### Additional file 2

Overview of the TB and LTBI education session used in the ENDPoint project



## Subject 1 Tuberculosis

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The knowledge of the target group about tuberculosis is expected to be low. It is therefore, important to start increasing the basic knowledge about tuberculosis of the target population. Without this basic knowledge, it is hard to explain latent tuberculosis infection and screening. The basic information about why the tuberculosis screening is organized, what it entails, who is screened, etcetera, is not well comprehended by the target population. Therefore, it is important to explain the policy for tuberculosis screening in the Netherlands.

### **SLIDE 2:** What is tuberculosis?

Tuberculosis is an infectious disease caused by bacteria.

#### SLIDE 2: ዓባይ ሰዓል ማለት እንታይ ማለት የ?

ዓባይ ሰዓል ለበዳዊ ሕማም ኮይኑ ብማይኮ-ባክተሪዩም ቱበርኩሎሲስ ዝበሃል ባክተርያ ይመጽእ።

<u>SLIDE 3:</u> Where in the body can tuberculosis occur? Tuberculosis can affect the lungs, but it can also affect other parts of the body, such as lymph nodes, the brain, the eyes, the kidneys, or the spine.

### SLIDE 3: ዓባይ ሰዓል ኣቢይ ክፍሊ ኣካላትና ክንሓምም ንኸእል?

ሕጣም ዓባይ ሰዓል ብቸንዱ ሳንቡእ ዘጥቅዕ ኮይኑ፡ ካልእ ክፍሊ ኣካላትና'ውን ከጥቅዕ ይኸእል። ንኣብነት ኣብ ጽክታት፡ ስርዓተ ኣእምሮ፡ ዓይኒ፡ ኮላሊትን ዓንድ-ሕኞን.።

### **SLIDE 4:** What are symptoms of tuberculosis?

Tuberculosis can cause symptoms like coughing (more than 2 weeks), fever, weight loss or poor appetite, night sweats. Some people with lung tuberculosis cough up blood.

### **SLIDE 4:** ምልክታት ሕጣም ዓባይ ሰዓል እንታይ እዮም?

### **SLIDE 5:** How can you get tuberculosis?

Tuberculosis is spread from person to person through the air. You can get tuberculosis when a person with tuberculosis in the lungs sneezes or coughs. The tuberculosis bacteria can then get into the air in little droplets. Another person can inhale the air with the tuberculosis bacteria, he or she may then become infected.

### **SLIDE 5:** ሕማም ዓባይ ሰዓል ብሽመይ ክለሽፈካ ይኽእል?

ሕማም ዓባይ ሰዓል ካብ ሰብ ናብ ሰብ ብንፋስ ወይ ምስትንፋስ ይመሓላለፍ። ሓደ ናይ ሳንቡእ ዓባይ ሰዓል ዘለዎ ሰብ ምስ ዘሆንተስ ወይ ዝስዕል ክለኽፌካ ይኽእል። እቲ ናይ ዓባይ ሰዓል ባክተርያ ካብ ውሽጢ ስርዓተ ትንፋስ ምስዝወጹ ደኞችቲ ማያዊ-ነጠብጣብ ናብ ኣየር ይሕወስ። ዝኾነ ሰብ ነቲ ዝተበከለ ኣየር ምስዘተንፍስ፡ ባክተርያ ዓባይ ሰዓል ናብ ውሽጡ ይኣትዉ በዚ ድማ ክሓምም ይኽእል።

### **SLIDE 6:** Who can get tuberculosis?

Everyone can get infected with the tuberculosis bacteria. That is why everybody can get tuberculosis disease. Even the king and queen can get tuberculosis disease.

There are some people who have a higher risk that the tuberculosis bacteria is in the body. This is because they have had a higher chance of being exposed to the bacteria. For example: persons who have been in contact with TB patients, health care workers, persons who live / lived in countries where tuberculosis is still highly prevalent.

#### SLIDE 6: ሕማም ዓባይ ሰዓል ከሓምም ዝኽእል መንዩ?

ዝኾነ ሰብ ብዓባይ ሰዓል ክልከፍ ይኸእል'ዩ፡ ስለዝኾነ ድማ ዝኾነ ሰብ ሕማም ዓባይ ሰዓል ናይ ምሕማም ተኸእሎ ኣለዎ። ዋላ'ውን ንጉስን ንግስትን ናይ ሃገረ ኔዘርላንድ ክሓሙ ይኸእሉ።

እንተኾነ ገለ ሰባት ዓባይ ሰዓል ናይ ምልካፍ ዝለዓለ ተኸእሎ ኣለዎም፡ እዚ ማለት ብባክተርያ ዓባይ ሰዓል ክልከፍሉ ዝኸእሉ ዝሰፍሐ ዕድላት ወይ ኢጋጣሚታት ኣለዎም ወይ ኔርዎም ማለት እዩ። ንኣብነት፡ ምስ ሓማም ዓባይ ሰዓል ዘለዎ ሰብ ብኣካል ዝነበሩ፡ ሰራሕተኛታት ማእከላት ፕዕና፡ ኣብተን ዓባይ ሰዓል ብብዝሒ ዝረኣየለን ሃገራት ዝነበሩ/ዝመጹ።

SLIDE 7: Quiz SLIDE 7: ሕቶ

### **SLIDE 8:** Tuberculosis in the world

Tuberculosis is still highly prevalent in the world. Tuberculosis is the number one killer infectious disease in the world. Even more than HIV or malaria. Every year 10.4 million people develop tuberculosis disease worldwide. Every year, 1.7 million people die of tuberculosis disease.

### SLIDE 8: ሕማም ዓባይ ሰዓል ብዓለም ደረጃ ከመይ ይመስል!

### **SLIDE 9: Tuberculosis in the Netherlands**

Tuberculosis was a very common disease in the Netherlands in the past. In the past, there were no medication for tuberculosis. In the Netherlands, there were special hospitals for tuberculosis patients. Their treatment consisted of fresh outdoor air and bedrest. Some people were in the hospital for more than a year. A lot of people died from tuberculosis disease back then. Luckily, we have good medication since the sixties. Because of these medication, improved good hygiene, social welfare and a very good tuberculosis control and care, tuberculosis is now not so prevalent anymore in the Netherlands.

