Training Manual for Health Committees: Tuberculosis in Community

UCT School of Public Health and Family Medicine
Health and Human Rights Programme

LEARNING NETWORK

COMMUNITY SYSTEMS STRENGTHENING PROJECT

The Learning Network is a collection of 5 civil society organisations based in Cape Town:

1. The Women's Circle,
2. Ikamva Labantu,
3. Epilepsy South Africa,
4. Women on Farms Project and the
5. Cape Metro Health Forum

The **Learning Network** serves as the umbrella body in the Western Cape and includes 3 higher education institutions:

1. University of Cape Town (UCT)
2. University of the Western Cape (UWC)
3. Maastricht University, in the Netherlands
4. Warwick University in the UK

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Training for Transition

Capacity Development for Organisations Working with Vulnerable Groups

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Background

According to the World Health Organisation (WHO), the rate of TB in South Africa is the third highest in the world, after India and China. Approximately 1% (1 in a 100) of the South African population develops TB disease every year. Because of this, South Africa has been rated as one of the Three High Burden Countries; with high rates of TB, MDR-TB and TB with HIV. Recent surveillance study of childhood TB drug-resistance also confirmed that one in eight children with confirmed TB has drug-resistant TB in Cape Town, South Africa. The high incidents of TB in South Africa had increased as a result of, amongst others, the high rate of HIV&AIDS.

Tb is one of the communicable diseases and communicable diseases can be prevented and treated, yet many people are infected, and worse, die from them. Education and providing basic information to communities on TB can contribute to good treatment outcomes as this empowers communities to understand the TB disease and beat it.

World TB day is celebrated in many countries in the world including South Africa. On 24th March (World TB Day) 2015, South Africa's Deputy President launched a comprehensive TB screening and testing campaign under the banner "Ending South Africa's TB epidemic: Accelerating our response in Key Populations". This campaign is meant to mobilize all South Africans, particularly those groups who are vulnerable to TB to be screened and tested for TB. This campaign is a response to the ever increasing rate of TB in the country. It envisions 'A world free of TB; Zero deaths, disease and suffering due to TB.'

TB is well known as one of the diseases that still carries stigma in communities, by giving adequate information about this disease and raising levels of community awareness one can influence and challenge what is socially normal and acceptable. This can have an impact on TB control as it can also assist in changing behaviour in both individuals and groups of people.

Section 1: Understanding TB

Learning Outcomes:

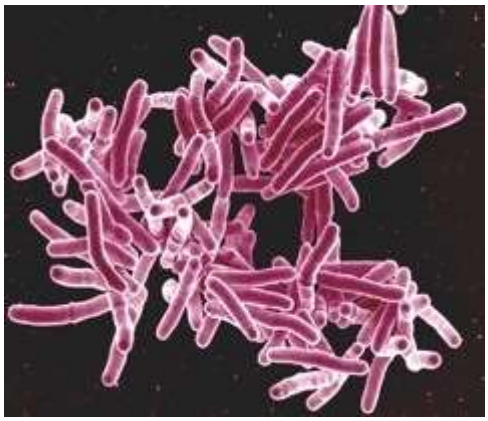
By the end of this session, participants will be able to:

1. Understand the difference between pulmonary and extra-pulmonary TB
2. Know difference types of TB,(MDR & XDR) and stages of TB development
3. Understand the signs and symptoms of TB
4. Know the risks for TB disease
4. Know how TB spreads and how health committees to prevent it
5. Know infections that occur with TB infection (co-morbidity)
6. Understand TB treatment and management and the factors that influence treatment outcomes, and the role of HCs to promote adherence
7. Understand the role of patients, treatment supporters and DOTS in TB management
8. Know the role that Health committees can play to prevent and control TB in the community

1. What is Tuberculosis: Pulmonary and Extra- Pulmonary TB?

Activity: 60 minutes

Purpose: Explore description of TB in community
Method: Brainstorm
Material: Khokis, paper
Procedure: How would you feel and think if you were to find out that a member of your family have been diagnosed with TB disease,
What will this mean to the member, family living with this member; are there any changes you will have to do in this regard?



Insert Taken from: http://www.tbfacts.org/tb-tests/

Tuberculosis, or TB, is an infection caused by a germ (called Mycobacterium tuberculosis), which usually appears as a disease of the lungs (called pulmonary TB). Pulmonary tuberculosis is the most common form of TB in humans occurring in over 80% of cases.

This is because the tuberculosis bacteria grow best in areas of the body that have lots of blood and oxygen – such as the lungs. After inhaling the TB bacteria from the air, the bacteria enter the lung. In a healthy person, the bacterium is caught by the cells of a person's immune system which stop the bacterium causing disease (see below, where we talk about 'latent' TB). However, if the body's immune system cannot fight off the bacterium, they will multiply to infect the lung. The bacteria can destroy parts of the lungs, causing a cavity, and they can damage the lungs, making it difficult to breathe.

Although the main infection site is the lung, any organ can become infected if the bacteria spread. They can enter the bloodstream and lymphatic system and travel to other parts of the body where they can settle and multiply. If they cannot be cleared by the immune system, they can then go on to damage other body parts such as the stomach, kidneys, the bones, joints, nervous system, lymph nodes and skin. This is called extra-pulmonary TB. Extra-pulmonary TB used to be much less common than Pulmonary TB but because Extra-pulmonary TB often occurs in people who have HIV, this means there is more Extra-pulmonary TB than there used to be. The disease is characterized by the development of lumps (called granulomas or tubercles) in whatever tissue it infects.

Some people develop TB disease within weeks of becoming infected: their immune systems are too weak to stop bacterial growth. Other people may get sick later, when their immune systems become weak for some reason such as drug abuse, poor nutrition, immune suppression, old age or ill health. HIV is most common reason in adults. Babies and children often have weak immune systems. TB bacteria become active if the immune system can't stop their growth; they multiply and cause disease. The tubercle bacillus is extremely sensitive to direct sunlight, but can survive in the dark for several hours.

1.1 TB in children

Children are infected by TB in the same way as adults do, which is by inhaling TB bacteria in the air released into the air by someone with active TB. Mainly, the source of infection for children is usually an adult in their household who has active TB, is coughing and is contagious.

However, what is different in children is the clinical course of TB. After coming into contact with TB germ through inhaling it, the child develops an immune response a few weeks after this primary infection. While in most children whose immune system is strong enough to stops the TB bacteria from multiplying further to keep it dormant, other children are not as healthy enough to stops the bacteria from multiplying to develop into a TB disease.

The risk to children depends from child to child, these include:

- ✓ A child less than 5 years old
- ✓ A child with HIV infection
- ✓ A child that lives in the same household as a person who has been recently diagnosed with smear positive TB
- ✓ A child with severe malnutrition.

There have been instances of children being infected in places such as schools and crèches (ECD centres) amongst others. Health committees in their work and support in the community is to facilitate plans to strengthen awareness programmes and outreaches to ensure that they reach ECD centres and school

Myth or Fact: It is not necessary to complete your TB treatment, when you feel healthy you can stop TB treatment and you will be fine. Discuss and give reasons for your answers

1.2 Drug resistant TB

Although the TB disease is treatable, there are forms of TB that are difficult to treat because the bacterium becomes resistant to the drugs used for TB. The difficulty of treatment is increased if the bacteria are resistant to more than one antibiotic. Some drug-resistant strains are passed from one generation to the next, remaining latent in some individuals and causing sickness in others. Drug-resistant TB has a much lower cure rate.

Drug-resistant TB can occur when the drugs used to treat TB are not taken regularly. This can occur if:

- ✓ People do not complete a full course of TB treatment
- ✓ Health care providers prescribe the wrong treatment (the wrong dose or length of time)
- ✓ Drugs for proper treatment are not available
- ✓ Drugs are of poor quality
- ✓ People do not take their TB drugs regularly
- ✓ People do not take all of their TB drugs

Some people can catch MDR or XDR TB from others around them. So, their MDR or XDR TB is not because they did not take their medicines properly but simply because they caught a more dangerous form of TB from someone else. In the Western Cape, about half of MDR TB is in patients whose first episode of TB is an infection with MDR or XDR that they caught from someone else.

