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# INFORMATION EDUCATION AND COMMUNICATION

### Information:

Facts about situation, persons, and events are called as information.

# Health information:

It is an integral part of the national health system. It is a basic tool of management and a key input for the progress of any society.

# Health information system:

A mechanism for the collection, processing, analysis and transmission of information required for organizing and operating health services and also for research and training.

# **Objectives:**

(1) To provide reliable, relevant, up-to-date, adequate, timely and reasonably complete information for health managers at all levels (central, intermediate and local)

(2) To provide at periodic intervals, data that will show the general performance of the health services.

(3) To assist planners in studying their current functioning and trends in demand and workload.

# Information and its requirements:

A WHO Expert Committee identified the following requirements to be satisfied by the health information system.

- (1) The system should be population based.
- (2) The system should avoid the unnecessary agglomeration of data.
- (3) The system should be problem oriented.

(4) The system should employ functional and operational terms (e.g. episode of illness, treatment regimens, laboratory test)

- (5) The system should express information briefly and imaginatively
- (6) The system should make provision for the feed-back of data.

Components of health information system: The health information system is composed of

several related subsystem. A comprehensive health information system requires information and indicators on the following subjects:

- (1) Demography and vital events
- (2) Environmental health statistics
- (3) Health status: mortality, morbidity, disability and quality of life
- (4) Health resources: facilities, beds, manpower
- (5) Utilization and non-utilization of health services: attendance, admission, waiting list
- (6) Indices of outcome of medical care
- (7) Financial statistics related to the particular objective

# Uses of health information:

The important uses to which health information may be applied are:

(1) To measure the health status of the people and to quantify their health problems and Medical and health care needs.

(2) For local, national and international comparison of health status

(3) For planning, administration and management of health services and programmes

(4) For assessing whether health services are accomplishing their objectives in terms of

Their effectiveness and efficiency

(5) For assessing the attitude and degree of satisfaction of the beneficiary with the health system

(6) For research into particular problems of health and disease

# Management information system:

Management information system means a formal system that provides timely and necessary information to the manager for making decisions.

# Health management information system:

It is a part of Management information system which is a formal system that supplies timely and necessary information to the health planners through surveillance for monitoring and making decisions in the area of health care delivery system.

# Surveillance:

Surveillance is an integral part of the Management information system. One of the modules of the child survival and safe motherhood programme states: " An effective surveillance system is essential to achieve the goals as reliable epidemiological data are necessary for

effective planning, monitoring the quality services and documentation of impact"

# **Importance of surveillance:**

The data generated through surveillance are important in planning health services because they are:

(1) Highlight the magnitude of an illness as a public health problem.

(2) Help in planning appropriate programme interventions based on epidemiological data.

(3) Monitor the quality of community and institutional health services being rendered.

(4) Estimate programme needs for drugs(in terms of the country"s national policy)

(5) Document impact of health services, reduction in mortality and morbidity rates, declining trends of diseases, prevention of cases, complication and death etc.

# **Types of surveillance:**

Surveillance is of two types

- (1) Active
- (2) Passive

# (1) Active surveillance:

This type of surveillance, where active participation of the concerned personnel come into play is known as active surveillance.

Eg. Collecting information on fever cases and blood slides for detection of malaria.

# (2) Passive surveillance:

Passive surveillance on the contrary is that type of surveillance, where health data are available from hospital and other health facilities, where consumers come on their own seeking necessary health related interventions.

# **HEALTH EDUCATION**

# Health education defined

"Health education is a process that informs, motivates and helps people to adopt and maintain healthy practices and lifestyles, advocates environmental changes as needed to facilitate this goal and conducts, professional training and research to the same end"

# **Objectives of health education**

### (a) Informing people:

The first objective of health education is to inform people or disseminate scientific knowledge about prevention of disease and promotion of health. Exposure to knowledge will melt away the barriers of ignorance, prejudices and misconceptions, people may have about health and disease.