#### SLIDE 9: ሕማም ዓባይ ሰዓል ኣብ ሃገረ ኔዘርላንድ

ኣብ ሃንሪ ኔዘርላንድ ቅድሚ ነዊሕ ዓመታት ሕማም ዓባይ ሰዓል ኣዝዩ ግኑን ሕማምዩ ኔሩ። ኣብቲ እዋን መድሃኒት'ውን ኣይነበሮን። ኣብቲ እዋን ኣብ ሃንሪ ኔዘርላንድ ንሕሙጣት ዓባይ ሰዓል ዝኸውን ፍሉይ ሆስፒታላት ኔሩ። እቲ ናይ ፍወሳ መስርሕ ድማ፡ ጽሩይ ኣየር ብምሃብን ኣብ ዓራት ብምድቃስን ጥራይ'ዩ ኔሩ። ነለ ሰባት ኣብቲ ሆስፒታላት ንልዕሊ ዓመት ይድቅሱ ኔሮም። ኣብቲ እዋን ብዙሓት ሰባት ብሕማም ዓባይ ሰዓል ይሞቱ ኔሮም። ካብ ከባቢ 1960'ታት ጀሚሩ ግና መድሃኒት ናይቲ ሕማም ተረኺቡ። በዚ መሰረት ነቲ ሕማም ዝፍውስ መድሃኒት፡ ዝተመሓየሽ ጽሬት ጥዕና፡ ማሕበራዊ ድሕነት፡ ዝማዕበለ ኣተኣላልያ ሕማም ዓባይ ሰዓል ብምኸታል፡ ኣብዚ እዋን ሕማም ዓባይ ሰዓል ኣብ ኔዘርላንድ ኣብ ኣዝዩ ዝተሓተ ደረጃ ይርከብ።

### **SLIDE 10:** Tuberculosis screening in the Netherlands

In the Netherlands, all migrants from countries were tuberculosis is still prevalent must be screened for tuberculosis at entry. For this screening, a radiological photo of the lungs is taken. On this photo, the tuberculosis doctor can see if someone has tuberculosis disease of the lungs.

All migrants who come from countries were tuberculosis is still highly prevalent are offered a voluntarily radiological screening for tuberculosis. Every 6 months for a period of 2 years, that person will receive an invitation to get a photo of the lungs.

The screening for tuberculosis is conducted because we want everybody who has tuberculosis in the Netherlands to receive treatment with medication and good care. In the Netherlands, we do not want anyone to die from tuberculosis because we can provide care. A second reason for the screening is we want to make sure that someone with lung tuberculosis does not spread the disease to other persons, so we can prevent other persons from getting tuberculosis disease.

#### SLIDE 10: መርመራ ሕጣም ዓባይ ሰዓል ኣብ ሃገረ ኔዘርላንድ

ኣብ ሃາረ ኔዘርላንድ፡ ኩሎም ስደተኛታት ካብተን ሕማም ዓባይ ሰዓል ዝኽስተለን ሃገራት ዝመጹ ኣብዚ ሃገር ክኣትዉ ከለዎ ናይ ግድን መርመራ ዓባይ ሰዓል ክንብሩ ይግደዱ። ኣብቲ ዝግበር መርመራ ናይ ሳንቡእ ስእሊ ወይ X-ray ይውሰደሎም። ኣብቲ ስእሊ ምርኩስ ብምግባር ድማ፡ ናይ ዓባይ ሰዓል ሓኪም እቲ ሰብ ናይ ሳንቡእ ዓብይ ሰዓል ኣለዎን የብሉን የረጋግጽ።

ኩሎም ካብተን ሕማም ዓባይ **ሰዓል ብዝለዓለ ዝረኣየለን** ሃገራት ዝመጹ ስደተኛታት ወለንታዊ ናይ ሳንብእ ስእሲ / x-ray መርመራ ክንብሩ ዕድል ይወሃቦም። በዚ መሰረት ንክልተ ዓመት ዝቅጽል መርመራ ናይ ሳንቡእ ስእሊ / X-ray ንምግባር ኣብ ሸሽዱሽተ ወርሒ ዕድመ ይግበረሎም።

መርመራ ሕማም ዓባይ ሰዓል ነካይደሉ ቀንዲ ምኸንያት፡ ኣብ ሃገረ ኔዘርላንድ ዝኾነ ሕማም ዓባይ ሰዓል ዘለዎ ሰብ ግቡእ መድሃኒት ብምውሳድን ግቡእ ከንክን ብምርካብን ከሓዊ ስለንደልዮ'ዩ። ኣብ ሃገረ ኔዘርላንድ ዋላ ሓደ ሰብ'ውን ይኹን ብሕማም ዓባይ ሰዓል ከመውት ኣይንደልን ኢና፡ ምኸንያቱ ከንሕክሞ ዓቐሚ ስለዘለና። መርመራ ሕማም ዓባይ ሰዓል ንንብረሉ ካልኣይ ምኸንያት ድማ፡ ሓደ ናይ ሳንቡእ ሕማም ዓባይ ሰዓል ዘለዎ ሰብ ነቲ ሕማም ብምስፍሕፋሕ ንኻልኦት ከይልክም ንምክልኻል ኮይኑ፡ በዚ መሰረት ካልኦት ሰባት ሕማም ዓባይ ሰዓል ካብ ምሕማም ነድሕን ማለት'ዩ።

### SLIDE 11: What happens if the doctor finds tuberculosis through the screening?

Everyone who has tuberculosis disease in the Netherlands will be offered treatment with medication by the doctor. Beside the medication, the patient will receive support from the tuberculosis nurse. In the Netherlands, everybody has the right for tuberculosis care: even persons who reside illegal, homeless persons, and drug users.

