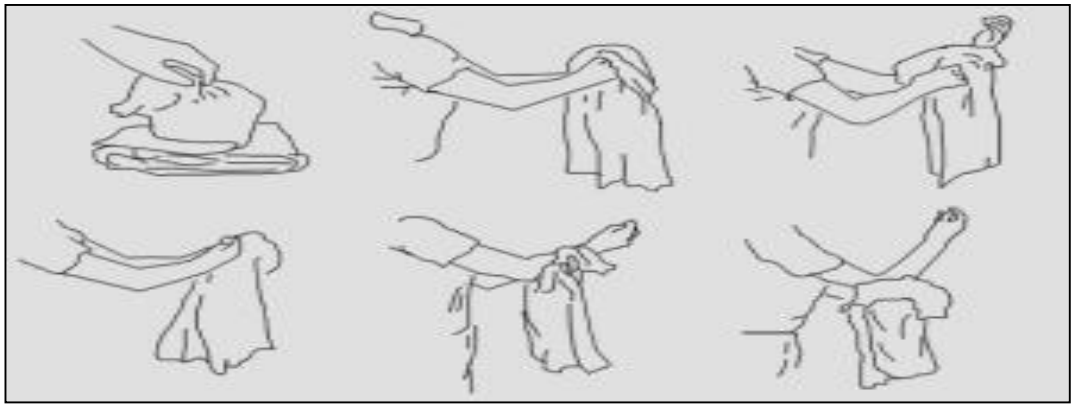


7) Keep your hands in front of you, above the level of your waist, and do not touch anything before putting on sterile surgical gloves.

Adapted from EngenderHealth Infection Prevention Online course (2001)

* If a brush is used it should be cleaned and either sterilized or high level disinfected before being used again.

Drying Hands after Surgical Scrub



1. Hold arms away from the body at the appropriate height
2. Approach the table where gloves have been prepared, pick up the sterile towel touching only the sterile towel and step back. Allow the towel to fall open
3. Lean forward slightly to prevent any portion of the towel from coming into contact with your clothing
4. Starting with one corner of the towel, dry one hand and arm, stopping 5 cm above the elbow
5. Rotate the towel and with the other corner, dry the other hand and arm, ensuring your hand does not touch the area that was nearest the elbow
6. When both hands are dry, discard the towel in the appropriate linen container

From EngenderHealth online course in Infection Control, 2001, http://www.engh.org

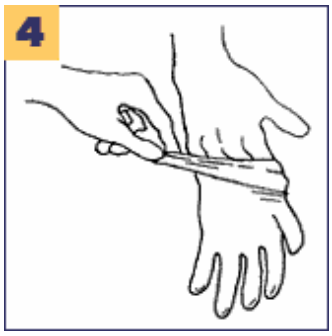
STEPS OF PUTTING ON SURGICAL GLOVES:

1

Prepare a large, clean, dry area for opening the package of gloves. Either open the outer glove package and then perform a surgical scrub, or perform a surgical scrub and ask someone else to open the outer package for you.

Open the inner glove wrapper, exposing the cuffed gloves with the palms up.

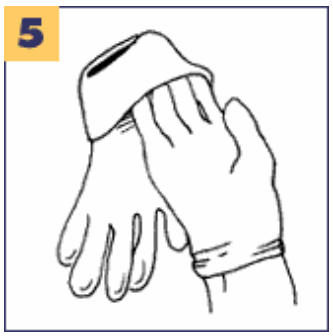
Pick up the first glove by the cuff, touching only the inside portion of the cuff (the inside is the side that will be touching your skin when the glove is on).



While holding the cuff in one hand, slip your other hand into the glove.

Pointing the fingers of the glove toward the floor will keep the fingers open.

Be careful not to touch anything, and hold the gloves above your waist level.



Pick up the second glove by sliding the fingers of the gloved hand under the cuff of the second glove.

Be careful not to contaminate the gloved hand with the ungloved hand as you put on the second glove.

Put the second glove on the ungloved hand by maintaining a steady pull through the cuff.

Adjust the glove fingers and cuffs until the gloves fit comfortably.

SKILLS CHECKLIST: Routine Handwashing

Participant Name: **Date:**

Evaluator Name:

Evaluator Signature:

Instructions:

- **Observe participant performing the skill**
- **Place a v in the column indicating the step was performed correctly**
- **If the step was not performed correctly, give feedback on errors and add comments in the appropriate column**

Steps	Check	Comments
1. Wets hands with running water		
2. Lathers all parts of hands		
3. Vigorously rubs all surfaces		
4. Rinses under a stream of clean running water		
5. Dries with a clean towel or paper towel		
Performs skills successfully		

SKILLS CHECKLIST: Surgical Scrub

Participant Name: **Date:**

Evaluator Name:

Evaluator Signature:

Instructions:

- **Observe participant performing the skill**
- **Place a v in the column indicating the step was performed correctly**
- **If the step was not performed correctly, give feedback on errors and add comments**

Steps	Check	Comments
1. Removes jewelry on hands and wrists		
2. Wets hands and forearms		
3. Cleans under each fingernail		
4. Applies antiseptic solution or antibacterial soap		
5. Lathers and scrubs both hands (1 minute) and both wrists (1 minute)		
6. Lathers and scrubs forearms to elbows (1 minute)		
7. Scrubs hands again (1 minute)		
8. Rinses each hand and arm separately under running water, keeping hands pointing up and working from fingertips down to wrist and arm		
9. Dries from fingertips to elbow with a sterile paper towel, using a separate towel for each arm		
10. Does not touch anything before putting on sterile surgical gloves		
Performs skills successfully		