# (b) Motivating people:

The second objective is more important than the first. Simply telling people about health is not enough. They must be motivated to change their habits and ways of living, since many present day problems of community health require alteration of human behavior or

changes in the health practices which are detrimental to health, viz. pollution of water, outdoor defecation, indulgence in alcohol, cigarette smoking, drug addiction, physical inactivity, family planning, etc.

### (c) Guiding into action:

Under the above definition, health education can and should be conducted by a variety of health, education and communication personnel, in a variety of settings, starting with the physician. People need help to adopt and maintain healthy practices and life-styles, which may be totally new to them.

# Approaches to public health

"There are three well known approaches to public health:

# (1) REGULATORY APPROACH:

The regulatory or legal approach seeks to protect the health of the public through the enforcement of laws and regulations, e.g., Epidemic diseases Act, Food Adulteration Act, etc. The best laws are but waste of paper if they are not appreciated and understood by the people(4). They may be useful in times of emergency or in limited situations, e.g., fairs, festivals and epidemics; but they are not likely to change human behavior. In areas involving personal choice (e.g., giving up smoking, family planning) laws have little place in a democratic society. The legal approach has also the disadvantage that it requires vast administrative machinery to enforce laws and also involves considerable expenditure.

#### (2) SERVICE APPROACH:

The service or administrative approach aims at providing all the health facilities needed by the community in the hope that people would use them to improve their own health. The service approach proved a failure when it was not based on the "felt needs" of the people. For example, when water seal latrines were provided, free of cost, in some villages in India under the Community Development Programme, people did not use them. This serves to illustrate that we may provide free service to the people, but there is no guarantee that the service will be used by them.

#### (3) EDUCATIONAL APPROACH:

The educational approach is a major means today for achieving change in health practices and the recognition of health needs; It involves motivation, communication and decisionmaking. The results, although slow, are permanent and enduring. Sufficient time should be allowed to have the desired change brought about. There are certain problems which can be solved only through education, e.g., nutritional problems, infant and child care, personal hygiene, family planning. The educational approach is used widely today in the solution of community health problems. It is consistent with democratic philosophy which does not "order" the individual..

### **Principles of health education**

#### (1) INTEREST:

It is a psychological principle that people are unlikely to listen to those things which are not to their interest. It is salutary to remind ourselves that health teaching should relate to the interests of the people. The public is not interested in health slogans such as "Take care of your health" or "be healthy". A health education programme of this kind would be as useless as asking people to "be healthy", as a nutrition programme asking people to "eat good food". Health educators must find out the real health needs of the people. Psychologists call them "felt-needs", that is needs the people feel about themselves. If a health programme is based on "felt needs" people will gladly participate in the programme; and only then it will be a people"s programme. Very often, there are groups, who may have health needs of which they are not aware. This is especially true in India where about 70 per cent of the people are illiterate. The health educator will have to bring about recognition of the needs before he proceeds to tackle them.

### (2) PARTICIPATION:

It is a key word in health education. Participation is based on the psychological principle of active learning; it is better than passive learning. Group discussion, panel discussion, workshop all provides opportunities for active learning. Personal involvement is more likely to lead to personal acceptance.

#### (3) KNOWN TO UNKNOWN:

In health education work, we proceed from the known to the unknown i.e., start where the people are and with what they understand and then proceed to new knowledge. We use the existing knowledge of the people as pegs on which to hang new knowledge. In this way systematic knowledge is built up. New knowledge will bring about a new, enlarged understanding which can give rise to an insight into the problem. The way in which medicine has developed from religion to modern medicine serves us as an illustration, the growth of knowledge from the unknown to the known. It is a long process full of obstacles and resistance, and we must not expect quick results.

#### (4) COMPREHENSION:

In health education we must know the level of understanding, education and literacy of people to whom the teaching is directed. One barrier to communication is using words which cannot be understood. A doctor asked the diabetic to cut down starchy foods; the patient had no idea of starchy foods. A doctor prescribed medicine in the familiar jargon "one teaspoonful three times a day"; the patient, a village woman, had never seen a teaspoon, and could not follow the doctor"s directions. In health education, we should always communicate in the language people understand, and never use works which are strange and new to the people. Teaching should be within the mental capacity of the audience.