**SLIDE 11:** ካብቲ ዝካየድ መርመራ እቲ ሓኪም ሕጣም ዓባይ ሰዓል ከምዘሎ ምስዘረጋግጽ፡ እቲ ዝስዕብ መስርሕ እንታይ ይኸውን? ኣብ ሃገረ ኔዘርላንድ፡ ዝኾነ ሕጣም ዓባይ ሰዓል ዘለዎ ሰብ ካብ ሓኪም ብመድሃኒት ዝውሰድ ፍወሳ ከከታተል ዕድል ይወሃቦ። ብዘይካ እቲ ዝውስድ መድሃኒት፡ እቲ ሕሙም ካብ ናይ ዓባይ ሰዓል ነርስ (ኣላይት ሕሙም) ተወሳኺ ሓንዝ ይረክብ። ኣብ ሃገረ ኔዘርላንድ፡ ኩሉ ሰብ ናይ ሕጣም ዓባይ ሰዓል ፍወሳ ከወስድ መሰለ ኣለዎ፡ ዋላ'ውን ብዘፍቓድ ዝነብሩ ሰባት፡ ግዳም ሓደራት፡ ግዙኣት ወልፊ ሓሽሽ ወይ ዕጸ ፋርስ ወዘተ።

SLIDE 12: Film: TB: the real story SLIDE 12: ሕጣም ዓባይ ሰዓል፡ ሓቀኛ ዛንታ

### Subject 2 ካልኣይ ኣርእስቲ Latent tuberculosis infection

መልከፍቲ ባክተርያ ዓባይ ሰዓል

There is a need for explanation of the difference between LTBI and active tuberculosis. This information plays a fundamental role in understanding the purpose and objective of the LTBI screening by the target group.

### **SLIDE 13:** Can we prevent someone from getting tuberculosis disease?

Yes, we can.

### **SLIDE 14:** How can tuberculosis be prevented?

A person can get infected with the tuberculosis bacteria when someone in his surroundings with lung tuberculosis coughs. If this person inhales the droplets with the tuberculosis bacteria, three things can happen:

- 1) the body is strong and can kill the bacteria immediately → you will have no infection
- 2) the body cannot control the bacteria. The bacteria remain very active and causes damage to the body → the person gets tuberculosis disease
- 3) the body can control the bacteria. The bacteria are still in the body but it is inactive. We also say the bacteria is sleeping. → The is called latent tuberculosis infection. Unfortunately, it is possible that even after 10 years the sleeping tuberculosis bacteria can wake up and become active. It will then cause tuberculosis disease.

We can prevent tuberculosis disease. This is done by testing people for the presence of the tuberculosis bacteria in the body (when it is inactive or sleeping). If the test result tells the doctor that a person has the bacteria in their body, then we can treat that person with medication. The medication will then kill the sleeping bacteria.

### SLIDE 14: ሕማም ዓባይ ሰዓል ብሽመይ ክንከላሽሎ ወይ ከነወግዶ ንኽእል?

ሓደ ሰብ ብባክተርያ ዓባይ ሰዓል ክልከፍ ዝኽእል፡ ሓደ ናይ ሳንቡእ ሕማም ዓባይ ሰዓል ዘለዎ ሰብ ኣብ ከባቢኡ ምስዝስዕል'ዩ። እዚ ሰብ ነቲ ብባክተርያ ዓባይ ሰዓል ዝተበከለ ኣየር ንውሽጢ ምስዘተንፍሶ፡ ሰለስተ ነንራት ከጋፕም ይኽእል፡-

- እቲ ሰብ ናይ ምጽዋር ዓቐሙ ሓያል ይጸንሕ'ም ነቲ ባክተርያ ብቐጥታ ይቐትሎ → ስለዚ ዝኾነ መልከፍቲ ኣየጋጥምን ማለት'ዩ
- 2) እቲ ሰብ ነቲ ባክተርያ ከጻወሮ ኣይክእልን። እቲ ባክተርያ ድማ ንሑፍ ብምኻን ሳዕቤን የኸትለሉ → ስለዚ እቲ ሰብ ሕማም ዓባይ ሰዓል ይሓምም ማለት የ

ሕማም ዓባይ ሰዓል ካብ ምሕማም ከንከላኸከ ንኸእል ኢና። እዚ ነቲ ዝደቀሰ ባክተርያ ዓባይ ሰዓል ንምልላይ፡ መርመራ ብምባባር ዝካየድ ኣዩ። እቲ ሓኪም ውጽኢት መርመራ ብምርኣይ፡ ባክተርያ ዓባይ ሰዓል ኣብ ኣካል'ቲ ሰብ ከምዘሎ እንተደኣ ኣረ*ጋጊ*ጹ፡ ነቲ ሰብ መድሃኒት ብምሃብ ክንፍውሶ ንኸእል። እቲ ማለት እቲ መድሃኒት ነቲ ዝደቀሰ ባክተርያ ይቐትሎ ማለት'ዩ።

### <u>SLIDE 15:</u> What is the difference between tuberculosis infection and tuberculosis disease?

The biggest difference between a person with latent tuberculosis infection and tuberculosis disease is that the person with tuberculosis disease will be sick: he or she will have symptoms. A person with latent tuberculosis infection does not have symptoms because the bacteria are sleeping. He or she feels normal. Besides the absence of symptoms, the lung photo of someone with LTBI does not show abnormalities. The photo does often show abnormalities when someone has lung tuberculosis. Someone with latent tuberculosis infection is not infectious: he or she cannot spread the bacteria to other persons. Someone with lung tuberculosis can spread the bacteria to other persons.

