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TRACHOMA

For Primary Schools



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Introduction

In most cases, blindness is not seen as something natural. It is the outcome of preventable and treatable eye diseases. Trachoma is one of such diseases. It has been placed to be the second leading cause of blindness not only in Tanzania but also in other countries worldwide.

The disease is commonly confined in the rural areas of the developing countries characterized by water problems, which hinder inhabitants to keep up hygiene.

The most vulnerable group is that of children. As these are closely attached to their mothers and due to the fact that trachoma is infectious women have no way to escape trachoma infections.

This book aims at helping schoolteachers understand various trachoma concepts particularly at this moment when there is no trachoma reference book for them. In addition, since trachoma elimination is not currently the felt need of Tanzanian society, most of relevant trachoma concepts excluded in the teaching curriculum have been included in this book to make such teachers to widen their scope of knowledge about trachoma. It is understood that teachers are wise and they can always use their wisdom to make sure that some relevant issues are reinforced across the teaching curriculum and during normal lessons in classroom to better enrich school children with life skills.

This book, the first in its series, is divided into four chapters. Chapter one introduces readers to trachoma as a public health problem. Chapter two concentrates on reasons for trachoma intervention, chapter three is introduction to communication and chapter four is about face washing and environmental change

As this is just the first in its series, further readings are provided in the end to facilitate the acquisition of trachoma knowledge by not only teachers but also other trachoma educators

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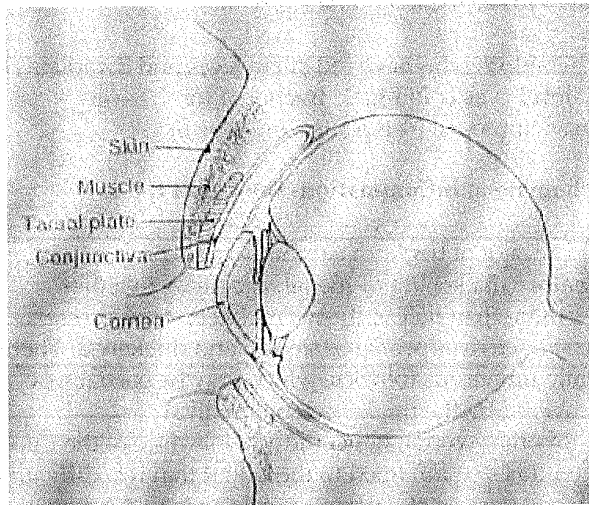
1. Introducing trachoma as a health public problem

We must recognize that most of the world's health problems are... preventable through changes in human behavior and at low cost. We have the know-how and technology but they have to be transformed into effective action at the community level.

Dr Hiroshi Nakajima, Director general, WHO, 1988.

This chapter will give information about trachoma useful for primary school teachers and pupils. It focuses attention particularly on the following areas: -

1. What is trachoma?
2. Associate features of trachoma
3. Trachoma endemic areas in Tanzania
4. Trachoma prevalence worldwide
5. Why trachoma intervention



Eye structure

What is trachoma?

Trachoma is an infectious eye disease caused by a bacterium *chlamydia trachomatis*. It usually starts in childhood, even as early as the first year of life. The disease is characterized by repeated infection throughout childhood and early adulthood. If a trachoma patient does not get treatment blindness after the fourth stage is inevitable.

Signs and symptoms of trachoma

World Health Organization (WHO) has developed a simplified system for recognizing and naming these signs precisely. The disease, according to this system, passes through five stages as follow: -

1. Trachomatous Inflammation- Follicular (TF)

The sign of trachoma at the stage of TF is the presence of five or more follicles in the upper tarsal conjunctiva. This is the first sign mostly seen in children. One needs to turn the eyelid over to see the trachoma signs.

Children who have red sticky eyes and complain of itchy, painful eyes could have trachoma for these are trachoma symptoms. (See picture on page 6)

2. Trachomatous Inflammation- Intense (TI)

The sign of trachoma at this stage is pronounced inflammatory thickening of the tarsal conjunctiva that obscures more than half of the normal deep tarsal vessels. Tarsal conjunctiva appears red, rough and thickened. There are usually numerous follicles, which may be partially or totally covered by the thickened conjunctival

In other words, when the inner surface of the upper eyelids becomes so inflamed to the extent that it is difficult to see the blood vessels, the person is said to have trachoma. (See picture on page 6)

3. Trachomatous scarring (TS)

The sign of trachoma at this stage is the presence of scarring in the tarsal conjunctiva. Scars are easily visible as white lines, bands, or sheets in the tarsal conjunctiva. They are glistering and fibrous in appearance. Scarring, especially diffused fibrosis may obscure the tarsal blood vessels.