Multidrug resistance (MDR): Is caused by TB bacteria that are resistant to two of the main and most potent TB drugs used for TB (isoniazid and rifampin). MDR TB is transmitted like ordinary TB. It is not more or less infectious. However, the problem is that it is more difficult to treat. It requires more antibiotics taken for a long period (up to 18 months). Some of these antibiotics involved injections and some cause some serious side effects (like deafness). MDR TB should be treated by staff with experience in managing MDR TB.

Extensive drug resistance (XDR): It is a type of TB that is resistant to a range of TB drugs. It is worse than MDR TB because not only is the patient resistant to isoniazid and rifampin but also to other drugs (called fluoroquinolones and either of injectable drugs (such as amikacin, kanamycin, or capreomycin). Because XDR TB is resistant to the most potent TB drugs, patients are left with very few effective treatment options. Cure is uncommon for XDR TB. With current drugs, less than one in 10 patients recovers. However, there are newer drugs coming on to the market that are much better (for example, linezolid, bedaquiline). It seems that patients on these drugs can be cured in 70 to 80% of cases. Even though XDR TB is much more dangerous because it is difficult to treat, it is transmitted in the same way as any other form of TB. XDR TB is generally treated by experts with experience in managing XDR TB.

2. The history of TB: 2400BC -1994

2400-3400 B.C – When researchers discovered mummies from the period of the Pharoahs, they found that they had tuberculosis in their spines. This means that TB was present in the population of ancient Egypt.

Middle ages – TB was also present in the middle ages because evidence of tuberculosis of the lymph nodes of the neck was found. It was called scrofula.

In 460 BC – Hippocrates, a philosopher from Ancient Greece, created the term pthisis.

17th, 18th and 19th centuries - TB was rampant among Europeans including those who had immigrated to the US.

1720 - Benjamin Marten, an English physician, was the first to suspect that tuberculosis could be caused by "minute living creatures" and that by coming into contact with another person with consumption, an individual could contract the disease.

18th century - Tuberculosis reached its peak in Western Europe with a rate of 900 deaths per 100,000. The term White plague emerged around this time.

1821 - Dr James Carson, a Scottish physician began treatment by draining water that had collected around the lungs (called a pleural effusion) and found surgery helped prolong life. This surgery for tuberculosis was common and lifesaving before effective antibiotics for treating TB was found**.**

1882 - Robert Koch showed that M. tuberculosis was the cause of tuberculosis. The bacteria was called Koch's bacillus and. Koch was awarded the Nobel Prize for this discovery in 1905.

2,000 years after TB was discovered, there was still no effective medicine for TB

1859; 1884 – TB patients were isolated in a sanatorium: Edward Livingston Trudeau started the first sanatorium in the United States. Infectious persons were isolated from society and treated with rest, lots of fresh air and improved nutrition**.**
1895 - Wilhelm Roentgen developed X-rays which helped doctors to diagnose tuberculosis. This allowed early diagnosis and isolation of infected individuals.
1921 - BCG vaccine was discovered by the French scientists Albert Calmette and Camille Guerin. The vaccine helped to protect young people against TB.
1943 - Selman Waksman discovered a compound that acted against M. tuberculosis, called streptomycin. This was one of the first antibiotics against TB.

1950 - More effective drugs like INH (isoniazid) and rifampicin were discovered and used for treating TB.
1994 - Doctors discovered that treatment of TB with one drug alone would lead to the disease becoming resistant to medicine. As a result, the treatment of TB began to require two or more drugs to be effective.

3. How common is Tuberculosis (TB): A focus on South Africa

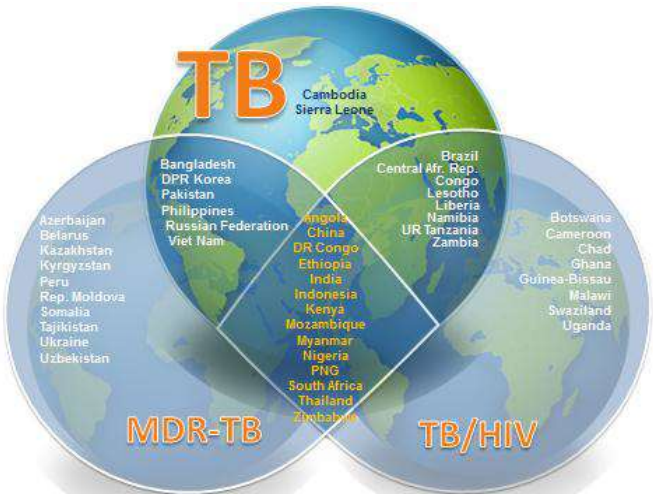


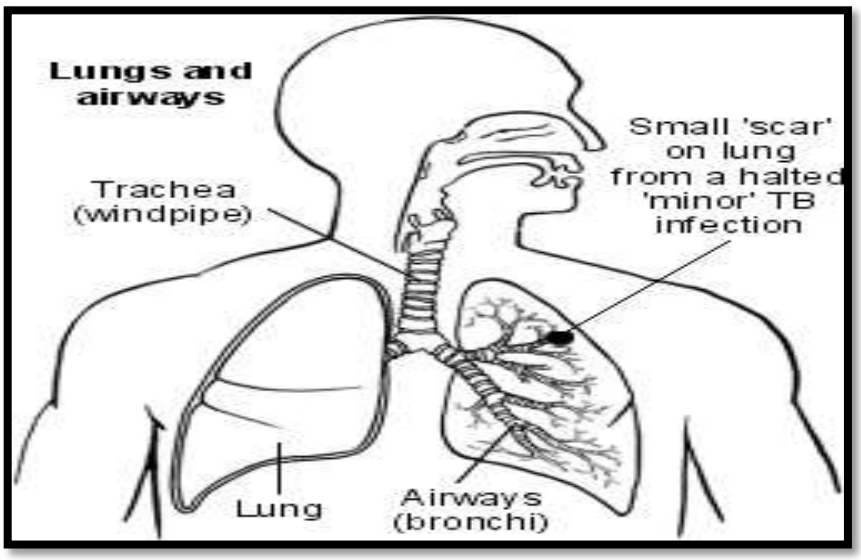
Figure 1: The three High Burden Countries (HBC)
Source: http://www.who.int/tb/publications/global_report/high_

Cases of TB were first noted in South Africa in the 1900s and it has continued to rise steadily. During the 1960s the rate of TB reached 350 cases per 100,000 populations – which means about 1 in 300 people in the general population would get TB each year. In the late 1990s, because of the HIV epidemic, the rates of TB rose dramatically. In some parts of the country, 1 in a 100 persons develops TB each year, because HIV increases your chances of developing TB.

South Africa has one of the world's worst TB epidemics, and the TB rate has increased four-fold over the past 15 years. The South African National AIDS Council (SANAC) released its first progress report on the National Strategic Plan (NSP) for HIV, TB and STIs (2012 – 2016) in 2014. The report showed slow progress in achieving the NSP targets of reducing new TB infections and deaths by 50%.

There is also a very high incidence of TB among mine workers in South Africa, the highest in the world. The WHO classifies 250 cases per 100,000 people as a health emergency, but the rate in the mines in South Africa is somewhere between 3,000 and 7,000 cases per 100,000 people. For this reason, the spread of TB in the mining sector has been described as one of the worst public health epidemic that South Africa is currently facing. The TB epidemic is so bad amongst miners because of HIV and because of the high dust levels in South African mines, which has not been properly controlled, despite decades of efforts to reduce dust in underground mines. According to the WHO, it is estimated that about 80% of the population of South Africa have latent TB rather than active TB disease.

