Society for Community Health Awareness, Research and Action (SOCHARA)

Center for Public Health and Equity (CPHE - Bangalore & Bhopal)
Community Health Cell (CHC- Bangalore & Chennai)

Curriculum Development Consultation and Workshop
27 – 29th December, 2011
Towards the School of Public Health and Equity (SOPHE)

Objectives

1. To reflect on concepts in curriculum development and the steps involved in curriculum planning and development, in the context of application to SOCHARA's various learning programs.

2. a) To deepen our understanding of the context/ situation to which the community health learning programs of SOPHE respond, b) to define public health and community health which are at the core of our teaching learning programs.

3. To review the core public health competencies being evolved by the national expert group and to identify the competencies that will be the basis and at the core of SOPHE programs.

4. To identify the following for all SOPHE training programme
   a) Core components of community health;
   b) Core teaching learning principles and methods;
   c) Core approaches to the assessment of participants and the evaluation of training.

5. To evolve individual and cluster plans and to finalize a more detailed framework and content of curricula and mechanisms to complete these tasks within certain timelines.

Time	Provisional Program
Day One 27th December, Tuesday, Venue – CHC, Madiwala	
10 am to 11 am	**Introductory Session** WELCOME Self introductions (creative!) Expectations from the three days Follow up to Learning Facilitation Workshop (LFW) held from 26th-28th July 2011 (RN) Objectives and outline of consultation and workshop (TN)
11.15 am to 12.15 noon	**Input Session - I** **Curriculum Planning – An Overview** What is a curriculum; Steps in curriculum development; Planning and situation analysis; Formulation of objectives; Selection of contents; Selection and organization of learning experiences; Evaluation; and Checking for balance and sequence; Evaluating the curriculum by teachers and students. **Resource Person/ Facilitator: Dr. D.K. Srinivasa [SOCHARA member/ Rajiv Gandhi University of Health Sciences (RGUHS)]**

12.15 to 12.45 pm	Question and Answer session (DKS, TN to moderate)
12.45 to 1.15 noon	**University Regulations and Requirements – An Overview** **Resource Person: Dr. Munir Ahmed, RGUHS**
1.15 to 2.30 pm	**Lunch & interaction**
2.30 to 3.30 pm	<u>Group Discussions – I</u> (Group to decide on small group composition & rapporteur for the plenary) • Situation Analysis • Definitions for the SOPHE (community health, public health, learning facilitation skills, managing learning programs and processes) • Objectives of a CH Curriculum (New Public Health) - for the 1 year & 2 year programs and for shorter programs
3.30 to 3.45 pm	Tea
3.45 to 4.45 pm	**Plenary – Session: Building Consensus** on - Situation Analysis, - Definition - Objectives (TN, ASM to facilitate)
4.45 to 5.45 pm	<u>Group Discussions - II</u> **Exploring Competencies and priority setting** using national expert group template Identify areas that will be core for any teaching program of SOPHE (RN)

Day Two 28th December, Wednesday, Venue – CPHE, Koramangala

9.30 to 10.00am	**Reflection on Day One** Key learnings / More questions (RG, PS, AK to lead)
10.00 to 11.00 am	**Plenary Sessions: Building Consensus** (ASM / RN) - Competencies - Priority setting
11.00 to 11.15 am	Tea
11.15 to 12.15 noon	Input Session - II Selection / organizing learning experiences (RN) Teaching learning methods that are core to a community health approach
12.15 to 1.15 pm	Question & Answer session (TN / ASM / RN)
1.15 to 2.30 pm	**Lunch**
	MANAGEMENT SEMINAR and SHARING (For Heads of Units)
2.30 to 3.30 pm	Management, Administration and Accounts – Overview (KG, VF)
3.30 to 3.45 pm	Tea
3.45 to 4.45 pm	Management – Check list, Reviewing systems (KG, VF, RN)
4.45 to 6.00 pm	Open space discussion (RG, PS to lead)

Day Three 29th December, Thursday, Venue – CPHE, Koramangala	
9.30 to 10.00 am	Reflection on Day Two: Key learning / More questions (RG, PS, AK to lead)

10.00 to 11.00 am	**Input session - III**
	Plenary Session: Assessment of Student progress (Methods / Grading) - (ASM)
	        Monitoring and evaluation of training - the community
	        health approach

11.00 to 11.15am	**Tea**
11.15 to 12.15 am	**Plenary Session** **Integration of Research in the community health teaching learning programs of SOCHARA (TN, ASM)**
12.15 to 1.15pm	Question and Answer session, Discussion (RG, PS, All)
1.15 to 2.30 pm	**Lunch**
2.30 to 3.30 pm	Planning a) CHLP and CEU training initiatives – 2012 (CHC) (Bangalore and Chennai) b) CHFP – Feb 2012 (CPHE) Bangalore and Bhopal
3.30 to 3.45 pm	**Tea**
3.45 to 5.00 pm	**Plenary Concluding Session: Next steps, winding up** a) Individual plans b) Cluster plans – Specific and priority training commitments - mechanisms to take these forward

Abbreviations

RN – Dr. Ravi Narayan,   TN – Dr. Thelma Narayan, DKS – Dr. D.K. Srinivasa,
KG – Mr. K. Gopinathan, ASM – Mr. As Mohammed & VF – Mr. Victor Fernandes

Participants

1. Dr. Ravi Narayan
2. Dr. Thelma Narayan
3. Mr. K. Gopinathan (will join some sessions)
4. Mr. As Mohammed
5. Mr. Victor Fernandes (will join some sessions)
6. Dr. Rakhal Gaitonde
7. Mr. Prasanna Saligrama
8. Mr. S.J. Chander
9. Mr. Ameer Khan
10. Mr. H R Mahadeva Swamy
11. Dr. Durbha Rohini Kumar

Rapporteurs

1. Dr. P Adithya
2. Mr. Venkatesan

Background Papers

These will be circulated as a spiral bound document to all participants on arrival.

1. Curriculum Planning - Dr. D K Srinivasa from *'Medical Education: Principles and Practice'*, National Teacher Training Centre (NTTC), JIPMER. 1995.

2. Teaching for Better Learning – F R Abbatt, *A Guide for Teachers of Primary Health Care Staff,* 2nd edition WHO, 1992.
   a) Explanation of terms
   b) Overview of the problem
   c) Curriculum design
   d) Introduction to teaching methods
   e) General issues and assessment
   f) Assessment methods

3. Public Health Definitions and Competencies [extracts from SOCHARA Contribution to the Indian Public Health Association (IPHA) Project]
   a) Public health definitions
   b) Public health competencies
   c) Convergence and hierarchy of levels of public health competencies
   d) Sub-themes for competencies
   e) Dialogue on public health definitions
   f) A list of definitions.

4. Perspectives, Principles and Key Components for CHFP (from *'Learning Programs for Community Health and Public Health'* – Report from a National Workshop, CHC and CPHE, Bangalore, April, 2008)

5. Consolidated themes and sessions, reference books and reading materials (from *'A Journey of a Thousand Lives: Building Community Health through Fellowships'*, SOCHARA, CHC, September, 2011)

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19. CURRICULUM PLANNING

D.K.Srinivasa

OBJECTIVES   :

At the end of this chapter, the read would be able to:

1. Define curriculum.
2. Describe the steps of curriculum planning.
3. Understand the interrelationship between the various elements of curriculum.

INTRODUCTION

A curriculum is a plan of educational experiences and activities provided to a learner by an institution. It states general and specific objectives, indicates selection and organisation of contents (subjects, scheduling time table, giving list of books), mentions/suggests certain patterns of learning and teaching, and a programme of evaluation of the learning outcomes.

Curriculum planning is a dynamic process and the curriculum planners should be guided by curriculum determinants to make decision about the scope, goals, and objectives of the course being planned, as well as the educational contents, training methods and evaluation. (Fig-1)

STEPS OF CURRICULUM PLANNING

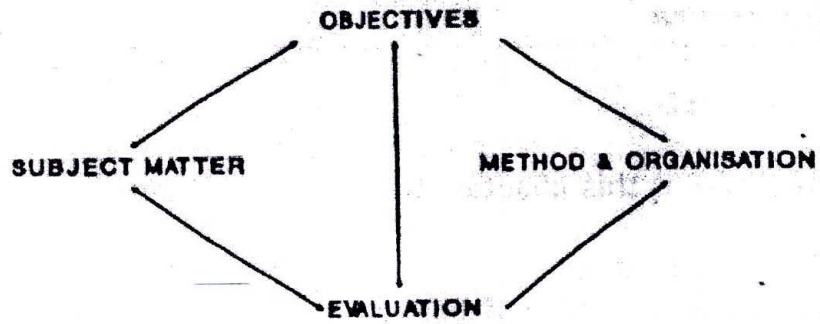The following is a description of the steps and procedure involved in planning a curriculum. (Fig-2)

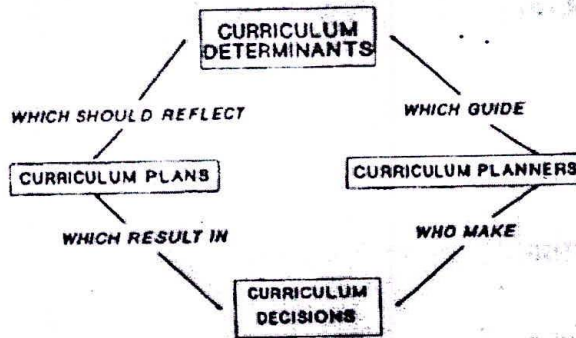**Fig.1 Elements of Curriculum**

CURRICULUM PROCESS

Fig .2 Curriculum Development Process

1. Situation Analysis and Curriculum Determinants

The first step in planning a curriculum requires an analysis of the existing situation, such as the goals enunciated in the National Health Policy; health needs and demands of the people; trends and patterns of morbidity and mortality; socio-economic status; scientific progress; professional requirements and standards; and the expectation of the students. This might require collection of large amount of data. Inquiry driven strategy may be used for this purpose.

Such an analysis helps in finding out the health needs. It can also be used to prepare the job specification -- which in turn helps in deciding what the students should learn.

The next step involves identifying the scope as well as the tasks or job functions and the conditions under which a graduate doctor is expected to work. For instance, the functions of a doctor in a primary health centre is different from those in a tertiary hospital. While he should be able to independently manage common endemic disease conditions, he should have the necessary skills to recognise and refer cases that cannot be managed.

Determining the essential tasks is a complex process. It may require inputs from various sources as already mentioned and reaching a consensus is not easy. An example of how a set of essential tasks were identified is given in the Fig-3.

These are the determinants of curriculum. They guide in defining the objectives of the course. .

2. Formulation of Educational Objectives

The educational objectives describe what knowledge, attitude and skills medical students should acquire during their education. They also define the goals of the course and describe the characteristics and the attributes of the end product. The objectives should be based on the tasks which the students are expected to learn. An example of the Institutional Objectives of MBBS course followed at JIPMER is
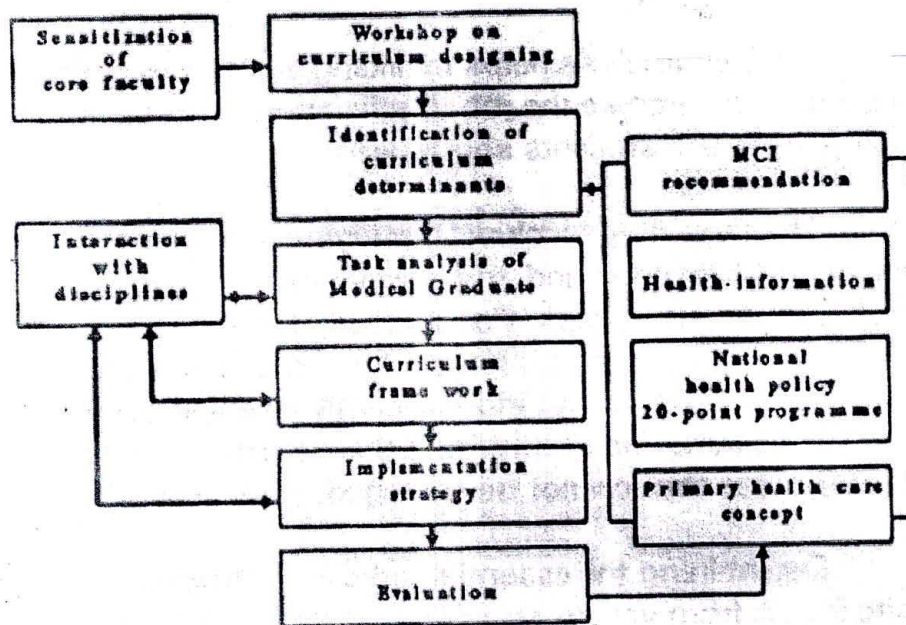
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Fig.3 STRATEGY FOR CURRICULUM DESIGNING

given (Annexure).

Through inter-desciplinary and intra-disciplinary meetings departmental objectives should be developed. It would be desirable to formulate the objectives in the different domains and taxonomic levels described by Bloom and others.

3. Selection of Contents

Both the analysis of needs and the statement of objectives provide a preliminary guide for the selection of contents, i.e., the subject matter. The content chosen must be relevant to the needs, feasible and significant to the concept and the ideas connected to the learning experience, and also create interest.

The content areas may be grouped with scaled priority and as 'must learn' and 'desirable to learn' as it is not possible to learn everything during the course. Some priority is essential. According to Abbatt, " 'Must Learn' is the target. These are the things which every student must learn if he is going to be competent in his job. These are the things which the teacher should stress when he is helping students to learn. These are the things tested in exams". There are many other things which are 'desirable to learn'. Teachers should not prevent students from learning. But these do not need the same emphasis. Nor they may be tested as thoroughly in examination.

Some elements that assume prominence during actual medical practice needs special consideration. They are: the practice of primary health care, ethical decision making skills, and practice management, self assessment and self directed learning skills.

4. Selection and Organisation of Learning Experience

It is important to visualise as to what exactly are the educational objectives and the expected competencies. The criteria for desirable learning experiences must be applied by asking questions like the following: Do they serve the objectives? Are they appropriate to the nature of work and the level of are (primary, secondary and

tertiary)? Have opportunities been provided for learning the skills required?

The learning experiences should be designed to : (a) emphasise activities that build on learner's knowledge and experience; (b) employ 'advance organisers' to relate basic concepts to more difficult concepts; (c) integrate basic sciences teaching with clinical subjects; (d) encourage deep learning; (e) provide for individualised learning; (e) incorporate evaluative mechanisms that give learners meaningful feedback about their achievement.

Care also must be taken to include a variety of ways of learning. In addition to the conventional methods other forms such as video films, field trips, group discussions, role play, practice on simulators and models should also find place.

Organisation includes the scheduling and arranging the time table for various learning activities.

5. Evaluation

The curriculum should have a description of nature, frequency and methods that will be used to evaluate different learning outcomes. These should include not only of knowledge, practical and clinical skills but also of other abilities related to attitudes, communication and ethical decision making. It should contain a plan for internal assessment, specify the weightage or proportion of marks that are carried over to the summative evaluation. A scheme of examination containing guidelines to paper setter, model question paper, procedures for practical and clinical examinations would be of great help.

CHECKING FOR BALANCE AND SEQUENCE

A written curriculum is needed to keep the course as a whole well organised. After an outline of the curriculum is completed it is essential to check the overall consistency and balance among various components. Such an overview of the total plan is required as it will

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help one to see that there is no serious oversights or inconsistencies. This would help in avoiding content overloading as well as major omissions.

EVALUATING THE CURRICULUM

The curriculum should be evaluated by teachers, students and by critical incident studies. Evaluation may lead to changes in the objectives, course content or teaching methods.

SUMMARY

Curriculum is a written description of what happens during a course. It should be based on the health needs of the community and on the tasks which students must learn. Teachers should be involved in planning. It should include the objectives of the course, i.e., the tasks and sub-tasks which the students will learn; the general methods which will be used to teach the objectives; the time and place where the students learn -- a time table; and methods planned to assess student's learning outcome.

The curriculum must include a high proportion of time for practising problem solving, thinking, clinical and communication skills.

Periodic evaluation of curriculum is necessary. It may lead to changes in the course contents and teaching.

SUGGESTED READING

1.   Abbatt, F.R. Teaching for better learning. Geneva, World Health Organisation, 1980.
2.   Bloom, B.S. ed. Taxonomy of educational objectives. The classification of educational goals. Handbook I: Cognitive domain. Handbook II: Affective domain. New York, David Mackay Comapny Inc., 1956.
3.   Harrow, A.J. A Taxonomy of Psychomotor Domain. New York, David Mckay Company Inc., 1972.
4.   Inquiry driven strategies for innovations in medical education in India, The Consortium of Medical Institutions, New Delhi. All India Institute of Medical Sciences, 1992.
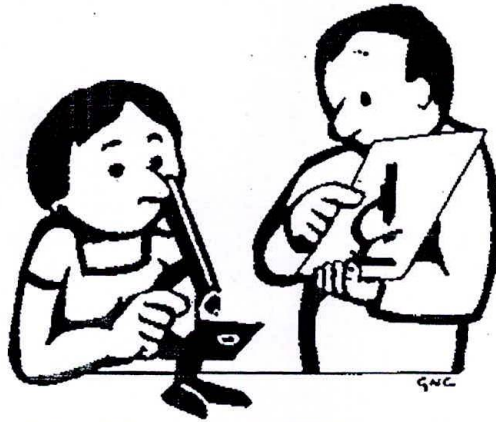
Teaching for better learning

A guide for teachers of primary health care staff

Second edition

F. R. Abbatt

World Health Organization
Geneva
1992

© World Health Organization 1992

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Contents

CONTENTS

Explanation of terms used in this book

academic discipline A branch of instruction or learning, such as anatomy, physiology, ophthalmology or history.

active learning The way in which students learn by doing things, such as solving problems, doing a project or working in a health centre. Sitting listening to a lecture or reading a book is not active learning (Section 6.5).

assessment The process of testing a student's ability or skill. This may be done in an examination or by more informal methods.

attitude A tendency to behave or think in a certain way. For example, one health worker may refuse to see patients when the health centre is closed. Another may be willing to see patients at any time. This is because they have different attitudes to their job.

book learning The kind of learning that can be achieved by reading books. The phrase is usually used to imply that what is learned is too theoretical and not sufficiently practical to be useful.

case history The information about a patient that is used in treatment. It includes details of the patient's symptoms, the results of any tests or examinations performed, and treatment.

cognitive Associated with thinking (see also skill).

communication The process of transferring information or skills to other people. For communication to take place, a *message* must be sent by one person and received by the other. Communication is not just a matter of speaking or writing. It also involves listening to and accepting other people's opinions and beliefs. Skills in communication are very important in health care (see skill).

community A group of people who live in the same geographical area such as a village or part of a city. The word can also be used to refer to a group of people who have something in common, such as a religion or a profession.

critical incident studies Studies of events or situations that trained health workers have not felt able to handle. By analysing these incidents, the teacher can find out where more training is required.

curriculum The written description of what happens during a course. It describes the objectives of the course, the teaching methods, the amount of time allotted to each part of the course, and the methods to be used to assess the students. The word curriculum is also used to describe what actually happens during the course (which may not be the same as the written curriculum).

curriculum design The process of planning a curriculum for a course. Briefly, this involves deciding:

— what the students need to learn;
— what teaching methods will be used;
— how students will be assessed;
— the time and place where students will learn (the timetable).

evaluation The process of collecting information about assessing the value of a course, a book, a lesson or even a student. Evaluation may be used to improve the quality of the course or teaching material. This type of evaluation is called formative evaluation. Evaluation may also be used to describe and assess the overall value of the course or teaching material. This is called summative evaluation.

facilitator A person who makes things easier. For example, a teacher should be a facilitator of learning—i.e., the teacher should make it easier for students to learn.

feedback The process of telling people how well they are doing. For example, teachers give feedback to students whenever they comment on the quality of the students' work. Ideally, the teacher should point out how well the work has been done, any errors or faults, and how the quality could be improved (Section 6.6).

field experience Experience of doing the job in the community. Trainee health workers often join qualified health workers for periods of attachment. In this way they gain experience of doing the job for which they are being trained. The students work under supervision, and are given feedback on their performance (see feedback).

health care team A group of people who provide health care in a community. This may include a midwife, a nurse, a health inspector, a health educator, a nutritionist, a health extension officer, and/or a doctor.

job description   A description of the work that a particular category of health worker is expected to do. It usually consists of a list of the tasks to be done, such as "*measure blood pressure*" or "*select sites for wells*". It may also describe the conditions under which the work will be done.

learning   The process of acquiring information or skills. For example, students can learn from reading books or manuals, listening to lectures, and practising what they have been taught (see active learning).

learning experience   Anything which happens to a student that helps him or her to learn. For example, a student might visit a village where the people have improved the water supply. If the student learned how other villages could do the same, this would be a learning experience.

lesson plan   The set of notes that teachers write to guide themselves as they give a lesson. The lesson plan might include the main points to be covered in the lesson, activities for the students to do, questions related to the topic being taught and some form of assessment.

manual   A book that describes in detail how to do various tasks. The word manual is now often used to describe any book that provides information.

MCH clinic   A maternal and child health clinic. The staff are responsible for checking the growth and health of children and mothers and for providing preventive health care (see preventive health care).

mother tongue   The language spoken by a person at the time when he or she first learns to speak.

motivation . Interest or drive which causes a person to behave in a certain way. For example, a student with a strong motivation will tend to work hard and learn quickly. Motivation is also used to describe the process of encouraging or "motivating" a person. For example, motivation occurs when a student is inspired or persuaded to study hard. This may be because the teacher has made the course more interesting, easier to learn, or more relevant to the job (Chapter 6).

objective   The target or goal of teaching. For example, when the students have completed the course, they should be able to do tasks such as "*construct a latrine*" or "*teach mothers how to breast-feed a baby*".

patient-management problem   An exercise based on a case report, which can be used to help students to learn (as a basis for discussion or in self-assessment) or as a method of assessment. Briefly, the students are given

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some information about a case and are then asked to answer a series of questions (see Section 12.5).

peer   A person who is of the same ability or standing. For example, a student's peers are the other students on the course. A teacher's peers are the other teachers.

preventive health care   Health care designed to prevent people becoming ill, rather than to cure them once they are ill. Examples of preventive health care include immunization, education, monitoring growth of children, and eliminating sources of disease.

reference materials   Books, records, notes, tables or other sources of information used by students or health workers in order to find factual information.

reliability   A measure of the accuracy and consistency of the marking of tests or examinations. For example, if a student was given a mark of 75% by one examiner and 50% by another examiner for the same performance, the reliability of the marking would be poor.

resources   Anything that is needed to do a job. For example, some of the resources needed for running a course are a classroom, teachers, and writing materials.

self-assessment   The process of testing and judging one's own performance. For example, a student who attempts some problems, then looks up the answers to see how well he or she has done is using self-assessment. Self-assessment can help students to learn.

situation analysis   The process of finding out exactly what a health worker should do in his or her work. This leads to a list of all the tasks done by the health worker.

skill   The ability to perform a task through the application of knowledge and experience. There are different kinds of skills. For example, cognitive skills are skills of thinking such as making decisions or reaching a diagnosis. Psychomotor skills are skills of coordinating the mind and body. For example, stitching a wound is a psychomotor skill—deciding whether stitching is appropriate is a cognitive skill. Communication skills are the skills of talking, explaining, persuading and listening.

syllabus   A written description of what should be learned by the students in a course. Usually it is a brief statement outlining the topics to be covered.