#### (5) **REINFORCEMENT:**

Few people can learn all that is new in a single contact. Repetition at intervals is extremely useful. It assists comprehension and understanding. Every health campaign needs reinforcement; we may call it a "booster dose".

#### (6) MOTIVATION:

In every person, there is a fundamental desire to learn. Awakening this desire is called motivation. There are two types of motives – primary and secondary. Primary motives (e.g., sex, hunger, survival) are driving forces initiating people into action; these motives are inborn desires. Secondary motives are based on desires created by outside forces or incentives. Some of the secondary motives are praise, love, rivalry, rewards and punishment, and recognition. In health education, motivation is an important factor; that is, the need for incentives is a first step in learning to change. The incentives may be positive or negative. To tell a lady, faced with the problem of overweight, to reduce her weight because she might develop cardiovascular disease or it might reduce her life span, may have little effect; but to tell her that by reducing her weight she might look more charming and beautiful, she might accept health advice. When a father promises his child a reward for getting up early every day, he is motivation.

#### (7) LEARNING BY DOING:

Learning is an action-process; not a "memorizing" one in the narrow sense. The Chinese proverb: "If I hear, I forget; if I see, I remember, if I do, I know" illustrates the importance of learning by doing.

### (8) SOIL, SEED AND SOWER:

The people are the soil, the health facts the seed and the transmitting media the sower. Prior knowledge of the people-customs, habits, taboos, beliefs, health needs- is essential for successful health education. The seed or the health facts must be truthful and based on scientific knowledge. The transmitting media must be attractive, palatable and acceptable. Unless these three elements are carefully and satisfactorily interrelated the message will not have the desired effect.

# (10) SETTING AN EXAMPLE:

The health educator should set a good example in the things he is teaching

If he is explaining the hazards of smoking, he will not be very successful if he himself smokes. If he is talking about the "Small family norm", he will not get very far if his own family size is big.

#### (11) GOOD HUMAN RELATIONS:

Studies have shown that friendliness and good personal qualities of the health educator are more important than his technical qualifications. Good human relations are of utmost importance in learning. The health educator must be kind and sympathetic. People must accept him as their real friend.

#### (12) LEADERS:

Psychologists have shown and established that we learn best from people whom we respect and regard. In the work of health education, we try to penetrate the community through the local leaders-the village headman, the school teacher or the political worker. Leaders are agents of change and they can be made use of in health education work. If the leaders are convinced first about a given programme, the rest of the task of implementing the programme will be easy. The attributes of a leader are: he understands the needs and demands of the community; provides proper guidance, takes the initiative, is receptive to the views and suggestions of the people; identifies himself with the community; self-less, honest, impartial, considerate and sincere; easily accessible to the people; able to control and compromise the various factions in the community; possesses the requisite skill and knowledge of eliciting cooperation and achieving coordination of the various official and non-official organizations.

### **METHODS OF HEALTH EDUCATION**

Health education is carried out at three main levels – individual, group and general public through mass media of communication. For effecting changes in attitudes and behaviors", we rely on individual and group approach.

#### (1) Individual and family health education

There are plenty of opportunities for individual health education. It may be given in personal interviews in the consultation room of the doctor or in the health center or in

the homes of the people. The individual comes to the doctor or health center because of illness. Opportunity is taken in educating him on matters of interest – diet, causation and nature of illness and its prevention, personal hygiene, environmental hygiene, etc. Topics for health counseling may be selected according to the relevance of the situation. By such

individual health teaching, we will be equipping the individual ad the family to deal more effectively with the health problems. The responsibility of the attending physician in this regard, is very great because he has the confidence of the patient. The patient will listen more readily to the physician''s health counseling. A hint from the doctor may have a more lasting effect than volumes of printed word. The nursing staff has also ample opportunities for undertaking health education. Florence Nightingale said that the nurse can do more good in the home than in the hospital. Public health nurses, health visitors and health inspectors are visiting hundreds of homes; they have plenty of opportunities for individual health teaching. In working with individuals, the health educator must first create an atmosphere of friendship and allow the individual to talk as much as possible. It is useful to remember; "Give everyone thing ear, but few thy words". The biggest advantage of individual health teaching is that we can discuss, argue and persuade the individual to change his behavior. It provides opportunities to ask questions in terms of specific interests. The limitation of individual health teaching is that the numbers we reach are small, and health education is given only to those who come in contact with us.