4. Stages of TB development: Latent and Active TB



Picture taken from: http://patient.info/health/tuberculosis-leaflet

The TB bacteria are put into the air when a person with TB disease coughs, sneezes, speaks, or sings. People nearby may breathe in these bacteria and become infected. Left untreated, a person with active TB can infect an average of 10-15 people each year.

There are two types of TB conditions: latent TB infection and TB disease.

Latent TB infection: Most people in good health who breathe in TB bacteria do not develop active TB disease. When the TB bacteria that you breathe in begin to multiply in the lung of these healthy people, the immune system is stimulated into action. This will result in most of TB bacteria being killed or made inactive by the immune system since the few bacteria survivors will be locked up inside your white blood cells. There may be some mild symptoms for a short time, or no symptoms, and the TB infection is halted. This is called latent tuberculosis, and only a tuberculosis skin test or blood test can detect it. With latent TB infection, a person is not contagious, and in 90 to 95 percent of cases, you could carry the tuberculosis bacteria all your life and never get sick from it.

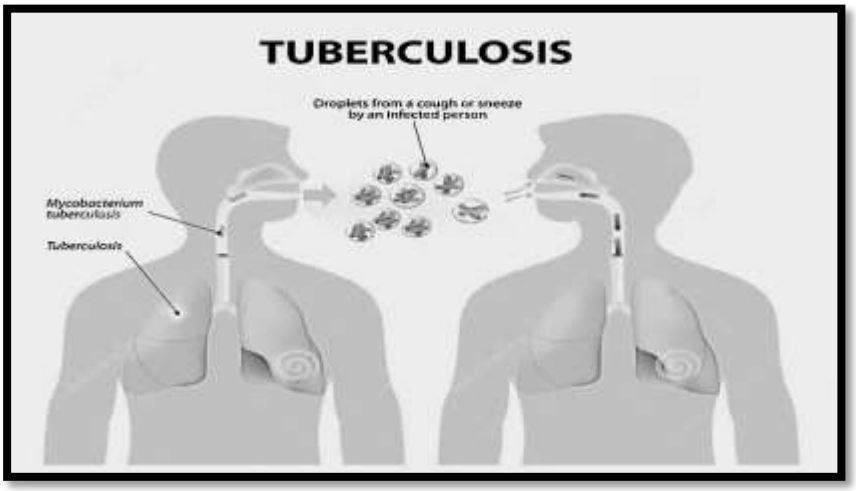
However, if your immune system weakens, the dormant TB bacteria could start to grow and develop into active TB disease. One-third of the world's population is estimated to have latent TB infection (LTBI); they do not have active TB disease but may develop it in the near or remote future, a process called "TB reactivation". This is what happens if someone has HIV.

Active TB or TB disease: In most people who breathe in TB bacteria and become infected, the body is able to fight the bacteria to stop them from growing. When the immune system is not successful in halting the growth of the TB bacteria, it multiples and causes an active infection that destroys the tissues of the lung or other organs. When someone has TB of the lungs, they can transmit TB to others. TB disease may develop through a process of reactivation of dormant bacilli, (the bacteria that was initially locked inside the white blood cells), that start multiplying and produce active TB, or you can develop TB disease from a new infection after breathing in bacteria that someone else has coughed up.

If someone has latent TB, about 5-10% of people (about 1 in 10 to 1 in 20 persons) will reactivate their infection in the course of their lifetime. Most people who reactivate their TB, will do so within 18 months of their initial infection. However, the risk is considerably higher in the presence of illnesses that are associated with a weakened immune system such as HIV infection.

People with active TB usually have symptoms and may spread TB bacteria to others. Although TB is not easy to catch, especially if your immune system is strong, it remains contagious. However, if someone does have TB disease, and you go onto correct treatment, you are usually no longer contagious after 2 weeks of appropriate drug treatment.

5. How does TB spread?



Picture taken from: https://www.youtube.com/watch?v=pg8NszBRXpo

TB spreads from one person to another through the release of microscopic (too small to see with the naked eye) droplets in the air. The spread of the disease generally occurs from someone who has untreated TB

Reflection; 60 minutes

Purpose: Identify community TB hot spots, risks and behaviours
Method: Group
Material: Crayons, khokis, paper
Procedure: Critically reflect on your community and identify community hot spots and behaviours that contribute to the spread of TB infection. As a group, draw a picture of your community that will represent all these TB hot spots, risks and behaviours. How can health committees address environmental health risks in your community?

How TB is spread	TB is not spread by:
Droplets of TB germ is transferred during:	
▪ Sneezing	▪ Shaking someone's hand
▪ Coughing	▪ Sharing food or drink
▪ Speaking	▪ Touching bed linens or toilet seats
▪ **Laughing**	▪ Having sex with an infected person

⚠ It is a universal precaution to cover your mouth during the cough or sneeze

Source: FMOH Ethiopia, 2009, Guidelines for Prevention of Transmission of TB; Creative Commons

Masks are also been used in TB high risk.

MYTH OR FACT: TB is genetic; dirt and filth cause TB; inhaling fumes from petrol, burning dried grass, rubbish or dead animals causes TB; chewing paper causes TB; flies transmit TB; and bathing offers protection from TB. Sharing cigarettes and eating utensils are also strongly associated with spreading the TB germ.

6. What TB signs and symptoms do we look out for?

Knowledge of symptoms of TB or any other health condition is important in prevention as it provides people and communities with the warning signs of the dangers to be aware of in order for people to take necessary precautions and seek help.

People with latent TB infection do not have symptoms. When someone has TB disease, it will give rise to different symptoms.
When someone has TB in the lungs (Pulmonary TB), the common symptoms are:

- A bad cough that lasts 3 weeks or longer, it can start as a dry irritating cough. It tends to continue for months and get worse.
- In time the cough produces a lot of phlegm (sputum), which may be bloodstained. If it is very bad, a person can cough up pure blood.

- A high temperature (fever),
- Sweats, particularly at night – a person can wake up and the sheets are soaked from sweating
- Feeling unwell
- Weight loss
- Pains in the chest
- Poor appetite
- Breathlessness - if the infection progresses and damages the lungs.
- Weakness or fatigue

If the TB infection spreads from the lungs to other parts of the body, other symptoms may occur:

- Lymph glands - you may have a swollen gland or glands anywhere in the body. If the swollen glands are in the neck, armpit or groin then you may see or feel them.
- Gut and tummy (abdomen) - the TB may cause tummy pain or swelling, or poor digestion of food with diarrhoea and weight loss.
- Bones and joints - TB can get into a bone or joint, causing bone pain (for example, in the spine) or pain and swelling in a joint.
- Heart - TB sometimes causes inflammation around the heart, with chest pain or shortness of breath.
- Kidneys and bladder - if these are infected, you may have pain in the side (loin), or pain when passing urine.
- Brain - TB can cause meningitis which is an infection of the lining around the brain, which can be very dangerous. Symptoms include:

    - ✓ A chronic headache
    - ✓ Feeling sick (nausea)
    - ✓ Being sick (vomiting)
    - ✓ Fits (convulsions)
    - ✓ Drowsiness
    - ✓ A change in behaviour
- Even if you recover from TB meningitis, you may still have damage to your brain and your nerves afterwards for life.