SKILLS CHECKLIST: Putting on Surgical Gloves

Participant Name: **Date:**

Evaluator Name:

Evaluator Signature:

Instructions:

- **Observe participant performing the skill**
- **Place a v in the column indicating the step was performed correctly**
- **If the step was not performed correctly, give feedback on errors and add comments**

(Adapted from: AVSC. *Infection Prevention Trainer's Manual)*

Steps	Check	Comments
1. Prepares a large clean dry area for opening the package of gloves, and either opens the outer package and then performs scrub, or asks someone to open the outer package		
2. Opens the inner glove wrapper, exposing the gloves with the palms up		
3. Picks up the first glove by the cuff, touching only the inside portion of the cuff		
4. Holds the cuff with fingers pointing down		
5. Slips the other hand into the glove		
6. Picks up the second glove by sliding the fingers of the gloved hand under the cuff		
7. Puts the second glove on the ungloved hand		
Performed skills successfully		

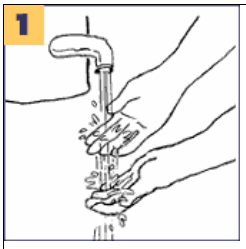
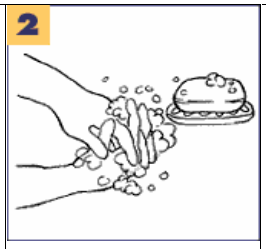
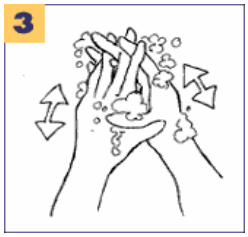
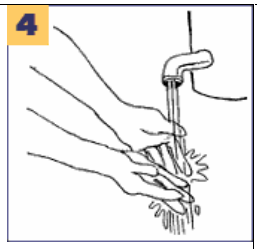
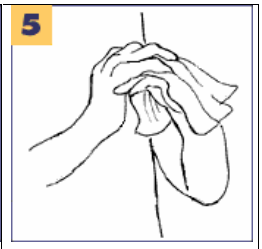
QUESTIONNAIRE: Handwashing and Gloving

Participant Name (optional): **Date:**

1. Describe how hands are involved in the spread of disease and how handwashing and gloves reduce disease transmission

2. List at least 7 occasions when hands should be routinely washed

3. Describe the handwashing step in the space under each illustration. (Use your own words)

				
1.	2.	3.	4.	5.

4. Mark T for True and F for False

_____ A. Alcohol handrub kills microorganisms.
_____ B. Alcohol handrub is appropriate for heavily soiled hands.
_____ C. In routine handwashing a 5 second scrub is long enough.
_____ D. Antiseptic soap is used for handwashing before contact with especially susceptible clients.
_____ E. Antiseptic soap is preferred for routine handwashing.

5. Write which of the three types of gloves are needed in each situation

_____ A. Contact with tissue beneath the skin
_____ B. Cleaning and processing linens
_____ C. Contact with intact mucous membranes
_____ D. Cleaning instruments
_____ E. Surgery

6. What type of soap is used for surgical scrub?

7. When performing a surgical scrub, why is it important to wash hands and arms in this exact sequence: hands for 1 minute starting with the fingertips, wrists for 1 minute, and arms for 1 minute, and then hands again?

8. How should hands and arms be rinsed after surgical scrub and why?

9. Describe one situation in which it is acceptable to use an alcohol scrub prior to performing a surgical procedure.

10. If gloves are in short supply, is it acceptable to change gloves after every 4 clients, rather than after each client to save resources?

11. Describe the steps in putting on surgical gloves, in your own words

12. If your sterile gloves touch the client's unprepared skin before a surgical procedure, what should you do?

Answer Key for Questionnaire: Handwashing and Gloving

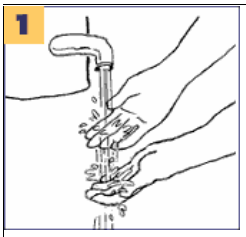
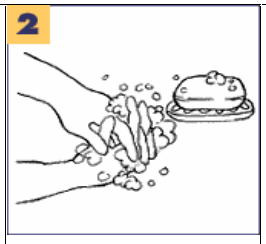
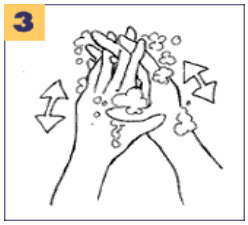
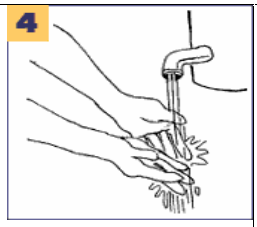
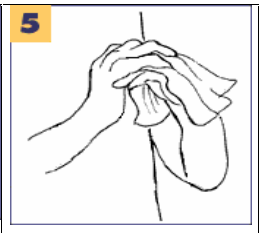
1. Describe how hands are involved in the spread of disease and how handwashing and gloves reduce disease transmission.

   Our hands acquire microorganisms, called transient flora, through contact with people or items during the day. Our hands also have resident flora, microorganisms that normally live on the skin and within hair follicles. Handwashing with plain soap easily removes transient flora, but resident flora cannot be completely removed even by vigorous rubbing and rinsing. Therefore, in situations where the number of microorganisms on the hands must be minimized, such as during surgical procedures, health workers must use a handwashing product containing an antiseptic and wear gloves.