# (2) Group health education

Our society contains groups of many kinds – school children, mothers, industrial workers, patients, etc. Group teaching is an effective way of educating the community. The choice of subject in group health teaching is very important; it must relate directly to the interest of the group. For example, we should not broach the subject of tuberculosis control to a mother who has come for delivery; we should talk to her about child-birth and baby care. Similarly, school children may be taught about oral hygiene; tuberculosis patients about tuberculosis, and industrial workers about accidents. We have to select also the suitable method of health education including audio-visual aids for successful group health education. A brief account of the methods of group teaching is given below:

#### (1) Lectures:

Lectures are the most widely used method of teaching, including health education. It is not a good method because communication mostly one-way". There is no opportunity for the group to participate actively in learning. The lecture should be on a topic of current health interest, based on the needs of the group; it should not exceed 15 to 20 minutes; the subject matter should not deal with more than 5 or 6 points; the group should not be more than 30. The effect of the lecture depends upon the personality and performance of the speaker.

Lecture may arouse interest in a subject. It may stimulate a group and give them basic information upon which to act.

Used alone, the lecture method may fail to influence the health behaviour of people. The lecture method can be made effective by combining with the following audio-visual aids.

### (a) Films and charts:

These are mass media of communication. If used with discrimination, they can be of value in educating small groups.

# (b) Flannel graphs:

A piece of rough flannel or khaki fixed over a wooden board provides an excellent background for displaying cut-out pictures, graphs, drawings and other illustrations. The cutout pictures and other illustrations are provided with a rough surface at the back by pasting pieces of sand paper, felt or rough cloth and they adhere at once when put on the flannel. Flannel graph offers the advantage that pre-arranged sequence of pictures displayed one after another helps maintain continuity and adds much to the presentation. The other advantages are that the flannel graph is a very cheap medium easy to transport and promotes thought and criticism.

# (c) Exhibits:

Objects, models, specimens, etc. convey a specific message to the viewer. They are essentially mass media of communication, which can also be used in group teaching.

#### (d) Flash Cards:

They consist of a series of cards, approximately 10 by 12 inches, each with an illustration pertaining to the story or talk to be given. Each card is "flashed" or displayed before a group as the talk is being given. The message on the cards must be brief and to the point. Flash cards are primarily designed to hold the attention of the group.

#### (2) Group discussions:

Group discussion is considered a very effective method of health teaching. It is a "two way" communication; people learn by exchanging their views and experiences. This method is useful when the groups have common interests and similar problems. For an effective group discussion, the group should comprise not less than 6 and not more than 20 people. There should be a group leader who initiates the subject, helps the discussion in the proper manner, prevents side-conversations, encourages everyone to participate and sums up the discussion in the discussion in the discussion goes well, the group may arrive at decisions which no individual

member would have been able to make alone. It is also desirable to have a person to record whatever is discussed. The "recorder" prepares a report on the issues discussed and agreements reached. In a group discussion, the members should observe the following rules:

- (a) express ideas clearly and concisely
- (b) listen to what others say
- (c) do not interrupt when others are speaking
- (d) make only relevant remarks
- (e) accept criticism gratefully and
- (f) help to reach

Group discussion is successful if the members know each other beforehand, when they can discuss freely. There is a good deal of evidence that group discussion is a very effective method of bringing about changes in the health behavior of people. Further, when a group of people decide collectively to accept an idea and act on it, the group acceptance strengthens and reinforces and gives the individual member courage to do the same. A well conducted group discussion is usually effective in reaching the right decisions and securing desirable action.