Plenary: Research shows that South Africa has one of the world's worst TB epidemics, and the TB rate has increased four-fold over the past 15 years. HIV/AIDS is known to be one of the risk factors for TB infection. What are some of the reason for the increase of TB in this population? 10 minutes

7. What are the Risk Factors for TB?

You are at increased risk for being infected with TB bacteria if:

- ✓ You are in close contacts with a person who has active TB in the lungs (living in the same household, or spending a lot of time with that person.
- ✓ Homelessness –People living on the street at higher risk of TB
- ✓ Malnutrition: poor nutrition and lack of vitamin D are linked to TB
- ✓ You are living in a poorly ventilated environments, including those living in informal settlements
- ✓ Overcrowding: If there are too many people living in too few rooms.
- ✓ You are mobile, migrant and refugee populations

You have a higher chance of getting TB disease once infected if:

- ✓ You have poor immune system: for example, due to HIV infection,
- ✓ You have alcohol (on average >40g alcohol per day) or drug addiction
- ✓ Age: babies, young children (younger than 5 years) and the elderly are more susceptible to develop TB disease
- ✓ You smoke cigarettes: Passive and active exposure to tobacco smoke
- ✓ You are diabetic
- ✓ You are malnourished or have silicosis (e.g. miners, quarry workers and stone cutters) You are on immune-suppressing treatment

Certain occupation groups are at higher risk for TB:

- ✓ Health care workers
- ✓ Miners
- ✓ Prisoners
- ✓ Prison officials

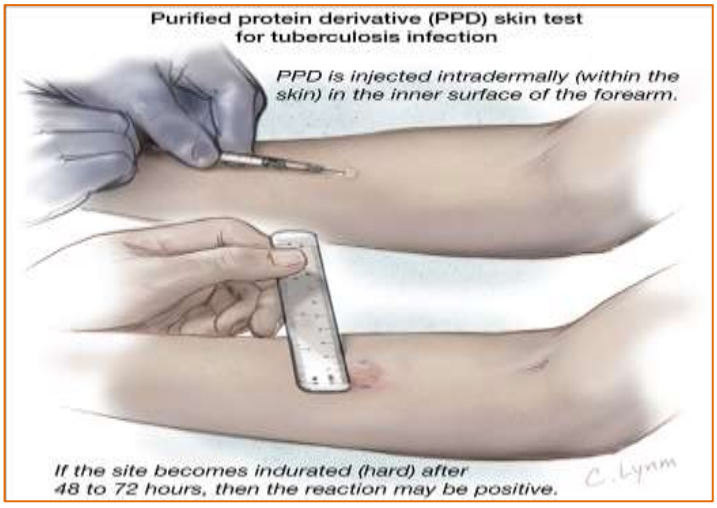
8. Test and diagnosis:

There are different tests to diagnose TB. Everyone should have access to tests that enable rapid diagnosis, treatment and care. Given the prevalence of drug-resistant tuberculosis, ensuring high quality and complete care will also benefit health of the community. In addition to the risk population above: the following population should also be tested:

- ✓ People with HIV infection
- ✓ People who became infected with TB bacteria in the last 2 years
- ✓ Babies and young children
- ✓ People who inject illegal drugs
- ✓ People who are sick with other diseases that weaken the immune system
- ✓ Elderly people
- ✓ People who were not treated correctly for TB in the past

8.1 PPD or Tuberculin skin test

This is a test to tell if you have been infected with TB. A small amount of testing fluid, called tuberculin or PPD, is injected beneath the skin of the r lower arm of the patient, who is asked to come back in 72 hours so the test can be read. . If with the person is infected with TB, there will be a small lump and skin reaction at the injection site. The size of the swelling is what is measured. However, remember that infection with TB does not necessarily mean you have active, infectious TB. Most people with positive tuberculin tests do not have active TB.



PPD Test: Picture taken from: http://www.bchdmi.org/cchs/tb

If a person has active TB disease, a severe reaction may occur. The skin can become very red and, in some cases, break down. Rarely, swelling of lymph nodes may occur. A person who does not return within 72 hours to have the test read will need to be rescheduled for another skin test.

8.2 Sputum test

A sputum sample is the standard way TB is diagnosed. The sputum is coughed up and part of the sample is sent to a laboratory and part of it is examined under a microscope for TB bacteria. When the sputum is sent to the laboratory, it is grown in a special plate (cultured) to see if there are TB bacteria present. The microscope readying is done quickly – in a few days. As soon as the bacteria are confirmed under the microscope, treatment can be started. However, examining the sputum under the microscope may not be accurate and may miss an infection. That is why a culture is done to see if the TB mycobacterium grows. However, it may take up to six to eight weeks for a sputum culture to yield definite results. This is one of the reasons why there are long delays in starting patients on treatment, or in starting them on the right treatment.

8.3 Chest X-ray

A chest X-ray is often used to diagnose TB. However, if your body fought off the infection, your lungs may be undamaged and your chest X-ray normal. Only if the TB mycobacteria have attacked your lungs and damaged the tissue of your lung will your chest X-ray will be abnormal. Also, there are other conditions that can also give people symptoms similar to those of TB, and also result in an abnormal chest X-Ray. That is why other tests are thus also often required to make a diagnosis of TB.

8.4 GeneXpert machine

Source: http://www.spotlightnsp.co.za/2013/09/04/genexpert-an-imperfect-rollout/

The GeneXpert machine is a new TB way to diagnose TB much faster and more accurately than microscopic tests. It works on the basis of identifying the genetic material of the bacterium in the sputum. This piece of equipment improves the turn-around times and can produce results in just 2hrs. It can also help the provider to identify if the patient has a DR form of TB, though it does not pick up all forms of drug resistance. This is a major advance for the control of TB. It is more expensive than other tests but the cost is more than compensated for because it improves the accuracy of diagnosis and the speed of getting someone to start their correct treatment as soon as possible.

9. Other conditions that occur with TB

Several medical conditions are risk factors for TB and for poor TB treatment results. Having TB can also complicate the course of these other diseases. When these conditions are very common in the general population they can be important contributors to the TB burden. Consequently, reducing the prevalence of these conditions can help prevent TB. TB share underlying social determinants with many of these conditions. Addressing the social determinants of health is a shared responsibility across disease programmes and other stakeholders within and beyond the health sector**.**

9.1 TB and HIV

HIV& AIDS and TB are closely related diseases. They occur together so frequently that they are officially called comorbidities (diseases that occur together). Someone with HIV&AIDS will very often have Tuberculosis as well. So, tuberculosis is a common comorbidity of HIV&AIDS. This does not mean that everyone with TB has HIV or that everyone with HIV will develop TB.

But people living with HIV&AIDS are about 30 times more likely to develop TB than persons without HIV. Sub-Saharan Africa has the largest number of people in the world infected with both HIV and TB – about 78% of all cases globally in 2013.

9.2 TB and diabetes

Diabetes triples the risk of being infected and developing TB disease. This means that the rates of TB are three times higher in people with diabetes than in the general population. Diabetes can worsen the clinical course of TB, and, if a person with diabetes develops TB, it can worsen their symptoms because their glucose in the blood is more difficult to control. The best care possible should be provided to patients who have both diseases.

Social factors such as poor diets, obesity, lack of exercise and marketing of unhealthy foods that are cheap have contributed to the growth in diabetes. Many people are calling for strong actions to reduce risk factors and address the social determinants of health. It is recommended that all patients with tuberculosis should be checked for diabetes and all patients with diabetes monitored for TB.

Section 2: Management of TB

The aim of TB treatment and management is to:

- Cure the patient of TB
- Decrease transmission of TB to others
- Prevent the development of acquired drug resistance
- Prevent relapse
- Prevent death from TB or its complications

Case Study: Critically read the insert and identify issues for HCs to address & prioritise

Health 24 insert dated June, 2016 prepared by Kim Cloete on behalf of the Department of Paediatrics and Child Health, Faculty of Medicine and Health Sciences, Stellenbosch University Titled: 'Treatable TB meningitis disables too many SA children', reads the following:

'Children admitted to Tygerberg Children's Hospital with TB meningitis are often admitted too late to change their condition. While they are likely to survive, their chances of a normal, healthy life are dashed.

TB meningitis can be devastating for children, leading to death or permanent disability, yet the disease can be prevented and treated if caught in time.