2. List at least 7 occasions when hands should be routinely washed
   Correct answer may include any 7 or more of the following:

   Immediately when arriving at work
   Before and after examining a client
   Before putting on sterile or HLD gloves
   Before performing an aseptic technique
   Before eating
   After using the toilet
   After touching anything that might be contaminated
   After touching mucous membranes, blood and body fluids
   After removing gloves
   After handling specimens

3. Describe the handwashing step in the space under each illustration. (Use your own words)

				
1. Wet hands with running water	**2. Rub hands together with soap and lather well**	**3. Vigorously weave fingers and thumbs together and slide them back and forth for 10-15 seconds or longer. Wash thumbs, under nails, and the backs of fingers and hands.**	**4. Rinse hands under clean, running water until all soap is gone.**	**5. Dry hands with a clean towel or allow hands to air dry. Use towel to turn off faucets.**

4. Mark T for True and F for False:

T	A. Alcohol handrub kills microorganisms
F	B. Alcohol handrub is appropriate for heavily soiled hands
F	C. In routine handwashing a 5 second scrub is long enough
T	D. Antiseptic soap is used for handwashing before contact with especially susceptible clients
F	E. Antiseptic soap is preferred for routine handwashing

5. Write which of the three types of gloves are needed in each situation:

Sterile surgical gloves	A. Contact with tissue beneath the skin
Utility gloves	B. Cleaning and processing linens
Examination gloves	C. Contact with intact mucous membranes
Utility gloves	D. Cleaning instruments
Sterile surgical gloves	E. Surgery

6. What type of soap is used for surgical scrub?
Antibacterial soap

7. When performing a surgical scrub, why is it important to wash hands and arms in this exact sequence: hands for 1 minute starting with the fingertips, wrists for 1 minute, arms for 1 minute, and then hands again?
To ensure that hands are not recontaminated by water from washing the wrists and arms.

8. How should hands and arms be rinsed after surgical scrub and why?
Each hand and arm should be rinsed separately, fingertips first, keeping the hands above the level of the elbows. Do not go back from arm to hand. This is done to avoid recontaminating the hands with dirty water from rinsing the arms.

9. Describe one situation in which it is acceptable to use an alcohol scrub prior to performing a surgical procedure.
When antiseptics are not available or when surgical staff is allergic to the available antiseptic, it is acceptable to perform a surgical scrub with plain soap, apply an alcohol handrub solution and rub until dry.

10. If gloves are in short supply, is it acceptable to change gloves after every 4 clients, rather than after each client to save resources?
No

11. Describe the steps in putting on surgical gloves, in your own words.
Place package on a clean, dry surface. Open the inner glove wrapper. Pick up the first glove by the cuff. While holding the cuff in one hand, slip the other hand into the glove, pointing the fingers toward the floor. Pick up the other glove by sliding the fingers of the gloved hand under the cuff of the second glove. Put the second glove on the ungloved hand by maintaining a steady pull on the cuff.

12. If your sterile gloves touch the client's unprepared skin before a surgical procedure, what should you do?
Take the gloves off and put on another pair of sterile gloves.

Module 3: Selected Practices in Infection Prevention and Control

SESSION 3: ANTISEPTICS

Objectives

At the end of the session, participants will be able to:

1. Explain the concept of aseptic technique and how it prevents infection during clinical procedures
2. Explain the difference between antiseptics and disinfectants
3. List 5 acceptable antiseptics and compare them
4. Explain how to prepare and store antiseptics
5. Identify locally available antiseptics
6. Explain when each locally available antiseptic is appropriate for use

Trainer Preparation

- Review the reading material on antiseptics in the reference section
- Prepare, as appropriate, slides or overhead transparencies, or write the information on a flipchart or board where all participants can see it
- Find out the names of locally available antiseptics and disinfectants and identify the active ingredients
- Determine if there are products that are incorrectly used for antisepsis
- Collect samples of the products or their labels

Methods and Activities

Mini-lecture, questions and answers, brainstorming, participatory research activity

Resources

- Reference material
- Resources described under trainer preparation

Evaluation/assessment

Questions and answers, questionnaire

Estimated training time

2 hours

SESSION PLAN

Objective	Content	Learning/Training Methods and Activities
Introduction (20 minutes)	The experience and knowledge participants bring to training	**Introduce the session** with a personal anecdote relating to the session topic **Brainstorming** 1. Explain that the purpose is to generate a list of all of the agents used to kill microorganisms and the list will be used later in the session 2. Write the agents on the flipchart 3. Add any agents that your research indicates are available that are not on the list 4. Put a star by the antiseptics on the list of agents generated 5. Save this chart for use later in the module **Summary** • A wide range of products make varying claims • The list generated includes antiseptics and disinfectants • Antiseptics are covered in this module; disinfectants in a later module • This brainstormed list will be used later to make sure that we have included all locally available agents in this training **Post session objectives** on the flipchart and review them
1. Explain the concept of aseptic technique and how it prevents infection during clinical procedures (15 minutes)	**1. Basic terms** • Aseptic: without microorganisms • Aseptic technique: practices that help reduce the risk of post-procedure infection by decreasing the likelihood that microorganisms will enter tissues under the skin during clinical procedures	**Questions and answers** to elicit definition of basic terms from participants **Summary**

Objective	Content	Learning/Training Methods and Activities
2. Explain the difference between antiseptics and disinfectants	**2.1 Antiseptics:** • Kill microorganisms on skin • Not strong enough to use on instruments • Use for surgical scrub, preparation of client's skin or mucous membranes before clinical procedures or injections • DO NOT use for processing or storage of instruments **2.2 Disinfectants:** • Kill microorganisms on surfaces (counters, examination tables/couches, floors, etc.) • DO NOT use on skin, may irritate skin	**Mini-lecture** **Note:** Show or circulate samples of available antiseptics and disinfect **Questions and answers** for clarification
3. Compare 4 acceptable antiseptics	**3. Acceptable antiseptics:** • Alcohol • Chlorhexidine • Iodine preparations • Iodophors • Triclosan	
4. Explain why Zephiran, Mercury Laurel and Hexachlorophene are not to be used (20 minutes)	**4. Agents not to be used Antiseptics:** Three agents formerly used as antiseptics and **must no longer** be used because they are **toxic**: • Zephiran (benzalkonium chloride) • Mercury laurel (or others with mercury) • Hexachlorophene	

