

Federal Democratic Republic of Ethiopia
Ministry of Health

**HIV/AIDS and Tuberculosis Prevention
and Control Extension Package**

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1. Introduction

The first AIDS Patients in the world were found in North America in the first half of 1981. The HIV virus which causes AIDS was known in 1984 by American and French scientists. This virus, which does not differentiate race, colour, sex, age and religion is widely spreading and creating heavy toll on many millions of people. According to the joint UNAIDS and WHO report of 2002, 42.0 million people in the world live with the virus and 27.9 million have died due to AIDS.

As cited in the bulletin entitled "AIDS in Ethiopia, 2002" which was published by the Ministry of Health, 107,575 AIDS patients have been reported from all regions from the time these first two AIDS patients were found in 1984 to July 8, 2002. Out of these AIDS patients, 92% are adults of 15-49 years of age. These are patients who reported to health facilities and got laboratory examinations and treatment. However, there many people who have not gone for blood examination and living with virus. Because of this, 2.2 million people are estimated to live with the virus. Although the distribution of the virus is different in the rural and urban areas of the country, the overall prevalence of HIV is estimated to be 6.6%. The number of children who are orphaned by AIDS is also estimated to reach about 1.2 million. Sexually transmitted diseases are known all over the world and in our country since many years. However, because of their wide distribution, the danger they pose if they are not treated on time, and because of their close relationship with HIV/AIDS, their transmission is becoming a serious concern. In spite of this, special focus and relentless effort have been made more than ever to the prevention and control of these diseases.

HIV/AIDS creates heavy social pressure on families and communities and psychological stress on those who are living with the virus since there

have been no protective vaccine or medicine against it. Because of AIDS, marriage is destroyed, family is disintegrated, children are left without parents and old people remain with no one to support and care them. Children who lost their parents are going and living on the street, the boys are exposed to crimes and the girls to prostitution. The population in the 15-49 age bracket is more affected by HIV/AIDS. This includes the farmer, intelligentsia, the worker, youth, commercial sex workers, long distance truck drivers, members of the military etc. Since these social groups are the national backbones of production and reproduction, and for the creation of a new generation, the general crisis that emanates from the illness and death on these social groups is very high. An AIDS person, apart from being separated from production as a result of AIDS, has other economic challenges. He needs money for treatment and his burial ceremony. Since his compatriots refrain from work to care him and attend his burial ceremony the impact is not only on the individual himself but also on the country. Because of this, AIDS at the present moment is becoming a problem beyond health and a hindrance to national growth and development.

Currently, an all round effort is being made to prevent and control the spread of HIV/AIDS. The care and support that can be given to people affected by HIV/AIDS cannot be seen in isolation with the overall prevention and control of HIV/AIDS. This HIV/AIDS extension package, which contains information and IEC approaches on HIV/AIDS and other sexually transmitted diseases is prepared for the health extension worker to expand the multicultural effort in all areas of the country, raise the awareness of the rural population on HIV/AIDS and bring about behavioral change.

2. Objective

General objective

To create a conducive environment in communities for the prevention and control of HIV/AIDS. To reduce the spread of the virus and death from AIDS.

Specific objectives

- Raise the awareness of the society on the mode of transmission of HIV, on prevention of HIV/AIDS and bring about behavioral changes.
- Reduce morbidity and mortality caused by AIDS and other sexually transmitted diseases.
- Sensitize and mobilize the society to give appropriate care and support to people living with HIV, AIDS patients and children orphaned by AIDS without stigma and discrimination.
- Mobilize the society to make its contribution in preventing and controlling the spread of HIV/AIDS.
- Develop the necessary knowledge and skills to those members of society involved in the provision of care and support services to AIDS patients.
- Collect information that contribute to the reduction of HIV/AIDS and other sexually transmitted diseases.

3. Implementation strategies

- Provide on going education that help to raise the awareness of the society on HIV/AIDS and bring about behavioral changes by involving professionals working in government, non-government and private organizations.

- Take an understanding that in the prevention of HIV/AIDS, women, children and the youth are given due attention.
- Give priority in giving education and sensitization to those people who are potentially exposed to the disease. These include seasonal workers and traders that shuttle between the rural and urban areas.
- Create favorable conditions for those who want to use condoms except to those who are confirmed to be free from HIV and are having one to one sexual relations on the basis of mutual trust. Make condoms easily available to those who want to use them.
- Create favorable conditions for those affected by HIV/AIDS and other sexually transmitted diseases so that they can get proper treatment, support and advisory services.

4. Activities

- 4.1 Data collection
- 4.2 Provision of education on HIV/AIDS and other related diseases.
- 4.3 Provision of support and care to those directly and indirectly affected by HIV/AIDS
- 4.4 Major activities expected from the health extension worker with regard to the provision of care and support services to AIDS patients. This is in addition to the activities related with the prevention and control of HIV/AIDS.

4.1. Date Collection

- Number of kebele residents by
 - Sex
 - Age

- People living with HIV

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
1-19			
20-29			
30-39			
39-49			

- Number of AIDS patients in the kebele
 - Female
 - Male
- Number of children who lost their parents due to AIDS
 - Male
 - Female
- Number of associations in the kebele
 - Farmers
 - Women
 - Youth
 - Other
- Number of organizations in the kebele
 - ◆ Religious organizations
 - Orthodox
 - Protestant
 - Catholic
 - Muslim
 - ◆ Number of government organizations
 - ◆ Number of non-government organizations
 - ◆ Number of private organizations
- Number of professionals in the kebele
 - ◆ Teachers
 - ◆ Health professionals

- ◆ Traditional birth attendants
- ◆ Agricultural extension workers
- ◆ Traditional medical practitioners

- Kebele residents
 - ◆ Number of heads of households
 - ◆ Number of heads of households with more than one marriage
 - ◆ Divorcees and not married
 - ◆ People that shuttle from the rural to the urban areas for trade
 - male
 - female
 - ◆ Number of health institutions in the kebele

4.2. Provision of education on HIV/AIDS and other related diseases

- Make satisfactory preparation before starting education
- Give priority to those who are more exposed to HIV/AIDS and other sexually transmitted diseases when preparing the education activities.
- Strengthen the culture of open discussion at the family level on HIV/AIDS and other sexually transmitted diseases.
- Distribute leaflets, posters and others if available
- Educate and demonstrate to those interested people, the advantage and use/application of condom.
- Educate voluntary counseling and testing (VCT) and encourage premarital HIV testing.
- Since harmful traditional practices contribute to the transmission of HIV/AIDS, educate the society to take the necessary precaution on those harmful traditional practices.
- Provide support to the process of communicating educational and recreational messages on National AIDS Day to motivate the society for behavioral changes.

4.2.1. What is AIDS?

AIDS is a disease syndrome that weakens the immune system as a result of HIV infection

AIDS and HIV are English acronyms. Their meanings are as follows.