People suffering from this sometimes complain that it feels like there is sand or insect in the eyes. (See picture on page 6)

4. Trachomatous trichiasis (TT)

This is the fourth sign. It occurs when the scarring causes the inner lining of the eyelid to thicken and the shape of the eyelid to change. This pulls the eyelashes down towards the eyeballs. The eyelashes then rub on the eyeball causing much discomfort.



A TT patient with eyelashes rubbing the eyeball causing much discomfort

For a trachomatous trichiasis patient therefore, there is at least one eyelash rubbing on the eyeball. Evidence of recent removal of in-turned eyelashes should also be graded as trichiasis, for it is clearly trichiasis symptom. Some people

use locally made tweezers for removing in-turned eyelashes. (See picture on page 6)

5. Corneal opacity (CO)

This is the fifth sign, which can easily be seen i.e. visible corneal opacity over the pupil. The pupil margin is blurred viewed through the opacity. Such corneal opacities cause significant visual impairment. (See picture on page 6)

Transmission of trachoma

The bacterium *chlamydia trachomatis* causing trachoma is spread from an infected person to another through a number of ways.

- I. Children, for example, with trachoma usually have sticky eyes and runny noses. If the discharge contains a bacterium *chlamydia trachomatis* it can be easily passed onto fingers and cloths.
- II. Transmission can therefore occur through shaking hands with a person whose fingers carry the germs
- III. Flies are attracted to the discharge on eyes and if it contains a bacterium *chlamydia trachomatis* such flies can carry *chlamydia* to other children and people.
- IV. When children sleep close to each other, the germ is easily spread from child-to-child, child-to-cloths and cloths-child.
- V. Sharing a cloth to wipe a face is therefore dangerous for it accelerates transmission.
- VI. Women are especially vulnerable to trachoma because they spend so much time with children

In short, flies, fingers and cloths are primarily responsible for transmission of trachoma for they act as carriers of *chlamydia trachomatis*. That is why the emphasis is always put on face and hand washing, fly control and improvement on personal hygiene. All call for behavioral and environmental change if we really are serious about this war against blinding but preventable trachoma.

Treatment and prevention of trachoma

As we have noted earlier, despite the fact that trachoma is the second leading cause of blindness in Tanzania and worldwide, the disease is both treatable and preventable.

Active cases of trachoma are treated using tetracycline eye ointment 1%. As for trachomatous trichiasis (TT) the only treatment is surgery to correct the in- turn eyelashes.



TT surgery is simple and almost painless. One walks back home alone after surgery

Prevention on the other hand involves behavioral change. People in endemic areas need to control flies through construction and use of permanent latrines, refuse pits and incineration. Likewise, face washing and environmental sanitation are necessary.

See chapter 4 for more details about face washing, construction and use of latrines.

(17) *Illustration: trachoma*

(17) *Illustration: trachoma*



Normal



Trachomatous inflammation-follicular (TF)



Trachomatous inflammation-follicular and



Trachomatous scarring (TS)



Corneal opacity (CO)



Trachomatous trichiasis (TT)

Associate features of trachoma

Trachoma is usually found in rural areas where there is severe lack of water and good hygiene is hard to keep up, especially where the climate is dry and the environment is dusty. Poverty is sometime associated with trachoma.

Conditions contributing to severe trachoma vary from place to place. The important and common ones are: -

1. THERE IS A LACK OF WATER

Water in almost all rural areas is found a great distance from home and all of it must be carried. This takes time. Most of this time is women's time. Face washing for children is only one of the many demands on a limited supply of water.



How do we fight against trachoma if we do not change our environment?

2. THERE ARE A LOT OF FLIES

Where animals are kept near the home, flies may breed in the dung. Likewise, if we do not have toilets children's feces will be everywhere and flies may also breed in them. Then they will fly to the eyes for water and food. As they do that they will carry the eye discharge

(probably with trachoma germs) from one person to another and under such circumstances infection is inevitable.

3. THERE IS NO WASTE PIT

Waste pits are not common in rural areas. These are meant to control flies. If households do not have waste pits their waste products will be discarded randomly and as a result breeding sites for flies will be made. More breeding sites means more flies and more flies means more trachoma infection.