Objective	Content	Learning/Training Methods and Activities
5. Explain how to prepare and store antiseptics (15 minutes)	**5. <u>Preparation and Storage:</u>** • Avoid contaminating antiseptic solutions • Prepare small containers daily • Pour OUT of containers, do NOT dip into containers • Do NOT store gauze in antiseptics • Prepare solutions weekly • Label and date containers when washed, dried and refilled • Store antiseptics in dark cool storage	**<u>Mini-lecture</u>** **<u>Questions and answers</u>** for clarification
6. Identify locally available agents and explain when each is appropriate for use (30 minutes)	Use the list brainstormed at the beginning of this session	**<u>In-class research assignment</u>** 1. Ask participants to form pairs 2. Give each pair a copy of the Antiseptics Research Activity Sheet 3. Explain the task: use the course materials to answer the questions for every product on the brainstormed list 4. (Hint: If the brainstorming list is very long, select about eight items. If the list is incomplete, add other agents) 5. As the pairs are working, circulate to assist 6. Make a note of any questions that the participants are unable to answer 7. (Hint: If unknown agents are on the list, assign a participant to find out the active ingredients of the agent) **<u>Questions and Answers in plenary</u>** 1. Point to each agent on the flip chart 2. Ask participants to answer the questions on the activity sheet for that agent
All session objectives (20 minutes)	**<u>All session content</u>**	**<u>Questionnaire for evaluation</u>**

Research Activity Sheet: Antiseptics

Instructions:

1. Write the name of antiseptic agents brainstormed in class, or other agents that the trainer suggests in the column on the left
2. Use course materials to answer each question listed I at the top of the other columns

Agent	Is the agent an antiseptic?	Check all appropriate uses			Special considerations for use of this agent?
		Cervical preparation	Skin preparation for injection	Skin preparation for surgery	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

REFERENCE MATERIAL

Module 3: Selected Practices in Infection Prevention and Control

SESSION 3: ANTISEPTICS

Purpose

While soap physically removes transient microorganisms from the skin, antiseptic solutions kill or inhibit many resident microorganisms, including most vegetative bacteria and many viruses. Antiseptics are designed to remove as many microorganisms as possible without damaging or irritating the skin or mucous membrane on which they are used. Some antiseptic solutions have residual effect, meaning their killing action continues for a period of time after they have been applied to the skin or mucous membrane.

In the primary health care clinics or maternity homes, infection after procedures such as IUD insertion may be caused by microorganisms from the skin or vagina of the client or the hands of the health-care worker. Washing hands and cleaning the client's skin or vagina with an antiseptic solution are important infection prevention measures. Pelvic infection following IUD insertion is uncommon, provided the clinician has carefully prepped the vagina and cervix with an antiseptic solution and uses the "no touch" insertion technique.

Use

Because routine handwashing with antiseptic soaps does not reliably reduce the risk of infection any more than washing with plain soap, and because antiseptic soaps and solutions are expensive, antiseptics should be reserved for the following situations:

- Surgical scrub
- Skin or vaginal preparation for procedures such as Norplant insertion and removal, IUD insertion, a surgical dressing or injections
- Handwashing prior to touching clients who are unusually susceptible to infection, such as newborns or immunosuppressed clients

When not to use antiseptics

Most antiseptics do not have the same killing power as chemicals used for disinfection of inanimate objects. Thus, never use antiseptic solutions to disinfect inanimate objects such as instruments and reusable gloves. (Two exceptions are iodine and alcohol, which are also disinfectants.) Do not leave items such as pickup forceps, scissors, scalpel blades and suture needles soaking in an antiseptic solution.

Recommended antiseptics

The following table lists several recommended antiseptic solutions, their killing actions, advantages and disadvantages.

Antiseptic solutions: advantages and potential uses

Group	Activity against microorganisms						Potential uses				
	Gram-positive	Most gram-negative	TB	Viruses	Fungi	Endospores	Relative speed of action	Affected by organic matter	Surgical scrub	Skin preparation	Comments
Alcohols (60-90% ethyl or isopropyl)	Excellent	Excellent	Excellent	Excellent	Excellent	None	Fast	Moderate	Yes	Yes	Not for use on mucous membranes, not good for physical cleaning of skin, no persistent activity
Chlorhexidine (2-4%) (hibitane, hibiscrub)	Excellent	Good	Fair	Excellent	Fair	None	Intermediate	Slight	Yes	Yes	Has good persistent effect Toxicity to ears and eyes
Iodine preparations (3%)	Excellent	Excellent	Excellent	Excellent	Good	Fair	Intermediate	Marked	No	Yes	Not for use on mucous membranes Can burn skin so remove after several minutes
Iodophors (7.5 -10%) (Betadine)	Excellent	Excellent	Fair	Good	Good	None	Intermediate	Moderate	Ye s	Yes	Can be used on mucous membranes
Triclosan (.02-2%)	Excellent	good	Fair	Excellent	None	Unknown	Intermediate	Minimal	Yes	No	Acceptability on hands varies

(Adapted from World Federation of Health Agencies, 1988, and Larson 1988)
NB: organic matters refer to blood, body tissue and dirt.

Advantages and disadvantages of antiseptics:

Many chemicals qualify as safe skin antiseptics. The following solutions are commonly available in different parts of the world.