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task Anything that a person does as part of his or her job. For example, a health inspector may investigate water tanks to find out whether they could be breeding sites for mosquitos.

task analysis The process of studying a task in order to find out exactly how the task is done and exactly what knowledge and attitudes are needed in order to do the task.

teaching materials Materials that help students to learn, such as books, handouts, models, exercises, and written questions.

trainee A person who is being trained. For example, a trainee health worker is a person who is being trained to be a health worker.

typeface The style of lettering. If teaching materials are printed, there is usually a wide choice of typefaces available. The typeface can vary in size, boldness and style. For example, the letter "a" may be printed as an italic "*a*" or in various styles of roman lettering e.g. "a".

validity A measure of the usefulness of tests or examinations. A test is valid if it really does test the kinds of skill or knowledge that the students need in order to do a job. For example, if a teacher wants to find out whether students can measure blood pressure, he or she might ask them to write an essay on "*The reasons for measuring blood pressure*". This would not be valid. A valid test would be to ask the students to measure a patient's blood pressure and to watch them doing the task.

visual aid Anything that is used to show a diagram or picture. For example, if a teacher wants to explain an idea to the students, he or she will often draw a diagram or picture on the blackboard or chalkboard, or show photographs, films, or flip charts, etc.

workshop A meeting at which a group of people learn together. Often they will meet to discuss and solve a specific problem. Sometimes the workshop is more like a short course in which the participants discuss problems, attempt projects, and learn skills.

CHAPTER 2

An overview of the problem

- The purpose of a training programme is to teach students to do a job.
- Teachers should concentrate on the essential facts, skills and attitudes. It is neither possible nor desirable to teach everything.
- Teachers should base their teaching on the health problems of the community and on the work their students will be expected to do.
- Teachers should plan courses and lessons using situation analysis and task analysis.

A story

A community nurse completed her training and passed all the exams at the end of the course. She was given two weeks leave before starting work, so she went back to her village to spend some time with her family. It was a long journey because the family lived in a remote village, but everybody was pleased to see her again. Her mother was specially pleased and very proud that her daughter had done so well.

After the first greetings, the mother said *"It is good that you are back because your baby cousin is ill. The baby has diarrhoea and doesn't look well to me. Do you think that you could help?"* The nurse went to see the baby and realized that it was very dehydrated. She thought the baby should go to a health centre, but the journey was too far. So she thought about what she had been taught. She could remember details about the anatomy of the gastrointestinal tract and the balance of electrolytes. She also remembered that a mixture of salt and sugar in water would help to rehydrate the baby, but she couldn't remember what amounts to use.

She was very worried that the amounts would be wrong. She didn't know whether to send for help or to guess the amounts. By this time, the baby was very ill. She made up the solution and gave it to the baby. The solution contained the wrong proportions of salt and sugar. The baby died.

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Moral

Some courses for health workers may be ineffective or even harmful because they spend a lot of time teaching facts that are not important. The courses may fail to spend enough time teaching the skills that are really needed.

2.1 Some basic principles

The story shows what can happen when a course for training health care staff is unsuccessful. But what makes a course successful? The following are basic principles.

Basic principles

1. The main aim of a course should be to train students to do a job.
2. The job determines what the students should learn.
3. Only those facts, skills and attitudes that are relevant to the job should be taught and learned. Those that are not essential should not be taught.

These may seem very obvious points, but they do have important consequences, which are briefly explained in the next few paragraphs.

2.2 The main aim of a course should be to train students to do a job

This is the basic principle on which this book is based. It means that if students can do their job competently at the end of a course then it has been successful. If they cannot do the work they have been trained for, then the course has failed.

This means that the teachers must know a lot about the work which the students will be doing. The teachers should watch experienced health staff doing their work. They should ask them about the problems of providing health care. The whole course should be closely linked to the way in which health care is provided. Chapter 3 explains how this may be done.

If this principle is followed, students will be able to do a job at the end of the course, rather than just know about it.

Some people feel that this aim of *"training to do a job"* is too limited. They feel that there should be much more to education than this. While there is some truth in this point of view, the wider goals should be secondary. The first and most important goal is that the students should be able to do their work in an intelligent, understanding and competent way. This is the whole emphasis of this book.

For example, a broadly educated health worker who infects patients because he or she does not follow aseptic techniques is a danger to the community. So it is important that students get the basic competence first. When this has been achieved, other aspects may be added to the training if time permits.

2.3 The job determines what the students should learn

In all courses, choices have to be made about what facts, skills and attitudes students should learn. Choices also have to be made about what details should be left out of the course. It is simply not possible to learn everything that is known about medical sciences and health care. So some selection is essential.
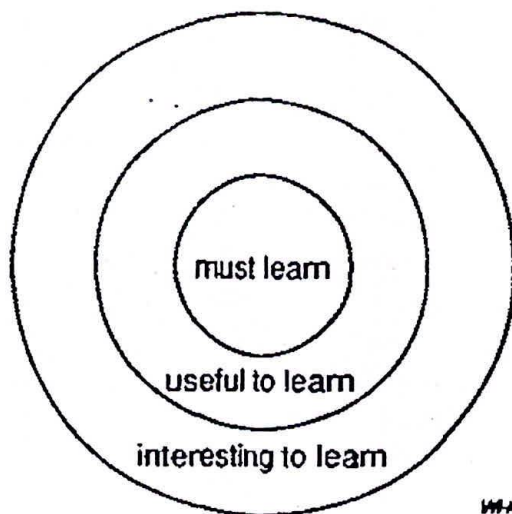
WHO 91584

"Must learn" is the target. These are the facts and skills that all students need to learn in order to be competent in their work. Teachers should stress the importance of these facts and skills when

they are helping students to learn. These facts and skills should be tested in examinations.

There are very many other facts and skills that are "*useful to learn*", but they do not need the same emphasis. Nor should they be tested as thoroughly in examinations.

There are also very many other facts and skills that are "*interesting to learn*". Of course, teachers should not prevent students learning anything. In fact they should show students how to learn from books, conversations and their own and other people's experience of the world. However, **the teacher's main responsibility is to decide what students must learn and to make sure that they learn it.**

Facts and skills that must be taught are those that are needed to do the job competently and thoughtfully. These are discussed in Chapters 3 and 4.

2.4   Learning objectives

An important idea which should be introduced now is the concept of "*learning objectives*".

A learning objective is a statement that describes what the student should know, feel or be able to do at the end of the course.

This definition includes some important points. First of all, the learning objectives concern the student and not the teacher. Second, the learning objectives describe the state of the student at the end of the course. The learning objectives therefore do not describe what the teacher will teach or the experiences the student will have during the course. **The learning objectives are therefore a statement of the targets which the course is trying to achieve.**

Some writers also use the phrases "*learning goals*" or "*aims*". Some writers make distinctions between "*specific*" and "*general*" objectives. The distinctions between these terms are not very clear and are probably not important.

2.5   Making use of learning objectives

The crucial importance of learning objectives is that they define what the students must learn.

They can do this at a very general level, e.g. "*the learning objective*

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of this course is that the students should be able to do the work of a maternal and child health (MCH) assistant".

Or at a very specific level, e.g. *"the students should know the quantities of each ingredient in home-made oral rehydration solution".*

So the learning objectives can refer to a whole course or to just a few minutes of a lesson—or anything in between.

In all these situations, the learning objectives are **vital** because they control (or should control) the whole process of teaching and learning. The learning objectives determine:

- **what** is included in a lesson or course,
- **how** the teaching is done, and
- **how** the students are tested.

For example, if the learning objective is that *"the students will be able to diagnose anaemia from clinical signs"*, then:

- the students must be taught about the clinical signs of anaemia, how to observe them, and how to distinguish between people who are anaemic and those who are not. For this objective there would be no point in teaching students about the structure of haemoglobin or how to test for anaemia using laboratory methods.
- the students must be able to practise their skills of clinical diagnosis on some patients with anaemia and some who are not anaemic. There will be little need for lecturing.
- each student should examine some patients and decide whether they are anaemic or not. The teacher will then be able to assess whether the students have achieved the learning objective. The students should not be asked to write essays on anaemia, because this is not related to the learning objective.

LEARNING OBJECTIVES
control

CONTENT
(what is taught)

METHODS
(teaching methods)

ASSESSMENT
(examinations/tests)

2-1
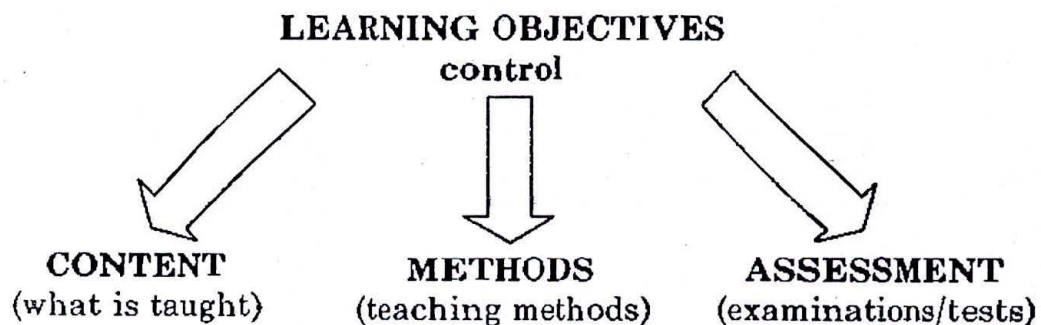
2.6 How can you decide what are the learning objectives?

The most important thing about learning objectives is that they should be relevant to the job that students are being trained to do. Because learning objectives determine what is included in a course, they can damage all aspects of it if they are not relevant. The way in which teachers and course designers decide what the learning objectives should be goes back to the basic principle stated in Section 2.1.

The main purpose of a course should be to train students to do a job.

Therefore the learning objectives should be based on the job description.

In summary, this is done by making a list of all the tasks that the health worker will be expected to do. This process is called *situation analysis* in this book, and is described in Chapter 3. Then each task is analysed to find out what skills are involved and what knowledge and attitudes are needed in order to do it competently. This process is called *task analysis* and is described in Chapter 4.

These two processes together give a list of all the learning objectives for a course—i.e., the skills, knowledge and attitudes that should be learned. If all the learning objectives are achieved, the health worker will be fully competent to do his or her work and the overall purpose of the course will have been achieved.