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እቲ ዝዓብየ ፍልልይ ኣብ መንን መልከፍቲ ባከተርያ ዓባይ ሰዓል ዘለዎ ሰብን ሕማም ዓባይ ሰዓል ዝሓመመ ሰብን፡ እቲ ሕማም ዓባይ ሰዓል ዘለዎ ሰብ ሓሚሙ' ዘሎ፡ ከምኡ'ውን ምልክታት ናይቲ ሕማም ይህልዎ ማለት'ዩ። እቲ መልከፍቲ ባከተርያ ዓባይ ሰዓል ዘልዎ ሰብ ብኣንጻሩ ዝኾነ ምልክታት ናይቲ ሕማም የብሎን ምሽንያቱ እቶም ባከተርያ ድቁሳት ስለዝኾኑ። ዝኾነ ዘይንቡር ነገር'ውን ኣይስምዖን። ብዘይካ ምልክታት ሕማም ዘይምርኣይ፡ ናይ ሳንቡእ ስእሊ / X-ray ናይቲ መልከፍቲ ባከተርያ ዘልዎ ሰብ ዝኾነ ዘይንቡር ምልክት ኣየርእይን'ዩ። ብኣንጻሩ ሓደ ናይ ሳንቡእ ዓባይ ሰዓል ዘለዎ ሰብ ኣብቲ ናይ ሳንቡእ ስእሊ / X-ray ዘይንቡር ምልክታት ከርአ ይኸእል። ሓደ መልከፍቲ ባከተርያ ፕራይ ዘለዎ ሰብ ተላባዒ ኣይኮነን፡ እቲ ባከተርያ ናብ ካልኦት ሰባት ከመሓላልፍ ኣይክእል'ዩ። ሓደ ናይ ሳንቡእ ሕማም ዓባይ ሰዓል ዘለዎ ሰብ ተለንጻሩ እቲ ባከተርያ ናብ ካልኦት ከመሓላልፍ ይኸእል።

### **SLIDE 16:** Who have highest risk of developing tuberculosis disease?

All persons who have been recently infected (<2.5 years) have higher chance of developing tuberculosis disease than persons who have been infected a long time ago. Some people have a higher chance of developing tuberculosis disease because they have a weak immune system. Because they have a weak immune system the body cannot fight the tuberculosis bacteria. Therefore, the bacteria have a high chance of being able to cause tuberculosis disease. For example: persons with HIV/aids, persons with diabetes or persons with cancer. Some people get medication that weaken the immune system, for example persons who have had an organ transplantation. Also, these persons have higher chance of developing tuberculosis disease.

### SLIDE 16: ሕጣም ዓባይ ሰዓል ናይ ምምዕባል ዝለዓለ ተኸእሎ ዘለዎም መንዮም?

ኩሎም ኣብ ቀረባ እዋን ዝተለኽፉ ሰባት (እቲ መልከፍቲ ኣብ ውሽጢ 2 ዓመትን ፈረቓን ምስዝኸውን)፡ ካብቶም ቅድሚ ነዊሕ ዓመታት ዝተለኽፉ ሰባት እቲ ሕማም ናይ ምምዕባል ዝለዓለ ተኽእሎ ኣለዎም። ብተወሳኺ ናይ ምጽዋር ዓቅሞም ዝተዳኸመ ወይ ትሑት ዝኾነ ሰባት ውን እቲ ሕማም ናይ ምምዕባል ተኽእሎ ኣለዎም። ናይ ምጽዋር ዓቅሞም ድኹም ወት ትሑት ስለዝኾነ፡ ነቲ ባከተርያ ኪቃለስዎ ኣይከእሉን። ስለዚ እቲ ባከተርያ ሕማም ከኸትለሎም ዝለዓለ ተኽእሎ ይህልዎ። ንኣብነት፡ ምስ ሕማማት ኤይድስ ወይ HIV፡ ሕማም ሽኮር፡ መንሽሮ ዝነብሩ ሰባት ከንጠቅስ ንኽእል። ከምኡ'ውን ናይ ምጽዋር ዓቅሞም ከዳኽም ዝኽእል ከቢድ መድሃኒታት ዝወስዱ ሰባት፡ ንኣብነት ፡ መጥባሕቲ ምቅያር ናውቲ ኣካላት ከንጠቅስ ንኽእል። ኩሎም እዞም ዝጠቐስናዮም ሰባት ሕማም ዓባይ ሰዓል ናይ ምምዕባል ዝለዓለ ተኽእሎ ኣለዎም።

SLIDE 17: Quiz SLIDE 17: ሕቶ

### SLIDE 18: How can we diagnose latent tuberculosis infection?

There are two ways to diagnose latent tuberculosis infection:

- 1) Tuberculin Skin Test
- 2) Blood test

መልከፍቲ ባክተርያ ዓባይ ሰዓል ንምምርማር ክልተ መገድታት ክንጥቀም ንኸእል፡

- ናይ ቆርበት መርመራ

### **SLIDE 19:** What happens if someone has a positive blood test?

If the result of the blood test is positive, it means that the tuberculosis bacteria are detected in the body. The person will then receive an appointment with the tuberculosis doctor at the GGD. The doctor will do further examination. The doctor will take a photo of the lungs. The doctor will also ask questions. With these examinations, the doctor will exclude tuberculosis disease, and diagnose latent tuberculosis infection.

If the blood test is negative, it means that the person does not have the tuberculosis bacteria in the body at this moment. The person does not need further examination. The person does not have to go to the doctor.

#### SLIDE 19: ደም መርመራ ናይ ሓደ ሰብ ኣወንታ ወይ ፖስቲሽ ምስዠሽውን ዝስዕብ መስርሕ እንታይ'ዩ?

እቲ ውጽኢት መርመራ ደም ኣወንታ ወይ ፖስቲቭ እንተድኣ ኮይኑ፡ ባክተርያ ዓባይ ሰዓል ኣብቲ ሰብ ተረኺቦም ኣለው ማለት'ዩ። በዚ ምኸንያት እቲ ሰብ ምስ ሓኪም ዓባይ ሰዓል ኣብ ኼ ኼ ደ ንምርኻብ ናይ ቆጸራ ዕድመ ይቐበል። እቲ ሓኪም ተወሳኺ መርመራታት የካይድ። እቲ ሓኪም ናይ ሳንቡእ ስእሊ ይወስድ፡ ከምኡ'ውን ሕቶታት ይሓትት። እዚ መርመራታት ብምግምጋም፡ እቲ ሓኪም ሕጣም ዓባይ ሰዓል ከምዘይኮነ፡ መልከፍቲ ባክተርያ ዓባይ ሰዓል ምኻኑ የረጋግጽ።

እቲ ውጽኢት መርመራ ደም ኣሉታ ወይ ነጋቲቭ ምስዝኸውን፡ እቲ ሰብ ኣብዚ ግዜ ዝኾነ ባክተርያ ዓባይ ሰዓል ኣብ ኣካላቱ የብሉን ማለት'ዩ። እቲ ሰብ ተወሳኺ መርመራታት ኣይንብርን፡ ናብ ሓኪም ምቅራብ'ውን ኣየድልዮን ማለት'ዩ።

### **SLIDE 20:** Can latent tuberculosis infection be treated?

Yes. Latent tuberculosis infection can be treated with medication / tablets. These must be taken every day at the same moment. The treatment for tuberculosis infection takes 3 months.