- A = Aquired
- I = Immune
- D = Deficiency
- S = Syndrome

4.2.2. What is HIV?

HIV is a virus which attacks the white blood cells that defend the body from diseases, and that gradually weakens the immune system and exposes to other communicable diseases or cancer. It is a virus that attacks only human beings. HIV is an English acronym, which the meaning is as follows:-

- H = Human
- I = Immuno deficiency
- V = Virus

HIV has two main species. They are known as HIV-1 and HIV-2. HIV has many sub-species. The virus that is wide spread in Ethiopia is the HIV-1C sub-species.

The presence of HIV in the blood is only known by blood test. The virus can stay in the blood for many years performing its function. Although people who are infected with HIV live without showing signs and symptoms for many years, the chance of transmitting the virus easily to other people is high as the virus is found in their blood. Hence, since it is not possible to know whether a person has the virus or not without blood test, having sexual contact with any body is risky and dangerous. Those people with HIV in their blood will gradually show the signs and symptoms of AIDS and will be AIDS patients at a later time. These people will for some time suffer from other different diseases and at the and will die.

4.2.3. Mode of HIV Transmission

In Ethiopia, HIV is transmitted from man to man in three main ways.

These are

1. Careless and free sexual contact
2. Mother to child transmission
3. Through blood

- **Careless and free sexual contact means**

1. Any free sexual contact undertaken before marriage and outside marriage
2. Any sexual contact done between two partners without confirming that they are free from HIV by blood test and without using condom.

- **Mother to child transmission**

This mode of transmission is now a days called parent to child transmission. This is on the assumption that most of the time the mother gets the virus from her husband (who is the father of the child). It is therefore, to show that the mother is not the only responsible parent to infect the child.

From a mother who have HIV

1. At time of pregnancy
2. At time of delivery and
3. At time of breast feeding, the virus can pass from the mother to the fetus/child

It is estimated that in Ethiopia, the possibility of transmitting the virus from mother to child is 30-40%. This means, out of 100 children born from 100 HIV positive mothers, only 30-40 children will have the virus. Adequate

information is available from the guideline prepared by the Ministry of Health on the prevention of mother to child transmission.

Picture

- **Through blood**

HIV can be transmitted from man to man through blood. This can be in the following ways.

1. If a donated blood is given to another person without prior blood examination.
2. through unhygienic medical equipment especially by illicit medical practitioners /injection, tooth extraction, abortion...etc.
3. By domestic sharp materials /common use of equipment /needles, thorn pickers, needle pens, razor blades, materials used for traditional skin embroidery, tooth brushes etc.
4. By the common use of sharp materials, harmful traditional practices e.g. cutting the tonsils, female circumcision cutting the uvula, removing the milk teeth etc.

4.2.4. Factors that predispose to HIV infections

Although HIV indiscriminately attacks all people irrespective of race, colour, religion, age, sex etc, a limited social groups are more predisposed to it than others. Out of these social groups, commercial sex workers and mobile people (because of their nature of work) are more exposed to HIV infection. In addition to the above people, the chance of any person being infected with the virus becomes high when doing the following:-

- Taking alcoholic drinks beyond his capacity;
- Taking drugs like hashish and chat;
- Careless sexual contact with different people before marriage or outside marriage;
- Failing to immediately go to a health facility when contracting sexually transmitted disease;
- Sexual contact which is traditional and out side marriage

Example:- Sexual contact with brother or sister in-laws, inheriting the wife of a diseased person, having illegal wives.

4.2.5. Methods that HIV cannot be transmitted

HIV cannot be transmitted by methods outside those that have been mentioned above. However, is important to know the methods that HIV cannot be transmitted. Because of fear of being infected by the virus, there will be discrimination of people living with HIV and personal isolation from social relations.

The main methods by which HIV cannot be transmitted are the following:-

- Working together, eating and drinking together
- Cheek to cheek kissing
- Shaking hands (as far as there is no wound)
- Breathing, sitting or talking side by side.

- Common use of toilet facilities, swimming, public bath and use of other similar utilities
- Mosquito, flea and lice bites.

Picture

Since HIV cannot stay long outside the human body, direct contact is required for its transmission. Direct contact with regard to HIV means the blood or the genital fluids from one HIV infected person has to come in contact with the blood of a healthy person through skin wounds or skin openings.

This mostly occurs as a result of careless sexual contact, common use of sharp materials and through mother to child transmission. Donation of blood that has the virus also entails direct contact. Since no unexamined blood is donated to a patient in our country, the chance of HIV transmission through this method is minimal.

4.2.6. Symptoms and signs of AIDS

The symptoms and signs of AIDS occur following the weakening of the immune system. They actually occur as manifestations of other associated diseases. It is important to take maximum care not to conclude that a person with the symptoms and signs of other diseases has AIDS without confirming the situation by laboratory blood examination.

As explained above, the symptoms and signs of other associated diseases occur when the immune system continues to weaken. The main symptoms and signs are the following.

- Weight loss in a very short time (weight loss of 10% in one month time)
- Diarrhea of one month duration or above
- Fever which stays for one or more months
- Recurrence of simple diseases, no short recovery from these diseases
- Swelling of the lymph nodes
- Neural – mental disturbances
- Ulcers around the mouth and throat
- Pulmonary tuberculosis
- Warts on and around the genital areas and ulcer that stays long
- Skin diseases
- Silky hair.

We should not forget that the above symptoms and signs can be observed from a non-AIDS patient. The lead time between the entry of the virus into the human body and the appearance of the above symptoms and signs is 3-12 years. From this, it is important to know two things.

- A person who is infected by HIV today does not necessarily mean he can be an AIDS patient tomorrow. This person can live with the virus for a long-time by engaging himself on any activity like any other healthy person.
- Unless confirmed by a laboratory test, no one can be said to have AIDS by seeing. It will be dangerous to judge such a person that he is free from HIV and indulge with him in any sexual relation.

4.2.7. HIV prevention and control methods

HIV directly or indirectly concerns all people. Therefore, its prevention and control is the responsibility of all citizens and organizations. It is not possible to fight it in a short time and reduce the problems that emanate from it unless an integrated and coordinated effort is made.

The spread of the virus can be prevented and controlled in the following ways.

- ◆ Refraining from sexual contact before marriage and outside marriage. This will generally reduce exposure to the virus.
- ◆ Maintaining sustained and trustful sexual relations between two HIV free opposite sex partners.
- ◆ Proper use of condom when sexual contact before marriage and outside marriage is necessitated because of different reasons.
- ◆ Since no one knows who has and does not have HIV among family members, there shall be no common use of sharp materials. There is a need to desegregate materials (razor blades, needles, pins, needle pins etc) used by children and adult members of the family.