2-2

CHAPTER 5

Curriculum design


```
┌──────────────────────────────┐
│ Situation                    │
│  - health needs              │──────┐
│  - resources of health system│      │
│  - job description           │      ▼
└──────────────────────────────┘   ┌──────────────────┐
                                    │ situation analysis│   Chapter 3
                                    └──────────────────┘
┌──────────────────────────────┐◄──────┘
│ List of tasks                │
│                              │──────┐
└──────────────────────────────┘      ▼
                                    ┌──────────────────┐
                                    │ task analysis    │   Chapter 4
                                    └──────────────────┘
┌──────────────────────────────┐◄──────┘
│ Learning objectives          │
│  - list of skills            │
│  - facts, attitudes needed   │──────┐
└──────────────────────────────┘      ▼
                                    ┌──────────────────┐
                                    │ curriculum design│   Chapter 5
                                    └──────────────────┘
┌──────────────────────────────┐◄──────┘
│ Curriculum + lesson plans    │
│  - objectives                │
│  - teaching methods          │
│  - assessment methods        │
│  - timetable                 │
│  - evaluation                │
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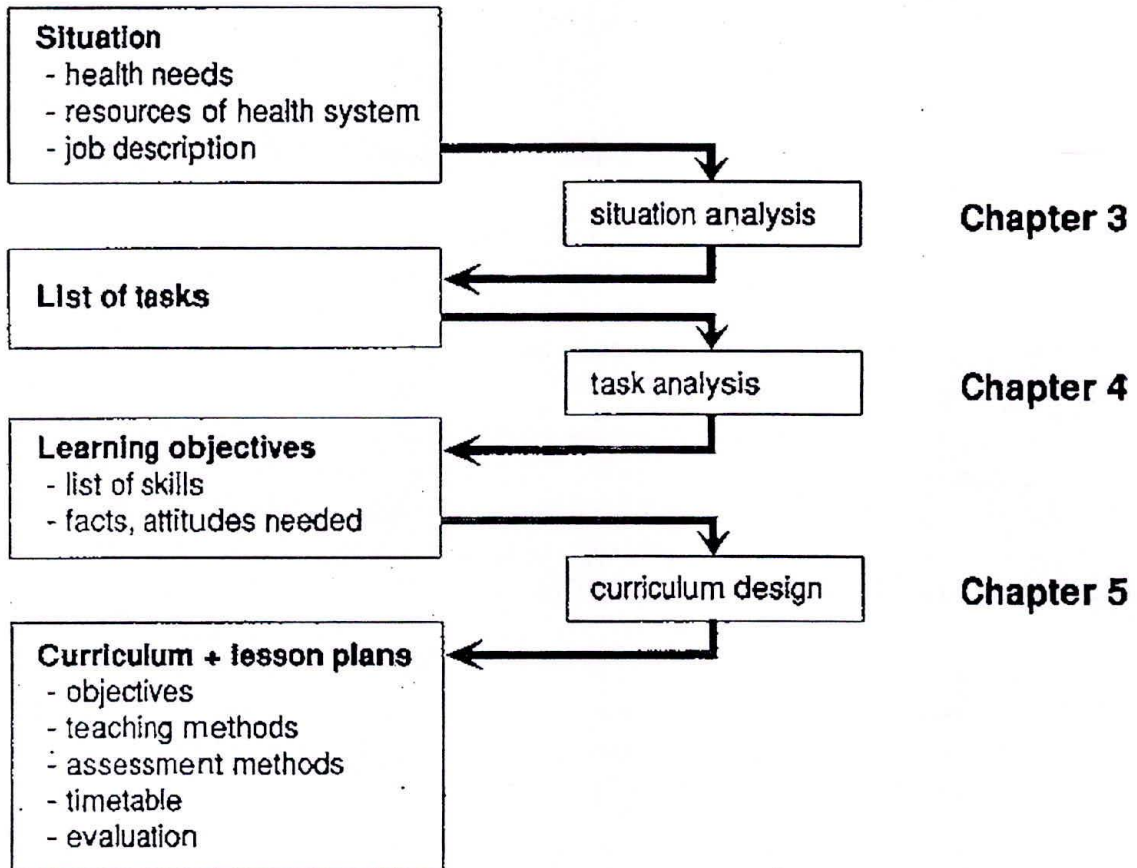
This chapter describes how the results of the situation analysis and task analysis can be used in planning and evaluating the curriculum.

5.1 What is a curriculum?

The word curriculum can be used in two different ways. It can be used to mean what actually happens during the course—the lectures, the work with patients and so on. The other meaning is the

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written description of what happens. This chapter will use "*curriculum*" to mean the written curriculum.

What should a curriculum include?

A written curriculum is needed to help teachers to organize the course. It should contain the necessary information to keep the course well run, such as:

1. The objective of the course — i.e. the tasks and sub-tasks that the students must learn.
2. The general methods that should be used to teach the students the various objectives.
3. The time and place where the students will learn—i.e. a time-table.
4. The methods used to assess the students.

5.2 Lesson plans and the curriculum

The written curriculum is needed to keep the course as a whole well organized. In the same way a lesson plan is necessary to organize a shorter period of teaching. It will need the same kind of information about the objectives, teaching methods, timetable, and possibly some note about the assessment methods.

It is essential to write down the curriculum for a course. On the other hand, many good teachers do not need to write down their lesson plans. There are many good reasons why teachers should record a lesson plan. In practice, time is usually limited and experienced teachers can often manage without a written plan or with just very brief notes.

A lesson plan is a small curriculum.

Suggestions for ways in which teachers can plan teaching sessions (i.e. make lesson plans) are given in Chapter 10.

5.3 When should teachers be involved in planning curricula?

Teachers are often involved in planning the curriculum. They may be involved as a member of a team planning a completely new course or planning improvements in existing courses. Alternatively, they may be asked to comment on a curriculum planned by other people.

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They must be involved when they are teaching a curriculum, because they should be trying to find ways to improve it.

5.4 Planning the course outline

Courses for health workers require a great deal of planning. The first stage should be to plan a course outline. This breaks the course down into smaller parts which can be analysed more easily.

It is obviously very important to make sure that this outline will make it as easy as possible for the students to learn. Look at the example below where learning is made difficult.

An example of a poor course outline

Course for community health nurses

Subject	Hours
Anatomy and physiology	90
Microbiology	30
Psychology	60
Sociology	60
Hygiene	60
Nutrition	60
Fundamentals of nursing	210
Community health nursing I	225
Community health nursing II	120
Community health nursing III	345

This course outline has a number of poor features:

- The basic science courses probably give much more detail than is necessary for the job. This means that students waste time learning unnecessary facts.
- The basic facts (e.g. sociology, nutrition) are taught quite separately from their application (community health nursing).
- The separate courses—microbiology, psychology, sociology, etc.—mean that the timetable is probably based on short fixed teaching periods.

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A better way of planning the curriculum would be to base it on the tasks of the community health nurse.

Example—A course outline based on tasks

Community health—water supply, food storage and waste disposal
Family health—nutrition and health education
Maternal and child health care
Midwifery
Prevention and control of communicable diseases
First aid and emergency medical care
Training village health workers
Promotion of community development

This outline is designed to train students to do exactly the same job as the previous example, but it has a number of important differences.

- The whole course is designed to give the students the necessary skills to do the job.
- The underlying theory is learned at the same time as the practical applications. This is likely to lead to faster and more thorough learning because the students can understand exactly why the theory is needed.
- The timetable can be much more flexible. This makes it easier to arrange longer periods of work such as project work or supervised practical work in the community. It gets away from the rigid pattern of one-hour lectures.

Base the curriculum on the tasks that the students need to learn.

5.5 What kinds of teaching methods will be used?

Many courses for health workers include too much classroom teaching and concentrate too much on teaching facts.

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If you prepare a list of tasks for any category of health worker you will find that most of the tasks involve:

- using the hands (e.g. giving an injection)
- making decisions (e.g. deciding whether a cough is a symptom of pneumonia)
- communication (e.g. explaining to a mother the need for protein in the diet).

You must give students opportunities to practise these skills during the course. Unfortunately this practice often takes a lot of time and effort to organize. It may be quicker and easier to give a lot of lectures, but the students will not learn the necessary skills.

The curriculum should include enough time for students to practise the tasks they need to learn. Sometimes this will involve them in working in the community, for example, in a hospital or nearby health centre. Sometimes they can practise on each other in the classroom. Specific suggestions for teaching methods are given in Part 2. In planning the curriculum, teachers must allow enough time for this practice.

It is impossible to specify how much time is required for every course. However, most courses should allow much more time for practising skills than for theoretical teaching.

More time for practice	Less time for theory

5.6 What kind of assessment methods should be used?

It is important that the course should be based on the job that the students are learning to do. Therefore the assessment must test whether they can do the job. This approach is called *performance testing*. It means that assessment methods such as those based on multiple-choice questionnaires and essays are used less often. Such methods usually only test the students' knowledge. Other assessment methods such as those based on case-studies and case-books are used more frequently. These methods test the important skills and attitudes.

More details on methods of assessment are given in Part 3.

5.7 Evaluating the curriculum

The students should be assessed to see whether they have learned the necessary skills and facts. In the same way, the curriculum should also be examined to find out whether any changes are needed. This process is called curriculum evaluation.

The aim of curriculum evaluation is to find out how successful the curriculum is and to find out ways in which it can be made better. The basis for the evaluation is to see whether the students learn how to do their job satisfactorily.

The curriculum can be evaluated by testing the students at the end of the course. If they complete their examinations satisfactorily, this suggests that the course has been good enough. However, the examinations must be relevant and based on the job that the students are being trained to do. Also, the course may help the students to reach a satisfactory standard, but it may take much more time than necessary.

The curriculum can also be evaluated by finding out how well the students are doing after they have left the school or college and started work.

Example—On-the-job evaluation

In one district a group of health workers were trained to do a number of tasks. One of the tasks was to conduct an immunization programme. After a few months it was found that a lot of the mothers brought their children for the first vaccination. Only a few came back for the necessary second injection.

Comments

Clearly this part of the training programme had not been successful.

There are many reasons why the programme may not have succeeded, for example:

- the health workers may have had too many other responsibilities and so did not have enough time to talk to the mothers about the need for the second injection.
- the programme may not have trained the workers how to communicate.
- the programme may have failed to teach them suitable attitudes.

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5.8 Methods of evaluating the curriculum

Analysis of health needs

In the example above, the weakness of the training programme—or the curriculum—was shown by an analysis of the health statistics for the district. This is the best way to evaluate a curriculum, although it may not always be possible. It is the best way because the purpose of the curriculum is to train people to solve health problems. If the health workers can solve the problems, the curriculum is probably satisfactory. If not, it may need to be improved.

Health statistics are usually available for details such as:

— the number of children immunized,
— the number of live births,
— the number of infant deaths, and
— the number of cases of disease.

If the statistics are available, they can help the teacher to decide which parts of the curriculum need improvement.

But remember that some of the things health workers are trained to do cannot be easily shown in statistics. Also, in many areas the information collected may not be very reliable or complete. For example, the number of reported cases of diphtheria may go up because the system of reporting the disease has improved—not because more people are suffering from diphtheria.

Critical incident studies

Critical incident studies are a fairly simple method of finding out from the health workers themselves how successful a curriculum is. The teacher asks an experienced health worker to describe five or six recent events that he or she has not felt able to handle. These situations are the *critical incidents*. This kind of questioning is then repeated among a sample of recently trained health workers. Using this approach, the teacher can build up a picture of the situations that have caused problems for health workers.

Some of the critical incidents may be very unusual or rare. In some cases it may not be necessary to change the curriculum. Again, if only one worker finds that a particular situation causes problems, while all the others report that they can deal with it, then probably

no action needs to be taken. However, if several workers report difficulty with similar situations, then clearly the curriculum should be looked at.

Supervisors' reports

In many countries the work done by the health workers is supervised. In some cases this supervision is carried out almost continuously—as in hospital wards. In other cases the supervision is very restricted—for example when health workers work alone in remote villages. Therefore the value of supervisors' reports will vary from one situation to another.

However, all of these reports can be more useful if the supervisors are asked to comment on specific points. For example, you may have tried teaching part of the curriculum differently, so ask the supervisors whether they notice any differences in the way the new health workers do that particular job. Supervisors can also help if they identify the tasks that the students do well or badly at the end of the course.

They may also be able to point out the tasks that are taught wrongly. For example, students may not have been taught about local traditions or how to cooperate with village councils.

If the teacher asks for advice from supervisors and acts on that advice, the curriculum will be made more effective.

5.9 Evaluating lessons

Lessons can and should be evaluated. This is just as important as evaluating the curriculum.

Broadly the same methods should be used. After a lesson (or possibly a group of lessons), the teacher should find out how much the students have learned. This evaluation should be based on performance testing. The teacher should find out whether the students can do the tasks that they have been taught to do.

If the students cannot do the tasks, then the teacher must change the content of the lessons or the teaching methods.

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5.10 Summary

1. The aim of a curriculum or a lesson should be to give the students the skills and the knowledge needed to do the job.
2. The content should be organized on a "*task*" basis.
3. The curriculum must include a high proportion of time for practising the skills of communication, thinking, and using equipment.
4. Evaluation may lead to changes in the content or the teaching methods.

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CHAPTER 6

Introduction to teaching methods

Part 1 dealt with **what** your students should learn. This part goes on to explain **how** you can teach them. The two parts should be read and used together, because students will only be well trained if the teacher uses good methods **and** teaches the right skills.

Part 1 pointed out the importance of training students how to **do a job** rather than just **know** about it. Again in this part the main emphasis will be on students *"learning by doing"* rather than simply listening. This principle could be summed up by the old Chinese proverb:

"hear and forget . . . see and remember . . . do and understand".

The aim of this part therefore is to help you to choose the best teaching method for each part of the course and to give some advice on using each method effectively.

The part is arranged as follows. Chapter 6 gives general guidance about problems such as motivating students and making subjects meaningful to them. The three remaining chapters describe particular methods that can be used in teaching attitudes (Chapter 7), skills (Chapter 8) and knowledge (Chapter 9). Chapter 10 brings all the ideas together in a description of how to plan a lesson.

6.1 The role of the teacher

How can the teacher help students to learn? It used to be thought that teachers needed to tell students as much as possible, passing on their knowledge. Now teachers arrange for students to gain experience by working in health centres. They may also advise students to read a few pages from a manual and set questions for students to discuss in groups. In all these ways the teacher is helping students to learn.

Some teachers feel that they must do all the talking themselves. They feel that they are not really teaching unless they are telling the students some new information. But this is quite wrong.

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If a teacher gives a lecture and the students do not learn, then the teacher is talking—not teaching.

The following chapters explain different ways in which you can help students to learn. You may already use some of these methods. You may feel that some of the methods will not work for your students. However, all the methods described have been used by teachers. Even if you cannot use a method as described here, you will probably be able to adapt it so that you can use it.

Remember that change is always difficult. It is easier for teachers to carry on using the same teaching methods. When you have prepared a course of lectures, it takes only a little effort to keep on giving the same lectures year after year. If you want to try new ideas you need to work to make those ideas succeed. Some students will find it difficult to use some of the more active forms of learning. You must explain to your students what you are trying to do and make them interested in the new teaching methods. If students have been used to sitting in classes just listening to the teacher it will be uncomfortable for them to learn for themselves. You need to understand this feeling and reassure the students that they can learn from their own experience—with a little guidance from you.

6.2 How well do you teach?

Below there are a list of questions for you to answer about your own teaching. If you can answer "*yes*" to most of the questions, then you are probably teaching well. If you answer "*no*" or are not quite sure what the question means, look at the corresponding section. For example, the first three questions are concerned with "*clarity*", which is discussed in Section 6.3.

Clarity (Section 6.3)

Can the students hear what you say and read what you write?
Do you use simple language?
Do you use visual aids?
Do you summarize the main points?

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Making your teaching meaningful to students (Section 6.4)

Do you relate what you are talking about to the students' lives?
Do you give a lot of examples?
Do you relate what you are talking about to the work the students will be doing?

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Active learning (Section 6.5)

Do you ask students to answer questions?
Do you ask students to apply information in solving problems?
Do you arrange for students to practise thinking and practical skills?

Giving feedback (Section 6.6)

Do you tell students how well they are doing?
Do you point out any errors or faults?
Do you explain how students could do better work?

Ensuring mastery (Section 6.7)

Do you check that all your students understand each point?
Do you frequently check whether every student has learned the necessary skills and knowledge?

Individualize (Section 6.8)

Do you allow students to work at different speeds?
Do you encourage students to learn in their own way?
Do you use several teaching methods?

Caring (Section 6.9)

Do you show the students that you care whether they do well?
Do you prepare thoroughly for teaching sessions?
Do you listen to students' comments about your teaching?

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6.3 **Clarity**

Obviously your teaching must be clear. The students must be able to hear what you say and read what you write. All teachers believe that what they say and write is clear—but are they right? Can your students read what you write? Ask another teacher to sit at the back of your class and tell you whether he or she can see and hear clearly. Look at your board at the end of a lesson and see whether it is set out clearly. Can you read your own writing? If you cannot, the students definitely will not be able to.

The students may be able to hear the words you say but not understand them. If you use words that are unfamiliar to students or speak a different form of the language, it will be difficult for them to learn. Make sure that you talk in a way that the students can understand.
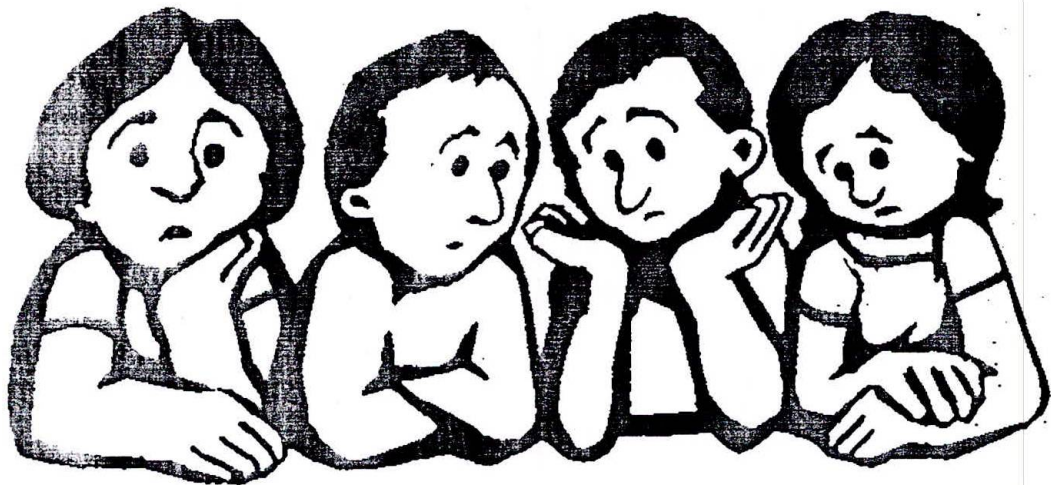
WHO 91592

The students may be able to hear the words you say, but they may not really understand them.

To help you make writing or diagrams clearer you may be able to use visual aids such as charts, posters, flannelboards and possibly slide-projectors or overhead projectors. These will all help to improve clarity. Some useful tips are given in Section 9.7.

Most teachers use a blackboard or chalkboard of some kind. Sometimes the board will look a mess at the end of a lesson, with no pattern to the words and untidy diagrams. Decide **before** the start of

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the lesson what you are going to show on the board. Then during the lesson, write the key words or phrases in order so that they show the structure of the lesson. Remember that students tend to copy the words and the layout the teacher writes on the board. Make sure that what you write would look good in the students' notes.

At the end of the lesson, summarize the main points—as this book does.

Summary
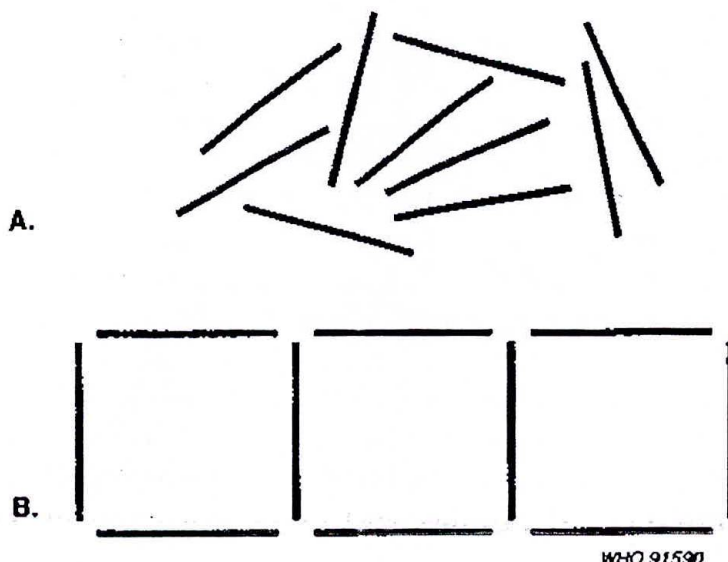
Make sure that your students can hear what you say and read what you write. Also check that your students understand the words you use.

At the end of the lesson summarize the main points.

6.4 Making your teaching meaningful

Exercise

Look for about 2 or 3 seconds at the two diagrams below.

A.

B.

WHO 91590

Now turn over the book and try to draw the two diagrams. Then read on.

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Comments

You could probably draw diagram B. It has a pattern to it that makes sense—three squares joined together. Diagram A was probably much more difficult to remember. There was no shape or meaning to it. But in each case the number of lines was exactly the same.

What does this have to do with teaching? The diagram that was easier to remember has "*meaning*". It is similar to patterns you have seen before. If you can make your teaching have meaning then your students will learn more easily.

How can you achieve this in practice? Here are some suggestions.

(a) **Explain in advance what you are going to say.** This can be done by telling your students what the objectives are for a part of the course. In this way the students will know what they need to learn and so they can make more sense of the teaching.

(b) **Try to relate what you teach to students' lives.** Your students will have a lot of experience which is useful and important. For example, when you are talking about sanitation, find out what your students know about the subject. You can then use their knowledge as a basis for teaching. Do not assume that students know nothing about the subject you are teaching. If you are talking about diseases such as schistosomiasis, find out whether the students know people suffering from the disease. If you do this, the teaching will have meaning for the students.

This book tries to make the ideas meaningful to you by explaining them as problems that you may face in your teaching.

(c) **Explain new words.** When you are giving information to students, you will have to use and explain new words and concepts. Some teachers like to use long and complicated words just to show how clever they are. This must obviously be avoided, but you will need to use some new words. When you do, you should define them carefully. You should also use a lot of examples to explain their meaning and, if possible, arrange for the students to practise using the words. This may be in discussion or in writing. In this way the students will begin to get a fuller understanding of the meaning of the words or concepts you use.

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Examples of explaining a new idea

For example, you may want to explain the concept of circulation of the blood to students. This will involve the use of a possibly unfamiliar word "*circulation.*" It will also introduce the idea of blood travelling round the body, which may also be unfamiliar. To teach this idea you might define the word circulation and then ask students to think of other things which circulate, such as money or traffic.

Then encourage the students to **use** the concept. For example, ask them to tell you what are the effects of the blood circulation. They might say that it allows certain substances to be carried from one part of the body to another. They might describe what would happen if the body was badly cut. In this way your students will quickly gain an understanding of the concept involved.

(d) **Use examples.** When you are describing a new idea or a method of treatment, give examples. You might talk about an experience that you have had recently. Even better you might talk about a patient that the students have just seen, or the water supply for a village that they know.

Note that this book uses a lot of examples to explain the ideas.

(e) **Relate the teaching to the work that the students will be doing.** Information and skills will have much more meaning to students if they know how they will be using the information in their job. You might, for example, want your students to be able to use a microscope. Some students will be interested in microscopes. Others may not be so interested and so will not learn well. However, if you explain that the students will use a microscope in their job as a way of confirming diagnosis of common illnesses, then they are likely to be much more interested and to learn better. The learning will have more meaning for the students.

Summary

You can help your students to learn by making sure that what you teach has meaning for them.

— explain in advance what your students are expected to learn
— relate what you teach to the students' lives
— explain new words and ideas

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— use many examples to explain what you mean
— relate the teaching to the work that the students will be doing.

6.5 Active learning

Many experiments have shown that students learn very little when they are listening to a teacher giving a lecture.

They learn a little more if the teacher writes on the board and uses diagrams and pictures. In this way the students can see what they have to learn as well as hear it. But still rather little is learned.

To help students to learn you should give them some exercises to do, such as answering questions, writing notes or explaining an idea (to a friend or to the whole class). The students will also need to practise any skills that you teach them. The importance of these exercises is highlighted in the Chinese proverb at the beginning of the chapter.
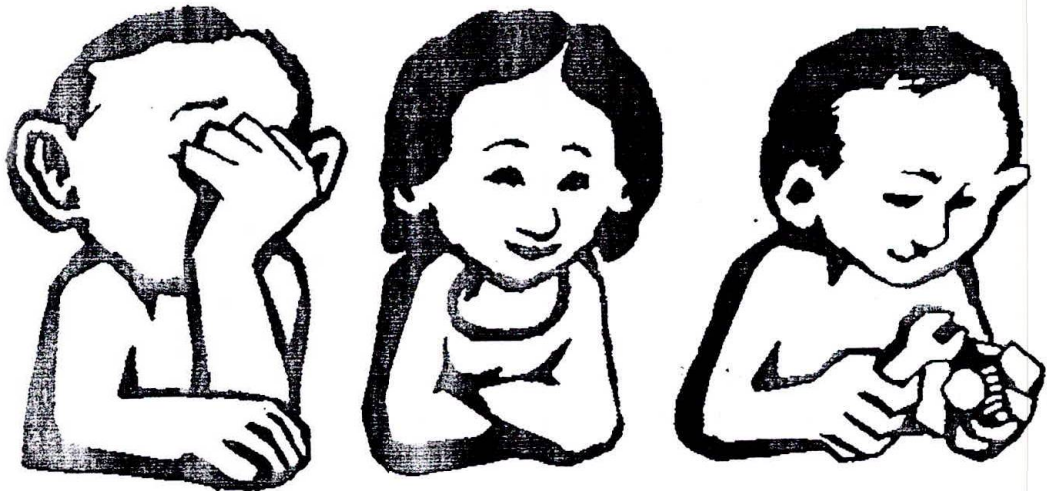
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"hear and forget . . . see and remember . . . do and understand".

Of course some exercises will be more helpful than others. As a rule, the exercise should make the students use information rather than just repeat it. Active learning can also be used in books or handouts. To illustrate the method here is an exercise for you to do.

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Exercise

Imagine you are teaching students how to take a patient's temperature. Which of the following activities would be most useful after you have explained how to do the task?

A. Read a section from a manual on taking temperatures.
B. Copy your notes from the board.
C. Make notes in their own words on how to take temperatures.
D. Write down the temperature reading shown in five drawings of a thermometer.
E. Use a thermometer to find out the temperature of another student.
F. Calculate the change in volume of 5 cm³ of mercury when its temperature changes from 10°C to 40°C.

Write down your answers and give reasons.

Comments

With the exception of F, all of the activities are better than no activities at all. E is probably most useful because the students will need to use all the information you have given. They will have to read the thermometer as well as use antiseptic techniques, shake the mercury down, place the thermometer correctly under the tongue, etc.

Activity D is also useful as some students may have difficulty reading off a scale. It would help the teacher to find out exactly which students needed more help.

Activity C is better than B because the students have to explain the task themselves instead of just copying the teacher's explanation.

Activity A might be worth doing so that any points in the manual which were difficult to understand could be explained.

Activity F is probably not worth while because the students will not have to do this kind of calculation in their job. It will waste time and may confuse the students.

You should not use **all** the activities. Some may not be possible—for example, do you have enough thermometers? Instead, you should choose one or a few of the activities that you feel would help the students to learn best.

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There are many different kinds of activities which are useful for different kinds of objectives. For example, you might develop *projects* for the students to do in which they collect data about health needs. You might use *role-playing* exercises in which students act the parts of different people they are likely to meet in their work. You might ask groups of students how they would solve a health problem in their community. All these methods will give you more work to do, but they will also help the students to learn. These methods are explained in more detail in Chapters 8, 9 and 10.