4. THERE IS OVERCROWDING WHERE CHILDREN SLEEP

Children are the main sources of infection. Re-infection and severe disease are more common where a lot of children are living and sleeping close together.

5. EYE IRRITANTS

Kohl (an eye cosmetic), smokes from a cooking fire, dust, traditional treatments and other irritants or eye infections cause the eye to be red and sore so the child rubs and further irritates and infects the eye.

An arid or semi- arid climate produces dust and dust storms at the driest times of the year. This causes further irritation of the eyes.

6. POVERTY

The above factors are typical of communities with many infectious diseases. Where there is poverty (having poor land, much animals, low- paying work, little education) there is more likelihood that people will be at risk of becoming blind due to trachoma.

Trachoma endemic areas in Tanzania

Despite the fact that in most cases trachoma is associated with poverty trachoma is not a problem in all poor communities. Of course, trachoma is no longer a problem in developed countries but is also not a problem in most parts of the developing country. This, as we have seen above, is because several other factors are responsible for existence and further existence of trachoma.

In Tanzania for instance, almost all sub- arid parts of the country have trachoma. To be specific the following districts of mainland Tanzania are trachoma endemic: -

- i. Kongwa
- ii. Mpwapwa
- iii. Kondoa
- iv. Dodoma rural
- v. Manyoni
- vi. Iramba
- vii. Singida rural
- viii. Kilosa
- ix. Simanjiro
- x. Kiteto
- xi. Rombo
- xii. Same
- xiii. Handeni
- xiv. Some parts of Lindi and Mtwara

In general, the geographical condition of these areas is similar. In addition, despite the fact that these areas experience semi- arid climate, the indigenous do both farming and animal keeping, the later being one of the causes of increased breeding sites for flies. Further more, their agricultural practice like that of many other Tanzanians is still traditional and they usually share shelters with animals.

Trachoma prevalence worldwide

It is estimated that over 6 million people are blind due to trachoma worldwide. Additionally, there are over 11 million with TT; over 146 million have active trachoma and people at risk of getting infected are over 540 million. Of all the active trachoma cases i.e. TF and TI, 75% are children.

What we should always remember is that this disease does no longer exist in the developed countries. Likewise, it is not found in areas with good climatic conditions. It is confined mainly in areas experiencing arid and semi- arid climatic conditions. This means we cannot globalize trachoma. That is why even in Tanzania only a few parts have this disease.

Despite the fact that some regions of Tanzanian mainland do not have trachoma, the adverse effects of the disease affect us all economically and socially. As such we all are responsible for seeing that the disease is no longer a public health problem at least by the year 2020 as proposed by the vision 2020: *the right to sight*.

REVIEW QUESTION

1. What is trachoma?
2. Show how trachoma can spread from one person to another
3. The following are the signs of trachoma
 - a). High fever, trachomatous trichiasis, vomiting and corneal opacity
 - b) Trachomatous inflammation, lack of appetite, trachomatous follicular and excessive breeding
 - c) trachomatous follicular, trachomatous intense, trachomatous trichiasis, and corneal opacity
4. What are trachoma symptoms?
5. What conditions are associated with trachoma?
 - a). Overpopulation, semi- aridity, cloudy and dusty
 - b). Poverty, excessive flies, lack of water and over clouding where children sleep
 - c). None of the above is true
6. Mention the 5 districts in Tanzanian mainland where trachoma is prevalent
7. Do school children have any role in a war against trachoma? Discuss
8. Write false or true
 - a). Mosquito spreads Trachoma
 - b). Trachoma causes blindness
 - c). TF an TI are treated by tetracycline eye ointment
 - d). Trachoma is not a focal disease
 - e). Children are most vulnerable to trachoma
9. Surgery is the only way to correct eyelashes rubbing the eyeball
10. Face washing is for.....
11. By environmental change we are required to do the following: -
 - a).....b).....c).....d).....
12. Can school children participate in planning and implementing trachoma program? Discuss.

2. Why trachoma intervention

So far we have known that trachoma is the second leading cause of blindness in Tanzania, and that over 6 million people worldwide are already blind due to trachoma. We have also seen the current number of TT cases worldwide, number of people with active trachoma and those at risk of getting infected.

Apart from that we now know that trachoma is mostly prevalent in poor societies experiencing poor climatic conditions and lack of water. What we have also noted is that in such societies hygiene is hard to keep up and that there are a lot of flies.