Picture

- ◆ Tooth brushes (modern and local) shall not be commonly used.
- ◆ Avoid the use of illicit health facilities and medical practitioners.
- ◆ Use of local materials to prevent direct contact between body parts of oneself and AIDS patients while providing care and

support services. Materials such as hand gloves, thin plastic bags, dry cloth, thick leaf etc. must be used.

- ◆ Make relentless effort to maintain proper cleanliness in government and private health institutions.
- ◆ Prevent any harmful traditional practice through education and proper legal action.
- ◆ Advice and encourage mothers who know or think that they are infected with the virus to go and get advice from a medical professional before and after pregnancy. Inform their status to their husbands and to request their husbands to be tested.
- ◆ Provide support that is reinforced by love and humanity and with no social and family discriminations to people living with HIV and to people that have no body to support them due to loss of their supporting families as a result of AIDS.
- ◆ Make an effort to strengthen the culture of open discussions on HIV and sexually transmitted diseases between family members.
- ◆ Visiting legal health institutions when an individual contracts a sexually transmitted disease for proper treatment. Taking properly prescribed medicines and persuading sexual partners to do the same.

4.2.8. Prevention of mother to child transmission of HIV

- ◆ Advice women to do HIV testing before marriage and during pregnancy.
- ◆ Advice women with HIV to use contraceptive methods.
- ◆ Advice pregnant women to take the drugs that prevent mother to child transmission. They should be referred to a health institution where the necessary drugs are available.
- ◆ Advice and encourage women to a nearby health facility for delivery.

- ◆ After the child is born, and if possible, try to give
 - cows /goats' and artificial milk (formula milk)
 - if not possible, give breast milk for not more than 4 months. Advice to completely stop breast milk after 4 months.
 - Start balanced foods after 4 months.

4.2.9. **Sexually transmitted diseases**

It is known that there are over 20 sexually transmitted diseases in the world. Although there are no complete information for Ethiopia, gonorrhoea, syphilis, chancroid and lymphogranuloma venereum are the major sexually transmitted diseases in the country. Despite the fact that sexually transmitted diseases are transmitted by different micro organisms, they all have interrelated and common signs and symptoms. The symptoms and signs are

- Pus-like discharge from the male and female genital organ
- Ulcer that occurs around the genital organ
- Abdominal pain below the umbilicus for women
- Swelling of the testis or swelling of the right and left groin lymph nodes
- Eye pain and, pus-like discharge from a new born baby.

These signs and symptoms of the disease are not always apparent in some individuals particularly women. The modes of transmission of HIV/AIDS also serve for the transmission of other sexually transmitted infections. People who have contracted sexually transmitted disease must go immediately to a health facility to receive the necessary treatment but failing to do so will lead to the following problems.

- During sexual intercourse, sexually transmitted diseases including HIV/AIDS are transmitted from the sick partner to the healthy one;
- Causes infertility to a woman or man;

- Causes abortion, the delivery of disabled and/or dead child in women;
- Precipitate extra uterine pregnancy (which may result in death), and cancer of the cervix;
- Causes blindness, respiratory and heart diseases in new born; and
- Causes stricture of the urethra in men, creating difficulty to pass urine.

In addition to the above problems, other social and economic problems such as divorces high medical costs etc are encountered at individual, household and national levels. However, all such problems can be avoided if an individual who contracted sexually transmitted infections receive prompt and appropriate treatment.

4.2.10. The relationship of HIV/AIDS and other sexually transmitted infections:

If a person is sick from other sexually transmitted infections and has wound on his genitals it is highly likely that the person will be infected with HIV and that he may also in due course, spread HIV/AIDS to other healthy persons. A person who is infected by other sexually transmitted diseases has a very high chance to contract HIV/AIDS than a person without other sexually transmitted diseases. Similarly, a person with HIV/AIDS plus other sexually transmitted diseases has also a high chance of spreading HIV/AIDS to other persons.

In general, the modes of transmission of HIV/AIDS and other sexually transmitted infections are one and the same. Therefore, preventing and controlling other sexually transmitted infections means preventing and controlling HIV/AIDS.

4.2.11. The advantages of voluntary counseling and testing (VCT):

- Laboratory proved HIV/AIDS non infected persons can lead safe and happy life;
- Avoids suspicion and worry;

- Helps to know how to live with the virus;
- Helps to know own personal behaviours and practices that expose to HIV/AIDS as well as bring sustained positive behavioral changes that help avoid infection by HIV/AIDS and other sexually transmitted infections;
- Helps people living with HIV to refrain from harmful behaviors and practices to maintain themselves healthy, e.g. casual sexual intercourse alcohol addictive substances etc.
- Commit one-self to avoid spreading HIV to others;
- Maintain regular medical check up;
- Use contraceptives or other preventive measures against infectious diseases;
- Adjust future personal plans;
- Organize ways and means to solicit support for the needy;
- Undertake measures to prevent mother to child transmission of HIV/AIDS; and
- Reduce segregation, and discrimination of people living with HIV and AIDS patients.

4.2.12. Usage of male condom:

Prevention of HIV:

- Abstinence from sexual intercourse of and other than this;
- Under go HIV testing prior to marriage; and
- Use condom during sexual intercourse but as a last option.

The use of condom:

- It is an important measure to prevent HIV;
- Prevents other sexually transmitted infections; and
- Unwanted pregnancy.

The causes of ineffectiveness of condom in the prevention of HIV:

- Using expired condom;
- Breakage of condom packages /boxes
- Storing condom in hot (environment, body) place, e.g. keeping condom in your pocket for a long time, exposing to sun etc;
- Breakage of condom during sexual intercourse; and
- If the condom is left behind after sexual intercourse in the partner's vagina.

Precautions to be taken before using condom and demonstration on how to use it:

- Prepare models representing penis and condom;
- Provide education on the advantages and usage of condom;
- Based on the education given entertain questions and comments and also give the necessary response;
- Using the models of the penis and condom, demonstrate the application of the condom in the following sequential steps:-
 - First, demonstrate and ensure that the package of the condom is sealed and properly packed;
 - Read and ensure that the expiry date on the package did not expire;
 - If the expiry date is written in Gorgorian calender, change it into Ethiopian calender and know exactly for how long it serves;
 - Explain to open the package at the place where there is a sign to open;
 - Explain that the condom and package can show changes in colour and texture indicating spoilage. When this happens don't use the condom;
 - Press the condom with two fingers to detect for air leakage which usually occurs due to improper handling;

- Explain that if the condom is intact, it pushes back when pressed with the fingers;
- If a condom is broken, it remains pressed down (forms a hollow), when pushed down ward with fingers and explain that such a condom is unusable;
- When a condom is found inflated, it is a sign of spoilage, hence advise not to use such a condom;
- To open the condom package don't use:-
 - o Blade or scissors; and
 - o Finger nails.
- Break the package with fingers to take out the condom;
- If the condom is without lubricant explain that it is a damaged one;
- Explain that prior to putting the condom on the model penis, to press the end of the condom by two fingers to release the air inside to prevent it from breaking during application;
- Explain and demonstrate that the part at the tip of the condom is to contain the sperm and that it is important to properly wear the condom on the penis;
- Condom can be torn by recently shaved growing hair while putting it on the penis. Explain that this can be avoided by supporting the condom with hand while wearing it.
- Explain that after ejaculation to immediately pull back the penis from the vagina before it collapsed;
- Explain that after sexual intercourse the used condom has to be carefully removed from the penis and tied to keep the sperm in the condom. Explain also to take care if there is wound on the hand;
- Explain that a condom is used only once;
- Undertake the following measures to avoid children playing with used condoms:-

- Burn the used condom with other domestic wastes;
- Avoid disposing condoms in water flushed toilets;
- Wash hands with soap and water after disposing used condoms.