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መልከፍቲ ባክተርያ ዓባይ ሰዓል መድሃኒት ወይ ከኒና ክፍወስ ይኽእል። እቲ መድሃኒት መዓልታዊ ኣብ ውሱን ሰዓት ክውሰድ ይግባእ። ፍወሳ መልከፍቲ ባክተርያ ዓባይ ሰዓል ሰለስተ (3) ወርሒ ይወስድ።

SLIDE 21: Quiz SLIDE 21: ሕቶ

#### SLIDE 22: Why should you do the test for latent tuberculosis infection?

In the horn of Africa there is still a lot of tuberculosis. Also in Eritrea. In the Netherlands, we see a lot of Eritreans develop tuberculosis after they have arrived in the Netherlands. This happens sometimes even after 5 or more years. You have had a screening for tuberculosis infection in the past. This was an X-ray. However, as you have learned, an x-ray can only detect active lung tuberculosis. By doing the blood test we can see if you have the tuberculosis bacteria in your body. If you have the tuberculosis bacteria in your body, we will offer you

free treatment. The medication will kill the tuberculosis bacteria. In this way we can make sure that you do not develop tuberculosis in the future.

### **SLIDE 22:** ስለምንታይ መርመራ መልከፍቲ ባክተርያ ዓባይ ሰዓል ምኅባር የድልየኩም?

አብ ቀርኒ ኣፍሪቃ ከምኡ'ውን ኣብ ኤርትራ ሕማም ዓባይ ሰዓል ገና ብብዝሒ ይርአ። ኣብ ሃገረ ኔዘርላንድ ውን'ተኾነ፡ ኤርትራውያን ኣብዚ ሃገር ድሕሪ ምእታዎም ሕማም ዓባይ ሰዓል ብብዝሒ ከማዕብሉ ይረኣዩ። እዚ ሓደ ሓደ እዋን ድሕሪ ሓሙሽተ (5) ዓመትን ልዕሊኡን'ውን ዘጋተምዩ። ቅድሚ ሕጇ ናይ ዓባይ ሰዓል መርመራ ኔርኩም ኔርኩም። እዚ ድማ ናይ ሳንቡእ ስእሲ ወይ X-ray እዩ ኔሩ። እንተኾነ፡ ከምቲ ኣቐዲምና ዝተመሃርናዮ X-ray ንጡፍ ናይ ሳንቡእ ዓባይ ሰዓል ጥራይ'ዩ ክለሊ ወይ ከምርምር ዝኽልል። ደም መርመራ ብምባባር ግን እቲ ባክተርያ ኣብ ኣካላትኩም ኣሎ'ዶ የለን ከነረጋግጽ ንኽእል። እቲ ባክተርያ ኣብ ኣካላትኩም እንተድኣ ተረኺቡ፡ ነጻ ናይ ፍወሳ ዕድል ንህበኩም። እቲ መድሃኒት ነቲ ባክተርያ ዓባይ ሰዓል ከቐትሎ እዩ። በዚ መንዲ፡ ንመጻኢ ሕማም ዓባይ ሰዓል ካብ ምምዕባል ትድሕኑ ማለት'ዩ።

## Health education

Latent Tuberculosis Infection: screening and treatment

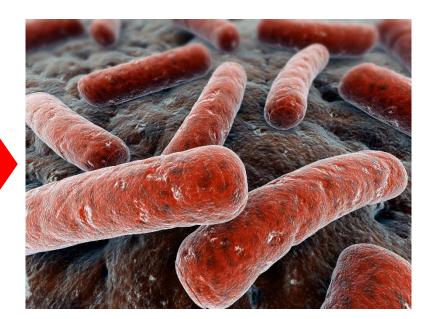


## What is Tuberculosis?

- Infectious disease
- Caused by a bacteria







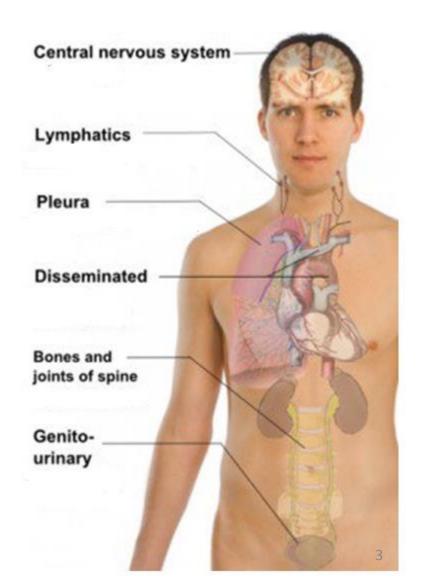
Mycobacterium tuberculosis

## Where can you get tuberculosis?

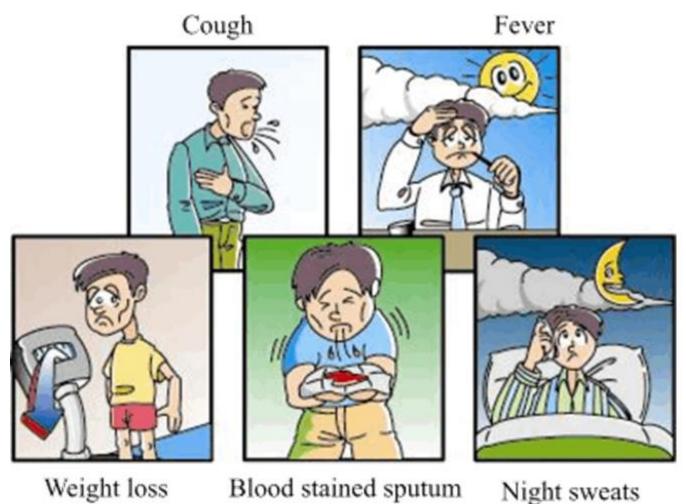
Tuberculosis can affect many parts of the body