Under all such circumstances, further existence and transmission of trachoma is unavoidable, which means possible increase of blind persons every year. We do not hate the blind but rather the blindness due to:

1. Its social and economic effects
2. The fact children are most vulnerable and at high risk



Children are most vulnerable to and are at high risk of trachoma infection. They really need help

Social and economic implications of trachoma

We all know that most beggars in Tanzania are blind. Most of them are socially alienated, mistreated and scorned.

They are concentrated in big towns and cities but their lives there are miserable. Life is partly seeing but they do not. They do not laugh with us when we see ridiculous things. Their constitutional right of expression over visible things is completely limited. Scientists prove that their life span is shortened due to their being so. Yet we all preach love to one another. If so, we should also exercise it to the blind and those at risk of becoming so.

Apart from that, most of the blind could be productive labor force, but that has been marginalized. Most of them have become dependant while most of us find caring for the blind a heavy load. If we have a best reason for this we should do our best to produce no more blind so in turn our productive force is increased not reduced. This will help revamp our economy in the long run.

However, it is not the conclusion of this book that the blind persons do not participate in productive activities. We would like to use this opportunity to express our sincere appreciation to the blind who did not give up and therefore continue to perform various economic activities.

As for those who do not participate because of one reason or another, we should keep on helping and encouraging them.

Health promotion in schools

Health promotion in schools is the process of enabling school children to increase control over, and to improve, their health. To reach a state of complete physical, mental and social well being, school children must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health and eye health in particular, is therefore a resource for everyday life

As we have seen earlier however, 75% of active trachoma is in children. This is to say children are at high risk of trachoma infection and later on blindness. If we do not

invest our effort against trachoma in children the future of this nation will be at risk. There is a need therefore for teachers and other actors to put the fourth component of school health program in practice i.e. *strengthening health services at school level*. This will give school children an access to eye screening, first aid, treatment/ referral and counseling services.

On this, teachers supported by communities concerned have the leader's role and a primary responsibility to establish, if necessary, relations with health service providers in their vicinity in order that school children benefit from trachoma services provided.

Strengthening of health services at school level should be supplemented by the following other components: -

1. *Merging trachoma messages into the existing curriculum.*
Basically, teachers can do this whether or not the main trachoma issues are enlisted in teaching curriculum. E.g. a mathematics teacher can construct a word problem with



Trachoma messages can easily be reinforced across the teaching curriculum

trachoma message like this: -

One tetracycline eye ointment tube is used to treat one person with active trachoma for one week. How many tubes are needed to treat seven patients with active trachoma?

2. **Health promotion within and around the school.** The component requires that programs for face and hand washing, environmental improvement- toilets cleanliness and use, cleaning surroundings, tree planting and personal hygiene- be put in place.



In addition, access to clean and safe water, preservation and proper use of water, backyard gardening for dark green leafy vegetable are also essential. What is important is for the involvement of all actors, school children in particular, in planning and implementation of trachoma and other health activities.

3. *Taking trachoma messages out of school to the community* through child-to-child and child-to-community approaches. This is now the primary responsibility of school children. Having learnt about trachoma in their classrooms they are to take the messages to their families and other members of the community. This can easily be done through songs, dramas and school cultural groups during special village and school days. Teachers can help too.

Approaches for trachoma control

To deal with trachoma thoroughly well it was important that actors come up with effective techniques. The techniques for working out trachoma problem are very well summarized under the *SAFE* strategy put forward by WHO for all countries with trachoma problem to adopt and implement.

The *SAFE* strategy

This is adopted and implemented throughout the world for trachoma control. Each of the letters forming the word *SAFE* stands for a course of action necessary for control and eventually elimination of trachoma.

S stands for BTRP surgery for those with TT. There is in fact no medication in the moment to cure a patient at this stage of the disease. BTRP surgery is the only way to correct the in-turn eyelashes. The surgery is simple to administer and almost painless. It takes a surgeon a few minutes to complete the work. An operated person can start using his/ her eye the next morning. If correction is not done immediately anyone with TT will definitely become blind in no time.

A stands for *antibiotics* used to treat active case of trachoma i.e. TF and TI. This is nothing rather than tetracycline eye ointment 1%. The other medication used particularly for mass treatment and prevention of trachoma is

Zithromax ® taken once every year by every person in trachoma endemic areas.



F stands for face washing and personal hygiene generally. As flies transmitting a bacterium *chlamedia trachomatis* i.e. *musca sorbens*, is attracted by discharge from eyes or nose it is always important to keep our faces clean.