Brain damage

Stellenbosch University research has shown that only 15 percent of children admitted to Cape Town's Tygerberg Children's Hospital with TB Meningitis are in the early stage of the disease. By the time most children with TB Meningitis are admitted to the hospital, they are already showing mildly depressed levels of consciousness or have had strokes or fallen into a coma and suffered brain damage.

"This is tragic, considering that TB Meningitis, if detected early, is fully treatable with a completely normal outcome," says Regan Solomons, paediatric neurologist at the Tygerberg Children's Hospital. He has recently investigated ways of improving the early and more accurate diagnosis of TB meningitis in children.

The incidence of TB Meningitis in the Western Cape is amongst the highest in the world, with 50 children with TBM admitted to Tygerberg Children's Hospital every year.

While the hospital has the highest survival rate for TBM globally – at over 96% – children are often admitted too late to change their condition, says Solomons. While they are likely to survive, their chances of a normal, healthy life are dashed. Children aged two to four are particularly at risk.

Once TB has spread to the brain, it can result in permanent disability, such as cerebral palsy, epilepsy, severe behaviour problems and blindness, says Solomons.

Just a few droplets

"It only takes a few droplets of a sneeze or cough for TB to spread from an adult to a child. TB will first go to the lungs and then spread to the brain, causing TB meningitis."

Solomons' research has shown that chest X-rays do not necessarily detect TB. Less than half of the 84 TBM patients in his study had a chest X-ray detecting TB.

"If the chest X-ray is normal, be vigilant, because it doesn't necessarily mean there's no TB," suggests Solomons. A lower concentration of cerebrospinal fluid glucose distinguishes TBM from the less dangerous viral meningitis. His research also showed that measuring blood glucose at the same time could improve a diagnosis

Clinics not picking up on TB diagnosis

Solomons says the first and most important step is for parents, caregivers, doctors and nurses to be aware of the warning signs of TBM. This can be difficult as the symptoms can often be similar to flu. But Solomons says persistent symptoms should raise concern.

"If a child has a persistent cough, night sweats, vomiting, poor appetite and if they've lost weight, TBM could be an option. It's also very important to ask if a child has come into contact with an adult with TB. TBM symptoms tend to be longer than five days." Solomons is concerned that clinics are not picking up on a TB diagnosis.

TB: get tested

"Children with TBM tend to have three or four contacts with health professionals before they come to me. There are many lost opportunities at the clinic. The thing that is often missed in clinics is when children present with vomiting, and no diarrhoea.

"Sometimes it's misdiagnosed as gastro, but you can't have gastro with only vomiting and no diarrhoea. If a child has persistent vomiting, it could be a sign that there's raised pressure in the brain somewhere and that should make you worried."

Sudden coma

A child diagnosed with TB will be put on a six-month treatment of a combination of four different drugs. If not treated, decline can be sudden and shocking.

"It's heartbreaking to see children that were healthy a few months earlier have permanent neurological disabilities," says Solomons.

"The parents come in and are totally in shock. Their child could be ill for a while, but still playing and talking to them, and then all of a sudden are lying there comatose. It often takes a few sit-down sessions with the parents for the news to sink in."

Coma and persistent vegetative state

From then on, children often require intense care, including physiotherapy, occupational therapy, wheelchairs and other aids.

Raising awareness

Tygerberg Children's Hospital is a tremendous support for children with TBM. They often stay at the hospital for a month before going home. The children follow up monthly at hospital until treatment is completed.

"The hospital is very caring and is a lifeline for many families," says Solomons. Solomons hopes for a world where ultimately people will not have to face the risk of TBM.

Activity: 60 minutes

Purpose: To reflect on possible factors that influence treatment outcomes in community
Method: Group
Material: Play dough, Crayons, khokis, paper
Procedure: As a group, discuss your understanding of what influence TB treatment outcomes in your community. What actions can you as health committees do to support organisations to deal with these challenge.

10. TB treatment and care

Why is important to take the full course of treatment?

Only a full course of treatment can fully clear TB bacteria from the body. Usually, this involves treatment for 12 months, but for DR TB, it can be longer. If you do not take the full treatment then the following problems often occur:

- You may remain infectious to other people.
- You may not be cured.
- Even if you are feeling better, but TB bacteria may stay in your body, and go on to develop resistance, so you will develop DR TB which is very difficult to treat.

10.1 Medicine for Active TB Disease

People with active TB are usually treated with several anti-TB drugs: this is more effective in killing all the bacteria and preventing them from becoming drug resistant. Daily oral doses are continued for six months. Drug-resistant TB strains require stronger TB drugs to treat. Over 95% of people properly treated for TB are cured. The main reason treatments fail is that people do not take their medications properly.

10.2 Side effects of TB treatment

Most of the medicines for treatment of chronic illnesses have side effects. Upon receiving treatment, patients are informed about the minor and major side effects. The clinical monitoring of all TB patients for side effects during treatment is important.

Educating the patients and their families on how to recognise the symptoms of the common side effects and to report them immediately when they develop is very important during treatment. According to the TB treatment guidelines of Dept. of Health in South Africa, the patients must be asked about the following symptoms at every follow up visit;

Minor Side effects:

- Loss of weight, nausea, abdominal pains
- Joint pains
- Burning, numbness and tingling sensation in feet
- Orange/ red coloured urine

Major side effects:

- Skin rash with/ without itching
- Deafness (no wax on otoscopy)
- Dizziness (vertigo, nystagmus)
- Jaundice (other causes excluded)
- Vomiting, confusion
- Visual impairment/ loss
- Generalised purpura, and shock

⚠ When the person has minor side effects they can be reassured and treated symptomatically at the clinic. When they present with major side effects they must be referred to next appropriate level of care –hospital immediately.

10.3 Infectiousness of TB on treatment

Medicines given to people with TB disease usually stop them from spreading TB bacteria within a few weeks. Most TB patients live at home and can continue normal activities if they take their medicine. TB of the lungs means that you are probably infectious and should stay home, our doctor will tell you when you can return to work. When you are no longer infectious or feeling sick, you can resume normal activities, but you must continue to take your medication for the prescribed time.

Hospitalization may be advised to prevent spread of bacteria until the infectious period is over, usually two to four weeks after starting therapy. Once treatment has started, the amount of coughing is reduced and results in fewer TB germs in droplet.

Coughing into a tissue and properly dispose the contaminated tissue also reduce the number of droplet generated during early treatment, thus reducing infectivity.

It takes at least six months for the medicine to kill the bacteria. You will probably start feeling well after only a few weeks of treatment, but it is VERY important that you take the medicine regularly, and take it for the full six months even though you have no symptoms. Otherwise, the bacteria will regrow, and may also become resistant to the drugs. If this happens, you will need new, different drugs, which must be taken for longer and usually have more serious side effects. If you become infectious again, you could give bacteria to others.

Did You Know? A TB household contact is person who shared the same enclosed living space for at least eight continuous hours or for frequent prolonged periods with the TB disease infected person during the 3 months before commencement of the current treatment episode

10.4 What are the roles of the TB patient in treatment and care?

The patient has a duty to*:*

- Take their tablets as prescribed
- Report side-effects to the treatment supporter or clinic nurse
- Return to the clinic for scheduled visits
- Bring sputum specimens to the clinic for testing at the required times
- Provide feedback to the team of any problems that they experience
- Inform treatment supporter and clinic staff if they are going away and make plans for taking medication whilst away
- Take responsibility for completing their treatment

10.4.1 What are the roles and responsibilities of the treatment supporter?

The treatment supporter has a duty to:

- Provide emotional support to the patient
- Encourage/remind patient to take their tablets daily
- Supervise treatment on the weekends, or daily if required, and record doses
- Remind patient to bring sputum specimens to the clinic for testing at the required times
- Motivate patient to complete the full course of treatment
- Report problems to the clinic

10.5 The role of DOTS in improving adherence in TB treatment:

Most TB patients start to feel better after a few weeks of medication and are often tempted to stop taking it. Research shows that the biggest obstacle to curing TB is adherence. This happens when the patient fails to complete their treatment. Non-adherence had been associated with a variety of challenges mentioned above including the distance from a clinic.