### **Tuberculosis of the lungs**



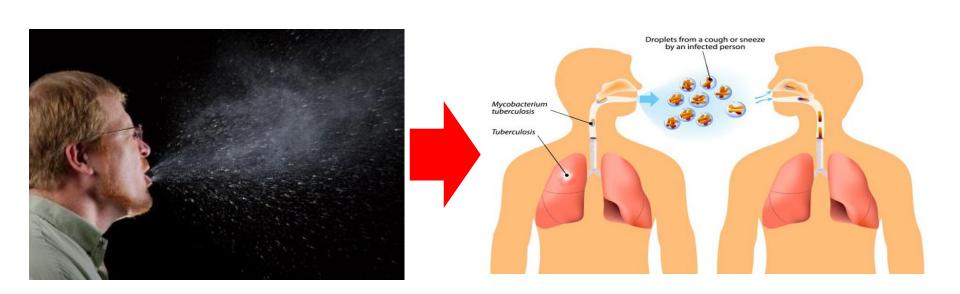


# What are the symptoms of tuberculosis disease?



## How can you get Tuberculosis?

Tuberculosis is spread through the air



## Who can get tuberculosis?

Everyone who have been in contact with a person with infectious lung tuberculosis can get tuberculosis



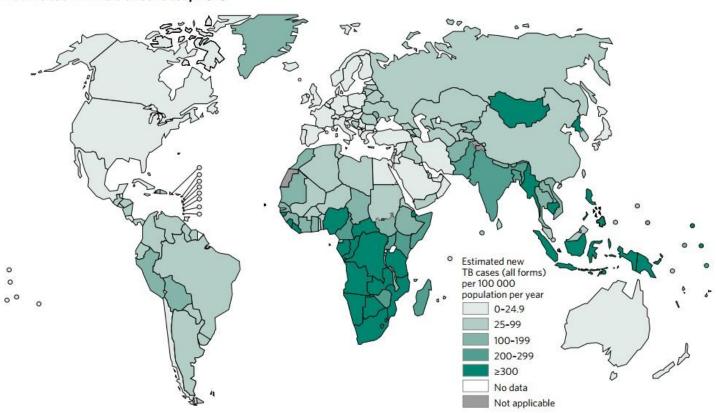
## Quiz

How can tuberculosis be transmitted?

## Tuberculosis in the world

- ➤ 10.4 million new TB cases each year
- > 1.7 million deaths every year

### Estimated TB incidence rates, 2015



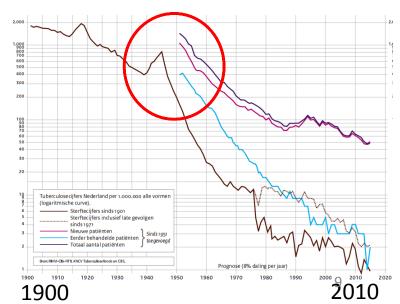
## Tuberculosis in the Netherlands



In 1951 → 110 / 100.000 population

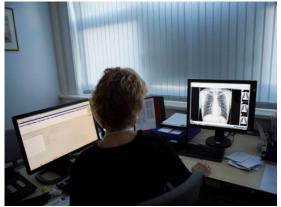
- Medication
- Improved hygiene & social welfare
- Good tuberculosis care

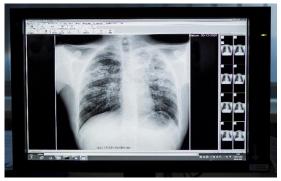
In 2016 → 5.0 /100.000 population



## Tuberculosis screening in the Netherlands

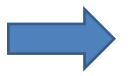






### **ENTRY SCREENING**

All migrants from countries where tuberculosis is still prevalent



### **FOLLOW-UP SCREENING**

All migrants from countries where tuberculosis is still **HIGH** prevalent

## What happens if tuberculosis is found?

Everyone with tuberculosis will receive treatment with medication







- Medication for 6 months
- Medication every day
- The tuberculosis nurse will give support

# Film TB: the Real Story

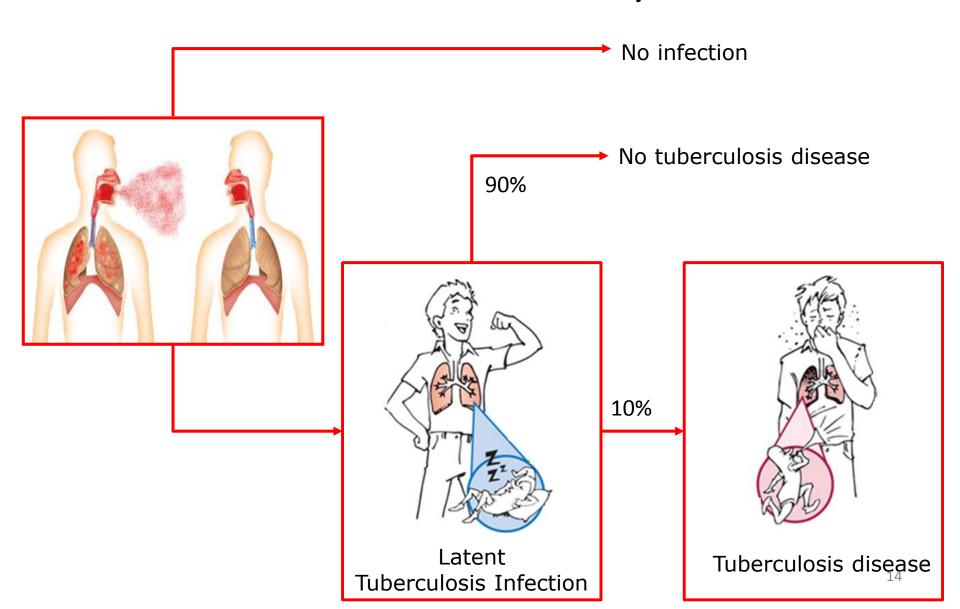
<u>https://www.youtube.com/watch?v=89XaAFbaFwU</u> ( Tigrinya version)
<u>https://www.youtube.com/watch?v=a2vAmk8aFjQ</u> (English version)