Remark:

Casual sexual intercourse performed before or outside marriage without using condom is irresponsible act that exposes the life of numerous persons at high risk and every individual has to be very conscious of the adverse consequences. A person who engages in casual sexual intercourse (sometimes by forcing the partner) with commercial sex workers and/or other female partners without using condom should feel responsible for the health of all his contacts (his wife and other women sex partners) and himself and should refrain from such irresponsible practices.

Both males and females should know about the utilization of condoms. This will help women to convince and educate their male partners (specially those who disagree to use condom) to use condom during sexual intercourse. The women can also show their male partners how to properly wear and use condoms prior to sexual intercourse. Condoms are available in health institutions including health posts, reproductive health workers, shops etc. Having information on places where condoms are available and their costs helps to facilitate education and utilization of condoms.

4.2.13. Harmful practices and HIV/AIDS

In different parts of Ethiopia, there are many harmful practices, for example: Uvulectomy, tonsillectomy, female circumcision, milk teeth extraction etc.

These harmful practices have direct or indirect influence on the spread of HIV-AIDS. These mal-practices usually are associated with massive bleeding, which expose to infection and spread of HIV-AIDS. These practices are usually carried out by un-sterilized instrument by people who have no idea about the harm of their practices. Other malpractices which contribute to the spread of HIV-AIDS are traditional marriage practice, in some part of the country, marriage of dead brothers wife by living brother or close relative, rape, early marriage, marriage by abduction etc. These practices create favorable condition for the spread of HIV-AIDS. Furthermore, the girl who married by force through abduction or early marriage soon leaves her home and joins sex worker or street girls that expose to HIV-AIDS spread.

Other harmful practices, such as extravagant expenditure for traditional feasts (wedding, memorial for the dead etc) deplete financial resources, which could be used for health promotion or other development programmes. There are three methods in which we can reduce, prevent gradually all harmful practices. These are:-

- Education;
- Providing Alternative ways of earning living (for sex worker)
- Legal enforcement;
- Education or teaching should be targeted not only on those who carry out the harmful practices but also on all community members.

The main purpose of giving education should be to teach continuously the consequences of the malpractices on health, society and economic aspects of the society. We should also teach and explain that there are positive or beneficial traditional practices which help to promote health in some parts of the country, e.g. inheriting dead brothers or fathers wife by uncle etc, early marriage, marriage by abduction, children uvula cutting etc

are not practiced. These health promoting practices can be cited in our teaching in order to bring about behaviour change.

- **Providing alternative job opportunity**

In many instances, traditional harmful practitioners earn their living by their malpractices. Even if they understand what they are doing are harmful to health, they cannot abandon their work because they depend for their living on these harmful practices. Therefore, providing them with alternative job would reduce, or eventually would eradicate the harmful practices. Hence, the health extension worker should work together with other concerned bodies to reduce the problem. He or she should take the upper hand for promoting, persuading and encouraging the concerned bodies to bring about behaviour change for eventual eradication of the malpractices.

- **Preventing through legal force**

Most of our laws prevent many of the harmful practices in the country. Therefore, it is possible to take legal action against such harmful practices as rape, early marriage because they are punishable by law. Here again the health extension workers should work with other concerned bodies.

World AIDS Day

World AIDS Day is celebrated all over the world, including Ethiopia.

This Day is meant for:

- remembering those who have lost their lives by HIV-AIDS;
- to care and provide assistance to those who are living with HIV-Virus;

- to care and support children who are left as orphans, because their parents died of HIV-AIDS.
- To control and reduce the spread of HIV-AIDS

The messages to be communicated for the occasion should be informative, educative, timely and recreating. Of course we have to realize that the Anti-HIV-AIDS Day campaign does not replace other diseases control activities.

Encouraging open discussion about HIV-AIDS and other sexually transmitted diseases at house-hold level

Our culture and tradition does not encourage open discussion about sexual matter, at household level or at community level. However, not discussing openly about sexual problem exposes to serious health risks. Nevertheless, it is necessary to encourage to discuss openly and frankly about the ways in which HIV-AIDS and other sexually transmitted diseases are spread at household level as well as at community level to reduce the problems. HIV-AIDS has no effective drug or vaccination up to now. HIV-AIDS is mainly transmitted through sexual intercourse. This has to be clearly explained to the household members so that they can have the right information and knowledge in order to bring about behavior change on sexual practice. This can happen only when the cause and the transmission method of HIV-AIDS and other sexually transmitted diseases are known to be transmitted through careless and uncontrolled sexual intercourse. The only effective control measure is to avoid such careless behavior and act.

Mothers, grandmothers and elderly women should teach their children about sexual matter and save them from the pandemic of HIV-AIDS.

4.3. Care and support to HIV/AIDS patients and victims:

- Teaching to the household members how to care about HIV patients at home. The type of care they have to give should be demonstrated to the household members, and this must be assured by continuous demonstration and feedback;
- Creating conducive condition and caring for those who live with HIV-virus by giving material needs and love;
- Advising those who live with HIV-virus to visit immediately health institution when they feel any disease symptom;
- Encourage and follow up to see to it that person who lives with HIV takes the prescribed medicine regularly;
- Giving all necessary support as much as possible to those living with HIV-Virus; and advice them to visit the nearest HIV-Counseling place;
- Assist the orphans or HIV-AIDS victims to get assistance from community-based agencies or the advocates of anti-HIV societies etc;
- Encourage those who are victims of sexually transmitted diseases to get treatment themselves and their sexual partners in public owned health institutions;

4.3.1. Precautions that should be taken by people living with HIV/AIDS.

After knowing that a person has HIV-Virus in his blood, he or she can live a healthy life provided he or she strictly follows the following points;

- Being HIV-positive does not mean that the person will die the next day. As has been noted, people with HIV-Virus have lived over 10 years, and still are living one can live this much if one accepts the disease

without being disturbed, and seeking medical aid, and strictly follow up the advices given;

- Avoiding other communicable diseases through strict observation of personal hygiene, avoid as much as possible contracting intestinal parasitic diseases infection. Avoiding infectious diseases would help not to weaken the body.