It has been observed that the role of Directly Observed Treatment, Short-course (DOTS) as a strategy used by primary health services to detect and cure TB patients is very important in TB care and management. DOTS aim to ensure that patients take TB medicine under – either under the watch of the nurse at the clinic, or observed by a community worker closer to home. However, the study conducted by Soul City in Western Cape showed that DOT supporters also reported that people will refuse help for fear of being identified by the community as sick.

10.6 Factors that influence treatment outcomes

Patients often take their TB medications under very difficult conditions and that they cannot control many of the factors that prevent them from taking their drugs. Although current efforts to improve adherence to tuberculosis treatments emphasise instilling into patients a willingness to take their medications, more must be done to address factors such as poverty and gender affect treatment adherence and to tailor support systems to patients' needs.

Did You Know? Evidence of tuberculosis of the cervical lymph nodes or lymph nodes of the neck termed scrofula is found in the Middle Ages. It was termed as the "king's evil" and was widely believed that the kings of England and France could cure scrofula by touching those infected. How do community beliefs and traditions affect TB

1. Social and Economic Factors:

- Extreme poverty
- Poor support networks
- Unstable living circumstances
- Substance abuse
- Beliefs about TB and its treatment

2. Health System Factors:

- Poor health infrastructure
- Poorly trained or supervised health care personnel
- Low levels of accountability of health staff
- Poor relationships with patients
- Inadequate development of community based support for patients

3. Patient related factors:

- Stigma
- Depression
- Disempowerment
- Poor knowledge about TB and the efficacy of treatment

4. Therapy related factors:

- Complex treatment regimens
- Large pill burden
- Adverse effects of medication
- Long treatment duration.

It is important that health committees are aware of the above factors so as to contribute to a comprehensive approach that will addresses all these issues in order to improve treatment compliance in their communities

"I found that there is stigma attached to tuberculosis – strange - why? I mean, why should anyone be ashamed to have that particular disease, and why are people to be stigmatized?" ~ Archbishop Desmond Tutu

10.6 TB is a difficult disease, discipline is crucial

- Take your medications properly. If side effects pose problems, don't stop taking your medications. Ask your doctor about other options.
- Attend all schedule regular clinic or doctor visits. It takes a team effort to treat tuberculosis successfully. Your doctor or nurse can't do it alone, and neither can you. Work with your doctor or nurse to manage your TB
- Manage stress. Say no to extra tasks, release negative thoughts, maintain good relationships, and remain patient and optimistic.
- Adopt healthy habits. Eat healthy foods, maintain a healthy weight and get regular physical activity. Stop taking alcohol. If you smoke, quit.

Dietary advice: Eat a healthy, balanced diet, with small, regular meals

- If there is any support group in your area or clinic, please attend, it helps to talk about your condition, you learn a thing or two about managing your condition in these meetings

Section 3: TB Prevention:

Prevention is always better than cure. The most important prevention message is to know your enemy so that you can know how to fight it. The following will assist in TB prevention:
1. Avoid exposing yourself to people with active TB. Obviously the most important precaution you can take to prevent TB is to avoid being around people with active TB, which is highly contagious, especially if you have already tested positive for latent TB.

2. Know if you are "at-risk". Certain groups of people are considered to be more at-risk of developing TB than others. Some of the main at-risk groups are as follows:

- People with weakened immune system, such as those with HIV or AIDs.
- People who live with or care for someone with active TB, such as a close relative or a doctor/nurse.
- People who live in crowded, confined spaces such as prisons, nursing homes or homeless shelters.
- People who abuse drugs and alcohol, or have little or no access to proper health care.

11.1 Strategies for prevention

http://www.tbfacts.org/tb-prevention/

There are two important strategies to TB (MDR, XDR):

1. Firstly, in patients with TB, who are on treatment, the most important way to prevent the spread of TB is to take all TB drugs exactly as prescribed by the health care provider. This means that:

- No doses should be missed and treatment should not be stopped early.
- People receiving treatment for TB disease should tell their health care provider if they are having trouble taking the drugs.

2. Secondly, the families of patients with TB can help the patient with their treatment and also make sure they are not infected. This is what they can do:

- Making sure the home is properly ventilated (with open windows). If not, the germs will stay inside the house and can infect other family members.
- If a patient has MDR or XDR TB, then family members should wear a mask (a respirator) to prevent themselves getting infected.

Then, in the population, there are important steps the health services should take to prevent TB:

- Health care providers should diagnose TB cases as quickly as possible and start them on treatment as soon as possible, using standard guidelines. The machine called Gene Expert is a new device which allows us to get a quick result on testing the sputum of a patient, which makes it quicker to diagnose a patient with TB (a few days instead of a few weeks).
- TB screening of high-risk persons or groups may contribute to reduced deaths and TB transmission. The WHO recommends that people living with HIV are systematically screened for TB at each contact with the heath service, using a symptom screen.
- Providers must also monitor patients' response to treatment, and make sure therapy is completed. They should counsel patients so that they understand their condition and the importance of completing their treatment. If patients have side-effects, providers should help them by adjusting their treatment.
- Patients should be counselled not to cough in public without practicing safety to prevent spread of their germs. The family must understand the disease to support the patient.
- Making sure there is a way to limit others' exposure. Patients who have DR TB should wear a mask if they travel in a taxi or are in a public place. They should not work with children or in a closed environment that has no ventilation.
- Screening for high risk populations such as prisons, or homeless shelters.
- People who work in hospitals or health-care settings should make sure there is good ventilation and infection control in the facility.

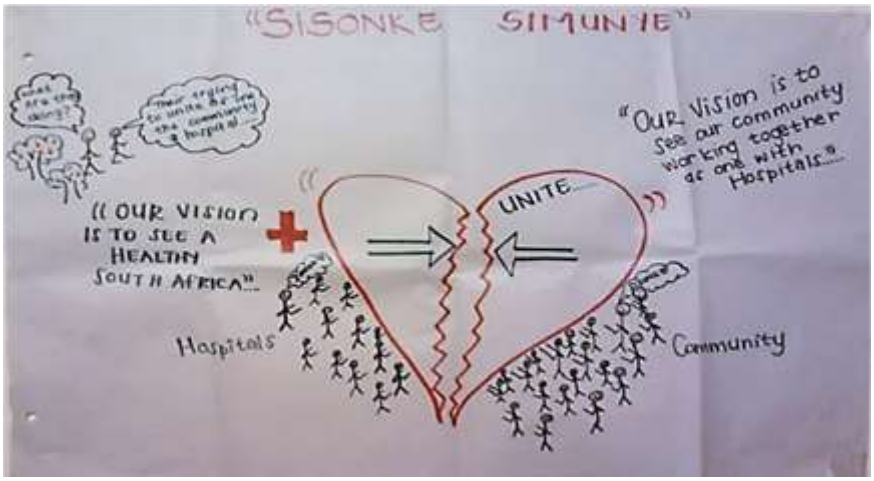
11.1 TB Vaccine (BCG) as prevention

The TB vaccine, BCG, is often given to babies and children in countries where TB is common, although it's protective value is debatable. However, it is thought that BCG does offer increased protection against developing TB in parts of the body apart from the lungs (i.e. extra-pulmonary TB). The vaccine's efficacy varies throughout the world from 0 to 80%, but it is only effective in children, not adults. In South Africa, BCG is given to new-born babies immediately after birth to prevent TB infection.

Section 4: Health Committees and Support to Community:

Empowerment of communities and involving them in their health is a very important step in ensuring that they take charge of their health and lives. Health committees are an important structure that can ensure community participation in health through their community mobilisation, support and advocacy. They are legislated bodies that support the planning and provision of health services.