## Can tuberculosis be prevented?



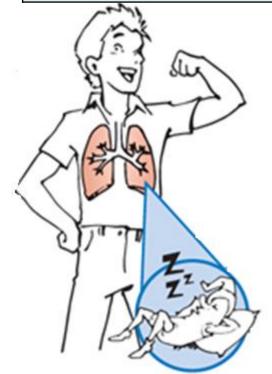
## YES

## How can tuberculosis be prevented?



### Latent Tuberculosis infection VS. Tuberculosis disease

| Tuberculosis bacteria are sleeping in my body, but could wake up in the future | Tuberculosis bacteria are active, they make me sick |
|--|---|
| I am not sick, I do not have symptoms  | I am sick, I have symptoms                          |
| My chest Xray is <b>normal</b>   | My chest Xray is <b>abnormal</b>                    |
| I CANNOT spread tuberculosis bacteria  | I CAN spread tuberculosis bacteria                  |
| Tuberculin Skin Test / Blood test is POSITIVE                                  | Tuberculin Skin Test / Bloodtest is POSITIVE        |





## Who has highest risk of tuberculosis disease?

All persons with recent infection (infection < 2.5 years)

### But also.....

### Children



### Drug and Alcohol abusers





### Persons with a weak immune system

- HIV/AIDS
- Medication
- Diabetes
- Cancer









## Quiz

Who has highest chance of getting tuberculosis disease?

# How can we diagnose latent tuberculosis infection?

Tuberculin Skin Test





AND / OR

**Blood test** 





### De tbc-bloedtest is positief: wat nu?

De dokter(sassistent) wil u graag verder helpen, doe daarom ook het vervolgonderzoek



U krijgt een brief toegestuurd met de uitslag van de toe bloedtest. Als de bloedtest positief is krijgt u een afspraak bij de dokter.



De dokter(sassistent) maakt een longfoto.



Op de longfoto ziet de dokter wat er aan de hand is en wat u moet doen.



### U heeft de tbc-bacterie

U merkt daar meestal niets van. U bent niet besmettelijk voor anderen. De dokter adviseert u medicijnen te nemen. Zo voorkomt u dat u ziek wordt van tuberculose. En door medicijnen te nemen, maakt u anderen niet ziek.



### Longtbc

U heeft tbc. U kunt klachten hebben zoals veel hoesten, vermoeidheid en vermageren. U bent vaak besmettelijk voor anderen. De dokter behandelt u met medicijnen.

### Treatment Latent Tuberculosis Infection

What? tablets

How often? every day

How long? 3 months



## Quiz

# Latent tuberculosis infection

# Why should you do the test for latent tuberculosis infection?

- Horn of Africa there is still a lot of tuberculosis
- Eritreans in the Netherlands develop a lot of tuberculosis
- X- ray can only detect active tuberculosis in the lungs
- Tuberculosis bacteria can sleep for a long time (>10 years)
- This sleeping bacteria can only be identified through the blood test







## Upcoming tuberculosis screening

The TB ENDPoint research project offers a unique opportunity

- Organized by your GGD
- Free screening
- Free treatment

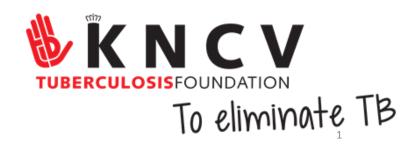
### Bring family or friends!

All persons born in Eritrea/Ethiopia who have been in the Netherlands less than 10 years are welcome!