Personal Hygiene covers the following activity.

- Washing hands before and after eating food;
- After any work or relieving one self duty practice the habit of:-
 - * Washing the body regularly;
 - * Washing clothes and wearing clean clothes;
 - * Wearing comfortable and fitting shoes.
- As much as possible eating balanced food, that will help the body to keep its resistance to disease;
- Eating locally available vegetables and fruit e.g. cabbage, salad, carot, sweet potato, (sugar), banana, avocado, orange, lemon, pineapple etc. Before eating raw vegetables and fruit be sure that they are washed properly. Eating vegetables and fruit buildup body's resistance.
- If there is diarrhea, avoid eating food which has lot of fat and immediately seek medical care.
- A person living with HIV-Virus, should avoid drinking alcohol, smoking, chewing chat or drug abuse. Also should try to avoid depression, stress and have adequate rest;
- Most communicable diseases prevalent in Ethiopia can be cured except HIV-AIDS. Hence the person who lives with HIV-Virus should seek immediate medical care if he or she encounters such diseases;

As much as possible one should restrict himself or herself from sexual intercourse. Because it will expose to other sexually transmitted diseases, and also if pregnancy occurs, the baby will be borne with HIV-Virus. If one is forced to have sexual intercourse one should use condom.

4.3.2. Pre-cautions to be undertaken at family level.

Knowing exactly how HIV-AIDS is transmitted saves one from fear and disturbance. One must know that unless there is contact with the blood HIV-positive person, other fluid from the person etc. HIV-Virus will not be transmitted. Therefore, provided there is no close and direct contact with the blood or other fluid, close care can be given to the HIV patient, If the HIV-AIDS patient is bed ridden, care can be given by avoiding contact with above mentioned-blood, fluid etc. So knowing very well the above mentioned fact will help to give the necessary care to the HIV patient without fear. If possible better to buy separate utensils etc. for HIV patient, if not any available in the house can be used.

Avoiding contact with hands

- Use hand glove, if not available use festal when handling or dealing with HIV patient;
- Use dry rag for disposing liquid waste If no rag use thick leave;
- If the clothes of the patient is polluted with fluid from the body, hold only the unpolluted part and put in boiling water and turn over with stick after dried wash with soap and dry in the sun.
- If possible use barachina (chlorine solution) and dip in it for 20 minutes afterwards wash properly and dry. Do not forget to keep the surrounding of the patient tidy and clean. The fluid from the patient

and his surrounding be disposed properly not to contaminate other people.

- Giving care and love to the patient will keep the patient to withstand his suffering. Be careful that the patient should not feel inferiority complex.
- It is necessary to give first aid care and then continuous care for AIDS patient at household level. Some of these have been entered in the table which attached to this manual. For additional information refer to the Ministry of Health Manual on AIDS patient care at household level, the training manual and the curriculum for the same. Above all, it is advisable if the Extension Health Workers get the home guideline for AIDS patient.
- The Health Extension Workers should persuade and encourage the AIDS patient to take any drugs which are prescribed for him or her without interruption specially the drugs for life prolonging and for TB and how and at what Interval they should be taken. Because if the pathogens build resistance to the diseases, it will be dangerous to the community at large.

First aid care for AIDS patient at home level

Symptom	First AID to be given at home
Diarrhea	Give ORS and other fluid that the patient is able to take; if it does not stop within a week, advise to take the patient to a health professional
Coughing	Give lemon, orange and similar fruit; Honey, Hot drinks. If it Lasts more than one week, advise to take to health profession.
Scratching of skin	Wash body and clothing often; use medical ointment. If not relieved advise and encourage to take to a health professional.
Feeling of illness	If he or she feels sick without visible symptom, give paracetamol advise to take the patient to a health professional.

4.3.3. Community based care and support for AIDS patients.

The support and care given a to HIV-AIDS patients or those living with the virus at household will help to follow up the patients and also to reduce the spread of HIV. They should not be isolated and looked down upon but be given both moral and material support by the community. If they get adequate support and in encouragement they can be productive like other people. The support can be in the form of money and material only but also be given moral support and medical care.

4.3.4. Care and support and care for HIV-AIDS orphans

One of the important problems created by HIV-AIDS, is the increased number of orphans left by the victims of the disease. Unless proper support and care is given to these orphans it is not possible to stop the spread of the disease.

If support and care is not given to these orphans they will end up by being street girls or the males may turn up as criminals. The

spread of HIV-AIDS is also imminent. The best way for caring for these orphans is to put them under the care of close relatives, aunts, uncle, and grand mother etc. This practice is also within our culture and should be exploited.

The problem can be that these relatives may not have adequate knowledge about the disease and might be scared for their own health. They need good counseling, moral and material support from the community.

4.4. What are expected from the health extension worker for the care of those who are living with HIV.

Activity to be carried out in relation to the HIV-AIDS and other sexually transmitted diseases control by the health extension worker. First the health extension worker has to work out activity plan and have this approved by higher professional. Once the work plan approved, the following activities need to be performed;

- He or she has to be convinced and convince people that many of the communicable diseases, in Ethiopia can be controlled through individual and community efforts. HIV-AIDS is one of these diseases, which can be controlled through concerted effort. He or she has to master carefully the ideas incorporated in this package and use for teaching. He or she must follow up advanced scientific information to match with the current information and communicate to the community.
- He or she has to go to the household level and teach at appropriate time and place the preventive measures of the disease. The teaching should take into consideration people's way of living, language and belief.

- Advise and follow up to see to it that the HIV-AIDS patient takes the prescribed drugs according to the prescription.
- Give care with the household members and the community to the bed ridden AIDS patient at household level.
- Exchange experience with those who give home care to the AIDS patient and establish co-ordination mechanism with them;
- The health extension worker must safeguard himself or herself against HIV-AIDS and give the necessary care and love to the patient. This will be exemplary to the community and gain their respect.
- Restrict from sexual intercourse before marriage. If this is not possible use condom.
- Show love, respect and kindness to those who live with the virus like any other being so that the patient will not feel inferiority complex and depression;
- Give to the concerned person or section monthly, quarterly and at the end of fiscal year work activity report.

5. Expected Outcome/Results

- Increased awareness around HIV-AIDS and other sexually transmitted diseases would help to bring about behaviour change;
- Those who live with HIV-Virus will not be isolated and will get the necessary support and care;
- Diseases and death caused by AIDS and other sexually transmitted diseases will be reduced;
- Infants of HIV victims will get the necessary support and care;
- The coming generation will know from start and develop awareness in order to safeguard themselves from the risk of HIV-AIDS and assure a better future;

- People will have increased awareness and attitude to wards HIV-AIDS and as a result reduce harmful practices which aggravate the spread of HIV-AIDS.