ALCOHOLS (60%-90% Ethyl or Isopropyl Alcohol)

These are excellent, inexpensive antiseptics. Their rapid killing action makes them very effective in reducing numbers of microorganisms on skin, even under gloves. Alcohols are effective against HBV and HIV. Alcohols are among the safest known antiseptics. A 60%-70% solution of ethyl or isopropyl alcohol is more effective, less drying to the skin and less expensive than higher concentrations. Because isopropyl alcohol is a more efficient fat solvent, it causes dry skin when used repeatedly; therefore, ethyl alcohol is preferable for frequent use.

Notes: An alcohol's effectiveness is determined by its **type**, **concentration**, **contact time**, **volume used** and the **condition** of the area it is applied to (for example, whether hands are wet or not.) In many countries, alcohols are available as "industrial methylated spirit," or ethyl alcohol denatured with a small amount of wood (methyl) alcohol. (Harpin & Rutter, 1982). Because methyl alcohol is the least effective of the alcohols, it should not be used alone as an antiseptic or disinfectant. Be sure the concentration of ethyl alcohol in such "spirits" is 60%-90%. The 60%-90% concentration is recommended, because higher concentrations are less potent, as proteins are not denatured easily in the absence of water.

Advantages

- Rapidly kill all fungi and bacteria, including mycobacteria. Isopropyl alcohol kills most viruses, including HBV and HIV, and ethanol (ethyl alcohol) kills all viruses
- Retard regrowth of organisms, even under gloves, for several hours
- Are relatively inexpensive

Disadvantages

- Evaporate rapidly and cause drying of skin
- Not appropriate for vaginal preparation
- Can be inactivated by organic materials
- Flammable, requiring storage in cool, well-ventilated areas
- Do not penetrate organic matter

CHLORHEXIDINE

Chlorhexidine gluconate (CHG) is an excellent antiseptic. It remains active against microorganisms on skin many hours after use and is safe to use even on newborn infants. Because CHG is inactivated by soap, its effectiveness is dependant upon the concentrations used. 4% CHG is the recommended concentration. 0.5% CHG in 60%-90% alcohol is also effective.

Advantages

- Has persistent action on skin; stays chemically active for at least 6 hours
- Repeated use increases the number of microorganisms inhibited
- Minimally affected by organic material

Disadvantages

- Expensive and not always available
- Action reduced or neutralized by natural soaps and by substances in hard tap water
- Must be used repeatedly for maximum effective and residual activity
- Can cause dermatitis when used frequently for handwashing
- Aqueous preparation is prone to contamination

Note: For maximum effectiveness and residual activity Chlorhexidine should be used on a regular basis, at least once daily.

TRICLOSAN

Triclosan is a colorless substance that has been incorporated into soaps as an antimicrobial agent. Concentration from 0.2-2.0% have moderate antimicrobial activity against gram-positive cocci, mycobacteria and yeast but not gram negative bacilli, especially *P. aeruginosa* (Larson 19950). Although concern has been expressed that resistance to this agent may develop more readily that with other antiseptic agents, resistance to skin flora has not been observed in long term clinical studies to date.

Advantages

- Broad Spectrum of activity
- Excellent persistence
- Minimally affected by organic matter

Disadvantages

- Not effective against *P. aeruginosa* and other gram negative bacilli
- Bacteriostatic (only inhibits growth)

IODINE AND IODOPHOR SOLUTIONS

Iodine solutions are very effective antiseptics. 1%-3% iodine solutions are available in both aqueous (Lugol) and tincture (iodine in 70% alcohol) solutions. Iodophors are solutions of iodine mixed with a carrier that releases small amounts of iodine. Povidine iodine (Betadine) is the most common iodophor. Iodophors kill vegetative bacteria, Mycobacterium, viruses and fungi. Iodophors require up to two minutes of contact time to release free iodine (Larson 1988). Once released, however, the iodine has rapid killing action. It is not necessary to dilute commercially available iodophors (Betadine or Wesodyne.) Iodophors are non-toxic and do not irritate skin and mucous membranes.

Note: Iodine (tincture or aqueous) must never be used on mucous membranes.

Advantages

- Inexpensive, effective and commonly available
- Iodophors are non-irritating to skin and mucous membranes (unless a person is iodine allergic), making them ideal for vaginal preparation before IUD insertion
- Does not stain skin at 1:2,500 concentration

Disadvantages

- Iodophors have little residual effect (30-60 minutes).
- Inactivated by organic materials.
- Iodine (tincture or aqueous) may cause skin irritation and must be removed from skin after drying. (Use alcohol to remove iodine.)
- Iodine cannot be used on mucous membranes.
- Iodine skin absorption may cause hypothyroidism in newborn infants. (Newman,1989)

DO NOT USE the following solutions:

Zephiran (benzalkonium chloride)

Though commonly used in many parts of the world as an antiseptic, it has several disadvantages. Solutions of benzalkonium chloride:

- become contaminated by Pseudomonas and other common bacteria,
- are easily inactivated by cotton gauze and other organic material and incompatible with soap, and
- take at least 10 minutes to kill HIV.

Mercury laurel and other mercury containing compounds

Chemicals containing mercury should be avoided due to their high toxicity:

- Skin exposure causes blister formation and contact dermatitis
- Inhalation or ingestion of low levels of mercury damages the central nervous system, causing numbness, speech impairment and deafness, and higher levels are fatal
- Mercury causes birth defects, including cleft palate, cerebral palsy and other central nervous system abnormalities. Though pregnant women exposed to small doses of mercury may not show toxic effects, mercury is harmful to growing fetuses

Hexachlorophene

Three percent hexachlorophene is active against gram-positive cocci such as staphylococcus, but has little or no activity against gram negative bacteria viruses, Mycobacterium Tuberculosis and fungi.