E stands for environmental change. This is a call for inhabitants in trachoma endemic areas to improve their environment associated with further existence of trachoma germs and mechanism for transmission. In general, environmental change involves construction and use of latrines, refuse pits and incineration. All these are for fly control.

The school health program

In certain senses, some trachoma interveners can regard school health program as a strategy for trachoma

control. As one looks at the four components of school health program one can agree that they all together accommodate the trachoma *SAFE* strategy.

In addition to accommodating the strategy the program works to reproduce more health and trachoma educators i.e. teachers and school children.



Active participation during school health teachers' trachoma workshops

Basically, health teachers on behalf of others attend health teachers' trachoma workshops which equip them with trachoma package to enable them teach relevant trachoma concepts. After that, school children disseminate what they have learnt about trachoma in the classrooms to the community through child-to-child and child-to-community approaches.

Child-to-child and child-to-community approaches

To start with, school health teachers need to learn about trachoma either through workshops or any other means. Having obtained trachoma knowledge, they find ways to merge trachoma messages into their teaching curriculum and schemes of work.

School children then benefit from trachoma issues raised during normal sessions in their classrooms and practice suggested trachoma behavior and actions within and around the school.

After that, school children and school environment at large become so instrumental in developing critical awareness, raising of consciousness, and stimulating people to think how they can change their behavior and environment. School children can do all these through songs, drama, puppets and drawings during community special days or school health days.



The use of school drama groups has been instrumental dissemination of trachoma messages not among school children alone but also to members of community

What is important is for leaders at all levels to involve and give them chance to participate in trachoma control program. This of course is in support of the third component of school health program, that is, *taking trachoma message out of school to the community.*

How children can influence people and other children to change behavior and environment

Through child-to-child approach and child-to-community approaches they can therefore use the following techniques to influence people to change behavior and environment: -

Persuasion, that is, the deliberate attempt to influence other children and members of community to do what they are supposed to do.

Informed decision- making, that is, giving people and other children information about trachoma, problem solving and decision- making skills.

Additionally, in the course of their normal plays they can disseminate trachoma information, problem solving and decision- making skills to other children. It is during these plays that the elder children are expected to and can use coercive measures to rescue the younger ones from trachoma infections.

Review questions

1. In the SAFE strategy S stands for.....Astands for.....F stands for.....and E stands for.....
2. Write true or false after each of the following statements:
 - a). Children are tomorrow's nation
 - b). There is no need of eye services in schools
 - c). There is a need for health promotion in schools because we children are at high risk of trachoma infection
 - d). School children have the responsibility of taking trachoma messages out of classrooms to the community
 - e). Face washing is not important.
3. Discuss and list social and economic impact of blindness
4. Trachoma education is important in schools because
 - a). Trachoma is a new disease
 - b). Children are at high risk of trachoma infection
 - c). Parents do not suffer from trachoma
5. Mention ways by which school children can disseminate trachoma messages to the community
6. Discuss and point out any barriers to schoolchildren in disseminating trachoma information.
7. What do you think are the solutions to these barriers
8. Techniques to influence people to change behavior include the following:
 - a). Persuasion and informed decision- making
 - b). Coercion where necessary
 - c). Both answers above are applicable
9. To remove discharge from the eyes or nose we need to do.....
10. We need to do the following to rescue our young brothers and sisters from getting trachoma infection: -
 - a). Help them wash their faces and nose to remove discharge from eyes and nose
 - b). Strike them if we find discharges from their eyes and nose
 - c). Laugh at them

3. An introduction to communication

Under this, the following concepts will be considered to help both teachers and school children in putting across trachoma messages to the communities: -

1. Communication stages
2. Communication characteristics
3. Communication components
Receiver (audience), Source, Communication, message, Channel
4. Deciding what communication method to use

Communication stages

Communication is transfer of information, idea, emotions, knowledge, skills and the like from one individual to another. There are five stages for communication process to be complete: -

- a) **Ideation**, that is, developing ideas into a message to be communicated
- b) **Coding**, that is, putting such ideas into communicable words, gestures etc.
- c) **Transmission**, that is, uttering the message
- d) **Reception**, that is, the receiver getting it
- e) **Encoding**, that is, the receiver trying to interpret in a way that fits in his/ her understanding
- f) **Feedback**, that is, the receiver reaction

Characteristics of good communication:

- a) ***Should reach the intended audience.*** In all circumstances, it must be directed where people or school children are going to see or hear them. This requires studying the intended audience to find out where they might see posters, what their listening and reading habits are.
- b) ***Should attract the audience's attention*** so that school children or people will make the effort to listen or read it.
- c) ***Should be understood.*** One way to achieve this is for a communication to use simple and familiar words/ language; pictures containing simple diagrams with obvious details; and lastly for a communication to be understood we should avoid presenting too much information on it.
- d) ***Should promote change*** i.e. it should be believed and accepted. For this to occur, it is always important to demonstrate the benefit for adopting a belief over something e.g. ventilated and improved latrines do not smell
- e) ***Should produce a change in behavior.*** This is possible only when our communication targets at the belief that has the most influence on persons' attitudes to the behavior. Our communication should also target at inhibitors like pressure from other people in the family or community, skills, availability of health services, role of tradition and culture.
- f) ***Should bring improvement in health.*** This will occur if the behaviors have been carefully selected so that they really do influence health.

Communication components

a) Receiver/ audience

There are three things to consider about the audience: *educational factors; social cultural factors, and; pattern of communication.*

b) Source of communication

The important things to consider here are special qualities that make a person/ source trusted and that which will make the community lose trust in that person. Depending on community, trust and *source-credibility* may come from the following:

- ❑ A person's natural position in the family community
- ❑ Person's qualities or actions, e.g. health worker who always come out to help people even at night
- ❑ Qualifications and training
- ❑ The extent to which the source shares characteristics such as age, culture and the like with the receiver

Above all that, a person from a similar background to the community is more like to share the same language, ideas and motivations and thus be a more effective communicator.

If certain circumstances substantiate the need for communicators or educators from outside the community, it is still possible to help them become closer to and work with communities.

c) **The communication message**

This consists of what is actually being communicated including the actual appeals, words, pictures, and sounds that one uses to get the ideas across.

Perhaps it is important at this juncture to go a little bit into details of appeals particularly on the types in order to show their impact on health communication.

TYPES OF APPEALS

Fear- a message may be designed to frighten audience into desired course of action. To achieve this the emphasis is put in the serious outcome from not taking action. The use of symbols is sometime essential.

Humor- in certain instances a message is brought as something funny e.g. cartoons, puppets etc.

Factual appeal- emphasis in the message on conveying the need for action by giving facts, figures and information

Emotional appeal- a message may try to arouse emotions, images and feelings.

One- sided message- presenting only the advantages of taking action

Two- sided message- present both the benefits and disadvantages

Positive appeals- communications that ask people to do something

Negative appeals- communications that ask people NOT to do something e.g. do not defecate in the bush.

The following things should also be considered: -

I. The nature of the advice given

For trachoma message to be effective one need to apply both an understanding of trachoma disease as well as the various influences on behavior. In addition, the advice presented should be: -

- Relevant
- Appropriate
- Acceptable
- Put across in an understandable way

II. Formats

Health communication mainly uses two senses namely *hearing and vision*. This means the expectation is for most trachoma information to be conveyed in spoken or written form and as songs. Non- verbal communication also plays a great part i.e. the use of gestures, hand-movements, tone of voice etc.

Apart from, health information can also be put across via pictures. In some instance more than one format can be used to convey a message e.g. one can talk to the audience about trachoma and at the same time showing a picture etc.

III. Actual content of message

In audio communications the actual content would be a mix of the following: -

- The advice given
- Wording
- Tone of voice
- Music (if any)

In pictorial or posters communications, the actual content would include the basic appeal, pictures, words, photographs, symbols and colors

Apart from that, visual communications carry out visual analysis to analyze the content and then specify the following: -

- ❑ What is actually being said; which words are used
- ❑ The type of letters used; whether capital or small and lettering style, size of the actual letters
- ❑ Color and printing method
- ❑ The picture used; whether photographs or drawings
- ❑ The color and size of the pictures

IV. How does the message content influence attention

There are several characteristics of a message content that make communication attract attention. These are as follow: -

- ❑ **Size**, we are likely to notice a large poster, letter(s), title word(s)
- ❑ **Intensity**, bold headings in a sentence or poster
- ❑ **High-pitched sounds**. Usually these attract attention
- ❑ **Color**, primary such as reds, yellows, orange
- ❑ **Pictures**, photographs and drawings
- ❑ **Novelty**, unusual features, unfamiliar and surprising objects
- ❑ **Interest**, felt need of audience and perceived relevance to audience
- ❑ **Deeper motivation**, appeals to motivation and drives of audience
- ❑ **Entertainment and humor**