6. **Summary of information communication methods** Places for communicating message

- House to house visit (at household level)
- At village level
- At schools
- At health institutions
- At places of worship (Churches and Mosques)
- At traditional social events (Idir, Eqube)
- At market places
- At development offices

6.2. Methods of communicating message

- People to people (one to one) discussion
- By calling meeting at kebele level
- By group meeting
- Through demonstration
- Through drama, song, poem; story telling
- On World AIDS Day
- Using tape recorder
- Using posters, pamphlets, printed material and brochures
- Using newspapers, radio, and the like mass media available in the area.
- Using health education films

6.3 Messages to be communicated

Will be accomplished based on the detailed action plan and activities of the package programme.

7. Monitoring and evaluation

Monitoring means the follow up of the process of planned activities implementation, in terms of:-

- Whether accomplished within together time;
- Money allocated;
- Material and manpower resources used. Monitoring activity is carried out at a fixed time regularly.

Evaluation.

Evaluation has the characteristics of management, and it is the instrument of measuring the level of accomplished activities compared to the planned activities. Evaluation is done every six months or annually; and the purpose is to know the level of achievement of the planned activities compared to the resource input to accomplish the planned activities. In general evaluation tells us in measurable terms the achievement scored compared to the planned activities.

Therefore, in order to enable the health extension package worker to properly evaluate the activities carried out around HIV-AIDS and other sexually transmitted diseases, the activities evaluation measurements are given bellow.

- General and specific objects as of the package programme;
- Detailed action plans prepared;
- Resources used for implementing the action plans;

- Manpower by number and profession who have given health education (individually or in group) around HIV-AIDS and other sexually transmitted diseases;
 - Material; number of posters and pamphlets distributed to the community;
 - Number of other sexually transmitted disease patients referred to health institutions;
 - Amount of money (from the community); collected and distributed to orphans.
 - Number of condoms distributed.
- ⊙ Implementation strategies of planned activities
- Through field trips;
 - How many people are living with the virus in the kebele?
 - Number of AIDS patients in the kebele;
 - Number of AIDS patient given care at household level in homes;
 - By collecting reports and analyzing
 - By discussing with the beneficiaries.
- ⊙ Activities accomplished
- Using indicator (percent)
 - Strong points identified
 - Weak points identified
 - Behaviour change brought about on the community by the accomplished activities;
 - Problems encountered
 - Steps taken to solve the problems

8. Challenges which may be encountered and their solutions

8.1 Problems which maybe encountered

- Inability of decreasing the number of people who live with HIV, because of the problem of behaviour change;
- Lack of ability for solving various problems of the HIV-AIDS patients
- Inability to solve once for all the social and mental problems of the HIV/AIDS victim orphans;
- The education given on alternative methods of HIV-AIDS control are not applied because of cultural influence or personal attitude and mis-interpretation of the message. For example use of condoms;
- Not giving attention, and not using carefully the alternative control measure e.g. restriction or being limited strictly to one to one sexual partner etc;
- Those who live with the virus or AIDS patients may not understand their problem properly. Even if they are informed of their responsibility not to spread HIV to the community, some of them may not have good will to apply the advice;
- Some married persons who live with the virus do not have good will to tell to their marriage partners about having the virus;
- In some areas, having multiple sexual partners is the style of living, hence they may benot ready to change their pattern of life.

8.2. Suggestion for solution

- Although it is difficult to change easily behaviours which have become part of us and lived with us, yet continuous and uninterrupted education be given in order to achieve lasting behaviour change;

- Orphans of HIV-AIDS victim exposed to mental and social problems. Children are the builder of future generation. Therefore the country's future well-being depends on their being well educated and developed in order to shoulder the responsibilities expected from them.

Therefore, their problems should be seen as the problems of the country. To this effect the health extension worker should motivate the community so that they would create conducive condition for the orphans to be supported and cared for by their close relatives.

- To solve AIDS patient's problems demands manpower money and material. In order to obtain these resources, the extension health worker should motivate and co-ordinate the efforts of governmental, non-governmental, religious, civic organizations and the community to support and care for the patients.
- If some of the persons who live with the virus, or AIDS patients forget their responsibility not to spread the virus among the community they should be given counseling, not to spread the virus; if this is not successful, legal action can be taken against them.
- Some of the married persons living with the virus do not reveal to their marriage partners the fact that they are living with the virus. This exposes the family to serious problem. Hence they be counseled to expose the fact, and they should be briefed that there is a law that obligate them to reveal the fact.
- One of the alternative methods for controlling AIDS is the use of condom. If use of condom is not possible, because of cultural reason, or due to wrong attitude, or belief; or if the use of other alternative method is not possible, then to save life from AIDS convince to use condom as the best alternative.

- To reduce or avoid the habit of having multi-sexual partners, advise and convince that the husband and wife should discuss frankly, openly and seriously to avoid such malpractice, which is detrimental for their life.

9. Responses to frequently raised questions:

There are questions repeatedly asked when teaching about HIV-AIDS. The following are some of the answers given. The first answer is scientific, while the second answer is practical answer.

S.N	Question	What can be the origin	Answers
1	How long does the virus live outside human body?	The background seems to be: after how long is it safe to use razer blade, safety pin and the like used by AIDS patient?	<ol style="list-style-type: none"> 1. How long the virus lives outside the human body is unknown. Because the surrounding temperature, humidity of the air, amount of blood on the contaminated instrument are variable. However, the virus is weak one and can not live long outside the blood cell. 2. Even if known, one should leave a note that he or she used the instrument at such hour and minute. However this is impractical under any country's condition.
2	Is HIV transmitted by kissing?	Since I make intercourse with out kissing, it is useless to use condom. But if it is transmitted by kissing, teach our children never to kiss	<ol style="list-style-type: none"> 1. It is preferable to kiss cheek to cheek because it does not transmit HIV. 2. Is the kissing at public places became a habit in our country? If this is not the habit, and not there, kissing may expose to careless contact. If one was not ready (does not have condom) kissing can lead to danger.
3	Why the health workers do not reveal those who have HIV-AIDS?	I am free of HIV-AIDS. So if I know those who have HIV-AIDS I can select and have intercourse. So it does not affective me this is a dangerous attitude.	<ol style="list-style-type: none"> 1. Medical ethics prohibits revealing patient's secret, without consent of the patient, furthermore, it is also forbidden in the HIV-AIDS policy. And also people can lose confidence in health institutions and this can harm the health service delivery system. 2. Those who ask this question, can they reveal openly if they were tested (blood) and found HIV positive: by asking them this question they can easily understand that their question is wrong.
4	If we eat meat which has been contaminated by an HIV-carrier in his blood, can the HIV be transmitted?	The question asked because he/she who ask this question seem that he or she did not get the virus through sexual intercourse (to hide the reality) during discussion he or she want to evade the issue and kill time.	<ol style="list-style-type: none"> 1. If there is no wound around the mouth, HIV is not transmitted in this way. Because the virus cannot withstand the acid of the stomach. 2. So avoiding eating raw meat is adequate reason to control tape worm infection. Therefore why do you try to evade the discussion issue which has 90 percent weight, compared to the issue of raw meat eating. This type of answer can convince the audience.
5	The data you are giving about the prevalence of HIV-AIDS are contracting each other. Why is this?	On one side it could be to say that you are exaggerating the problem; hence trying to evade the issue; on the other hand it is the sign of doubting our data collection ability	<ol style="list-style-type: none"> 1. As the source of data coverage become wider, the information we get become more reliable. So this brings change, in our data. 2. Why is it necessary to wait for data? Is there a person who in his or her home or in the neighbourhood, AIDS was not seen, or did not affect? Is there one who has information that aids cases have decreased: By asking these questions it is possible to reach at agreement.