- It is slow acting, and one wash with hexachlorophene does not reduce skin flora
- It has neurotoxic side effects and can penetrate the skin of premature infants
- It should never e used on broken skin or mucous membranes

When it is used intermittently, bacteria may grow back in large numbers between uses (rebound growth). (Larson 1995)

Antiseptic Storage and Dispensing:

Contamination of every antiseptic has been documented. Microorganisms contaminating antiseptic solutions include staphylococcus, gram-negative bacilli and some endospores. These organisms can cause infection when the solution is used for handwashing or on a client's skin.

Follow these protocols to prevent contamination of antiseptic solutions:

- Prepare or pour antiseptics into a small, reusable container for daily use (unless supplied commercially in small quantities). This prevents evaporation and contamination
- Always pour the solution out of the container. Touching the rim or contents of the container with gauze, a cotton swab or the hand contaminates the entire bottle of antiseptic
- Do not store gauze or cotton wool in aqueous antiseptics
- Establish a routine schedule, such as weekly, for preparing solutions and cleaning reusable containers. Solutions are more likely to become contaminated after a one week storage
- Wash the reusable container thoroughly with soap and water and dry before refilling
- Label reusable containers with the date each time they are washed, dried and refilled
- Store antiseptics in a cool, dark area. **Never** store chemicals in direct sunlight or in excessive heat (such as on upper shelves in a tin-roofed building)

QUESTIONNAIRE: Antiseptics

Participant name (optional): **Date:**

1. What is “aseptic technique” and how does it stop the transmission of infection?

2. List two products that ARE appropriate for skin preparation prior to a clinical procedure

3. List two products that ARE appropriate for cervical preparation or for use on other mucous membranes

4. List two products that ARE NOT appropriate for use on mucous membranes

5. Which type of antiseptic requires 1-2 minutes for the release of the active agent that kills microorganisms?

6. Are products containing mercury appropriate antiseptics? Explain why or why not.

7. Describe the optimum conditions for storage of antiseptics.

8. Is it appropriate to store gauze or wool in antiseptics?

9. Why is it NOT appropriate to disinfect instruments in antiseptic solution?

10. List two practices that avoid contamination of antiseptic solutions.

Answer Key Questionnaire: Antiseptics

1. What is “aseptic technique” and how does it stop the transmission of infection?
   Aseptic technique are practices performed just before or during clinical or surgical procedures to reduce the client’s risk of infection, by reducing the likelihood that microorganisms will enter areas of the body where they can cause infection

2. List two products that ARE appropriate for skin preparation prior to a clinical procedure.
   Any two of the following: **Chlorhexidine, Chlorhexidine/centrimide, Iodine, Iodophor, alcohol, alcohol-based solutions (tinctures)**

3. List two products that ARE appropriate for cervical preparation or for use on other mucous membranes.
   Any two water-based products: **Iodophors, chlorhexidine**
   Alcohols are incorrect.

4. List two products that ARE NOT appropriate for use on mucous membranes.
   Alcohols and iodine

5. Which type of antiseptic requires 1-2 minutes for the release of the active agent that kills microorganisms?
   Iodophors

6. Are products containing mercury appropriate antiseptics? Explain why or why not.
   No. They are highly toxic. Skin exposure causes blisters and contact dermatitis. Inhalation causes damage to the central nervous system. Mercury causes birth defects when pregnant women are exposed to it

7. Describe the optimum conditions for storage of antiseptics.
   Store antiseptics in a labeled container in a cool, dark area and never in direct sunlight or in excessive heat

8. Is it appropriate to store gauze or wool in antiseptics?
   No

9. Why is it NOT appropriate to disinfect instruments in antiseptic solution?
   Most antiseptics do not have the same killing power as chemicals used for disinfection of inanimate objects

10. List two practices that avoid contamination of antiseptic solutions.
    Any two of the following:

    - **Use small containers of antiseptics filled daily**
    - **Pour the solution out of the container. Do not dip cotton or swabs into containers of antiseptic**
    - **Do not touch the rim of containers or bottles as this can introduce contamination into the entire container of antiseptic**
    - **Prepare and clean antiseptic receptacles regularly (weekly)**

Module 3: Selected Practices in Infection Prevention and Contr ol

SESSION 4: DECONTAMINATION AND CLEANING

Objectives

At the end of the session, participants will be able to:

1. Demonstrate how to decontaminate instruments
2. Calculate how to prepare a 0.5% chlorine solution
3. Describe when and how to decontaminate surfaces, floors and other items
4. Demonstrate how to clean instruments

Trainer Preparation

- Review the reading material on Decontamination and Cleaning
- Prepare, as appropriate, slides or overhead transparencies, or write the information on a flipchart or board where all participants can see it
- Ensure that supplies for mixing a 0.5% chlorine solution, decontamination, and cleaning are available, either in a clinical site or in a training room

Supplies for decontamination	Supplies for cleaning
§ chlorine § container to measure chlorine § plastic bucket for mixing solution § marker to write on bucket § utility/household gloves	§ Instruments, some with joints or teeth § Sample brushes § Sink or basin § Utility gloves § Sample acceptable detergent

- Prepare a copy of the questionnaire and the answer key for each participant
- Make copies of the Decontamination and Cleaning Skills Checklists: 1 for every participant and 1 to use to assess each participant's skill

Methods and Activities

Mini-lecture, demonstration, return demonstration, questions and answers, summary