Educating communities in prevention and treatment of TB and the diseases associated with TB is important to manage and decrease incidents of TB to relieve the communities of the burden of TB disease. They are relevant because they have a vision for a healthy.



Source: Health committee training report, 2014

12. Heath committees work in communities: Challenges they face

The broad definition of health according to Ottawa Declaration on health promotion means:

Physical health	A fit and healthy body
Emotional state	Feeling happy safe and positive about yourself
Person as a social being	Ability to interact and co-operate with other people in a positive manner
Environment health	Places where we live, work, learn and play must not cause us unnecessary discomfort, pain, or unhappiness

In their work in the community, health committee members face daily life struggles because of the social conditions that result in poor health. We call these factors social determinants of health. These social conditions make it difficult for communities to enjoy their right to health and a healthy environment. During training in 2014, health committees reflected on the challenges faced by community members. Health committees were asked to identify areas in their community which are hot spots or health hazards for health, and how these presents a challenge to community to maintain good health. This is what they had to say:

Hot Spot	Challenge
Drug dealers	A growing number of people dealing in drugs is experienced in the area; these drugs are sold to young school going children; this cause high school dropout rate and increased criminal activities among the youth to maintain the addiction;
Informal settlement	No proper streets; severe overcrowding and this poses risks in time of disaster as it becomes difficult to access area and communities to get help immediately; overcrowding causes fast spread of diseases/infections such as TB; cleanliness is a problem; rat infestation is a challenge; fires are common, electrocution also common
Illegal shebeens /taverns	They are everywhere and growing by day; this shows desperation and a way of making income as unemployment is rife; shebeens operate whole night and day and play loud music throughout; causes poverty; risky sexual behaviours; present an unhealthy environment which smells urine and full of rats and flies; shebeen next to clinic and this cause TB to stop by and drink alcohol on the way to the clinic, some patients end up in shebeens while they are supposed to queue in the clinic, when drunk they don't come back to clinic or sometimes they come drunk cause havoc, drug resistant TB is very common
Illegal dumping of waste	Dumping of illegal waste products that contaminate the area; dead animals are also dumped openly causing an offensive smell and flies in the neighbourhood; spread of disease/infection esp. to children who play with some of these waste products; condoms also make their way to dumping areas and present 'balloons' to small children
Unemployment/ low income	Increasing number of 'loan sharks' as communities struggle to keep up with their budgets as most families rely solely on social grants;
Drainage problems	There is constant sanitation problems as municipality struggle to keep up to speed with servicing of drains and regular maintenance; cause a bad smell and spread of diseases; increased flies and rat infestation;
Crime	All community members live under circumstances and conditions that exposes to crime whether one is sick and on the way to clinic or an elderly woman who stays alone at home; these are vulnerable populations that deserve protection by the government as they can't fend for themselves

Insert taken from 'Health Committee Training, 2014

Activity: 60 minutes

Purpose: Identify challenges for health promotion intervention on TB
Method: Group
Material: Crayons, khokis, paper
Procedure: Critically read the insert and discuss if anything has changed in communities since 2014? What had become better; what has become worse? Is there anything you can do to address some of these challenges? What environmental or behavioural conditions are risks for TB infection in this scenario?

12.1 What can health committees do to support community TB programmes?

Recent studies confirm that knowledge of communities in TB is lacking and there is big need to provide communities with information that will enable them to take charge of their health and lives with TB disease. While educating communities on the disease, health committees can initiate or join other organisation campaigns such as below to mobilise organisations to work in partnership to beat TB. Partnership on health issues coordinate recourses and mobilise communities to participate and send strong messages across. An informed community is resourceful community; organisation pledged to support and partner for fighting TB, and called on government support and investment in TB programmes; see below

World TB Day Memorandum - A Call to Action24 March, 2009

Work in partnership to save lives: Increase access to TB prevention, diagnosis, treatment and adherence support

We, as nongovernmental organizations, health workers and community care givers working to prevent and treat TB in our communities, are here today to show our commitment to increase our efforts and build partnerships to end the TB and HIV co-epidemics. We realized that we cannot overcome this immense public health challenge alone and that commitment is needed from every individual, organization and sector. As civil society, we will continue to mobilize communities and collaborate with government to increase access to TB/HIV services. In turn, we call on government to commit to invest more financial and human resources to address the dual TB and HIV epidemics in South Africa in partnership with civil society.

Activity: 20 minutes

Purpose: Partnering to fight TB in community

Method: Group

Material: Crayons, khokis, paper

Procedure: Draw out a list of organisations that you can partner with to address some of challenges you have mentioned in your community around TB. What resources do these organisations have; and what do health committees bring in as resources?

24 March is World TB Day. It's a day that provides the opportunity for affected persons and the communities in which they live, governments, civil society organisations, healthcare providers, and international partners to call for further action to reach people who have been infected with TB. All partners including health committees can help take forward innovative approaches to ensure that everyone suffering from TB has access to diagnosis, treatment, cure and support.

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In addition to what health committees can do to facilitate interventions in the above case scenario, health committees can also:

1. Collaborate with local organisations to promote awareness in the community, reduce stigma, etc.
2. Form or join TB prevention forum to: connect, share, and collaborate in meaningful conversations with other prevention partners; receive breaking news and the latest advancements in prevention strategies; and access information
3. Ensure the treatment service is respectful of patients to promote adherence. If Patients are treated badly or disrespectfully, they will not come back for treatment
4. Monitor the services – ensure no medicine stock-outs, ensure proper infection control, good diagnostic services with quick results
5. Hold health system accountable for delivery of efficient and effective services
6. Collaborate with local organisations to advocate to address the Social Determinants that increase risk for TB – challenge overcrowding, lack of jobs, etc.; also work with local housing department and town planning authorities; environmental health authorities.

7. Deal with complaints in the TB service in ways that enables service to improve.
8. Promote use of Patients Charter of Rights for TB treatment and care
9. Negotiate between the community and services, identifying health concerns and promoting community dialogues
10. Raise funds for health promotion interventions
11. Volunteer their services to community and health facility on TB prevention
    Help patients who have stopped treatment or been lost to follow up are restored on treatment.
12. Make sure that Home-based care workers and CHWs are properly supported to visit and assist TB patients
13. Ask the clinic for its TB statistics; compare to previous months and years; find out if things are improving or getting worse – and what plans are in place to improve treatment outcomes.
14. Health committees can participate in policy amendments such as of liquor bill, tobacco bill, as well as influence stricter tax measurement on these items
15. Health committees are to ensure that they have an updated database of functional health organisations in their areas to facilitate infection control and fast community actions
16. Share resources with community organisation on health promotion strategy, target groups for health promotion, the provincial strategic objective on TB (see Appendices)

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Support to organisations working with vulnerable populations:

Although older people are also at risk of getting TB because of their deteriorating health and immune system, one particular age category that present much challenges are younger children. The effects of TB infection in younger children present serious challenges as this is the age group that cannot on their own go to the clinic when they feel sick, they are more reliant of their parents and families.

This then requires health committees to provide support not only to individuals, but to organisations working these groups to empower the care givers, families, mothers and pregnant mothers and community at large to be vigilant of the signs and symptoms of TB in babies and young children.

On babies and young children and elderly; Health committees can:

- Facilitate community organisation working with women of child bearing age to encourage them to attend antenatal clinic in good time during pregnancy.
- Hold the health facility accountable for ensuring antenatal education programmes are conducted
- Educate communities and pregnant mothers about their health rights and responsibilities
- Hold the provincial dept. of health accountable to ensure provincial health objectives such as:

✓ Manage the burden of disease through disease prevention, health promotion, and early detection of disease, treatment and rehabilitation – i.e. the provision of comprehensive health services. Health committees can:

  - Ensure that the school nurse services are available and school programmes to be stepped up to respond to TB prevention and care - Health committees to partner with school nurse and life skills teacher and other relevant organisations to promote health in school and hold parents accountable for their children's health.
  - Health committees are to hold the health system accountable to prioritise support for the aged in old ages as this is one of the vulnerable group to TB – HCs to work with relevant organisations
  - Health committees are to ensure that health facility TB support groups are efficiently run and correct information with regards to managing TB is provided to the patient and his or her family.