This book gives you exercises to do while you are reading. In this way the book uses active learning methods. Do you find that the exercises help you to learn?

Summary

It is easier for teachers to keep talking during a lesson, but it does not help learning. Instead, teachers should think of activities that will force the students to **use** the information that they have been taught. Teachers should use as many activities as are realistic, and so help students to learn.

Do not just talk—make your students do the work.

6.6 Giving feedback

Feedback is one of the fashionable words in education at the moment. What does it mean? Simply that when the students have done a piece of work, the teacher should tell them whether they have done it well. The teacher should also point out any errors or faults and explain to the students how the work could have been done better. This process of telling students how well they are doing is called feedback.

Feedback can also come from written material. If you ask students a number of questions and then give them the answers on a sheet of paper, this is also feedback. If you give guidance to the students they can sometimes give feedback to each other (see self-assessment in Part 3).

Of course, many teachers have been doing this for a long time, so the idea of feedback is not at all new or different. What are the ways in which feedback can be given?

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The first point is that if students only listen to a teacher talking, there is nothing to give feedback on. So feedback and activity go together. To give feedback, you must first arrange for the students to do things that can be assessed. This means that there should be frequent tests of the students' ability to do the practical tasks required, to remember the necessary facts, and to use those facts in solving problems or communicating.

These tests may be formal examinations. If these are held, the teachers will have to do a lot of extra work and the students may become interested only in passing examinations and forget the real reasons for their training. A better way is for the activities and feedback to become part of the normal pattern of teaching. The students will be able to assess their own performance or that of other students if they are given guidance by the teacher. The feedback should usually have three parts.

1. Feedback should give some encouragement and praise for what has been done well.
2. Feedback should give an indication of the overall standard of the work. For example, "*8 out of 10*" or "*Pass*".
3. Feedback should point out any errors or faults and show how the performance can be improved.

Example of giving feedback

You might watch a student practising how to bandage a patient to provide support for an injured arm. When the student has finished, you might say "*Well done. You have done quite a good job. The bandage is tied firmly so it should not come undone by itself. You have also used the right method of bandaging, so overall the standard is satisfactory. But you should have made sure that the lower arm was held level. You have made the bandage lift the patient's hand slightly higher than his elbow. To do this better you should . . .*".

Note that this example shows the teacher giving some praise—"*well done*".

The teacher gives an indication of the standard of the work—"*quite a good job*" . . . "*it will not come undone by itself*" . . . "*right method*" etc.

The teacher also points out the faults and shows the student how to do the job better—"*you should have made sure that the lower arm was held level*".

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Summary

Give as much information as possible to students about the standard of their work. Praise the good things, but also show how they can eliminate errors.

6.7 Ensuring mastery

The phrase *"ensuring mastery"* simply means that you make sure that all the students know the facts and skills that they need at each stage.

Ideally this is done at the beginning of each lesson.

When you are teaching some topics, the students may need to have understood ideas taught in an earlier lesson. For example, if you are discussing a growth chart for babies, the students will need to know what a graph is and how to record data on a graph. These ideas may have been taught some time ago, so the students may have

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". . . so the students may have forgotten or possibly never understood".

forgotten or possibly never have understood. This means that they will not be able to understand the growth chart.

To overcome this difficulty you should check at the beginning of the lesson that all students know the necessary facts and skills. Do not ask *"Does everybody know about graphs?"* If you do, the students will probably say *"yes"*, whether they understand or not. Nobody likes to admit that they do not know something. Instead you should give a very short test. For example, you could draw a graph on the board and ask the students to write down what a specific point on the graph means.

You should also find out how much your students know at the end of the lesson—or even at various stages during the lesson. Again, do not just ask *"Do you understand?"* Instead ask the students to use the skill or tell you the facts.

This technique may seem obvious. Most teachers think that they do *"ensure mastery"*. In fact if you talk to students and find out exactly what they know, you may be surprised at how little they remember from previous lectures.

Summary

At the beginning of the lesson, check whether all your students know the facts and skills that they will need. Then, at the end of the lesson, make sure that all the students have learned these essential facts and skills.

6.8 Individualize

Most teachers agree that different students learn in different ways. Some students are very intelligent, while others seem to be rather less clever. Some students may be very good at learning facts but rather poor at doing practical work. Others are the opposite. Some students can learn from books, while others prefer to listen to the teacher talking. Other students learn best by practical experience of doing the job.

However, schools often treat all students as if they were identical. All students go to the same teaching sessions. There they listen to the same lecture and then do the same practical work.

Of course, it is much simpler and cheaper to treat all students in exactly the same way. It is also easier to keep control of their

whereabouts because the timetable will say where every student should be at any given time. But is this the most effective way of learning? Does it prepare students to take more responsibility for their own learning? Remember that after they leave the training school they will usually need to work and learn on their own.
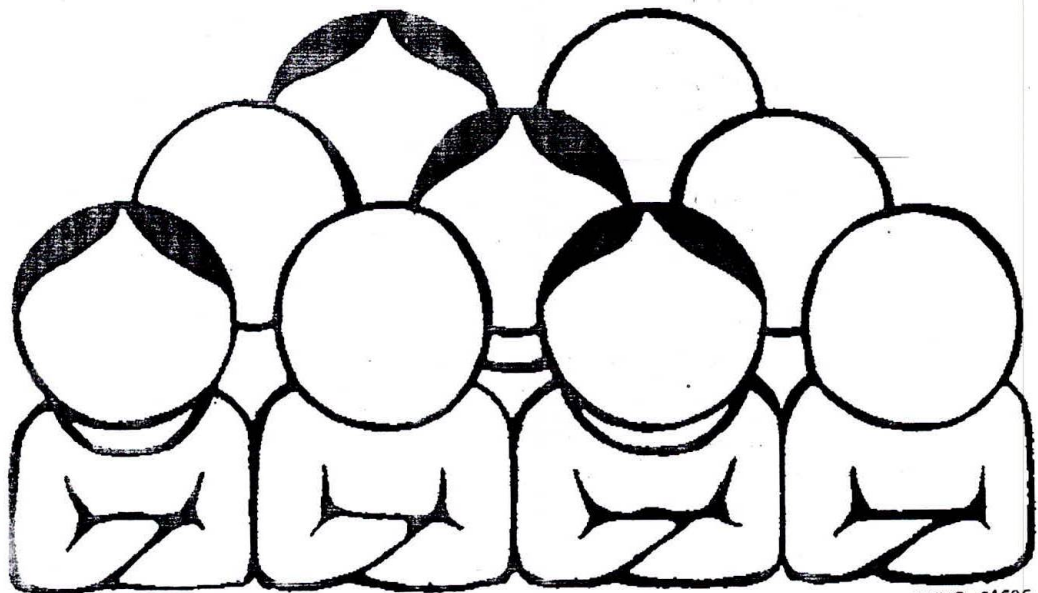
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Schools often treat all students as if they were identical.

What can teachers do to help the individual students to learn? Here are a number of suggestions which would be realistic in many training schools.

(a) **Make sure that there is enough time for students to learn on their own.** To do this you may have to cut down the number of lectures. Some people suggest that there should be as much as 2 hours of time free for individual studying for every hour in a class. This would allow the students to learn at their own pace outside the lecture room.

(b) Use **some different teaching methods.** Some students learn better from books, while some learn better when topics are discussed in a group. Some students learn well from films or film-strips (if these are available).

It is not usually possible to give a *choice* of teaching methods. However, teachers can use a variety of methods and so meet the needs of a larger number of students.

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(c) **Make more use of project work.** To do this you set students a large-scale task such as finding out what village people think are their major health problems. Project work allows a lot more scope for students to learn in their own way. It also gives a contrast to the lectures.

(d) **Talk to students individually.** If you talk to the students by themselves you will find that some students are confused by one idea while others find the idea quite easy to understand. You will then be able to explain the idea yourself, or tell the students where to find the relevant information.

(e) **Use self-instruction methods.** Where possible use tape-slide programmes or programmed texts. Where this is not possible because of lack of equipment or suitable programmes, you can help students by giving them written notes. These notes can guide the students in using manuals for health workers. Notes can also be used in practical work to remind students of the skills that they need to learn.

Summary

Remember that your students are individuals. They learn at different rates and in different ways. They have different interests, experiences and abilities. Try to find out what each student is like. Then use this information to vary your teaching so that as far as possible each student can learn in his or her own way.

6.9 Caring

Students will often do things for one teacher that they will not do for another. How then can you use this to help your students learn?

One thing that encourages students to make more effort is the belief that the teacher cares about them. Note that it is not enough for the teacher to care. The students must **know** that the teacher cares.

This does not mean that you should give higher marks than other teachers or allow poor standards of work or behaviour. This gives the opposite impression. Nor should you be content to say "*I care about ...*". Simply saying the words will not persuade many of your students for very long. Instead, the way that you as a teacher behave will show whether you care or not.

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Exercise

Look at the list of statements about a teacher. Which statements would you like to be true of you?

A. She wears clean and tidy clothes.
B. He always arrives for teaching sessions on time.
C. She prepares thoroughly for teaching sessions.
D. He shows that he is very knowledgeable about the subject by using all the technical words.
E. She is a very important and very busy person. So she has to hurry away from teaching sessions to do other work.
F. He never smiles or jokes, because learning is a very serious business.
G. She always praises students' work, however bad it is.
H. He talks to students and finds out what their personal interests and ambitions are.
I. She asks students to comment on the teaching sessions so that the sessions can be improved.
J. He ignores the comments students make about the lessons.
K. She requires the students to do work of a high standard.

Comments

The "*correct*" answers are probably obvious. The only statements that need expanding are D, G and H.

Statement D reflects one of the worst things that some teachers do. Teachers should not use technical words just to show how clever they are. They should take pride in the way they make ideas easy to understand.

Statement G is typical of teachers who are trying to encourage their students. But teachers should not praise bad work. Your aim should be to praise whatever is worth praise, but point out the weak points and insist on a high standard.

Statement H may seem unrealistic. Teachers do not have time to talk to all their students for long periods of time. But you should try to talk and **listen** as much as possible. When you are talking, try to find some shared interest. For example, you may know someone from the student's village. You may be interested in the same sport as the student. The important point is for you to show the students that you care.

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Summary

If the students believe that the teacher cares about them, they will have an extra reason for learning.

6.10 Motivation

Some mention must also be made of motivation. It is often said that motivation is the key to successful teaching. All that a teacher needs to do is motivate students and they will learn.

How can teachers motivate students? The answer is simply to use the ideas described in Sections 6.2 to 6.9. Each of these ideas will help to make the courses more interesting, easier to learn or more relevant to the student's career. Above all they will help students realize that you care about their success. All these ideas will help to motivate students.

6.11 Conclusion

Some people argue about whether teaching is an art or a science. In other words, some people believe that the talent for teaching is a natural gift that good teachers are born with. Other people believe that teaching is a science which is controlled by rules.

This part of the book is designed to show you that there are some general rules for teaching. If you follow these, your teaching will improve. If you do the opposite to these rules, then your teaching will almost certainly be poor and the students will not learn.

In order to teach well, you will need to apply the rules for your students, your subject and your school or college. You still have to think of ways to make your teaching sessions have more meaning for your students. You have to be imaginative and think of activities which will be useful to your students. You have to take the trouble to give feedback to your students and to show that you care about their success.

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Summary

1. Make the learning active—ask questions, set problems and organize projects.
2. Give feedback—explain how well each student is doing and how his or her work could be improved.
3. Make your teaching clear—check that the students can hear what you say and see what you write. Speak loudly, use simple language, write tidily, and use visual aids.
4. Make your teaching meaningful—explain how it will help students to do their job better.
5. Ensure mastery—check that **all** students know the necessary tasks and can perform the necessary skills before and after each session.
6. Allow for individual differences—let students learn at their own pace, leave enough free time for individual study and use a variety of teaching methods.
7. Show that you care whether students learn—set high standards and get to know each student.

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CHAPTER 11
General issues in assessment

One of the most important parts of the teacher's job is to find out how much students have learned. This process is called assessment. It can be carried out by setting examinations or watching students at work. This chapter covers the general issues and problems related to specific methods of assessment.

11.1 Why must students be assessed?

Most teachers agree that students should take some kind of examination or that students' ability should be measured in some way. In other words, students should be assessed.

It is important to assess students because:

1. Teachers need to make sure that the students will be able to do the job competently. This is especially important in all the health professions.
2. Examinations and tests encourage students to work harder.
3. Assessments can be used to guide teachers and students about which parts of the course have been successful and which parts need to be improved.

Naturally no single assessment during the course can achieve all these objectives. For example, a final examination may be good for seeing whether students are able to do the job. But it will not be much use in guiding students about what they should learn.

It is important to think about the reason why you are assessing students in any test or examination. Then you can design the test accordingly. You need to decide who will do the assessing, when it will be done, and what kinds of questions you will use.

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11.2 **What makes a good assessment?**

When you design the assessment methods for a course or lesson, there are five questions that you need to consider.

1. Does the assessment comply with the regulations for the course?
2. Is the assessment reasonably economical in terms of materials and time?
3. Does the assessment test the important skills and abilities? (*Is the method valid?*)
4. Are you sure that the marks gained by each student are accurate? (*Is the marking reliable?*)
5. Does the assessment give information that will help the students to learn better and help you to improve your teaching?

The first two points are fairly straightforward. Sometimes there are regulations about the kinds of examinations that must be used. These regulations must be observed, but often the regulations only concern the final examinations and allow teachers to choose which methods of assessment to use during the course. If you feel that the regulations prevent you assessing the students in a satisfactory way, talk to other teachers and the people responsible for making the regulations. They may decide that the regulations need to be changed.

Assessments must not involve too much time and effort. Methods such as oral examinations and essays have disadvantages because they take up so much of the teachers' and examiners' time.

The remaining questions are discussed in Sections 11.3–11.5.

11.3 **Making sure that the assessment tests the important skills and abilities**

After some recent anatomy and physiology examinations in a medical school, a senior clinician said "*I could not answer the questions, nor could any of the other doctors who read the examination paper. I could not understand why the students needed to know these things.*"

This case highlights a serious problem that can occur in any schools that train health workers—students are often asked about facts that are not important.

This problem is serious because students naturally want to do

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well in examinations and so they learn what they think will be in the examination. The solution is to test **only** those skills and abilities that you believe are important.

If the learning objectives have been derived properly, then all the learning objectives will be important. Therefore **the assessment should test directly whether the learning objectives have been achieved.** If this is done, then the assessment will test the important skills and abilities. When this happens, the assessment is said to be *valid*.

Sometimes examinations focus mainly on knowledge and tend to ignore the performance of students. This is bad. For example, consider one of the tasks of health educators—*"persuade mothers to breast-feed their babies"*. In a bad examination, health educators might be asked to write essays on the nutritional value of breast milk. This assessment would only test a few of the skills needed (it does not cover the skills of talking to mothers) and so it is not valid.

It is easy to advise teachers to make examinations valid by testing the performance of their students. It is much more difficult for the teachers to plan assessments that will do this. Some ideas are given in Chapter 12.

11.4 Making assessment reliable

In a recent examination, the students were asked to write an essay about the treatment of burns. The papers were marked by the teacher who had taught the course. Then another teacher marked the same examination papers. The scores given by the two teachers were very different. For example, one student was given 45% by one teacher (a fail) and 70% by the other.

This demonstrates that in this examination the marking was not *reliable*.

Clearly, the final mark should be reliable or it becomes meaningless. How can you be sure that a mark is reliable? The answer is to try to cut out the errors involved in the assessment process. Use assessment methods that are less likely to lead to errors. (For example, the marking of multiple-choice questions is more reliable than that of essays.)

You should also use techniques that help the people marking the examination to work to a uniform standard. These methods are described in more detail in Chapter 12.

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11.5 Using assessment to help students to learn

Tests and examinations can encourage students to do more work — and so they help them to learn. However, assessment can also show students exactly what they need to spend more time on. In many courses the teachers give frequent tests and then tell the students what exactly they have done badly. In this way students get feedback about the quality of their work and can improve their performance.

To illustrate this point, look at the results for five students who took a 4-part test in the middle of a course.

Exercise: Using assessment to help students to learn

Student	Part 1	Part 2	Part 3	Part 4
A	√	×	×	√
B	√	√	×	√
C	√	√	√	√
D	√	√	×	×
E	√	√	×	×

√ — satisfactory standard
× — unsatisfactory standard.

What would you do if you were the teacher?

Comments

Probably you would be satisfied with Part 1. For Part 2, you should advise student A that his standard was not good enough. You should explain why the work was not good and how it could be made better. Ideally the student should be tested again on this part at a later date.

The results for Part 3 show that only one student reached a satisfactory standard. Probably this part needs to be taught again. Here the teacher gets

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feedback about his or her own performance—so perhaps next year the topic will be taught differently.

Part 4 shows that two students need more guidance. However, it would probably be a waste of time to repeat Part 4 for the whole class.

If you do everything suggested in the comments above, you will find that it will take you a lot of time to assess students. This is a problem, but giving students this kind of individual guidance is one of the most valuable things that a teacher can do. You must try to make time. One way is to spend less time lecturing to the class and instead to let students learn directly from manuals, handouts and practical experience.

Note that this frequent testing and guidance applies equally well to both the knowledge and the skills that need to be learned.

11.6 Continuous assessment

In some courses, students sit one final examination at the end of the course. In other courses, students work under constant supervision. Between these two extremes, there are courses with tests or assessments every week, month or term. This type of assessment is usually called "continuous assessment", although "frequent assessment" would be a more accurate description.

What are the advantages of continuous assessment?

- Because there are several assessments, an error in any one assessment is less important. Continuous assessment tends to be more reliable.
- The tensions and worries of the single final examination are reduced.
- Because students are assessed throughout the course, they tend to work harder during the course instead of making a single desperate effort at the end.
- If students do poorly in one test, they have time to correct their errors before the end of the course. Continuous assessment gives more guidance to both teachers and students.
- Students are shown throughout the course what standard is expected.

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The tensions and worries of a single final examination.

Of course there are some disadvantages as well. The main disadvantage is that continuous assessment takes more time and effort for teachers to organize.

Continuous assessment can take many forms. It may be a series of written tests. It may involve observation of students while they are working on a ward, in the laboratory or in the field. The marks given may be recorded to decide whether students eventually pass or fail. Or the marks may be used only to guide students. Whatever system is followed, continuous assessment offers important advantages both in helping students to learn and in making more accurate and reliable judgements about how much they have learned.

11.7 Self-assessment

Self-assessment is the name given to assessment where students assess their own performance.

Some teachers are very worried by this idea because they feel that students are not responsible enough or do not know enough. This is probably true at the beginning of the course. However, some health workers will be working with very little supervision after they have

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qualified. So in the job they **must** assess themselves. Therefore it is a good idea to give the students some experience of self-assessment while they are still being trained.

Naturally self-assessment is a method that is used for only part of the time. Teachers or external examiners will be used to decide whether students should pass or fail at the end of a course. However, self-assessment can be used during the course. It will help to save time and give students a greater sense of responsibility.

In self-assessment, students need clear guidance about what standards are required. They must also be given a very clear idea of the task. For example, you might ask students to:

1. Inspect 50 microscope slides of blood samples to determine whether malaria parasites are present.
2. Fill in standard forms for stock control in a pharmacy.
3. Plot a patient's temperature on a chart.
4. Weigh and record the approximate weight of a baby.

In all these examples, the students can compare their own work with a correct answer and so learn whether their work is satisfactory. Note that cheating is not a problem, because the purpose of self-assessment is to learn—not to score points in an examination.

11.8 Peer-assessment

An alternative to self-assessment is peer-assessment. This is the name given to assessment where students assess each other.

This method is not suitable for deciding whether students pass or fail at the end of a course. But it is a very good method for helping students to learn.

Many students ask a friend to test them when they are revising for an examination. This practice can be encouraged and guided by the teacher. For example, you could give the students written instructions for doing a job. Then one of the students attempts to do the job, while the other one watches and comments. The students then change over and the second student does the job watched by the first one.

You must of course provide the written instructions. These can be prepared either from your own experience or from a manual.

Peer-assessment can help to make field experience have more meaning and relevance for students. Instead of vaguely trying to

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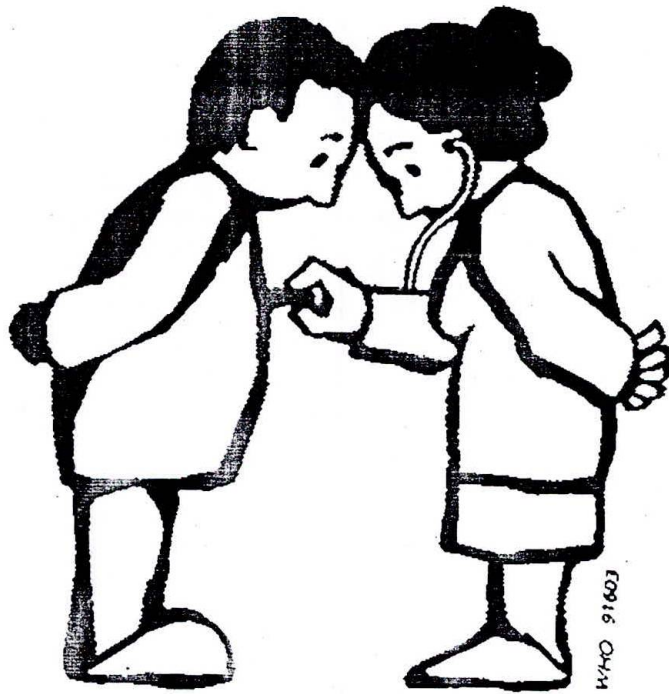
"Then one of the students attempts to do the job . . .".

do a job as well as possible, each student will be supervised by a fellow student who is there to watch and advise.

11.9 Summary

Exercise

Look at the three examples of assessment methods given below. Then comment on them using some of the points made in Section 11.2:

— Is the assessment economical in terms of materials and time?
— Does the assessment test the important skills and abilities? (Is it valid?)
— Are the marks accurate (reliable)?
— Does the assessment help students to learn?

Now look at the following examples.

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A. At the end of the course, a written examination is held in which the students have to write four essays in 3 hours. Then an external examiner meets all the students individually for 15 minutes to give them an oral examination on what they have learned.

B. Every 2 weeks during the course, students have to answer 20 multiple-choice questions on topics such as signs and symptoms of diseases, methods of treatment, and prevention of disease. The students mark the papers themselves by comparing the answers with the correct answers supplied by the teacher.

C. Trainee community health nurses (CHNs) spend 1 month working with an experienced CHN (two students work with each CHN). The students do most of the work themselves under supervision. The supervisor then writes a report on the students.

Write down your comments on each assessment method.

Comments

Method	Economy of time	Validity	Reliability	Helping learning
A	Poor	Poor	Poor	Poor
B	Good—after 1st year	Misses many important skills	Very good	Good
C	Poor	Very good	Moderate	Good

A. This method is bad in almost every way. It will take a long time to mark the essays and to conduct the oral examinations. Students will not have to write essays or talk to external examiners after the course—so the skills tested are not important. Essay-marking and marks given in oral examinations are frequently **not** reliable. The timing of the examination also means that students will not learn much from it.

B. It will take a lot of time to set the multiple-choice questions. But the questions can be used year after year (with a few changes) and they are very quick to mark. The assessment may test important skills, depending on the exact questions asked and what work the students are being trained to do. However, multiple-choice questions usually only test factual knowledge, so they cannot test many of the important skills that should be tested. The

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reliability is excellent—there should be very few marking errors. Students should learn both from marking each other's work and from seeing exactly what errors they have made. But note that it will only help them to learn factual knowledge.

C. This method will take quite a lot of time because the supervisor writes individual reports. However, the important skills are being tested. The reliability may be low because different supervisors may have different standards. The assessment should help learning very effectively.