V. Perception and understanding

As we have seen in stages of communication, once the message has been transmitted the receiver decodes it. Here problems may arise. Problems in understanding take place when the receiver of a message misinterprets it due to

presence of some barriers of communication. Barriers are a result of either of the following: -

- ❑ The use of unfamiliar language
- ❑ The use of writing in the leaflet or posters when people cannot read or write
- ❑ The use of unfamiliar or technical terms
- ❑ Wrong conclusions about the meaning of looks, gestures and tones of voices that make up non-verbal communication.
- ❑ The use of pictures containing a difficult 'visual language'
- ❑ Visual illiteracy i.e. unfamiliarity with interpreting pictures.

In all cases, perception depends much on a person's experience. It is however useful to have guidelines for effectively using pictures.

GUIDELINES TO USING PICTURES

1. Make details of accurate and of objects familiar to the target audience
2. Avoid distracting details
3. If you use color make it accurate
4. Show complete objects- especially parts of the body
5. Show familiar objects
6. Use signs and symbols that are understood by the target audience
7. Be careful when using sequences of picture as it can easily cause confusion
8. Single communication should not more than one message
9. Always pre-test with sample of your intended audience

Deciding what communication method to use

Knowledge about your audience is a key to choosing a method of communication. For instance, if the audience cannot read the message cannot be written. Likewise, if it is visually illiterate visual analysis to determine visual content of communication will be necessary.

Another key is characteristics of different methods including costs involved, number of staff needed and level of skills involved in using the method, and field requirements

Others are your learning objectives, and availability of funds for the activity. The present channels of communication are:

- **Face-to-face**, which employs spoken words, non-verbal communication, pictures/written words, visual-real objects and models. This can be done through one-to-one counseling, small group (less than 12 persons), intermediate group (between 12 and 30), large group/public meeting (more than 30), songs and drama.

The advantage of this method is that it creates opportunities for, questions, discussion, participation and feedback. It is possible to check if the message has been understood and the need for further explanations.

This is not particularly so with large group in which only a small number take part. Public meetings therefore share many characteristics of mass media for it involves limited participation and feedback.

- **Mass media**, which involves radio, television, and written materials (books, leaflets, brochures, newspapers)

Radio uses spoken words and non-verbal communication

Television uses spoken words, visual format, non-verbal communication and written words.

Leaflets, books, brochures etc. uses written words and visual pictures.

Main characteristics of mass media and face-to-face channels

Characteristics	Mass media	Face-to-face
Speed to cover large population	Rapid	Slow
Accuracy and lack of distortion	High accuracy	Easily distorted
Ability to select particular audience	Difficult to select audience	Can be highly selective
Direction	One-way	Two way
Ability to respond to local needs of specific communities	Only provides non-specific information	Can fit to local need
Feed-back	Only indirect feedback from survey	Direct feedback possible
Main effect	Increased/knowledge awareness	Changes in attitudes and behavior; problem solving skills

Review questions

1. Communication is.....from one person to another
2. Communication stages are ideation,, transmission,, decoding, and
3. Mention 4 characteristics of good communication
4. The use of unfamiliar words, language and objects may cause
 - a). Our message being misunderstood
 - b). The audience to laugh too much
 - c). Many people to understand it.
5. Write true or false after each of the following statements
 - a). The advantage of face-to-to face communication is that it creates an opportunities for questions, discussions, participation and feedback
 - b). Written communication materials are good for all types of audience
 - c). Two-sided-message presents the benefits for taking and the disadvantages of not taking action
6. Choose and circle out three phrases, which are keys to deciding the method of communication.
 - a). Distance from radio station
 - b). Your learning objectives
 - c). The striking colors
 - d). Trachoma endemic areas
 - e). There are a lo of flies
 - f). Characteristics of different methods
 - g). Knowledge about your audience
7. Sit in groups, discuss and write two methods you are going to use in disseminating trachoma messages and their advantages.
8. Make songs and plays for showing during parents' days

9. Face washing and environmental change

This chapter explores reasons for face washing, construction and use of latrines. As children mental development through formal education requires, apart from other things, children to be able to associate things and see the benefit in order to willingly adopt a desired behavior, this chapter give an overview of the association between trachoma on one hand and face washing, personal hygiene and the need for environmental change on the other



In many schools face washing is done before pupils enter classrooms

Basically, we have seen when exploring the meanings of the four letters forming the *SAFE* strategy, that there are various ways by which trachoma can be spread from one person to another. Perhaps it is a good idea at this juncture to analyze in a little more details the reasons for putting emphasis on face washing, construction and use of latrines as preventive measures.