### (3) Panel discussions:

In a panel discussion, 4 to 8 persons who are qualified to talk about the topic sit and discuss a given problem, or the topic, in front of a large group or audience. The pane

comprises, a chairman or moderator and from 4 to 8 speakers. The chairman opens the meeting, welcomes the group and introduces the panel speakers. He introduces the topic briefly and invites the panel speakers to present their point of view. There is no specific agenda, no order of speaking and not set speeches (9). The success of the pane depends upon the chairman; he has to keep the discussion going and develop the train of thought. After the main aspects of the subject are explored by the panel speakers, the audience is invited to take part. The discussion should be spontaneous and natural. If members of the panel are unacquainted with this method, they may have a preliminary meeting, prepare the material on the subject and decide upon the method and plan of presentation. Panel discussion can be an extremely effective method of education, provided it is properly planned and guided.

#### (4) Symposium:

A symposium is a series of speeches on a selected subject. Each person or expert presents an aspect of the subject briefly. There is no discussion among the symposium members unlike in

panel discussion. In the end, the audience may raise questions. The chairman makes a comprehensive summary at the end of entire session.

#### (5) Workshop:

The workshop is the name given to a novel experiment in education. It consists of a series of meetings, usually four or more, with emphasis on individual work, within the group, with the help of consultants and resource personnel. The total workshop may be divided into small groups and each group will choose a chairman and a recorder. The individuals work, solve a part of the problem through their personal effort with the help of consultants, contribute to group work and group discussion and leave the workshop with a plan of action on the problem. Learning takes place in a friendly, happy and democratic atmosphere, under expert guidance. The workshop provides each participant opportunities to improve his effectiveness as a professional worker

#### (6) Role playing:

Role playing or sociodrama is based on the assumption that many values in a situation cannot be expressed in words, and the communication can be more effective if the situation is dramatized by the group. The group members who take part in the socidrama enact their roles as they have observed or experienced them. The audience is not passive but actively concerned with the drama. They are supposed to pay sympathetic attention to what is going on, suggest alternative solutions at the request of the leader and if requested come up and take an active part by demonstrating how they feel a particular role should be handled, or the like. The size of the group is thought to be best at about 25. Role playing is a useful technique to use in providing discussion of problems of human relationship. It is a particularly useful educational device for school children. Role playing is followed by a discussion of the problem.

#### (7) Demonstrations:

Practical demonstration is an important technique of health education. We show people how a particular thing is done – using a tooth brush, bathing a child, feeding of an infant, cooking, etc. A demonstration leaves a visual impression on the minds of the people and is more effective than the printed word.

### 3. Education of the general pubic

For education of the general public, we employ "mass media" of communication. These are:

# (a) Television:

Television bids fair to become the most potent of all media. We can mould public attitudes through television. Television has now become the cheapest media of mass education.

### (b) Radio:

It is found nearly in every home, and has penetrated into even the remotest villages. It is a potent instrument of education. Radio talks should not exceed 15 minutes.

### (c) Press:

Newspapers are the most widely disseminated of all forms of literature. They are an important channel of communication to the people. The local health department ought to establish good relationship with the local press.

# (d) Health Magazines:

Some are good and some not so good. Good magazines can be an important channel of communication. The material needs expert presentation. The Swasth Hind from Delhi and the Herald of Health from Pune are good health magazines published in India.

#### (e) Posters:

Posters are widely used for dissemination of information to the general public. The first job of a poster is to attract attention; therefore, the material needs artistic preparation. Motives such as humor and fear are introduced into the posters in order to hold the attention of the public. In places where the exposure time is short (e.g., streets), the message of the poster should be short, simple, direct and one that can be taken at a glance and easy to understand immediately. In places where people have some time to spend (e.g., bus stops, railway stations, hospitals, health centers) the poster can present more information. The right amount of matter should be put up in the right place and at the right time. That is, when there is an epidemic of viral hepatitis, there should be posters displayed on viral jaundice, but not on cholera. The life of a poster is usually short; posters should be changed frequently, otherwise they will lose their effect. As a media of health education, posters have much less effect in changing behavior than its enthusiastic users would hope. Indiscriminate use of posters by pasting them on walls serves no other useful purpose than covering the wall.