These examples illustrate that each assessment method has some disadvantages. You should be aware of these problems and try to reduce them as far as possible. Specific guidance on different assessment methods is given in Chapter 12.

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CHAPTER 12

Assessment methods

The previous chapter discussed the general issues related to the assessment of students. This chapter describes specific methods that will help to improve the way you assess your students. Examples of each method are given and their advantages and disadvantages are discussed.

12.1 Oral examinations

In an oral examination, each student is interviewed by one or two examiners. Usually students are asked to tell the examiner what they know about some topic or what they would do in some situation that might happen in their job.

The main advantages of oral examinations are that the examiner can ask for more detailed information and can probe to find out how much each student knows.

However, this is not a very satisfactory method of assessment. Students are often made extremely anxious by examiners, even though the examiners try to be friendly. This is unfair on the students, because they will not face this kind of stress in their job. Many students get worse results in oral examinations than they deserve. Oral examinations also take up a lot of time and are often criticized because the marking is unreliable. Further, oral examinations rarely test the important skills and do not usually help students to learn.

You should **not** use oral examinations to assess students unless you have some specific reason for doing so.

12.2 Essays

Essays have been widely used in assessing students in the health professions. But again, this method has very serious disadvantages.

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In one course, students were asked to write an essay on polio immunization. This is a very poor test even though the topic was of some relevance to the students. (The students were going to be responsible for immunizing people against polio as part of their jobs.)

The test is poor because:

- The students cannot know what information the examiner considers to be important. For example, should they describe the administration of an immunization programme? Should they outline how immunization prevents polio? Or should they describe the side-effects?
- The marking is likely to be unreliable. Because the topic is not clearly defined, different teachers will think different points are more important—and give different marks as a result. Whether a student passes will depend very much on who marks the paper.
- The test is not valid. Students are not going to write essays in their job. They are going to immunize people. Therefore it would be much better to test the skills required for this task.
- The essays will take a long time to mark—if teachers do this job thoroughly.
- The students are unlikely to learn very much from the test.

How could the essay be improved?

The first point is that a different method of assessment would probably be better—some examples are described in the following paragraphs. However, if an essay must be used, you should:

1. Make the title much more specific, for example:

   "Describe how you would explain to mothers why their children should be immunized against polio" or *"Explain how polio vaccine should be transported and given to children"*.

   These essay titles are fairer because it is more clear to students what they should write about. They are also more valid because they ask students to describe the skills that are important.
2. Prepare a marking scheme and follow it. This scheme should include a list of the major points that should be covered in the essay and specify how many marks should be given for accurate

spelling, general clarity of explanation, etc. The scheme should be used by all teachers marking the essay. This improves reliability.

3. After the examination, show the marking scheme to the students and discuss it with them. This helps them to learn.

12.3 Short-answer questions

Short-answer questions allow teachers to ask questions about a larger proportion of the course and to mark more accurately and quickly.

Example of short-answer questions

The following questions were part of an examination for trainee health inspectors.

1. List four advantages to a household of proper rubbish disposal.

   (i)
   (ii)
   (iii)
   (iv)

2. Draw a diagram showing the construction of a simple incinerator suitable for use in a small village.
3. Give two examples of situations when burying rubbish is better than com-posting.

   (i)
   (ii)

Short-answer questions often ask students to give examples, write down some advantages or draw a diagram. Because they are so much more specific than essays, they are quicker to mark and more reliable. They are also very much quicker to answer. This means that the students can be tested on many more topics during the examination.

The main disadvantage of this method is that it may simply test the students' ability to remember facts rather than apply knowledge or use skills.

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12.4 **Multiple-choice questions**

Multiple-choice questions are often called MCQs. They are a stage beyond short-answer questions, because the students do not write any words. They just choose which of several answers is best.

Although you can use four or six choices in multiple-choice questions, five is the most common number. This type of question is sometimes called the *"one-from-five"* type of multiple-choice question.

Example of an MCQ of the one-from-five type

A patient tells you that he is worried because one of his eyes is red. You cannot find any foreign bodies in the eye, but note that the pupil is bigger and does not respond to light. What is the most likely diagnosis?

A. Trachoma
B. Conjunctivitis
C. Iritis
D. Corneal ulcer
E. Glaucoma

In this example, the student has to choose between the possible answers and select the best one—in this case *"E"*. In this type of question, there is a *stem—"A patient tells you ... likely diagnosis"*—and five choices.

Another type of MCQ is the true/false type.

Example of a true/false MCQ

In glaucoma

A.	There are usually white or grey spots on the cornea.	T. F.
B.	The pupils are irregular.	T. F.
C.	Only one eye may be red.	T. F.
D.	The patient should be referred to a health centre.	T. F.
E.	A foreign body is the most likely cause.	T. F.

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Again there is a *stem*—in this example it is very short—"*In glau-coma*".

But this time the stem is followed by several statements. For each statement the student has to decide whether the statement is true or false. In this case "*A*" is false, so the student should draw a circle round "*F*". "*B*" is also false, but "*C*" and "*D*" are true while "*E*" is false, so the student should draw circles round F, F, T, T, and F respectively. In this example the student has to answer all five parts of the question.

Both these types of questions are used fairly commonly, although true/false questions are often preferred because they are easier to understand and can be used to test the students on a wider range of facts.

How useful are MCQs?

MCQs can be marked very quickly and accurately. They can also be answered quickly, so a lot of questions can be set in an examination. This means that a lot of the course can be covered.

On the other hand, there are serious disadvantages. It is quite difficult to write clear questions—so writing the questions takes a lot of time. There is also the very serious problem that MCQs usually only test the students' knowledge. Only rarely do they test decision-making skills and they cannot test the students' ability to communicate or to perform procedures. This means that MCQs are likely to be valid for only a small part of your course.

Despite these problems, MCQs can be useful. They can be used to check factual knowledge, especially during the course. They are also very helpful when used for self-assessment or peer-assessment.

If you decide to use MCQs, the following points may be helpful:

- You should allow roughly 2 minutes for each 5-part true/false question in an examination. So in an hour students can be expected to answer about 30 questions. If you find that students are not finishing the examination, cut down the number of questions. It is not a race.
- For true/false questions, give the students one mark for each correct choice, zero for no answer and take away one mark for each wrong choice.

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Use the same scheme for marking one-from-five questions, but do not take away marks for wrong answers.

- The pass mark for MCQs should be quite high. This is because the MCQs should be testing basic knowledge that all students should know. Therefore a pass mark of 80% or 90% can be used successfully. It is better to use easy questions with a high pass mark rather than harder questions with a pass mark of 50% or 60%.
- Marking is made much faster if a separate response sheet is used for the students' answers. Then a mask can be laid over the response sheet, with holes cut out for the correct answers.

Look at the example below. Three correct answers will show through the holes—so you would give 3 marks. There are four ticks
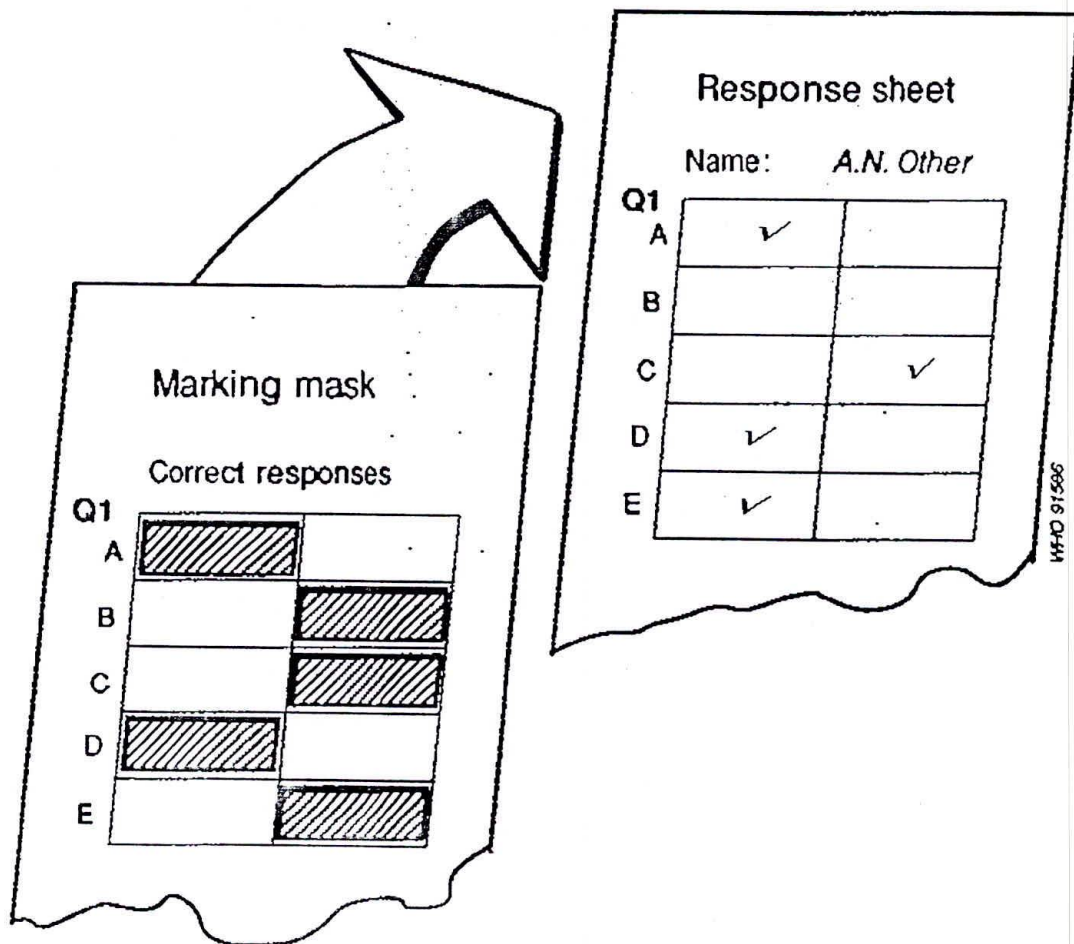
altogether, so one answer must be wrong—so you would take away one mark. This leaves a score of 2 (3 − 1) for the student.

12.5 Patient-management problems

Patient-management problems are a development of short-answer questions. The main feature is that a series of questions are asked about a case. This method can be used to test students on a wide range of subjects. It can be used wherever students are being trained to make decisions. So it is very useful for assessing students who are training to be health educators, community health workers, community nurses, health inspectors, etc.

Example of a patient-management problem

Mrs A comes to the health centre and tells you that she feels tired all the time. She asks you for a tonic. You find out that she is 30 years old and about 5 months' pregnant.

1. List 3 things that you think might cause the tiredness.
2. Write down 2 other questions that you would like to ask Mrs A.
3. As a result of Mrs A's answers, you suspect she is anaemic. What physical signs would you look for?
4. Your examination confirms your diagnosis of anaemia. What treatment (if any) would you prescribe and what other advice would you give?

This example has the advantages of a short-answer question. It is clear to the student what is required and it will be quick and reliable to mark (providing that all teachers involved agree what the possible causes of tiredness are). It is also much more valid as a test because it is based on the kind of work the students are being trained to do. (It would, of course, be much better if each student met Mrs A and took a history and examined her.) If students are given the marking scheme after the examination, they will also be able to learn from this.

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How can you prepare patient-management problems?

It is usually easiest if you base the problem on a case that you have dealt with, such as a boy who presented with severe abdominal pain or a mother who rejected any advice on nutrition, even though her children were malnourished. Of course you can only do this if you still work as a health worker yourself. However, if you teach full-time, talk to health workers or, even better, spend half a day with a health worker to write down examples of cases.

The next stage is to divide the case into stages. What happened first? What decisions had to be made? What alternatives were available?

Then you need to decide what items of information to give the students and what questions to ask them.

At this stage you will have a patient-management problem, but you will still need to develop a marking scheme. List all the answers that you think students might give—both right and wrong. Then decide how many marks you will give for each of the possible answers.

12.6 Project reports

In a number of courses, students are asked to work on a project. This may involve such tasks as doing a survey of a community or working in a health care team for a few weeks. Often the students then present a report on the project and this can take a lot of time.

Naturally students will be more motivated in the project if their reports are assessed and the marks count towards the final examination score.

However, project reports are extremely difficult to mark fairly because there are usually no clear standards for teachers to follow. Some students may do very good work but present a poor report. Others will present a very clear and full report of poor work. Which is best and what standard should you accept?

The following guidelines may help you to assess project work.

1. Project work should be assessed by at least two people marking independently. The two marks should then be compared and discussed to reach a final mark.
2. Where possible, explain to students what standards they should

aim for. Tell the students what you think a good project would be like. Where possible, explain how much data should be collected, how many cases should be seen, and what kind of graphs or tables would be useful. But be careful not to restrict the students too much.

3. Show the students some project work done in previous years that you think is good and also some that you think is bad. Explain your reasons. Of course you cannot do this when you first use projects—so it may be better not to count the marks for the first projects in the overall assessment.

Clearly, the use of projects in assessment causes some problems for the teacher. What is their value? Project reports take a lot of time to mark and the score may not be reliable. However, this method of assessment can be valid if the projects are chosen carefully to involve the students in practising the important skills. Above all, projects can be very powerful learning experiences and they should be assessed to encourage students to make the maximum effort.

12.7 Casebooks

Casebooks have been used quite widely in training nurses and they can also be used in courses for other groups of primary health care staff.

The casebook contains a list of skills or tasks that the students should be able to do. These tasks are the objectives, or at least some of the objectives, for the course. The students are responsible for learning how to do each of the tasks, and when they are ready they can ask a teacher to assess their performance. During the course the students must perform all of the tasks to a satisfactory standard. If the teacher thinks that a student's performance is not good enough, the faults are explained and the student can try again later.

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Example—A page from a student's casebook

Task	Date	Signature
17. Prepare a flip chart for use with an audience of 30 people 18. Give advice to a pregnant woman about antenatal care	20/10/90	M. Gwan

This assessment method uses quite a lot of the teacher's time because each student must be seen and his or her performance must be assessed. It can be difficult to organize because teachers may not be available when the student is ready to be assessed. There may be problems with reliability. On the other hand, there are a number of advantages. The main advantage is that casebooks help learning. They do this by making clear to the students what needs to be learned. They also make sure that when students are not up to standard, the teacher is there to give advice. The second advantage is that the method is highly valid, because students are assessed on how well they can do the tasks and jobs that they are being trained to do.

This is a slightly different type of assessment. You do not give students a mark out of ten for each performance—you simply decide whether they are good enough or not. So at the end of the course, a student may have performed 23 out of the 29 set tasks to a satisfactory standard. It is then up to the examiners to decide whether this is a "pass". For some courses, students will need to achieve a satisfactory standard on all the tasks. For others, it may be unnecessary to insist on this high standard.

12.8 Checklists

Checklists are not so much a method of assessment as a way of improving other forms of assessment. Assessments of practical and clinical work are often criticized because the mark is unreliable. Different examiners use different standards. Checklists reduce this problem and they also make sure that the *way* in which the student does the task is assessed.

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Example—A checklist for the task "Prepare a thin blood film using a sample of your own blood"

	not done	done correctly
1. Uses middle finger or ring finger		
2. Cleans the finger using surgical spirit or alcohol		
3. Dries finger with a clean piece of cotton wool		
4. Allows blood to flow freely after pricking with needle		
5. Puts a single drop of blood in the middle of the microscope slide		
6. Uses a second slide as a spreader. Allows the blood to spread along the end of the second slide		
7. Pushes spreader quickly along the slide		
8. Draws blood along *behind* the spreader		
9. Does *not* blow on slide or shake it		

The examiner can watch the student preparing the blood film and put a tick in the right-hand column for each part done correctly. At the end of the test, the examiner adds up the number of ticks in the right-hand column and gives the student a score out of 9. The pass mark for this test needs to be decided by the examiner. In this example, the examiner may feel that 7 out of 9 would be a suitable pass standard. For other tests, the examiner might expect 50% or 90%. The pass mark will depend on the specific test.

The advantage of a checklist is that it makes the marking fairer. Different examiners watching a student do a test are more likely to give the same score if they have a checklist. Checklists are also very useful for giving feedback to students or teachers because the evidence is clear and simple. The examiner might tell the teacher *"Most of your students did the blood film test quite well, but I noticed that about half of them pushed the drop of blood instead of drawing it behind the spreader slide"*. This would help the teacher realize that this point needed more emphasis during the next course.

In the same way, detailed information can be given to each student. For example, students might be allowed to see the checklist for their own performance.

The above example is for assessing a psychomotor skill. Similar checklists can be prepared for assessing communication skills and attitudes, but this is often rather more difficult.

Note that you can prepare a checklist from a task analysis.

12.9 In-course assessment

During the training course, your students will probably spend time working in hospitals, health centres or dispensaries. There they will be practising the communication skills and the psychomotor skills needed in their job. This time can be used for assessment as well as teaching.

Many different people will assess the students, so in-course assessment is likely to be more reliable if supervisors are given a checklist to follow. This checklist should be fairly simple, as shown in the example below.

Example—A checklist for assessing students in a health centre

	completely satisfactory	just good enough	not good enough
1. Keeps complete and accurate records			
2. Observes sterile procedures			
3. Establishes good relationships with patients			
and so on			

Nurses or health workers supervising students can use simple checklists to give a clear picture of what the students can or cannot do. You can then use this information:

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1. To make decisions on whether students should pass or fail.
2. To give specific advice to students about what they need to learn.
3. To improve the course in areas that are poorly learned.

This kind of checklist is again prepared from a task analysis. Checklists can also be used to help assess attitudes.

Example—A checklist for assessing attitudes

1. Very keen willing worker	⊢⊢⊢⊢⊣	Does as little work as possible
2. Accepts instructions willingly	⊢⊢⊢⊢⊣	Resents or ignores instructions
3. Very interested in patients	⊢⊢⊢⊢⊣	Not interested in patients
4. Always keen to learn	⊢⊢⊢⊢⊣	Not interested in learning
5. Always on time	⊢⊢⊢⊢⊣	Always late

This checklist might be used by a senior nursing officer or supervisor on a ward where student nurses spend part of their training. The supervisor would use one form for each student nurse. At the end of the training period, the supervisor would think about the way each of the nurses had worked during their time on the ward.

For example, some nurses might have been quite willing to do what they were asked to do, but never seemed very keen or offered to do extra work. The supervisor would note this down on their forms by putting a cross at about the middle of the line:

| 1. Very keen willing worker | ⊢⊢✳⊢⊣ | Does as little work as possible |

In this way the supervisor can give a fair and quick summary of the attitudes of the student nurses to the teacher responsible for the course. This checklist can be used to give advice to student nurses and can form part of the overall assessment that is used to decide whether they pass or fail the course.

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12.10 Summary

No assessment method is perfect. Each has some advantages and some disadvantages. You should therefore use a variety of methods whenever possible.

Ideally, you should first decide what skills need to be assessed. These skills are the performance objectives of the course.

Then you should choose the best method for assessing these skills. The method should be chosen on the basis of:

— regulations for the course
— economy of time
— reliability
— validity
— value as a learning tool.

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This document summarizes the main work done by CPHE SOCHARA with the assistance of Dr Adithya P (Policy Research Assistant) on Public Health Definition and Competencies to support the SOCHARA contribution to the IPHA initiative. Four key elements of this work were operationalized through the following tasks:

1. Exploring Public Health definitions to help evolve an India-relevant definition

2. Exploring Public Health Competencies for public health professionals by scanning curricula and competency lists from various public health institutions/universities all over the world including India, using the concept of *Core* and *Cross-cutting* Competencies which has been accepted as the framework in the IPHA initiative.

3. To create a framework of convergence and hierarchy of levels of competence built by different existing public health courses (MBBS, MPH, MD).

4. Identifying sub-themes for these competencies to evolve check lists for those who are considering new public health education programmes.

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Task 1: Public Health definition

Various definitions of public health, community health and primary health care were looked for, reviewed and considered in the Indian context. These definitions, along with their sources, are available in the appendix of this document. Relevant themes were identified from these definitions and from professional experience in relation to the Indian setting to come up with the proposed definition, which built further on the initial template provided by Dr Farooque Ahmed and the suggestions of Dr Sanjay Chaturvedi (see appendices). The suggested definition and compilation of phrases is as follows:

"Public Health is the science and art of promoting health, preventing disease, and prolonging life

-to ensure for everyone a standard of living adequate for the maintenance of a healthy and productive life,

-by developing a social movement, as an integral part of community development,

through intersectoral coordination and organized community effort emphasising equity, participation, ownership, rights and responsibilities

— while maintaining healthy environment; empowering people to maintain a healthy life style & behaviour; controlling communicable and non communicable diseases;

-addressing social, cultural, economic, political, ecological and environmental realities having a bearing on health;

-formulating health policies, interventions and programmes; and by evolving and organizing human resource and health care systems to facilitate health promotion, disease prevention, early diagnosis, treatment and rehabilitation, through informed choices of our society, communities and individuals,

-which is available universally, distributed equitably, ethical, socially relevant and accessible to all irrespective of their ability to pay."

.This definition has been submitted for peer review, comments and further additions/modifications.

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Task 2: Public Health competencies for health professionals in India

Several documents on public health competencies were reviewed from Indian and foreign institutions and universities (see list in appendix). Contact was maintained with other members working on this project, and their feedback was considered. A potential list of core and cross-cutting competencies was prepared and dispatched for peer-review and comments:

Core competencies:

1. Health planning

2. Epidemiological skills

3. Family and community diagnosis

4. Health management (including financial management)

5. Managing and implementing health programmes (including program planning)

6. Monitoring and evaluation (including health surveillance)

7. Health promotion (including prevention and protection)

8. Training

9. Research (including biostatistics and demography)

10. Working with community (including community dimensions of practice)

11. Partnership and advocacy

12. Public health laws and ethics

13. Public health biology competency

14. Environmental health competency

Cross cutting:

1. Critical analysis and systems thinking (including problem solving)

2. Socio-cultural competency (including all social and behavioural sciences like economics and political sciences)

3. Leadership

4. Communication (including informatics)

5. Life-long learning

6. Equity

7. Human resource development

8. Policy and advocacy

9. Governance and decentralisation

10. Conflict resolution

Task 3: Convergence and hierarchy of levels of public health competencies

An ad-hoc assessment was also made on the degree and type of competencies needed at each level of education. This comparison was made to clarify that competencies may be shared between various types and levels of education, but competencies may be of differing levels.

Comparative competencies and degree/level of competencies for the Indian scenario:

Competency	MBBS (PSM/CM)	MD-PSM (Consultant)	MPH (Practitioner)	MHA /MSc
CORE				
Health planning	+	+++	++	
Epidemiological skills	+	+++	+++	
Family and community diagnosis	++	+++	-	
Health management (including financial management)	+	+++	++	
Managing and implementing health programmes (including program planning)	+	+++	+++	
Monitoring and evaluation (including health surveillance)	+	+++	+++	
Health promotion (including prevention and protection)	++	+++	+++	
Training	+	+++	+++	
Research (including biostatistics and demography)	+	+++	++	
Working with community (including community dimensions of practice)	++	+++	+++	
Partnership and advocacy	+	+++	+++	
Public health laws and ethics	+	+++	+++	
Public health biology competency	++	+++	+	
Environmental health competency	+	+++	++	
CROSS-CUTTING				
Critical analysis and systems thinking (including problem solving)	+	+++	+++	
Socio-cultural competency (including all social and behavioural sciences like economics and political sciences)	+	+++	++	
Leadership	+	+++	+++	
Communication (including informatics)	++	+++	+++	
Life-long learning	+	+++	++	
Equity	+	+++	+++	
Human resource development	+	+++	++	
Policy and advocacy	+	+++	++	
Governance and decentralisation	+	+++	+++	
Conflict resolution	+	+++	+++	

Key:

+: basic understanding (public health oriented general practitioner)

++: basic understanding and skill/capacity for practice (public health practitioners)

+++: advanced understanding for both practice and system-development (public health consultants)

(this applies only to MBBS, MPH and MD. Special masters programmes for example MSc Epidemiology, MSc Health Promotion, MSc Health Services Management, MSc Health Policy and Planning etc may be specialist enough to produce consultants for system-development in those areas)

Task 4: Sub-themes for competencies evolved out of scan of relevant documents

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Please note that the language varies since we have extracted directly from documents without too much further editing. Sources of each sub-theme has been indicated in brackets using acronyms listed out at the end of the main list. This list needs further standardisation in framework, format and language for coherent construction of relevant competencies and use in curriculum construction.

CORE COMPETENCIES

Epidemiological skills

Examine public health problems in terms of magnitude, person, time and place, and calculate basic epidemiologic measures.(LSU)
Propose valid and efficient epidemiologic studies to address public health problems, including understanding the strengths and limitations of descriptive, observational and experimental studies. (LSU)