Focus on quality improvement and compliance with the national core standards, and the strengthening of information and other management systems and processes. Health committees can:

  - Hold the Dept. of Health accountable to conduct ongoing studies and prioritise interventions to improve child care and immunisation against TB, health committees can:
  - Negotiate for fast acting diagnostic machines at local health facilities, e.g. GeneXpert machine
  - Negotiate for increase in personnel working in TB, e.g. more professional nurses and DOTS supporters

14. Evaluation

Questionnaires for evaluation

1. **Tuberculosis disease is when:**

Tick as many options as you like: Your lungs are infected with mycobacterium tuberculosis	
Your lungs are full of blood	
You feel thirsty and weak often	
Your blood sugar is high	

2. **Name two stages of TB development**

a) _____
b) _____

3. **Name three signs and symptoms of tuberculosis**

a) _____
b) _____
c) _____

4. **Pulmonary TB is:**

Tick as many options as you like

Can be cured with appropriate treatment	
Is the TB of the lungs	
Can be spread by inhaling infected droplets in the air	
You can die from it	

5. Answer True or False

5. HIV&AIDS infection lead to weak immune system which makes it easy for TB infection	True	False
6. TB and Diabetes can happen together	True	False
7. TB is spread by sharing bedlinen	True	False
8. If you have TB you should quit smoking and stop taking salt	True	False
9. Tuberculosis is not curable	True	False
10. Children and babies cannot get tuberculosis	True	False

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APPENDICES

Appendix 1: Provincial Strategic Objective: Western Cape Province

Provincial Strategic Objective:
1.**Increasing wellness:** Upstream factors contributing to the burden of disease are frequently the result of socio-economic deprivation, such as unemployment, poverty, poor housing and sanitation. The wellness of the people of the Western Cape is undermined by the growing burden of disease. The strategic objective of increasing wellness has adopted a two-pronged approach to address this. Firstly, the Department has a responsibility to manage the burden of disease through disease prevention, health promotion, and early detection of disease, treatment and rehabilitation – i.e. the provision of comprehensive health services. Secondly, the Department is working with stakeholders, such as other departments, academia and non-profit organisations through the mechanism of the PTMS, to address the upstream factors that contribute to the burden of disease. Aligned with the quadruple burden of disease and the MDGs, the Department has formed the following focus areas within the PTMS, in order to address: ▪ Violence and road traffic accident injuries prevention; ▪ Healthy lifestyles; ▪ Women's health; ▪ Maternal and child health; ▪ Infectious diseases (HIV and TB); and ▪ Mental health.
2. Universal health care for all The WCG developed the Universal Health Care for All policy as a response to the Green paper on the NHI. The NHI will be implemented in phases over a 14 year period. The vision of Healthcare 2030, which centres around access to quality care is completely aligned with the underlying strategic intent of the NHI. The WCG supports several parts of the NHI proposal especially in the early phases of the process. These include the strengthening of the District Health Services and PHC re-engineering, leadership and management development, the focus on quality improvement and compliance with the national core standards, and the strengthening of information and other management systems and processes The Western Cape Health Facility Boards Act, 7 of 2001 This Act provides for the establishment, functions, powers and procedures of health facility boards. This legislation will be amended to more appropriately accommodate clinic committees at a PHC level. The Western Cape District Health Councils Act, 5 of 2010. This Act provides for matters relating to District Health Councils to give effect to section 31 of the National Health Act, 2003. This Act allows for the structured engagement between Local Government and other local representatives with the Department around district health services**.**

Appendix 2: Key target groups for health promotion

The S.A. National Health Promotion Policy and Strategy, 2015 – 19) prioritises delivery of health promotion interventions for the following key target groups across their lifecycle

Target group	Focus for health promotion
Children under five years	Promoting better health for children
Women of child bearing age	Creating awareness on services available to women of child bearing ages;
Men	Promoting a change in gender norms and values by encouraging broader involvement in health issues
Youth	Addressing risky behaviour and promoting healthy lifestyle practices;
Older people	Community-based programmes and support groups to promote regular health and self-management of chronic health conditions
Marginalised populations	Specific health needs of this target audience

Appendix 3: GUIDING VALUES AND PRINCIPLES FOR HEALTH PROMOTION

VALUES	PRINCIPLES
1. Health Promotion enables people and communities to assume more control over their personal, socioeconomic and environmental conditions that affect their health.	Health promotion: ▪ Is holistic and enables people to foster their physical, mental, social, and spiritual health. ▪ Is undertaken in collaboration with individuals, communities and groups. ▪ Empowers individuals, communities and groups to mobilise resources, to promote and protect their health. ▪ Enables changes that individuals and communities can maintain once initial funding has ended.
2. Health Promotion mediates the conflicting interests of individuals and sectors and enables reconciliation in order to promote and protect health.	Health promotion: ▪ Is done in collaboration with people and not for people. ▪ Is participatory and involves all concerned at all stages of the process. ▪ Is participatory and involves communities, households and individuals in the development and utilisation of health information, education and communication. ▪ Should be sensitive to gender-related issues experienced by men and women, and boys and girls
VALUES	**PRINCIPLES**
3. Health Promotion advocates for health in all policies	Health promotion: ▪ Advocates for equity and social justice. ▪ Is intersectoral and involves the collaboration of agencies from different sectors. ▪ Is multi-disciplinary and uses a variety of approaches, including advocating for policy to ensure organisational change. ▪ Should be considered in all legislative, policy, planning, programming, budgeting, and monitoring and evaluation activities of the public sector
4. Health Promotion recognises the human rights of people and the relationship with health issues.	Health promotion: 1. Promotes and protects the human rights of all people and promotes the participation of all people including those with disabilities, men who have sex with men, women who have sex with women, injecting drug users and sex workers. The rights to equality, non-discrimination, dignity, respect, privacy, autonomy, information and participation should be upheld in all health promotion activities. 2. Should be mindful of cultural expressions and interpretations, which should be respected, insofar as they promote the health and wellbeing of all people. 3. The rights to education, access to land, adequate housing, health care services, sufficient food, water and social security, including social assistance for the poor, and environmental rights for all should be pursued on a basis of progressive realisation. 4. The non-conditional rights including basic nutrition, shelter, basic health care services and social services, should be promoted and protected as part of health promotion activities.

Appendix 4: Framework for health promotion interventions

The S.A. National Health Promotion Policy and Strategy, 2015 – 19 requires organisations doing health promotion activities to align their interventions with the following key strategies:

Community Setting

- Information Education and Communication (IEC) strategy
- Identify IEC needs;
- Present educational talks on local community radios, make local public service announcements and present health infomercials;
- Disseminate health promotion messages and material to all relevant stakeholders and the community;
- Conduct education or information dissemination sessions on: How to use the material and tools;
- Facilitate exhibitions;
- Conduct awareness campaigns or events; and
- Conduct demonstrations on health issues (e.g., ORT, hand-washing, condom use)
- Community Mobilisation
- Identify and establish partnerships with other sectors and resources;
- Participate in local fora and networks to build relationships across sectors;
- Integrate health promotion activities into planned or existing sector programmes ;
- Lobby to mobilise resources for health promotion;
- Establish and maintain support groups according to guidelines;
- Establish and maintain health promotion committees (e.g. health promoting schools, health promoting clinics, health promoting work places); and
- Establish and maintain health promotion community-based support groups like diabetes support groups, physical activity support groups and breast feeding support groups.