#### (f) Health exhibition:

Health exhibitions, if properly organized and published, attract are numbers of people who might otherwise never come in contact with the variety of new ideas in health

matters. Small mobile exhibitions are effective if used at key points of interest, e.g., fairs and festivals. Health exhibitions enable the local health service to arouse public consciousness.

#### (g) Health museums:

Health museum display material covering various aspects of health. A good museum can be a very effective mass media of education, such as the one at Hyderabad in Andhra Pradesh:

Mass media are generally less effective in changing human behavior than individual or group methods because communication is "one-way". Nevertheless, they do have quite an important value in reaching large numbers of people with whom there is no contact. The continuous dissemination of information and views about health through all the media contribute in no small degree to the raising of the general level of knowledge in the community. For effective health education, mass media should preferably not be used alone, but in combination with other methods.

### **COMMUNICATION**

#### **Definition of communication:**

Communication is the process of exchanging the information, and the process of generating and transmitting meanings, between two or more individuals.

#### **Communication process:**

# (1) Communicator or Sender:

Sender is the originator of the message. To be effective, a communicator must know (a) his objectives – clearly defined;

- (b) his audience its needs, interests and abilities;
- (c) his message its content, validity and usefulness; and
- (d) channels of communication.

# (2) Message:

It is the information a communicator wishes his audience to receive, understand, accept and act upon. A good message must be

- (a) in line with the objectives
- (b) carefully chosen, i.e., oriented to the needs of the audience
- (c) clear and understandable

(d) specific

(e) timely and

(f) appealing. The message must fit into the existing framework of attitudes, and interests of the people.

### (3) Audience or receiver:

They are the consumers of the message. The audience may be the total population or specific group within the population.

# (4) Channels of communication:

By channel is implied the medium of communication. The choice of the medium is an important factor in the effectiveness of communication. It has to be carefully selected bearing in mind its ability to deliver the message, its cost and availability. An attempt should be made to provide variety in selecting channels so as to keep the teaching process interesting and entertaining. A two-way communication is more likely to influence behavior than one-way communication. Wherever possible, communication should be adjusted to the local cultural patterns (folk media) of the people.

# **Types of communication:**

# (1) One way communication:

The flow of communication is one way from the communicator to audience. The familiar example is the lecture method in the class room.

# (2) Two way communication:

Communication in which both the communicator and audience take part. The Audience may raise question, and add their own information, ideas and opinions to the subject.

# (3) Verbal communication-

is exchange of information using words, including both spoken and written words. Nurses use verbal communication extensively when providing patient care. They also speak with patient's family members, other nurses about patient's report. Common verbal communications in health care setup are:

- 1. Discussion,
- 2. Meetings,

- 3. Suggestions,
- 4. Advice
- 5. Announcements
- 6. Periodical talk between employer and employee,
- 7. Staff conferences
- 8. Social gatherings.
- 9. Employee counseling's
- 10. Records and reports

# (4) Non-verbal communication:

Communication can occur even without words. It includes a whole range of bodily movements, posture, gesture, facial expression (smile, raised eye brows, touch, eye contact etc.)

# (5) Visual communication:

The visual forms of communication comprise: charts and graphs, pictograms, tables, maps, posters etc.

# **BARRIERS OF COMMUNICATION**

These can be:

- 1. Physiological difficulties in hearing, expression
- 2. Psychological emotional disturbances, neurosis, level of intelligence
- 3. Environmental noise, invisibility, congestion
- 4. Cultural levels of knowledge and understanding, customs, beliefs,

Religion, attitudes, economic and social class differences, cultural difficulties between foreigners and nationals, between urban education and rural population.

The barriers should be identified and removed for achieving effective communication.

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