Identify key sources of data for epidemiologic purposes.(UOH)(ASPH)

Identify the principles and limitations of public health screening programs. (UOH)(ASPH)

Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues. (UOH)(ASPH)

Comprehend basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data. (UOH)(ASPH)

Apply the basic terminology and definitions of epidemiology. (UOH)(ASPH)

Calculate basic epidemiology measures. (UOH)(ASPH)

Communicate epidemiologic information to lay and professional audiences. (UOH)(ASPH)

Interpret results of statistical analyses found in public health studies (draw appropriate inferences from epi data). (UOH)

Evaluate strengths and limitations of epidemiologic reports. (UOH)(ASPH)

Apply descriptive techniques commonly used to summarize public health data. (UOH)

Apply common statistical methods for inference. (UOH)

Describe a public health problem in terms of magnitude, person, time, and place. (UOH)(ASPH)

Apply descriptive and inferential methodologies according the type of study design for answering a particular research question. (UOH)(ASPH)

Describe and present population health problems using available data and appropriate epidemiologic and bio-statistical concepts.(TUS)
Conduct epidemiological investigation of comm., non-com and other disease of public health importance and suggest appropriate solution (MAU)

Use effectively the tools of epidemiology for understanding disease causation determinants of disease(MAU)

Develop epidemiological approach(MAU)

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Measurement of disease frequency (MCI)
Cause and effect relationship: concept of association, causation, chance and biases(MCI)
Descriptive epidemiology (MCI)
Formulation of hypothesis(MCI)
Analytical epidemiology(MCI)
Experimental epidemiology (randomized and non-randomized controlled trials) (MCI)
Testing of hypothesis(MCI)
Errors in testing of hypothesis(MCI)

Epidemiological intelligence and forecasting(MCI)

Principal sources of epidemiological data(MCI)
Definition, calculation and interpretation of morbidity and mortality rates(MCI)
Hospital epidemiology(MCI)
Concept of disease eradication/ elimination, review of smallpox eradication strategy(MCI)
Rapid assessment techniques(MCI)
Application of computers in epidemiology(MCI)
Screening test : selection criteria, validity including likelihood ratios and ROC curve, evaluation, predictive accuracy(MCI)
Evolution of epidemiology(MCI)
Epidemiology : definition, concepts and its role in health & disease(MCI)
Geographical information system (GIS) and remote sensing(MCI)

Epidemiology of communicable and non-communicable diseases(MCI)
Communicable and non-communicable diseases of public health importance (MCI)

Family and community diagnosis

Use of basic epidemiological tools to make a community diagnosis of health situation, in order to formulate appropriate intervention measures(MCI)
Screening for diseases(MCI)
Screening : definition, types, uses and principles(MCI)
Skills as Community Physician(MCI)
Ability to identify local health needs of community. (MCI)
Ability to demonstrate leadership qualities & function as effective team leader. (MCI)
Ability to make community diagnosis including application of Rapid assessment techniques. (MCI)
Ability to organize health camps. (MCI)
Ability to organize health surveys & ongoing comprehensive health delivery programme. (MCI)
Ability for effective liaison with PRIs & local opinion leaders, mustering of local resources, advocacy & mobilization of administration & political will for
health care programmes. (MCI)

Diagnosis & management of common illness. (MCI)
Diagnosis & management of chronic diseases & disabilities including rehabilitation.
Nutritional assessment & nutritional therapy. (MCI)
Family planning practices. (MCI)
Diagnosis & management of Pediatric, Geriatric, Gynecological illness with special emphasis on RCH & integrated management of childhood illness. (MCI)
Perform all immunization procedures. (MCI)

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Ability to organize & conduct MCH services including antenatal clinic, intranatal & postnatal care, care of newborn, growth monitoring & care of toddler. (MCI)

Conduct / attend 20 normal deliveries & 5 abnormal deliveries. (MCI)

Skills of Occupational Health(MCI)

Describe how social, behavioural, environmental and biological factors contribute to specific individual and community health outcomes (ASPH).

Health management (including financial management)

Describe and analyze population health systems, including their stakeholders, components, and attributes. (TUS)

Identify the main components and issues of the organization, financing and delivery of health services and public health systems in the US. (UOH)

Describe the legal and ethical bases for public health and health services. (UOH)

Apply the principles of program planning, development, budgeting, management and evaluation in organizational and community initiatives. (UOH)

Apply "systems thinking" for resolving organizational problems. (UOH)

Describe the internal and external environment and issues that affect organizational behavior. (TUS)

Prioritise health problems(MAU)

Identify threats to the environment(MAU)

Set objectives, prepare action plan, implement programmes and monitor, supervise and evaluate them(MAU)

Manage health information system and respond appropriately to the info gathered(MAU)

Assess costs and carry out program budgeting (MAU)

Anticipate, prepare for and respond to disasters(MAU)

Manage manpower, logistics and materials effectively(MAU)

Hospital Administration(MCI)
Students will be posted to learn organization and administration of hospital services and understand system used for collection, recording and reporting of hospital statistics, inventory control of medical stores, hospital laundry, hospital dietary, CSSD, ensuring quality of health care, clientele satisfaction, hospital infection control, medical audit. (MCI)
Job responsibilities of different categories of workers in health system(MCI)
Voluntary health agencies working in India(MCI)
Pattern of health care services in certain south Asian and western countries(MCI)
Health insurance(MCI)

Group dynamics(MCI)

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Hospital psychology(MCI)

Health planning, management and administration(MCI)

Concepts of planning, management, public health administration(MCI)

Classification and understanding of various qualitative and quantitative health management techniques(MCI)

Over view of administration at village, block, district, state and center level in India(MCI)

Organizational concept(MCI)

Organizational behaviour(MCI)

Time, material and personnel management(MCI)

Integrated disease surveillance project (IDSP) (MCI)

Concepts, scope and methods of Health Audit(MCI)

Public health administration of the future(MCI)

Research in administration, operational & action oriented research(MCI)

New concepts in public health administration(MCI)

Principles of hospital administration(MCI)

Medical audit, quality assurance, quality improvement and client satisfaction(MCI)

Alternative approaches to planning(MCI)

Importance of hospital records, their retrieval, International classification of diseases, medical certification of death(MCI)

*Managing and **implementing health programmes (including program planning)***

Illustrate the principles of program planning, development, budgeting, management and evaluation in organizational and community initiatives.(LSU)

Describe the tasks necessary to assure that program implementation occurs as intended. (UOH)(ASPH)

Explain how the findings of a program evaluation can be used. (UOH)(ASPH)

Explain the contribution of logic models in program development, implementation and evaluation.(ASPH)

Differentiate among goals, measurable objectives, related activities and expected outcomes for a public health program(ASPH)

Differentiate the purposes of formative, process and outcome evaluation(ASPH)

Differentiate between qualitative and quantitative evaluation methods in relation to their strengths , limitations and appropriate uses, and emphases on reliability and validity(ASPH)

Prepare a program budget with justification(ASPH)

In collaboration with others, prioritise individual, organisational, and community concerns and resources for public health programs(ASPH)

Assess evaluation reports in relation to their quality, utility and impact on public health(ASPH)

Use data to improve population health interventions. (TUS)

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Conceive, design, implement, monitor, and evaluate public health actions taken to improve the health of a population. (TUS)

Revise or adapt an intervention proposal and plan in response to changing circumstances. (TUS)

Initiate, implement and supervise national health programmes(MAU)

Monitor and assure quality in programme implementation(MAU)

Training

Assess the learning needs of any group(MAU)

Formulate learning objectives(MAU)

Plan curriculum and prepare materials(MAU)

Select ad implement appropriate learning methods(MAU)

Evaluate learning experiences and identify barriers(MAU)

Learn proper use of teaching aids(MAU)

Research (including biostatistics and demography)

Apply exploratory data analysis and descriptive statistics to summarize public health data. (LSU)

Apply common statistical methods for estimation and inference appropriately according to underlying assumptions and study design principles. (LSU)

Describe the roles of biostatistics in the discipline of public health. (UOH)(ASPH)

Describe the basic biostatistics concepts such as summary statistics, probability, and statistic inference. (UOH)(ASPH)

Apply exploratory data analysis and descriptive statistics to summarize public health data. (UOH)(ASPH)

Set up null hypotheses for public health research questions, use corresponding statistics method to test the null hypotheses, and draw conclusions based on the testing results. (UOH)

Apply common statistics methods to analyze public health data. (UOH)(ASPH)

Interpret results of statistical analyses found in public health studies. (UOH)(ASPH)

Compute sample size needed for give power and Type I error rate for basic study designs in public health studies. (UOH)

Understand and interpret health related data(MAU)

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Based on the health problems formulate research questions(MAU)

Analyse data and present findings with use of appropriate available statistical software(MAU)

Design and implement epidemiological and health systems research studies(MAU)

Effectively communicate findings and public health information(MAU)

Concept of Health & Disease(MCI)
History of medicine, evolution of public health, alternative systems of medicine(MCI)
Definition and concepts of public health(MCI)
Definition of health, holistic concepts of health including concept of spiritual health, appreciation of health as a relative concept, determinants of health(MCI)
Characteristics of agent, host and environmental factors in health and disease and the multifactorial etiology of disease(MCI)
Understanding the natural history of disease and application of interventions at various levels of prevention(MCI)
Health indicators(MCI)
Health profile of India(MCI)
Concept of rehabilitation, its types and techniques(MCI)
Survival analysis(MCI)

Meta analysis(MCI)
Measurement of risk and risk reduction(MCI)
Use of constructs/scales and their validity in research(MCI)
Concepts and techniques of qualitative research(MCI)

Health Statistics(MCI)
- Introduction
- Role of statistics in Public Health
- Collection of data
- Sampling in Public Health
- Statistical classification of health data
- Handling and processing of statistical information
- Analysis of demographic data
- Measurement of morbidity, mortality and fertility
- Standardization of rates and standard indices
- Life tables
- Statistical techniques of evaluation in Public Health

Descriptive Statistics(MCI)
- Introduction to biostatistics- aim and scope
- Collection of data- basic ideas
- Presentation of data- tabulation, diagram and graphs
- Measures of central tendency and dispersion
- Normal distribution
- Elementary idea of skewness
- Concepts of correlation and regression

Statistical inferences(MCI)
- Elementary idea of probability

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- Sampling techniques
- Test of Significance-Chi Square, t-test, z-test, ANOVA
- Basic idea of testing of hypothesis

- Advanced statistical techniques, multivariate regression analysis,
- statistical models. Use of Epi info, SPSS/ other computer software
- Special topics in Biostatistics
- Clinical trials-Aim and scope, general principles, use of controls,
- placebos and dommios, final presentation of results-discussion of some
- well known clinical trials
- Prophylactic trials-Assessment by time trends and geographical
- comparison, controlled prophylactic trials, discussion of some well known
- clinical trails
- Retrospective and prospective studies and follow up studies, discussion
- of important studies
- Field studies, prevalence surveys, guiding principles for data collection
- Controls in field studies & hospital studies

Propose and frame a research question related to population health. (TUS)
Understand and critique public health literature. (TUS)
Identify appropriate methods and study designs for answering a specific research question. (TUS)

Demography and Vital Statistics(MCI)
- Concepts of demography, demographic cycle, vital statistics
- Definition, calculation and interpretation of various demographic indices
- Declining sex ratio and its social implication
- Population explosion, population dynamics of India
- Population control
- National population policy
- Sources of vital statistics like census, SRS, NFHS, NSSO etc.

Public health laws and ethics

Analyze issues Of public health practice and policy based upon basic principles of ethics (e.g. the Public Health Code Of Ethics, Human rights framework, other moral theories). (LSU)

Discuss sentinel events in the history and development of the public health profession and their relevance for practice in the field. (UOH)(ASPH)

Apply basic principles of ethical analysis (e.g. the Public Health Code of Ethics, human rights framework, other moral theories) to issues of public health practice and policy. (UOH)(ASPH)

Apply evidence-based principles and the scientific knowledge base to critical evaluation and decision-making in public health. (UOH)(ASPH)

Apply the core functions of assessment, policy development, and assurance in the analysis of public health problems and their solutions. (UOH)(ASPH)

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Promote high standards of personal and organizational integrity, compassion, honesty and respect for all people. (UOH)(ASPH)

Analyse determinants of health and disease using an ecological framework(ASPH)

Analyse the potential impact of legal and regulatory environments on the conduct of ethical public health research and practice(ASPH)

Distinguish between population and individual ethical considerations in relation to the benefits, costs, and burdens of public health programs. (UOH)(ASPH)

Embrace a definition of public health that captures the unique characteristics of the field (e.g., population-focused, community-oriented, prevention-motivated and rooted in social justice) and how these contribute to professional practice. (UOH)(ASPH)

Appreciate the importance of working collaboratively with diverse communities and constituencies (e.g. researchers, practitioners, agencies and organizations). (UOH)(ASPH)

Value commitment to lifelong learning and professional service including active participation in professional organizations. (UOH)(ASPH)

Find and negotiate public health work appropriate to one's skills and strengths. (TUS)

Utilize appropriate ethical, legal and administrative frameworks in safeguarding human subjects and community needs and concerns associated with project work. (TUS)

Work effectively in a professional organization by adapting the content and process of one's work to the organization's mission, culture, organizational chart, and mechanisms for decision making. (TUS)

Work effectively with multiple professional and non-professional stakeholders in a community setting. (TUS)

Give and receive constructive feedback with all stakeholders. (TUS)

Be accountable and take responsibility for all actions and behaviors taken with respect to professional work. (TUS)

Public Health Legislation(MCI)
Birth and death registration act, PFA act, MTP act, CPA, Child labour act, PNDT act, Transplantation of human organ act in India etc. (MCI)
Other public health legislations(MCI)
International Health(MCI)
Role of various multilateral, bilateral international health organizations like WHO, UNICEF, UNDP, World Bank etc. (MCI)
Organization structure of these organizations(MCI)
International Health Regulations (IHR) (MCI)
Role of Planning Commission and five year plans in development of health sector in India(MCI)
Various health committees of Govt. of India and their important recommendations(MCI)

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Implement public health laws(MAU)

Apply ethical principles to the collection, maintenance , use and dissemination of data and information(MAU)

Public health biology competency

Apply biological principles toward the development and implementation of disease prevention, control, or management programs(LSU)

Demonstrate ability to acquire and understand the critical biological factors that influence public health efforts related to any disease. (TUS)

Specify the role of the immune system in population health. (UOH)(ASPH)

Describe how behaviour alters human biology(ASPH)

Identify the ethical, legal and social issues implied by public health biology(ASPH)

Explain the biological and molecular basis of public health(ASPH)

Explain the role of biology in the ecological model of population-based health. (UOH)(ASPH)
Explain how genetics and genomics affect disease processes and public health policy and practice(ASPH)

Articulate how biological, chemical and physical agents affect human health(ASPH)

Apply biological principles to development and implementation of disease prevention, control, or management programs. (UOH)(ASPH)

Apply evidence-based biological and molecular concepts to inform public health laws, policies and regulations(ASPH)

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Mental Health(MCI)

_ Importance of mental health care in primary care settings
_ Common psychiatric/ neurotic/ other mental health disorders, mental retardation
_ Comprehensive mental health care at primary care settings
_ Psychotherapy, its place in mental health
_ Psychology and field research

Human Genetics(MCI)

_ Genes and development
_ Blood groups- Medico-Legal applications
_ Genetic and chromosomal disorders in man
_ Genetic counseling
_ Genetics and public health
_ Genetic engineering and related health issues including genetically modified foods
_ Gene therapy
_ Human genome project

Health care delivery system in India(MCI)

_ Concepts of primary health care and comprehensive health care.
_ Health profile of India
_ Evolution of health care delivery system in India
_ Health care delivery in India and infrastructure at primary, secondary and tertiary care level

Environmental health competency (including Occupational Health)

Appraise the human health effects, both acute and chronic, of major environmental and occupational hazards such as air pollution, metals, organic pollutants, microbial contamination of drinking water, and physical hazards. (LSU)

Assess the mechanisms and the degree to which environmental and occupational exposures impact public health and welfare. (LSU)

Describe environmental and occupational influences on public health. (TUS)

Apply a critical thinking and systems approach to the analysis of environmental and occupational determinants of disease and injury. (TUS)

Design, critique, and evaluate interventions directed at environmental and occupational disease and injury (TUS)

Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents. (UOH)(ASPH)

Describe genetic, physiologic and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards. (UOH)(ASPH)

Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues. (UOH)(ASPH)

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Specify current environmental risk assessment methods/technology. (UOH)(ASPH)

Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety. (UOH)(ASPH)

Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures(ASPH)

Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity. (ASPH)

Develop a testable model of environmental insult. (ASPH)

Environment and Health(MCI)
_ Water : concepts of safe and wholesome water, sanitary sources of water, water borne diseases, water purification processes
_ Physical and chemical standards of drinking water quality and tests for assessing bacteriological quality of water
_ National rural water supply and sanitation programme
_ Concepts of water conservation and rainwater harvesting
_ Health hazards of air, water, noise, radiation pollution and their prevention & control including indoor air pollution
_ Rural and Urban sanitation
_ Concepts of solid waste / human excreta / sewage disposal
_ Awareness of standards of housing and the effect of housing on health
_ Aerospace medicine
_ Health hazards related to climate, altitude, and depth
_ Human health in a changing world
_ Medical Entomology
_ Role of vectors in the causation of diseases
_ Identifying features of vectors and their control measures
_ Life cycles of vectors and advantages and limitations of various vector control measures
_ Mode of action, application cycle of commonly used insecticides and rodenticides
_ Integrated vector control
_ Entomological survey techniques
_ Biomedical Waste & its disposal
_ Classification / categories, sources, health hazards and treatment of biomedical waste as per current regulations
_ Application of principles of biomedical waste management in different settings of health care delivery system
_ Disaster Management
Principles of disaster preparedness and application of these in disaster management

Occupational Health(MCI)

_ Relate the history of symptoms with specific occupations including agriculture related occupation

_ Asbestos and other fibers, coal workers lung diseases, silicosis, health
significance of metal exposures, diseases associated with exposure to
chemical substances, multiple chemical sensitivities, pulmonary responses
to gases and particles, pesticides, illness due to thermal extremes, ionizing
radiations, non-ionizing radiations, effects of physical environment- noise,
vibration, work related musculo-skeletal disorders
_ Employees State Insurance (ESI) scheme
_ Concepts of ergonomics
_ Diagnostic criteria of various occupation related diseases
_ Industrial hygiene
_ Surveillance, monitoring and screening in occupational health
_ Occupational problems of special working groups
_ Occupational safety and health standards
_ Legislations related to occupational health

Health planning

Components of planning a health activity (MCI)
Concepts of health economics in health planning and management (MCI)

(no appropriate sub-competencies found in reviewed documents)

Monitoring and evaluation (including health surveillance)

Screening programmes and their evaluation(MCI)

Establish/utilise the existing surveillance systems and respond to public health threats efficiently and
effectively(MAU)

(no appropriate sub-competencies found in reviewed documents)

Working with community (including community dimensions of practice)

Ensure community participation(MAU)

(no appropriate sub-competencies found in reviewed documents)

Partnership and advocacy (no appropriate sub-competencies found in reviewed documents)

*Health promotion (including prevention and protection) (no appropriate sub-competencies found in
reviewed documents)*

CROSS CUTTING COMPETENCIES

Critical analysis and systems thinking (including problem solving)

Identify characteristics of a system. (UOH)(ASPH)

Identify unintended consequences produced by changes made to a public health system(ASPH)

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Provide examples of feedback loops and "stocks and flows" within a public health system(ASPH)

Explain how systems (e.g. individuals, social networks, organizations, and communities) may be viewed as systems within systems in the analysis of public health problems. (UOH)(ASPH)

Explain how systems models can be tested and validated(ASPH)

Explain how the contexts of gender, race, poverty, history, migration and culture are important in the design of interventions within public health systems(ASPH)

Illustrate how changes in the public health systems (including input, processes and output) can be measured(ASPH)

Analyse the interrelationships among systems that influence the quality of life of people in their communities(ASPH)

Discuss (analyse) the effects of political, social and economic policies on public health systems at the local, state, national and international levels. (UOH)(ASPH)

Discuss (analyse) the impact of global trends and interdependencies on public health related problems and systems. (UOH)(ASPH)

Assess the strengths and weaknesses of applying the systems approach to public health problems. (ASPH)

Socio-cultural competency (including all social and behavioural sciences like economics and political sciences)

Identify health problems of the community in context of the socio-cultural milieu(MAU)

Identify groups that require special attention including those facing occupational hazards(MAU)

Describe the roles of history, power, privilege and structural inequality in producing health disparities. (UOH)(ASPH)

Understand how class, culture, race, ethnicity, socio-economic status, gender, sexual orientation and other aspects of identity and diversity affect health and health-related behaviors and attitudes. (TUS)

Incorporate understanding of cultures, histories, beliefs and practices in designing and implementing public health actions. (TUS)

Work effectively with diverse populations and within diverse communities. (TUS)

Treat all people with dignity and respect. (TUS)

Explain how professional ethics and practices relate to equity and accountability in diverse community settings. (UOH)(ASPH)

Explain why cultural competence alone cannot address health disparity. (ASPH)

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Discuss the importance and characteristics of a sustainable diverse public heatlh workforce. (ASPH)

Use the basic concepts and skills involved in culturally appropriate community engagement and empowerment with diverse communities(ASPH)

Apply the principles of community-based participatory research to improve health in diverse populations(ASPH)

Differentiate between linguistic competence, cultural competency, and health literacy in public health practice(ASPH)

Cite examples of situations where consideration of culture specific needs resulted in a more effective modification or adaptation of a health intervention. (ASPH)

Develop public health programs and strategies responsive to the diverse cultural values and traditions of the communities being served(ASPH)

Differentiate among availability, acceptability, and accessibility of health care across diverse populations. (UOH)(ASPH)

Demonstrate ability to interact effectively in diverse groups in class, practicum, student governance, and committees. (UOH)

Examine social, developmental and behavioral theories of health, health behavior and illness, and their applicability to different types of health problems. (LSU)

Design social and behavioral change interventions based on these theories that are appropriate and responsive to the social and cultural context. (LSU)

Apply the socio-ecological model to understand and improve public health (TUS)

Apply theoretical models of health behavior and health communication to understand and evaluate public health problems, and to design, implement and evaluate public health interventions. (TUS)

Identify basic theories, concepts and models from a range of social and behavioral disciplines that are used in public health research and practice. (UOH)

Identify the causes of social and behavioral factors that affect health of individuals and populations. (UOH)

Identify individual, organizational and community concerns, assets, resources and deficits for social and behavioral science interventions. (UOH)

Describe the role of social and community factors in both the onset and solution of public health problems. (UOH)

Describe the merits of social and behavioral science interventions and policies. (UOH)

Apply evidence-based approaches in the development and evaluation of social and behavioral science interventions. (UOH)

Specify multiple targets and levels of intervention for social and behavioral science programs and/or policies. (UOH)

Culture and its impact on health(MCI)

Customs, taboos and mores(MCI)

Clinico- social, cultural and demographic evolution of the individual, family and community(MCI)

Humanities and Community Medicine(MCI)

Social organizations with special reference to family(MCI)

Religion, its evolution as a special instance of the evolution of social institutions(MCI)

Major tenets of the common religions in India & their influence on health & disease(MCI)

Assessment of barriers to good health and health seeking behavior(MCI)

Methodology in social research (Attitude surveys, Questionnaires, Interviews) (MCI)

Health economics(MCI)

Social security in India(MCI)

Medical social worker(MCI)

Doctor patient relationship(MCI)

Social problems e.g. child abuse, juvenile delinquency, drug addiction, alcoholism, marital maladjustment, domestic violence, suicide and attempted suicide, problems of the old, caste system(MCI)