Why face washing, construction and use of latrines

Studies have revealed that the fly that is responsible for transmission of trachoma is *musca sorbens*. According to such studies, this fly breed on flesh feces dropped on top of the soil and feeds on discharge from eyes or nose.

Therefore, if people construct and use latrines instead of defecating in the bush, there will be no more breeding sites for *musca sorbens*. As a result, transmission of trachoma by such a fly will be limited.

Similarly, since the *musca sorbens* is mainly attracted by facial discharges from eyes and nose, face washing can easily discourage it from further coming into contact with the eye.



Parents and teachers have to make sure that children undertake face washing regularly.

If well planned, face washing can be part of children play

What is important is now for all trachoma educators to explain this relationship and in particular to encourage people to construct and USE latrines. People need to see the benefit of face washing, construction and use of latrines, refuse pits and incineration in order for them to take desired actions.

Are face washing, construction and use of latrines the only trachoma preventive ways?

NO! As we have seen earlier, other preventive measures include taking Zithromax ® every year, avoiding sharing shelters with animals e.g. cows, personal hygiene, incineration, and not sharing cloths when wiping our eyes. In general, preventive measures require change in behavior.

Ways to work out shortage of water problem

Perhaps you have most of the time received these discouraging answers when attempting with your positive appeals to ask people do face washing- *the problem is lack of water or but there is no enough water*. Did you decide to give up?

In one incidence, the trachoma educator did the following to win the confidence of the audience: -

- ❑ Looked at internal and external possibilities for putting water facilities in place
- ❑ Having seen that the possibility for having water facility was within their reach, she summoned a community meeting
- ❑ During the meeting she gave her audience a list of alternatives to shortage of water and they chose *rain- water harvesting*.
- ❑ Fortunately, a person from water department was there and he explained about the cost of constructing underground tank and purchase of gutters.
- ❑ Everyone exclaimed! Finally they agreed with the educator that most of their problems were within their capacity to solve.
- ❑ Finally the village government arranged for construction, which began immediately. Contributions to construction were both in money and in kind from every member of the community.

An example from Banyibanyi Primary School-Kongwa.

After the first and second phases of health teachers' workshops on trachoma conducted in Mpwapwa, participants to the workshops from Banyibanyi Primary School i.e. the school head and health teacher, conducted a mini- workshop to orient their fellow teachers on various issues raised during the workshops.

Among the things discussed during such mini-workshops were resolutions from trachoma workshops. One of the resolutions was schools to harvest rain- water to make face washing a realistic program.

The school health committee was then assigned a duty to meet the village health committee and see how members of the community could be involved. 2 teachers and 5 students compose the school health committee.

After their meeting, a community meeting was summoned and community members agreed to support the ideas of harvesting rain- water at school. The work for constructing the underground tank began and school children supported by community members participated in digging the hole for water tank.

Despite some problems encountered, they have managed to dig a 12 feet and a radius of 8 meters. The construction has begun and the work will be complete before the rain season expected to begin on November 2002.

It is therefore emphasized that involvement of community in school development, social and health activities is very important for sustainability. Again things, which could be difficult for schools to manage themselves, would be easier if members of the community are involved. The

involvement of school children in planning and implementation of any program has a paramount importance.

Review questions

1. Draw a picture showing the relationship that exist between flesh feces on top of soil, multiplication of flies and dirt faces on one hand and transmission of trachoma on the other
2. The name of the fly responsible for transmission of chlamydia is: -
 - a). House fly
 - b). Chlamydia
 - c). Musca sorbens
 - d). Bacteria
3. When do we can we do face washing
 - a). After every one week
 - b). In the end of a month
 - c). At least every morning
 - d). Not necessary
4. Write true or false after each of the following statements:
 - a). Face washing is necessary because trachoma-transmitting flies like to feed on discharge from the eyes or nose
 - b). Schools can harvest rain- water to work out the problem of water shortage
 - c). Face washing is not the only way by which we can prevent ourselves from trachoma infection
 - d). The use of toilets is important not only for trachoma control but also diarrhea
 - e). Environmental cleanliness, tree planting, construction and use of latrines and incineration are what we mean by environmental change.