Resources

- Reference Material
- Resources described under trainer preparation

Evaluation/assessment

Questions and answers, questionnaire, observation by trainer and peers using skills checklists, and self assessment using questionnaire and skills checklists

Estimated training time

2 hours 30 minutes

SESSION PLAN

Objective	Content	Learning/Training Methods and Activities
Introduction (10 minutes)	**Session objectives**	**Introduce the session** with a personal anecdote relating to the module topic **Post objectives** on flipchart and review them
Recall information from previous sessions (15 minutes)	**Definitions from previous module** Ø **Decontamination** • Immediate first step for all used (contaminated) instruments • Removes or neutralizes many microorganisms including HIV, HBV and many other viruses • Soak in 0.5% chlorine for 10 minutes Ø **Cleaning** • Physically removes soil and microorganisms (reduces the number of microorganisms) • Removing soil and organic material allows further processing to be effective • Scrub with detergent and water; rinse	**Questions and answers** in plenary to elicit definitions of decontamination and cleaning from participants

Objective	Content	Learning/Training Methods and Activities
1. Demonstrate how to prepare a 0.5% chlorine solution to decontaminate instruments (30 minutes)	**1.1 Formula for preparation of 0.5% chlorine** $\frac{\text{\% active chlorine}}{0.5\%} - 1 =$ parts water per 1 part bleach **1.2 Preparing decontamination solution** 1. Mark levels in a bucket or other container 2. Calculate amount of chlorine and water needed (formula above) 3. Pour in the chlorine 4. Add water NOTE: Marks can be used to measure chlorine and water in the bucket in the future (Source: AVSC Trainer's Manual)	**Demonstration** Using plastic bucket and marker, show participants how to mark the levels for chlorine and water to make a bucket of 0.5% chlorine solution **Questions and answers** for clarification **Individual exercise** Ask participants to work through calculations for all locally available chlorine solutions **Return demonstration** Coach as needed **Summary**
2. Demonstrate how to decontaminate instruments (30 minutes)	**2.1 Steps in Decontamination** 1. Immediately after use, place in chlorine solution with joints open 2. Soak for 10 minutes 3. Remove using heavy utility gloves **2.2 Tips** • Chlorine is corrosive to metal, D O NOT soak longer than 10 minutes • Use plastic bucket to avoid corrosive chemical reaction • Keep decontamination bucket where instruments are used • Prepare new chlorine daily or when it becomes cloudy and contaminated, within 24 hours • Ensure that Instruments that must be open are fully open • Ensure that instruments are fully covered (level of solution must be 2.5 cm above instruments) • Do not add instruments during decontamination	**Demonstration** Explain steps **Questions and answers** for clarification **Return demonstration** Coach as needed using skills checklist **Evaluation** using skills checklists **Summary**

Objective	Content	Learning/Training Methods and Activities
3. Describe when and how to decontaminate surfaces, floors and other items (15 minutes)	**3. <u>Decontamination:</u>** • Blood spills-wash with chlorine • Large spills-cover with chlorine solution, then wipe up with paper towel, then clean floor • Linen contaminated with blood or body fluids soak in 0.5% chlorine and wash	**<u>Questions and answers</u>** to elicit participants inputs **<u>Summary for evaluation</u>**
4. Demonstrate how to clean instruments (30 minutes)	**4. <u>Cleaning</u>** **Note:** After decontamination, wash, rinse and dry instruments **<u>Tips:</u>** • Wear household/utility gloves • Scrub until no visible soil remains • Scrub following grooves • Scrub only in one direction • Rinse thoroughly under running water	**<u>Demonstration</u>** Explain cleaning procedure **<u>Questions and answers for clarification</u>** **<u>Return demonstration</u>** Coach as needed using skills checklist **<u>Evaluation</u>** using skills checklists **<u>Summary</u>**
Evaluation of all session objectives (20 minutes)	**<u>All session content</u>**	**<u>Questionnaire for evaluation</u>**

REFERENCE MATERIAL

Module 3: Selected Practices in Infection Prevention and Control
SESSION 4: DECONTAMINATION AND CLEANING

DECONTAMINATION

This is the first step in processing used (soiled) surgical instruments and other items. Decontamination is important for pre-treating instruments and objects that may have come in contact with body fluids. **This process makes items safer to handle by staff that cleans them.**

1. Immediately after use, place items in a 0.5% chlorine solution for 10 minutes, which rapidly inactivates hepatitis B and HIV viruses. (AORN, 1990 and ASHCSP, 1986)
2. Wearing rubber or household (utility) gloves, rinse instruments immediately with cool water to prevent corrosion and to remove visible organic material before the items are cleaned

Note: Stainless steel instruments that are electroplated should not be soaked in metal containers, because a chemical reaction can occur that will accelerate corrosion of the instruments.

Preparing a 0.5% chlorine solution using liquid bleach

Type or Brand of Bleach (Country)	Chlorine Concentration	How to dilute to 0.5% solution
Household bleach (Canada , USA)	5%	1 part bleach to 9 parts water
Eau de Javel (France) (15 chlorum)	10%	1 part bleach to 19 parts water
Chlorus (UK)	Approximately 3%	1 part bleach to 6 parts water
Iraq	(Check availability in market)	

Adapted from INTRAH 1989

Use this formula to make a 0.5% chlorine solution using liquid household bleach:

[% active chlorine in liquid bleach / 0.5%**] – 1 = parts of water for each part bleach**

Note: "Parts" can be used for any unit of measure (ounce, liter) and need not represent a defined unit of measure. For example, a pitcher or container may be used.
Example: To make a 0.5% chlorine solution from bleach with 3.5% active chlorine: [3.5% divided by 0.5%] – 1 = [7] – 1 = 6 parts water for each part bleach.