Psychology and its concepts(MCI)

The Psycho analytic theory(MCI)

Human personality, its foundations, development and organization(MCI)

Development of child and its impact on its personality(MCI)

Psychological tests-personality tests, intelligence tests(MCI)

Leadership

Describe the attributes of leadership in public health. (UOH)(ASPH)

Describe alternative strategies for collaboration and partnership among organisations, focused on public health goals(ASPH)

Articulate an achievable mission, set of core values, and vision. (UOH)(ASPH)

Engage in dialogue and learning from others to advance public health goals. (UOH)(ASPH)

Demonstrate team building, negotiation and conflict management skills(ASPH)

Demonstrate transparency, integrity and honesty in all actions(ASPH)

Use collaborative methods for achieving organisational and community health goals(ASPH)

Apply social justice and human rights principles when addressing community needs(ASPH)

Develop strategies to motivate others for collaborative problem solving, decision-making, and evaluation. (ASPH)

Demonstrate the ability to work independently and in groups to foster positive change. (TUS)

Accurately assess one's ability to create change, identifying and acting upon critical information and opportunities in a public health organization or system. (TUS)

Take action to improve team and coalition effectiveness. (TUS)

Interact, communicate and educate effectively persons from diverse backgrounds, ages and preferences to promote healthy behaviour through community participation(MAU)

Explain scientific info to public, decision makers and opinion leaders and all stakeholders(MAU)

Nurture team spirit and harmonise activities of various members(MAU)

Facilitate intersectoral coordination(MAU)

Promote and establish partnerships and networking (e.g.: with institutions of local self governance). (MAU)

Communication (including informatics)

Describe how the public health information infrastructure is used to collect, process, maintain, and disseminate data. (UOH)

Describe how societal, organizational, and individual factors influence and are influenced by public health communications. (UOH)

Apply legal and ethical principles to the use of information technology and resources in public health settings. (UOH)

Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities. (UOH)

Listen to, learn about, and understand differing perspectives on a public health issue from diverse populations and stakeholders. (TUS)

Use theory, evidence, and stakeholder input to communicate appropriately with diverse populations and stakeholders. (TUS)

Communicate effectively in writing and orally with professional and lay audiences. (TUS)

Information, Education, Communication & Health Promotion(MCI)
Understand the concepts of health promotion and education, IEC, behavioral change communication(MCI)
Principles & methods of health promotion and education(MCI)
Barriers to effective communication and methods to overcome them. (MCI)
Process of learning and its principles(MCI)
Various methods of health education with their advantages and limitations(MCI)
Aids for imparting health education(MCI)

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Organizing health promotion and education activities at individual, family and community settings(MCI)

Evaluation of health promotion and education programme(MCI)

Pedagogical methods: introduction, elements and techniques(MCI)

Communicate effectively with individuals and groups(MAU)

Policy and advocacy

Examine the main components and policy issues regarding the organization, financing and delivery of health services and public health systems in the United States. (LSU)

Identify, propose and analyze policy interventions to improve population health in a variety of societal levels and sectors (TUS)

Apply basic financial and economic principles to the analysis of health policy and systems, and program management (TUS)

Life-long learning (no appropriate sub competencies found in reviewed documents)

Health related Millennium Development Goals(MCI)

Operational research(MCI)

National Health Policy and National Rural Health Mission(MCI)

Human resource development (no appropriate sub competencies found in reviewed documents)

Plan human resources development(MAU)

Equity (no appropriate sub competencies found in reviewed documents)

Governance and decentralisation (no appropriate sub competencies found in reviewed documents)

Conflict resolution (no appropriate sub competencies found in reviewed documents)

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Acronyms used in the document

MCI – Medical Council of India MD Community Medicine syllabus
http://bfuhs.ac.in/Examination/Syllabus/Community%20Medicine.pdf

LSU - Louisiana State University Health Sciences Center School of Public Health (New Orleans)
(http://publichealth.lsuhsc.edu/pdf/LSUSPH_MPH_Competencies.pdf)

UOH - University of Hawai'I http://www.hawaii.edu/publichealth/academics/mphcomp.html

ASPH – Association of Schools of Public Health http://www.asph.org/document.cfm?page=851

MAU - Maulana Azad Medical College competency list

TUS - Tufts University MPH Core Competencies Listed by Domain
http://www.tufts.edu/med/docs/phpd/CoreCompetencies.pdf

(a larger list was screened, but only these were included as the others were similar)

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APPENDIX 1

Dialogue on public health definition

Definition of Public Health: C.E.A. Winslow's Definition of Public Health as quoted in Hanlon & Picket 1984: *"Public Health is the science and the art of (1) preventing disease. (2) Prolonging life and organized community efforts for (a) the sanitation of the environment (b) the control of communicable infections, (c) the education of individuals in personal hygiene (d) organization of medical and nursing services for early diagnosis and preventive treatment of disease and (e) the development of social machinery to ensure everyone a standard of living adequate for the maintenance of health, so organizing these benefits as to enable every citizen to realize his birth right of health and longevity"*

Farooque's modified definition: *"Public Health is the science and art of Promoting Health, Preventing disease, prolonging life, to ensure everyone a standard of living adequate for the maintenance of health and be economically active life, and to enable every citizen to realize his birth right of health and longevity, by developing a social machinery, as an integral part of Community Development, through intersectoral coordination and organized community effort & participation to maintain a healthy environment, to educate people to maintain a healthy life style & behavior, to control communicable, non communicable diseases and other social & behavioral maladies, by organizing a medical and nursing services to deliver a comprehensive health care package consisting of health promotion, prevention, early diagnosis, treatment and rehabilitation of diseases which is to be universally available, equitably distributed and accessible to all at an affordable cost"*.

Sanjay's modified definition: *"Public Health is the science and art of promoting health, preventing disease, and prolonging life to ensure for everyone a standard of living adequate for the maintenance of a healthy and <u>productive life</u>, by developing a social movement, as an integral part of community development, through intersectoral coordination and organized community effort, participation, <u>equity and ownership</u> – while maintaining healthy environment; <u>empowering</u> people to maintain a healthy life style & behavior; controlling communicable and non communicable diseases; addressing social and cultural realities having a bearing on health; informing <u>health policies, interventions and programmes</u>; and by evolving and organizing <u>human resource and health care systems</u> to deliver health promotion, disease prevention, early diagnosis, treatment and rehabilitation, which is available universally, distributed equitably and accessible to all at an affordable cost."*

SOCHARA's modified definition: *"Public Health is the science and art of promoting health, preventing disease, and prolonging life*

-to ensure for everyone a standard of living adequate for the maintenance of a healthy and productive life,

-by developing a social movement, as an integral part of community development,

through intersectoral coordination and organized community effort <u>emphasising</u> equity, participation, ownership, <u>rights and responsibilities</u>

– while maintaining healthy environment; empowering people to maintain a healthy life style & behaviour; controlling communicable and non communicable diseases;

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-addressing social, cultural, economic, political, ecological and environmental realities having a bearing on health;

-formulating health policies, interventions and programmes; and by evolving and organizing human resource and health care systems to facilitate health promotion, disease prevention, early diagnosis, treatment and rehabilitation, through informed choices of our society, communities and individuals,

-which is available universally, distributed equitably, ethical, socially relevant and accessible to all irrespective of their ability to pay."

[please note that the items underlined in the above modified definitions by Dr Sanjay and SOCHARA are the suggested changes/additions to Dr Farooque's original suggested definition]

Dr Farooque's explanation for modifications:

The modified definition of Winslow on Public Health by Indian Academy of Public Health is an overarching one encompassing the whole gamut of Health activity enshrined in the HFA and its strategy document. The definition has three distinctive sections. The first section depicts the Goal of public health as

"Promoting Health, Preventing disease, prolonging life, to ensure everyone a standard of living adequate for the maintenance of health and be economically active life, and to enable every citizen to realize his birth right of health and longevity". The second sections includes the broad strategy of "developing a social machinery, as an integral part of Community Development, through intersectoral coordination and organized community effort & participation" The penultimate and the third section of the definition outlines the specific health intervention activities "maintain a healthy environment, to educate people to maintain a healthy life style & behavior, to control communicable, non communicable diseases and other social & behavioral maladies". And the last and the fourth section depicts the service delivery system and the package and the manner of its delivery "organizing a medical and nursing services to deliver a comprehensive health care package consisting of health promotion, prevention, early diagnosis, treatment and rehabilitation of diseases which is to be universally available, equitably distributed and accessible to all at an affordable cost"

To translate the definition of public health C.E.A. Winslow's or the modified one of IPHA one should refer to the chapter on Organization of Public Health services of Hanlon's Book on Public Health administration. It states of two distinct approaches for providing public health services in a community. They are "personal health care Services" focusing on individual health services and "Public health care/ Community care services" focussing on the community. One should have a clear understanding of the basic difference between the "personal Health Care"& "Public Health/ community care services. The focus of personal health care service is to deliver the health care package as described in the definition of Public Health which speaks of a "comprehensive health care package consisting of health promotion, prevention, early diagnosis, treatment and rehabilitation of diseases." And to achieve the characteristics of services as defined in Public Health "to be universally available, equitably distributed and accessible to all at an affordable cost" the health service in India is organized on the concept of *"Regionalized Graded Institution supported community based Health care System"* Briefly it describes the Indian Health care system. The most peripheral service unit is the community (village), and a community based health worker ASHA/AWW provides a support base and acts as a link worker to provide essential health care services by the most peripheral trained health worker from her community based institution of "Sub-centre". The services and referral support is provided by a chain of health Institution in an hierarchical pattern (Graded)and serving an ear marked catchment area (Regionalized). To start with it is the Primary Health Centre manned by Medical Officers, supported by a Community Health

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Centre acting as a First referral unit for treatment purpose which is manned by specialists (or trained generalist) of Obstetrics & Gynecology, Pediatrics or Medicine, Surgery and , Anesthesia. The next health Institution is s Sub-divisional/ Taluka Hospital with specialist in major disciplines(not available all throughout) but which is universally supported by a District Hospital having all the facilities of specialist care. The care given by a Female health worker to an Antenatal mother in her area which includes delivery of Antenatal, intra-natal and post natal packages both institutions based as well as at home if during this process she develops permanent disability she is also supposed to provide some rehabilitative package (may not be included in the program). One can extend the same thinking to other public health programs like RNTCP, Malaria, AID'S control etc. This type of workers should essentially be equipped primarily with clinical skills to deal with the individual medical problem. And to interact effectively with the patients, beneficiaries and the family members and the other members of the health team he/ she should be equipped with a communication and behavioral skill. Besides these two specific skills she/he should be familiar with the basic office management skills for reporting and recording and be familiar with the public health programs and ready to cooperate.

On the other hand the Public/ community Health care service provider's focus is on the public/community. Its main as per the definition of Public Health is to "maintain a healthy environment, to educate people to maintain a healthy life style & behavior , to control communicable, non communicable diseases and other social & behavioral maladies, by organizing a medical and nursing services and to deliver a comprehensive health care package consisting of health promotion, prevention, early diagnosis, treatment and rehabilitation of diseases which is to be universally available, equitably distributed and accessible to all at an affordable cost" . The job responsibility of a public health worker is to monitor the health status & environment, disease surveillance, of the community he serves and assist /arrive at a community diagnosis, devising and implementing a health intervention program, organizing a health services to deliver the comprehensive health care package and to ensure its effective utilization by the community at large. The core competencies required for such job will be Basic human biology which should include social & psychological aspect, Environmental & Ecological science, Behavioural sciences, Biostatistics, Demography, Epidemiology, Management sciences, History & evolution of Health & Public Health services. The skills to be developed in a public health worker are epidemiological skill, Basic Public Health skills, Communication skills Health system management skills. The health system management skills should include skills to manage organizational, personal, material and financial issues. Addressing the health needs of the community as well as for effective functioning of a health service system, requires a seamless relationship between different type of service institutions like hospitals and the community based service programs requiring communities participation and the support and coordination of other departments related to human development. As such the public health worker should also have the ability to interact with the public as well as other service providers.

At present all the existing health work force is providing both the personal and public health care. Can one believe that the main players of the personal care service providers are also providing a complex package of public health service all throughout the country and implementing health programs galore including NRHM? With the non existence (in most of the states) of Male Health worker the Female Health worker is the key worker most inadequately supported by a dwindling species of Lady Health Visitors (in many a states and if at all they are mostly untrained promoted on attaining a service seniority) and the so called Public Health nurses. The poor medical officer is blamed. But please examine the support he is getting in providing a community based public health services. While for providing institution based Clinical care he has the option to have the support of Nurse, Pharmacist, laboratory technician, OT technician, Blood bank technician, CT technician and hordes of others but in public health none except a Computer and a Block extension educator under the Family welfare program. They too are not formally trained. No one has to do another multi-centric study under the

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aegis of ICMR or the Planning commission to find out the inadequacies of a dedicated public Health work force. This is evident as it exists today in our health services. This is because of our ignorance of the exact nature and scope of public health and an "ostrich" like attitude for not listening to others' views on the issue. Understanding the basic difference between the two and appreciating the necessity of these complimentary approaches to improve the health services will be epoch making step in ameliorating the ruts afflicting the health care delivery system and lead to fulfill the MDG goal as well as make the definition of Public Health as achievable.

Dr Sanjay's explanantion for modification:

reservations and explanation:
(based on Winslow's definition):
Winslow inherited a lot. **Will it be rational (or scientific) and fair to 'totemize' a whole heritage with one name? Emancipation from a Eurocentric discourse** may have other ideas and options too. Lingual structure and framework do not belong to an individual. An if that has been a tradition, it needs to be stopped. **Winslow's work should be referred to, instead.**

....and be economically active life, ...:
Why place a premium on 'economical' alone – and trap ourselves?

...every citizen.....:
Citizen is a loaded word. Public health should aim to reach out to **non-citizen** as well. To **non-people** (not people like us) as well.

... to educate people...:
Betrays a patronizing sentiment. Empowering may be a better word.

SOCHARA's explanation for modifications:

We would also agree that we should not only refer to Winslow's definition, but to others as well. While putting another document together from various sources (see document "public health definition database"), we also felt the need to review two other terms that are now commonly being used in public health circles, sometimes synonymously and sometimes with clarity of understanding of the subtle difference. These are the "new public health" and "community health". While reviewing these we discovered that both Farooque and Sanjay have already introduced these newer ideas and concepts, but there are three additions we would like to suggest to locate the definition in today's context.

The first is to add the concept of both "rights and responsibilities" taking from the newer community health and new public health definitions.

The second is to add "economic/political/ecological" when we mention "social and cultural realities". You will recall, that this was accepted in the WHO SEARO meeting of Epidemiologists in the region in February 2009 when they accepted in the declaration of the meeting and added the following:

"The scope and reach of epidemiology, which is an integral part of public health must be expanded to include the study of social, cultural, economic, environmental, ecological and political determinants of health, and constitute the key stone for use of evidence for development of public health policy."

The third is to add "ethical and socially relevant" when we describe the system and not just make it "universal, distributed equitably and affordable".

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The fourth is to add words like "formulating/facilitating" rather than "delivering" to ensure that we are less "top-down" and more process oriented, or bottoms-up in our policy making.

The fifth is to question whether "accessible to all at an affordable cost", is an acceptance of today's economic policy since the Bhore committee had used "irrespective of their ability to pay". If IPHA is committed to "Health for All" and not "Health for those who can pay" we have to change this phrase as well.

While we are happy to move beyond Winslow's definition – we would like to emphasise that the original definition also had an additional phrase which was – "informed choices of society/organisation, public and private, communities and individuals". I feel this phrase emphasising both "informed choice" which is evidence driven rather than idea, opinion or emotion driven, is very important in today's public health policy evolution. The same phrase also shows the diversities of sectors – government, private and civil/community which emphasises partnerships. We need to consider this aspect as well.

APPENDIX 2

List of definitions

PUBLIC HEALTH DEFINITIONS

PUBLIC HEALTH

Public health (International Association of Epidemiology dictionary – JM Last, 1983)

Public Health is one of the efforts organized by society to protect, promote, and restore the peoples' health. It is the combination of sciences, skills, and beliefs that is directed to the maintenance and improvement of the health of all the people through collective or social actions. The programs, services, and institutions involved emphasize the prevention of disease and the health needs of the population as a whole. Public health activities change with changing technology and social values, but the goals remain the same: to reduce the amount of disease, premature death, and disease-produced discomfort and disability in the population.

(Public health is thus a social institution, a discipline, and a practice).

http://www.merriam-webster.com/dictionary/public+health?show=0&t=1317192822

Public health: the art and science dealing with the protection and improvement of community health by organized community effort and including preventive medicine and sanitary and social science

http://medical-dictionary.thefreedictionary.com/public+health

public health (pŭb´lĭk)

The science and practice of protecting and improving the health of a community, as by preventive medicine, health education, control of communicable diseases, application of sanitary measures, and monitoring of environmental hazards.

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public health

a field of medicine that deals with the physical and mental health of the community, particularly in such areas as water supply, waste disposal, air pollution, and food safety. In the United States there are more than 3000 state, county, or city public health agencies. The U.S. Public Health Service was organized in 1798 to provide hospital care for American merchant seamen. Subsequent legislation has expanded the role of the federal agency to include such services as the Food and Drug Administration; the National Library of Medicine; health care for Native Americans and Alaska Natives; protection

against impure and unsafe foods, drugs, cosmetics, and medical devices; control of alcohol and drug abuse; and protection against unsafe radiation-producing projects.

Mosby's Medical Dictionary, 8th edition. © 2009, Elsevier.

public health

the field of health science that is concerned with safeguarding and improving the physical, mental, and social well-being of the community as a whole. The UNITED STATES PUBLIC HEALTH SERVICE (USPHS) is a federal health agency that is part of the United States Department of Health and Human Services. State and county public health agencies function under the supervision of and with financial support from the Department of Health and Human Services.

public health nursing the branch of nursing concerned with providing nursing care and health guidance to individuals, families, and other population groups in settings such as the home, school, workplace, and other community settings such as medical and health centers. The nurse in this field, a COMMUNITY HEALTH NURSE, must have a baccalaureate degree and training in public health nursing theory and practice; employment is typically with a local agency such as a nonprofit proprietary organization or with an agency under the United States Department of Health and Human Services. The work involves implementing such programs as school and preschool health programs, immunization and treatment of communicable diseases, maternal and child health clinics, and home visits for the purpose of providing health education and nursing care. There is also frequent participation in educational programs for nurses, allied professional workers, and civic organizations, and involvement in studying, planning, formulating public policy, and putting into action local and national health programs.

Miller-Keane Encyclopedia and Dictionary of Medicine, Nursing, and Allied Health, Seventh Edition. © 2003 by Saunders, an imprint of Elsevier, Inc. All rights reserved.

public health,

n a field of medicine that deals with the physical and mental health of the community, particularly in such areas as water supply, waste disposal, air pollution, and food safety.

Mosby's Dental Dictionary, 2nd edition. © 2008 Elsevier, Inc. All rights reserved.

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public health

the field of human medicine that is concerned with safeguarding and improving the physical, mental and social well-being of the community as a whole. There are marginal roles for veterinarians in this service, especially in the area of zoonoses.

http://www.medterms.com/script/main/art.asp?articlekey=5120

Public health: The approach to medicine that is concerned with the health of the community as a whole. Public health is community health. It has been said that: "Health care is vital to all of us some of the time, but public health is vital to all of us all of the time."

The mission of public health is to "fulfill society's interest in assuring conditions in which people can be healthy." The three core public health functions are:

- The assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities;
- The formulation of public policies designed to solve identified local and national health problems and priorities;
- To assure that all populations have access to appropriate and cost-effective care, including health promotion and disease prevention services, and evaluation of the effectiveness of that care.

http://en.wikipedia.org/wiki/Public_health

Public health is "the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals" (1920, C.E.A. Winslow)

http://www.whatispublichealth.org/

NEW **PUBLIC HEALTH**

http://heapro.oxfordjournals.org/content/4/4/265.extract [Ilona Kickbusch. Approaches to an ecological base for public health. Health promotion. Vol 4, no.4, 265]

A new public health approach would therefore not only move from its present "behavioural epidemiology" and "surveillance" mode to a more environmental and social approach, but would aim to tackle the risk patterns of our societies with new basic assumptions.

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448321/

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By the early 1990s, there was general agreement within the public health community that health promotion, based on the Ottawa Charter principles, constituted the "new public health."[13,14] Yet analysis of the health promotion framework reveals the legacies of previous eras, thus prompting the question, "What's new about the 'new public health'?" In addressing this question, I demonstrate that original health promotion innovations, and the legacies of previous eras, are "new" in the sense that the latter have been revised in the light of advances in knowledge, increasing concerns about human rights, and emerging threats to health.

What is new about the new public health is not the originality of strategies to ensure healthy conditions, but the manner in which health promotion discourse has adapted core doctrines of previous eras to address the public health threats of our era. New public health eras usually arise when the dominant public health framework becomes obsolete as a result of changing health patterns and advances in health knowledge. Currently, public health theorists and commentators appear to be losing confidence in the capacity of the health promotion paradigm to effectively address major contemporary public health threats, such as health inequalities and terrorism.

http://www.google.co.in/url?sa=t&source=web&cd=7&ved=0CHoQFjAG&url=http%3A%2F%2Fw
ww.elsevierdirect.com%2Fcompanions%2F9780123708908%2Fcasestudies%2FNPH%2520Teaching
%2520guide.doc&ei=1vabTpyJM4L5rQe_jOGmBA&usg=AFQjCNGe5gDqWWUyh-
KKzGq6CXNUS6YcDQ&sig2=_ZRgFTzmz3biGlHYJFFrHw