Tuberculosis Prevention and Control

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1. Introduction:

The World Health Organization Report indicates that there are about nine million new tuberculosis cases every year. Out of these new cases about three million die. It is also known that out of the new registered cases and deaths 95% and 98% respectively are from developing countries. Generally, 75% of persons in the productive group between the ages of 15-49 years are mostly affected. Furthermore about 45% of the tuberculosis cases are simultaneously HIV/AIDS positive in their blood. The spread and expansion of HIV/AIDS poses a great challenge in the prevention and control of tuberculosis, hence requires concerted efforts by communities at large.

The Ministry of Health Report issued in 1995 E.C. (2002/2003) showed that 107321 new tuberculosis cases from sixty-one zones, the Addis Ababa and Dire Dawa Administrative Councils had been treated since the introduction of the new approach “Directly observed Treatment, short course (DOTs)” for TB. At the sametime, the reports submitted to the Ministry of Health by the regions indicate that the number of tuberculosis cases is on the increase.

Poverty increases the risk of developing tuberculosis. Air borne spread of droplets (from human beings) containing the tuberculosis organisms is the major vehicle for the transmission of the disease. Therefore, the prevention and control of tuberculosis requires collective efforts of communities and the population at large. In order to create and implement household focused tuberculosis prevention and control methods with the participation of communities an innovative approach Tuberculosis prevention and control extension package is developed. This approach is believed to increase the awareness of households on the

prevention and control of measures and eventually help to put the disease under control.

2. Objective

2.1 General Objective:

The over all objective of the extension package is to prevent and control of the spread of tuberculosis and reduce the number of cases and deaths occurring due to the disease.

2.2. Specific Objectives:

- Increase the awareness of communities on the modes of transmission and control measures of tuberculosis infection to enlist the communities' full participation;
- Assist individuals with signs and symptoms of tuberculosis infection to get timely treatment; and
- Educate and follow up TB patients on precautions they have to take to reduce the spread of the infection, also ensure that they are properly taking their drugs.

3. Strategies:

- 3.1 Keeping record of TB patients who are being treated;
- 3.2 Providing to communities health education supported by educational materials on tuberculosis;
- 3.3 Mobilizing communities to participate in the prevention and control of tuberculosis as well as coordinating community and religious leaders for same;
- 3.4 Keeping record of TB cases and coordinating and mobilizing the patients to go to health facility to receive the necessary services;

- 3.5 Educating and encouraging households and the community at large to drink boiled milk;
- 3.6 Introducing sustained vaccination program and informing households that children have the right to be vaccinated and parents the obligation to bring them for vaccination;
- 3.7 Educating the communities to report TB treatment drop outs;
- 3.8 Conducting survey:
The health extension workers should collect baseline information prior to commencement of any activities. This information will help to monitor and evaluate the progress of the programme in terms of achievement compared to the data collected at the beginning of the programme; and
- 3.9 Strengthening coordination:
The health extension workers should work closely with other development workers and voluntary community members.

4. Activities:

- 4.1 Educate (using various communication methods) communities on TB, modes of its transmission and prevention and control measures;
- 4.2 Educate and encourage the communities to assure that individuals with signs and symptoms of tuberculosis to go immediately to a nearby health facility for investigation and treatment;
- 4.3 Keep record by name, age, sex etc. of TB patients who have returned home with drugs and follow up and ensure that the patients take their drugs according to instructions given by health facilities;
- 4.4 Educate the TB patients on the adverse consequences of discontinuing treatment and to go immediately to a health facility for investigations and continuation of the treatment;
- 4.5 Educate (notwithstanding the MCH extension package) pregnant women in the community to get their children vaccinated for TB (BCG) immediately after delivery;

- 4.6 Educate children and adults to drink boiled milk;
- 4.7 Inspect the handling of articles, objects used by the TB patients, their beds and conditions of their houses etc. and also try to correct observed problems by providing appropriate education during the home visits;
- 4.8 Inform and ensure that the TB patient has understood what to do when he /she is in the household, for example:
- The TB patient should be advised to cover his/her mouth during coughing or sneezing;
 - Advise the patient to collect his/her sputum in a cup with lid and after wards to safely bury the sputum or burn it with the container;
 - Educate the household to keep the patient's sleeping place near a window;
 - Educate and encourage household members and/or neighbors who have signs and symptoms of tuberculosis to go immediately to a nearby health facility for investigations and treatment; and
 - Establish and strengthen referral mechanisms to nearby health facilities in order to refer TB patients and those persons who had contact with the patients.
- 4.9 Celebrate the World TB Day by organizing public meetings in kebele and by presenting dramas, short-plays, dialogues etc. to raise the awareness of the population the seriousness of tuberculosis;
- 4.10 Educate and encourage the family of the TB patient to give him/her balanced diet, to follow him/her up to continuously take his/her drugs according to schedule and to give the patient the necessary encouragement;
- 4.11 Educate and mobilize communities to understand that TB is an infection that causes illness and death so that they are encouraged to participate in the prevention and control of the disease;
- 4.12 Advise individuals that have had cough for a long period (three weeks or more) to consult their health extension workers and go to the

nearby health facility with referral notes from the health extension workers;

- 4.13 Educate and politely advise and encourage individuals who cough and sneeze without protecting their mouths and indiscriminately spit at any place, to protect their mouths and spit and burn or safely dispose their sputum; and
- 4.14 In undeveloped countries such as Ethiopia, many people would be harboring the bacteria that causes TB infections. In a healthy person with natural TB immunity, the bacteria would not proliferate and cause TB. However, if the person for many reasons, loses his resistance, in no time the bacteria start to proliferate and cause TB. The precipitating factors can be malnutrition, HIV/AIDS etc. These diseases and others reduce the resistance of the body. In such a situation, TB and other diseases can simultaneously occur in an individual. Therefore, the communities must be educated and advised to have adequate and balanced diet and also protect themselves from HIV/AIDS.