Note: Chlorine solutions must be used within 24 hours of preparation.

Surfaces that may have come in contact with body fluids, especially pelvic examination couches or tables, also should be decontaminated. Wipe such surfaces with a disinfectant, such as 0.5% chlorine solution, before reuse, when visibly contaminated or at least daily. This is an inexpensive way to decontaminate large surfaces.

CLEANING

A thorough cleaning with detergent and water physically removes organic material—blood, body fluids, dust or soil—from the skin or from inanimate objects, such as surfaces, floors and instruments. Cleaning is a crucial step in providing safe, infection-free equipment and instruments. Dried organic material (blood, secretions) can entrap microorganisms in a residue that protects them against sterilization or chemical disinfection. Organic matter can also partially inactivate disinfectants, making them less effective. Sodium hypochlorite (chlorine) breaks down protein, therefore decontaminating instruments by soaking them in chlorine solution makes cleaning easier.

Steps of Cleaning

1. Clean instruments with a soft (non-metal) brush in soapy water. Be sure to clean instruments' teeth, joints or screws, where organic material can collect.
2. Thoroughly rinse instruments with water to remove detergent residue. Detergent can reduce the effectiveness of the sterilization process.

Minimum cleaning standards for primary health care centers

Walls, windows, ceilings, and doors including door handles, chairs, lamps, tables and tabletops lights, counters and floors

- Wipe daily. General routine damp dusting is adequate for these areas.
- Keep dry and intact.
- Spot clean when visibly dirty with a damp cloth, detergent and water.
- Use disinfectant when contaminated by blood or other body fluid spills.

Procedure rooms, examination rooms, laboratory, and patient rooms

- Wipe horizontal surfaces with a disinfectant cleaning solution after each procedure and whenever visibly soiled.

Surfaces

- If blood spills on surfaces, pour 0.5% chlorine on spill, then mop with a dry cloth and then wash the area with 0.5% chlorine solution.

Sinks and toilets

- Scrub frequently (daily or more often as needed) with a separate mop, cloth or brush and a disinfectant solution.

Linens and towels and other cloth items

- Change all linens and towels daily
- Change linens immediately if blood spills on them
- Soak all towels and linen contaminated with blood or body fluids for 10 minutes in 0.5 % chlorine solution, prior to washing with detergent
- Wash screens and curtains regularly

Waste materials

- Use a pedal bin lined with a plastic bin liner to dispose of all soiled dressing, laboratory or dental materials. When it is full, seal the plastic bin liner and place it in a garbage bag and dispose of it daily. Preferably, burn it in the incinerator or bury it. If neither is possible, place it in the public garbage container
- Wash the plastic pedal bin daily with 0.5 % chlorine solution
- Open the pedal bin using a foot. If this is not possible, staff must wash their hands after opening the bin

QUESTIONNAIRE: Decontamination and Cleaning

Participant Name: (Optional) **Date:**

1. Describe how instruments should be decontaminated.

2. How many parts of water per 1 part 5% chlorine product are used to make a 0.5% solution?

3. List two tips to reduce the corrosion of metal instruments that are soaked in chlorine.

4. Where should the decontamination solution be kept?

5. How often should decontamination solution for instruments be changed?

6. What purpose does cleaning serve for instruments that will be further processed with either HLD or sterilization?

7. Why should joints and crevices in instruments be scrubbed especially well?

Answer Key for QUESTIONNAIRE: Decontamination and Cleaning

1. Describe how instruments should be decontaminated.
   Immediately after use, place items in a 0.5% chlorine solution for 10 minutes. Wearing rubber gloves or utility gloves, rinse instruments immediately with cool water to prevent corrosion and to remove visible organic matter.

2. How many parts of water per 1 part 5% chlorine product are used to make a 0.5% solution?
   1 part 5% chlorine product per 9 parts water.
   (Formula: Percent active chlorine in the product (5) divided by the target concentration (0.5%) -1 = Number of parts of water per 1 part chlorine (9 parts water per 1 part chlorine.)

3. List two tips to reduce the corrosion of metal instruments that are soaked in chlorine.
   Do not soak for more than 10 minutes and rinse immediately with cool water and dry.

4. Where should decontamination solution be kept?
   Store in cool and dark area, away from sunlight and excessive heat.

5. How often should decontamination solution for instruments be changed?
   Daily or more often if the solution is cloudy.

6. What purpose does cleaning serve for instruments that will be further processed with either HLD or sterilization?
   Cleaning removes organic material. Dried organic material can trap microorganisms in a residue that protects them against sterilization or chemical HLD.

7. Why should joints and crevices in instruments be scrubbed especially well?
   Organic material can collect in joints and crevices.

SKILLS CHECKLIST: Decontamination and Cleaning

Participant Name: **Date:**

Evaluator Name: **Evaluator Signature:**

Instructions:

- **Observe participant performing the skill**
- **Place a v in the column indicating the step was performed correctly**
- **If the step was not performed correctly, giv e feedback on errors and add comments**

DECONTAMINATION

Steps	Check	Comments
1. Wears gloves		
2. Immediately after use, places instruments in 0.5% chlorine solution with instruments with joints fully open		
3. Ensures that the solution covers instruments fully (2.5 cm above instruments)		
4. Removes instruments after 10 minutes and places them in water		
Performs skills successfully		

CLEANING

Steps	**Check**	**Comments**
1. Wears utility gloves on both hands		
2. Scrubs with a soft brush in detergent and water until all visible soil is removed		
3. Cleans all instrument surfaces (teeth, joints, serrated edges, etc.)		
4. Rinses all surfaces under running water until all traces of detergent are removed		
Performs skills Successfully		