The New Public Health is derived from the experience of history. Organized activity to prevent disease and promote health had to be relearned from the ancient and post-industrial revolution worlds. As the 20th century draws to a close, we need to learn from a wider framework how to use all health modalities, including clinical and prevention-oriented services to effectively and economically preserve, protect and promote the health of the individual and of society. The New Public Health, as public health did in the past, faces ethical issues that relate to health expenditures, priorities and social philosophy. Throughout the course of this book, we discuss these issues, and try to indicate a balanced approach toward the New Public Health.

"The New Public Health is not so much a concept as it is a philosophy which endeavors to broaden the older understanding of public health so that, for example, it includes the health of the individual in addition to the health of populations, and seeks to address such contemporary health issues as are concerned with equitable access to health services, the environment, political governance and social and economic development. It seeks to put health in the development framework to ensure that health is protected in public policy. Above all, the New Public Health is concerned with action. It is concerned with finding a blueprint to address many of the burning issues of our time, but also with

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identifying implementable strategies in the endeavor to solve these problems." [Ncaayiyana D, Goldstein G, Yach D. New Public Health and the WHO's Ninth General Program of Work: A discussion Paper. Geneva: World Health Organization, 1995.]

Defining new public health (NPH):

The NPH is a comprehensive approach to protecting and promoting the health status of the individual and the society, based on a balance of sanitary, environmental, health promotion, personal and community oriented preventive services, coordinated with a wide range of curative, rehabilitative and long term care services.

The NPH requires an organized context of national, regional and local governmental and non-governmental programs with the object of creating healthful social, nutritional and physical environmental conditions. The content, quality, organization and management of component services and programs are all vital to its successful implementation.

The NPH is based on responsibility and accountability for defined populations in which financial systems promote achievement of these targets through effective and efficient management, and cost-effective use of financial, human and other resources. It requires continuous monitoring of epidemiological, economic and social aspects of health status as an integral part of the process of management, evaluation and planning for improved health.

The NPH provides a framework for industrialized and developing countries, as well as countries in political-economic transition such as those of the former Soviet system. They are at different stages of economic, epidemiologic and socio-political development, each attempting to assure adequate health for its population with limited resources.

COMMUNITY HEALTH

http://www.communityhealth.in/~commun26/wiki/index.php?title=Community_health

Community health is a process of enabling people to exercise collectively their responsibility for their own health and to demand health as their right. It involves the increasing of the individual, family and community autonomy over health and over organisations, means, opportunities, knowledge, skills and supportive structures that make health possible. [1]

The components of community health action include [1]

- Integrating curative with preventive, promotive and rehabilitative activities.
- Experimenting with low-cost, effective, appropriate technology.
- Involving local, indigenous health knowledge, resources and personnel.

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- Training village based health workers.
- Initiating and supporting community organisations in all aspects of health planning and management.
- Generating community support by mobilising financial resources, labour skills and manpower resources from the community.

Community Health: http://en.wikipedia.org/wiki/Community_health

- Community health, a field of public health, is a discipline that concerns itself with the study and betterment of the health characteristics of biological communities.

PRIMARY HEALTH CARE

Primary health care, often abbreviated as "PHC", has been defined as "essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination".

Source: The Alma-ata Declaration

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APPENDIX 3

References used for preparing public health competency list

Indian institutions:

AIIMS: http://www.aiims.edu/aiims/academic/aiims-syllabus/Syllabus%20-%20md%20ms%20mds%20mha.pdf

RGUHS: http://www.kimscommunitymedicine.org/mdcurriculum.pdf

CMC: Syllabus document sent by email by Dr Sara Bhattacharji

MCI MBBS
http://www.mciindia.org/RulesandRegulations/GraduateMedicalEducationRegulations1997.aspx

MCI MD http://bfuhs.ac.in/Examination/Syllabus/Community%20Medicine.pdf

Rest of the world:

University of Hawai'I (MPH Competencies (ASPH) in 2006)
http://www.hawaii.edu/publichealth/academics/mphcomp.html

Louisiana State University Health Sciences Center School of Public Health (New Orleans) - School-Wide Public Health Competencies for MPH Students
http://publichealth.lsuhsc.edu/pdf/LSUSPH_MPH_Competencies.pdf

Epidemiology Core Competencies for Master of Public Health Students
Public Health Reports, 2008 supplement 1, volume 123, pg 59
http://www.publichealthreports.org/issueopen.cfm?articleID=2018

Tufts University MPH Core Competencies Listed by Domain-
http://www.tufts.edu/med/docs/phpd/CoreCompetencies.pdf

ASPH - MPH core competencies http://www.asph.org/document.cfm?page=851
And http://www.asph.org/userfiles/WordFormat-DomainsandCompetenciesOnly.doc

The council on linkages between academia and public health practice
https://www.train.org/DesktopShell.aspx?tabid=94

St Louis University SPH - PUBLIC HEALTH LEADERSHIP COMPETENCY FRAMEWORK
DEVELOPED BY NATIONAL PUBLIC HEALTH LEADERSHIP DEVELOPMENT NETWORK
http://www.heartlandcenters.slu.edu/nln/about/framework.pdf

Core competencies for public health in Canada http://www.phac-aspc.gc.ca/php-psp/ccph-cesp/stmts-enon-eng.php

Core competencies in public health literature review - *CIHR - The Institute of Population and Public Health* - FREQUENTLY CITED CANADIAN CORE PUBLIC HEALTH FUNCTIONS
http://www.phlr.anaphi.unsw.edu.au/IMAGES/CC_litreview_cphf.pdf

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Perspectives, Principles and key components for CHFP

The "perspectives" that should guide the Community Health Fellowship Programme include the following:

PERSPECTIVES
- Community based and led approaches – understand community dynamics, perceptions, community mobilisation, community capacity building and societal analysis
- People's perspectives of health systems
- Social, economic, political and cultural analysis
- Gender perspectives
- Political economy of health and the forces of liberalization, privatization and globalization and their impact on health and equity
- Secularism
- Epidemiological perspective understand data, analyse data/situation and respond
- Perspective on self-transformation while engaging in social action

PRINCIPLES

- Health equity (understand the differences based on factors such as caste, class, urban/rural location, region, culture, gender and religion)
- Health rights/entitlements (health as a fundamental human right, universal access to health

  care and comparison with other country models)
- Governance
- State responsibility and role for health, including universal access to health care
- Leadership and activism in health that is enabling

KEY COMPONENTS IN HEALTH
- Health systems – history and evolution of health systems in India – traditional, public and private health systems and their current status
- Issues of access, acceptability, affordability, availability, quality of care
- History and relevance of comprehensive primary health care as an approach or strategy towards achieving Health for All or equity in health.
- Learning from peoples health initiatives and local health traditions
- People's struggles/movements and people's health initiatives

There are often competing perspectives and their methods of interaction, negotiation, gaining of dominance by one or the other approach and consequences for communities need to be discussed.

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Perspective building should not be only ideologically driven. It is important to present various perspectives with equal attention and help develop the analytical capacity of the participants to dialogue and discuss with all concerned and to choose the best perspective with the communities in focus and to grow through a process of praxis and reflection.

Contents

The contents of this Fellowship Programme is very comprehensive and organized into the following
categories / topics .

1. Health and Society

a. an understanding of health, development, and equity

b. what is community health and public health

c. values, social justice, health human rights and public health ethics;

2. Determinants of Health

a. understanding underlying socio-political, economic and cultural determinants of health and their inter-relationships and dynamics

b. situation analysis of health and health determinants in India and specifically in MP;

c. culture and health - further details

d. environment and health and worker's health; social security and social protection of the workers

e. social determinants of health and social movements for health; related social sector programs that impact on health;

3. Health system and Alternatives

3a) Health system

a. historical understanding of health policies and programs in India

b. understanding the entire health sector (public, private, voluntary, Indian systems, peoples sector); role

contribution of different components; Pharmaceutical policy and all health related policies

c. health system issues - at different levels

d. Health for All and comprehensive Primary Health Care - with a focus on experiences from India and

Asia in training of community health workers and community participation in small projects and scaled

up to state level; inter sectoral action for health

e. health planning, administration and management

f. basics of health financing, health budget analysis, health insurance

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g. National Rural Health Mission; implementation and organizational issues; understanding all its components; tracking the website, review reports; studying innovations; skills required to realize the

communitisation components

h. urbanization, health and health care for the urban poor, National Urban Health Mission analysis and

action;

3b) Alternatives

a. Health for All and comprehensive Primary Health Care - with a focus on experiences from India and

Asia in training of community health workers

b. the voluntary sector in health in India; different perspectives and approaches; NGOs and their federations; the role of civil society in health; people's organizations; health empowerment strategies

c. the global People's Health Movement (PHM), People's Charter for Health, country circles, campaigns,

WHO advocacy circle, Global Health Watch, PH exchange, International People's Health University

d. the Jan Swasthya Abhiyan (PHM India) and state units; People's rural Health Watch; community

mobilication and campaigns on various issues, booklets produced for two Jan Swasthya Sabhas;

IV Situation analysis of health and major public health problems

4a) Situation analysis of health

a. distribution and trends; critical analysis of data and data sources; socially disaggregated analysis;

social exclusion and health in India and MP

b. priority health problems - nutrition / food issues; communicable diseases including TB, Malaria and

other vector borne diseases, water borne and water related diseases; reproductive tract infections;

cardiovascular diseases; diabetes and cancer

c. women's health, gender and health, children's health

d. urbanization, health and health care for the urban poor;

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4b) Special groups and situations
    Disaster, conflict, displacement, HIV-AIDS, Mental Health, Disability, Environment and
    health, and worker's health

V Communitization: Community process, Dynamics (Panchayati Raj institutions and health;
perspective
    and capacity building of PRI members), Stratification, Institutions

VI Right to Health and Health Care

    Constitutional and legal aspects of health

VII Research
    Health enquiries and research,
    critical reading of reports and data.

The course participants will be encouraged to develop a mix of an adequate knowledge base,
perspectives, skills (networking, advocacy, CH skills) and attitudes that are sensitive to diverse
communities and to field implementers. They should know the public health system, and also be
able to collect data, present and interpret data. Essential reading lists would need regular updation.
Distance learning modules may be used.

*Source: Learning Programmes for Community Health and Public Health – Report from a
national Workshop – April 2008 (A CHC Silver Jubilee Publication)*

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COURSE CONTENT

The content of the next phase teaching learning Programme is developed based on the 2008 National Workshop "Learning Programmes for Community Public Health and Public Health", and its subsequent application in the two year Madhya Pradesh Community Health Fellowship Program. It will evolve further through a Curriculum Development Consultation that is being organized from 27th to 29th December 2011 and through an Academic and Research Council that is being established in 2012.

The contents covered are comprehensive and organized under the following categories/ topics .

I Health and Society

    a. An understanding of health, development, and equity
    b. What is community health and public health
    c. Values, social justice, health human rights and public health ethics
    d. Understanding oneself; intrapersonal and interpersonal skills; social skills
    e. Understanding society- structures, stratification, power dynamics, transitions

II Determinants of Health

    a. Understanding underlying socio-political, economic and cultural determinants of health and their inter-relationships and dynamics
    b. Situation analysis of health and health determinants in India and
    c. Culture and health - further details
    d. Environment and health and worker's health; social security and social protection of workers
    e. Social determinants of health and social movements for health;
    f. Related social sector programs that impact on health;
    g. Concept of interconnected rights

III Health system and Alternatives

3a) Health system

    a. Historical understanding of health policies and programs in India
    b. Understanding the entire health sector (public, private, voluntary, Indian systems and AYUSH, peoples sector and local health traditions); role and contribution of different components; pharmaceutical policy and all health related policies
    c. Health system issues - at different levels
    d. Health for All and comprehensive Primary Health Care - with a focus on experiences from India and Asia in training of community health workers and community participation in small projects and scaled up to state level; inter sectoral action for health
    e. Health planning, administration and management
    f. Basics of health financing, health budget analysis, health insurance
    g. National Rural Health Mission; implementation and organizational issues; understanding all its components; tracking the website, review reports; studying innovations; skills required to realize the communitisation components
    h. Urbanization, health and health care for the urban poor, National Urban Health Mission analysis and action;
    i. AYUSH and public health

3b) Alternatives

a. Health for All and comprehensive Primary Health Care - with a focus on experiences from India and Asia in training of community health workers

b. The voluntary sector in health in India; different perspectives and approaches; NGOs and their federations; the role of civil society in health; people's organizations; health empowerment strategies

c. The global People's Health Movement (PHM), People's Charter for Health, country circles, campaigns, WHO advocacy circle, Global Health Watch, PH exchange, International People's Health University

d. The *Jan Swasthya Abhiyan* (PHM India) and state units; People's rural Health Watch; community mobilication and campaigns on various issues, booklets produced for two *Jan Swasthya Sabhas*;

IV Situation analysis of health and major public health problems

4a) Situation analysis of health

a. Distribution and trends; critical analysis of data and data sources; socially disaggregated analysis; social exclusion and health in India

b. Basic epidemiology and research methods, including qualitative methods

b. Priority health problems - nutrition / food issues; communicable diseases including TB, Malaria, HIV-AIDS and other vector borne diseases, water borne and water related diseases; reproductive tract infections; cardiovascular diseases; diabetes and cancer

c. Women's health, gender and health; children's health

d. Mental health and Disability

d. Urbanization, health and health care for the urban poor;

4b) Special groups and situations: Disaster, conflict, displacement, AIDS, Environment and health, Worker's Health

V   Community Processes and Dynamics (*Panchayati Raj* institutions and health; perspective and capacity building of PRI members), Stratification, Institutions

VI   Right to Health and Health Care
Constitutional and legal/legislative aspects of health and health care

VII Research
Health enquiries and research, critical reading of reports and data.

The course participants will be encouraged to develop a mix of an adequate knowledge base, perspectives, skills (networking, advocacy, CH skills) and attitudes that are sensitive to diverse communities and to field implementers. They should know the public health system, and also be able to collect data, present and interpret data. Essential reading lists would need regular updation. Distance learning modules may be used.

OVER ALL PERSPECTIVES
♦ Community based and led approaches – understand community dynamics, perceptions, community mobilisation, community capacity building and societal analysis

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- People's perspectives of health systems
- Social, economic, political and cultural analysis
- Gender perspectives
- Political economy of health and the forces of liberalization, privatization and globalization and their impact on health and equity
- Secularism
- Epidemiological perspective-understand data, analyse data/situation and respond
- Perspective on self-transformation while engaging in social action

PRINCIPLES
- Health equity (understand the differences based on factors such as caste, class, urban/rural location, region, culture, gender and religion)
- Health rights/entitlements (health as a fundamental human right, universal access to health care and comparison with other country models)
- Governance
- State responsibility and role for health, including universal access to health care
  Leadership and activism in health that is enabling

APPENDIX TWO

CONSOLIDATED LIST OF THEMES OF SESSIONS (2008-2010)

Thematic List of **Topics**

Orientation and **Introduction to the** Programme

1. Getting to know each other (CHC team and interns) and Participant's expectations

2. Overview of the Learning methods of CHLP (Core components of CHLP)

3. Introduction to SOCHARA, CHC, CPHE, CLIC, and formation of participants into committees and study circles

4. Principles of learning, mentoring

5. How do you evolve your learning needs?

6. Approaches to Training

7. Writing Sessions and Feedback

8. Introduction to CHLP Administrative matters

Inside Learning

9. Group Lab – I (Decision to Join, Sharing Anxieties, Understanding and building a community of learning, Learning opportunities, Inside and outside learning, Individual and collective learning).

10. Group Lab – II (Sharing / Feedback, Listening, Working together, Leadership Styles, Agreeing to disagree and Who am I?)

11. Group Lab – III Basic TA/Relationships, Conflict Resolution, Counselling

Health and Development (General)

12. Health and Development

13. Understanding the concept of Health (Definition of Health, Community Health)

14. Understanding the concept of Health (social determinants of health and health as a human right)

15. Web of causation

16. Monsoon Game and Debriefing

Community Health

12. The alternative paradigm in community health - a CHC perspective

13. Skills and values needed for community health - What they are? How to cultivate them?

14. Axioms of Community Health

Primary Health Care

20. The Story of Health and Health care in India – A birds eye over view

from Bhore committee to NRHM : Challenges, crises, and responses

21. What is Primary Health Care?, How do PHC components get translated to practice?, Critique of selective approach

22. Whatever happened to Health for All by 2000 AD? The story from Alma Ata to the present time

23. Challenges in Primary Health Work - role of community health worker in PHC approach, challenges in community participation

Understanding Social Structures/ Marginalisation

24. Understanding society

25. Caste, class, gender as determinants of health- case study

26. Understanding Marginalization and movements of marginalized people (especially women)

27. Health issues of marginalized groups (Seminar)

28. Gender and health

Socio-epidemiology

29. Community health approaches to public health problems and communicable diseases-tuberculosis; HIV/ AIDS vector borne diseases

30. Community health approaches to non-communicable diseases

31. Tobacco and alcohol control – community based responses and initiatives

Health as a Right

30. Understanding the right to health of communities

Health Situation in India

31. Understanding the health situation in India.

32. Data sources and health indicators

Public Health Challenges

33. Public health approach to control of diseases - role of the health system.

34. Approaches to communicable disease control – (Immunization policy and challenges, disease surveillance)

35. Overview of some national programmes – vector borne diseases

36. Environment and occupational health

37. Community approaches to mental health problems

38. Women's health issues

39. Issues of health and development: mining, issues of child labour

40. Maternal health

41. The realities of the Public Health System in India (systems and sectors, cross cutting themes and policy imperatives)

Health Policy Challenges

42. Rational Therapeutics and Essential Drugs

43. Confronting commercialization of health care

Globalisation and Health

44. Globalization and People's Health

45. Documentary on Globalisation

People's Health Movement

46. Understanding movements of marginalized people (especially women) and understanding movement's in the context of health

47. The People's Health Movement response to globalization

48. Understanding People's Charter for Health (global) and Indian People's Health Charter

National Rural Health Mission

49. Introduction to public health system, structure and its function and role of the health system

50. National Rural Health Mission : A nation's effort to strengthening of health systems

51. Sharing of Community Monitoring experiences of Tamil Nadu and Karnataka

Disaster

52. Overview on disasters

53. Disasters: An Institutional Response

54. Documentary and Discussion: Goodwill is not enough

55. Learning's from CHC's experience in responding to disasters

56. First aid and transport of the injured

57. Psychosocial aspects of disasters

58. Civil Defence and Demonstration of using Fire Extinguishers

59. Visit to Karnataka State Natural Disaster Monitoring Centre (KSNDMC)

Alternative systems

60. Questioning the dominant paradigm

61. Understanding alternative system

62. Acupressure and Herbal Medicine

Field Placement-preparation and mentorship

63. Mentor's meeting. Mentors interaction with interns

64. Orientation to field placements

65. Completion of reports and meeting with mentors

66. Preparing for presentations on learning objectives and plan of ation

67. Presentation by interns-Learning Objectives and Plan of Action

68. Group discussion on roles and responsibilities of interns and mentors; Assessment of mentoring process and progress of intern

Field Visits

69. Public Hearing–right to health approach and open learning session - public hearing at Haveri

70. Introduction to group assignment - District Health Profile and Referencing

71. Interaction with JMS team and knowing their work

72. Interaction with children of Chilipili Child Labour School and interaction

with CHWs/Herbal Medicine Unit, interaction with Terracotta and Neem Unit, Visit to Sanghas in the villages

73. Visit to Panchayats, PHC's, PDS Stores and ICDS centres and flood-affected villages. Debriefing of the morning visit

74. Meeting the NJMO team and other local organizations in Raichur. Sharing of experiences of community monitoring

75. Visit to Holy Cross Comprehensive Rural Health Project, Hannur - PHC visit HCCRHP activities

76. Visit to PHCs/herbal medicines clinic

77. Interaction with Workers of unorganized workers

78. Visit to urban slums

79. Visit to NGOs working with marginalized groups – street children, people's with disability, people's with mental health, sexual minorities, PLWHA's etc

Additional Sessions

80. Reading time

81. Attending CHC Team Meetings

82. Open Learning Sessions

83. Celebrating Special Days (Women's Day, Environment etc)

84. Sharing of SOCHARA work (from different clusters)

85. Meeting visiting SOCHARA members and briefing on their work/project

APPENDIX THREE

CONSOLIDATED LIST OF REFERENCE BOOKS AND READING MATERIALS

Background Reference Books

1. Health for All Now! - The People's Health Source Book (JSA) 2004. Jan Swasthya Abhiyan - People's Health Movement in India

2. Health for All Now: Revive Alma Ata. A PHM Compilation for the Alma Ata Anniversary, 2003 (Ravi Narayan and Unnikrishnan P V)

3. Rakku's Story: Structures of Ill Health and the Source of Change. Sheila Zurbrigg, Centre for Social Action, India

Background Reference Papers

Community Health Fellowships

4. Community Health Learning Programme, CHLP – Orientation programme tentative schedule

5. Guidelines for Community Health Cell Interns – Administration, CHC, SOCHARA

6. Orientation Note for Community Health Interns – CHC Library and Information Centre (CLIC)

7. Community Health Learning Programme Feedback Form

Health (General)

8. Health Promotion Glossary- World Health Organisation, Geneva

Community Health

9. Community Health: Search for a New Paradigm- Dr. Ravi Narayan, Health Action Vol. 12, No.11, November 1999 p 5-31.

Primary Health Care

10. Declaration of Alma Ata, Health For All Now, Revive Alma Ata. p 57-58

11. Public Health and Primary Health Care. Chapter 5, Karnataka: Towards Equity, Quality and Integrity in Health, Final Report of the Task Force on Health and Family Welfare, GoK, April 2001. Page 52-57

12. Why Renew Primary Health Care? Renewing Primary Health Care in the Americas, A Position Paper of the Pan American Health Organisation/ World Health Organisation (PAHO/ WHO), March 2007. Page 2-4

Social Determinants and Structures

13. Social Structures: Patricarchy, Caste, Class, Towards Understanding Indian Society. Gabriele Dietrich

and Bas Wielenga, Centre for Social Analysis, Madurai, (1997). p 31-49

14. Organising Societal Life, Towards Understanding Indian Society. Gabriele Dietrich and Bas Wielenga, Centre for Social Analysis, Madurai, (1997). p 49-58

15. Final form of the Commission on Social Determinants of Health framework

Socio-epidemiology

16. Educational approaches in Tuberculosis control: Building on the Social Paradigm, Tuberculosis: An interdisciplinary perspective, Thelma Narayan and Ravi Narayan, Editors: John D. H. Porter and John M. Grange, Imperial College Press, London, 1999. P 489-509

17. The Community Health Paradigm in Diarrhoeal Diseases Control by Dr. Ravi Narayan. Chapter selected from the book 'Diarrhoeal Diseases: Current Status, Research Trends and Field Studies. Edited by D. Raghunath and R Nayak. The Third Sir Dorabji Tata Symposium, Bangalore. P299-304

18. Agriculture Malaria and Canal Irrigation: Some Observations from Early Studies in South India by V.R. Muraleedharan. Medico Friend Circle Bulletin No. 246-247, September-October 1997. p1-4

Health as a Right

19. A Guided Tour through Key Principles and Issues of the Human Rights-Based Framework as Applied to Health, Claudio Schuftan, Editorial, Social Medicine, Vol.2, No.2, April 2007. p 68-78

Community Health Worker

20. The Village Health Worker- Lackey or Liberator, David Werner, California, USA, 1977. p 1-14

21. Compulsions behind Community Health Worker (CHW) Programmes, CHW paradigms, concepts and origin. External evaluative study of the State Health Resource Centre and Mitanin Programme, Final Report, CHC, December 2005. p 17-19

22. Literature review regarding Community Health Worker (CHW) programmes. Chapter selected from the report 'An external evaluative study of the State Health Resource Centre and Mitanin Programme. CHC, Bangalore. Dec. 2005. p50-59

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