5. What is tuberculosis:

Tuberculosis is a chronic infectious disease caused by mycobacterium tuberculosis. In addition, in areas where animal tuberculosis is common, the disease is caused by mycobacterium bovis. TB commonly infects lungs, but it also attacks other parts of the human body. Generally, TB is classified into two. These are:-

- Pulmonary TB; and
- Extra-pulmonary TB.

Pulmonary TB is wide spread disease. The spread of pulmonary TB from a sick person to a healthy person can be reduced by promptly treating the sick person.

Transmission of TB infection occurs through an air borne spread. When TB patients cough, sneeze or speak loudly, droplets containing the bacteria are at the same time expelled from the sick person and inhaled by persons staying close by. In addition, pulmonary TB patients spit their sputum any where. The sputum that contains bacteria /mycobacterium mixes with soil and enters the lungs of a healthy person.

TB is a problem which is not limited to individual or a family. It is an infectious disease of communities at large. Therefore, prevention and control of the disease calls for active participation of communities.

TB attacks cattle as well and if milk from TB infected cow is consumed without boiling, it is likely to result in TB of the intestinal glands.

5.1. Lungs are commonly attacked by tuberculosis and the common signs and symptoms of pulmonary TB are the following.

- Coughing for three weeks and over;
- Cough with sputum and sometimes stained with blood;
- Chest pain, fever and profuse sweating in the night; and
- Loss of appetite and body weight.

The disease also attacks other parts of the human body that include intestine; bones and bone joints, glands etc. The signs and symptoms of extra-pulmonary TB vary depending on the affected part of the body.

6. Relationship of Tuberculosis and HIV/AIDS:

Infection with HIV/AIDS damages the immune defense mechanism of the body and becomes an important risk factor for the development of tuberculosis. A person without HIV infection has some natural immunity to

defend himself from tuberculosis. However, the HIV infected person has already lost his natural immunity and a favorable environment is created for the TB bacteria to proliferate and become the disease showing all the common signs and symptoms.

- If the signs and symptoms of TB are evident, the choice is to go as quickly as possible to a nearby health facility for investigations and treatment;
- If the illness is confirmed as TB, then begin to take the TB drug according to the instructions of the health professional and complete the treatment without interruption;
- The TB patient who is on the intensive or continuation phases of treatment should never discontinue his/her treatment. Discontinuation of the treatment creates serious problems not only to the sick, but also to his/her family /household and communities. Therefore, it is very important to always prevent such eventualities. The reason is simple and clear. The mycobacterium develops resistance and treatment becomes ineffective. Therefore, if a TB patient who is on treatment discontinues taking his/her prescribed drugs, he/she has to be followed up and educated on the importance of regularly taking the prescribed medications and should be convinced to immediately continue his/her medications. In addition, it is imperative that all health workers, the health extension worker, family, communities and the TB patient seriously cooperate on this matter.
- Regular TB medication is important to cure a TB patient; however, the treatment is incomplete with out the provision of balanced and adequate diet. Therefore, a TB patient should also get food containing high protein.
- A patient on TB medication should refrain from alcoholic drinks, chat, cigarette smoking and all other addictive and harmful substances.

Pulmonary TB is transmitted from the patient to a healthy person by two modes of transmission.

1. By an air borne spread of droplets from the patient; and
2. When a TB patient throws his sputum which contains the bacteria any where and dries and mixes with dust and then inhaled by a healthy person.

Therefore, the following precaution measures have to be undertaken.

- The TB patient has to always cover his/her mouth with cloth while coughing, sneezing and speaking with loud voices before starting TB medications and for three weeks after starting the medications;
- To avoid the bacteria mixed with soil, open windows and doors to let in adequate fresh air and sun light to rooms, and also expose at a given days interval night garments and cloths to sun light and heat; and
- The sputum from a TB patient should be collected in a cup with lid and later buried or burned with the container.

7. Expected Outputs/Results:

- 7.1 Increased awareness of households on the seriousness of tuberculosis;
- 7.2 Patients with signs and symptoms of TB would go in time to nearby health facility for investigations and treatment;
- 7.3 Households are fully aware of the dangers of drinking unboiled milk and would have started drinking boiled milk;
- 7.4 House holds have become aware of the importance of TB vaccination and would have voluntarily started presenting their children for vaccinations;
- 7.5 Decreased morbidity of TB patients; and

- 7.6 Households have become aware of the need for residences with windows to let in fresh air and avoid TB and other infectious diseases and would have started to fix windows when they build houses.

8. Monitoring and Evaluation:

- 8.1 Monitoring and evaluation is continuous process of following up of planned activities by the health extension worker to ensure that the activities are implemented according to plans and have obtained benefits to the households. The health extension worker can design and use questionnaires for the follow up of his/her activities.
- 8.1.1 During home visit the extension worker observes the living and feeding conditions of the TB patient;
 - 8.1.2 Observe whether the house of the patient has window allowing proper air circulation;
 - 8.1.3 Follow up whether the patient is regularly taking his/her prescribed medications;
 - 8.1.4 Find out if the patient always protects his/her mouth with cloth during coughing and/or sneezing;
 - 8.1.5 Find out if the patient is collecting his/her sputum in cup with a lid and properly disposing it as instructed;
 - 8.1.6 Find out if the households have started to drink boiled milk; and
 - 8.1.7 Find out and ensure that the households are aware and practice sending individuals with signs and symptoms of TB patients to nearby health facility.

9. Activities of the health extension worker in TB prevention and control:

1. Develops TB prevention and control activity plan and starts to implement it when approved by the relevant authority;
2. Educate households continuously based on the principles embodied in the health extension package about the nature of tuberculosis, modes of its transmission, major signs and symptoms of the disease, its adverse consequences, its relationship with HIV/AIDS, and applications of individual and group preventive and control measures.
3. Follow up and assess how far households have understood and applied the education they received and if there is short coming, try to establish discussion forums for the households to enable them to correct the identified gaps;
4. Educate and advise an individual with signs and symptoms of TB to immediately go to nearby health facility for investigations and treatment;
5. Keep record of all the TB patients in the kebele;
6. Visit the TB patient at home to follow up and correct where needed, the applications of all that have been described in this document by the patient and also ensure that the patient is regularly taking his/her prescribed medications;
7. If a patient has discontinued his/her TB medications advise and convince him/her to go first to nearby health facility for investigations and then continue immediately on his/her medications; and
8. Submit regular monthly, quarterly and annual reports to the relevant office.