Bring your identification card and your insurance card

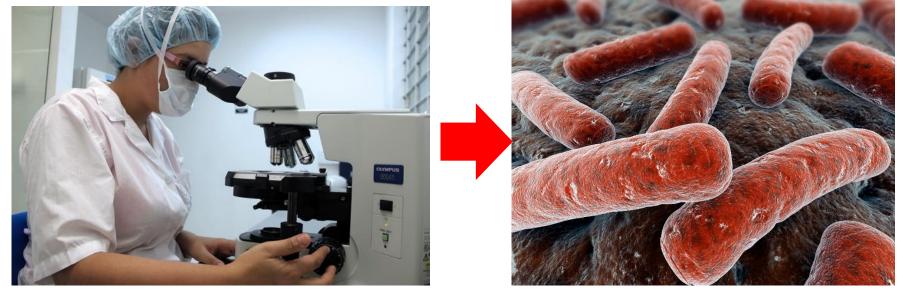
### *ጥዕናዊ ኣስተምህሮ*

መልከፍቲ ባክተርያ ዓባይ ሰዓል፦ መርመራን መከላሽሊ ፍወሳን



### ሕጣም ዓባይ ሰዓል እንታይ'ዩ?

- ለበዳዊ ሕጣም
- ብባክተርያ ዝመጽሕ



*ማ*ይክሮስኮፕ

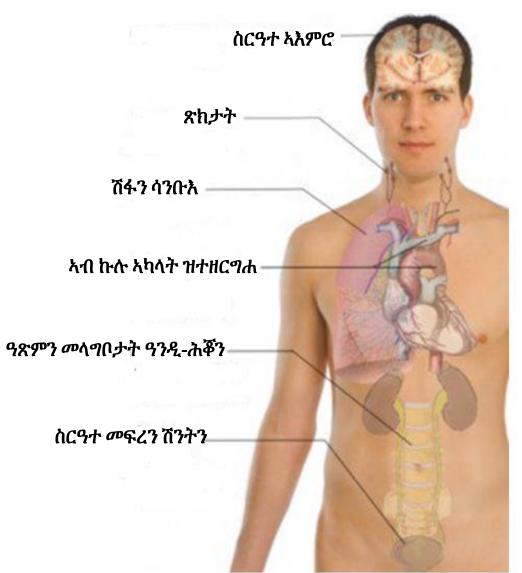
ማይኮ-ባክተሪዩም ቱበርኩሎሲስ

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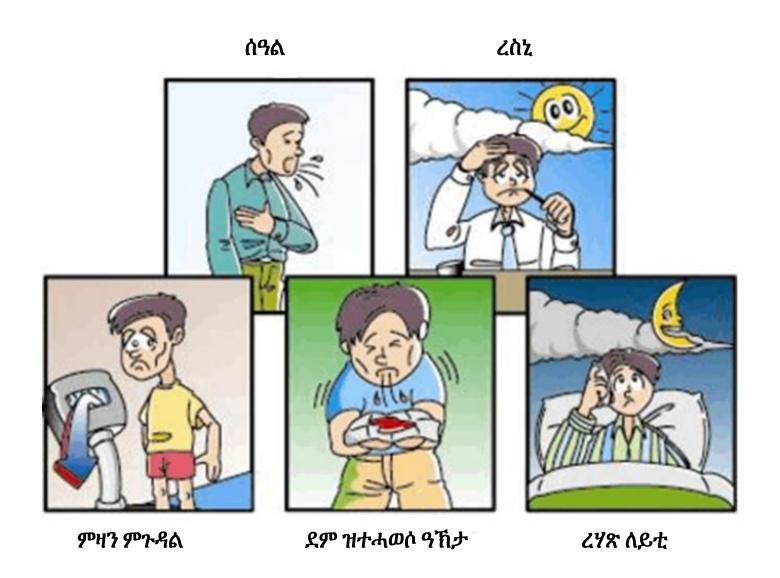
ዓባይ ሰዓል ንዝተፈላለየ ክፍሊ ኣካላት ከጥቅዕ ይኽእል

ናይ ሳንቡእ ዓባይ ሰዓል



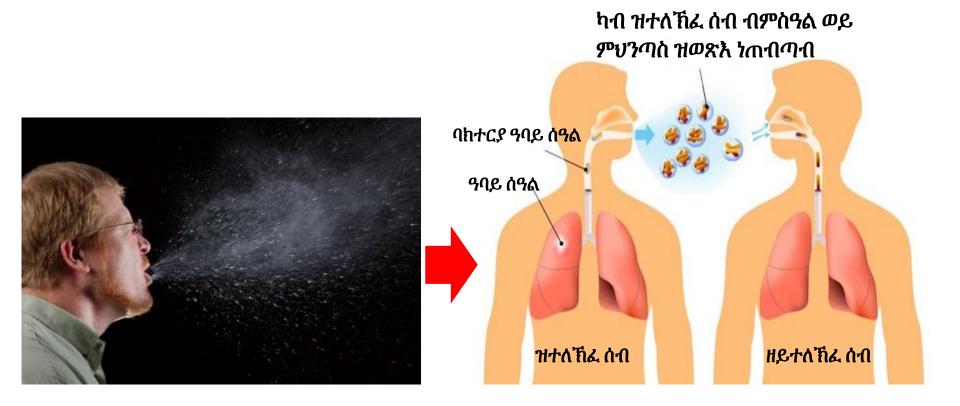


## ምልክታት ሕጣም ዓባይ ሰዓል እንታይ እዮም?



### ዓባይ ሰዓል ብሽመይ ክለኽፈካ ይኽእል?

ዓባይ ሰዓል ብንፋስ ይመሓላለፍ



### ብዓባይ ሰዓል *መ*ን ክልከፍ ይኽእል?

ምስ ተላባዒ ናይ ሳንቡእ ዓባይ ሰዓል ዘለዎ ሰብ ዝተራኸበ ዝኾነ-ሰብ ክልከፍ ይኽእል!



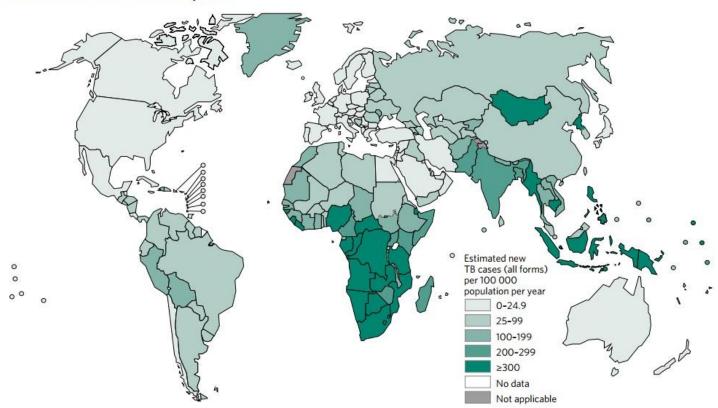
# ሕቶ

ሕጣም ዓባይ ሰዓል ብኸመይ ክመሓላለፍ ይኽእል?

## ዓባይ ሰዓል ብዓለም ደረጃ

- ▶ 10.4 ሚልዮን ዓመታዊ ሓድሽ ክስተታት ዓባይ ሰዓል
- ▶1.7 ሚልዮን ዓመታዊ ናይ ሞት ብዝሒ

#### Estimated TB incidence rates, 2015



## ዓባይ ሰዓል ኣብ ሃገረ ኔዘርላንድ

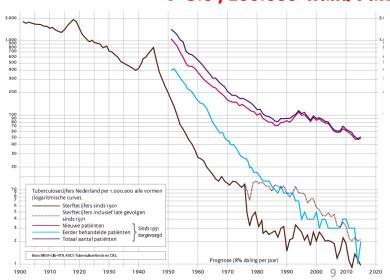


In 1951 → 110 / 100.000 ብዝሒ ህዝቢ

- **\$**ፍወሳ
- **❖** ዝተጣሓየሸ ስነ-ጥዕናዊ ጽሬትን ጣሕበራዊ ድሕነትን
- **❖**ዝተማሓየሸ ናይ ዓባይ ሰዓል ኣተኣላልያ



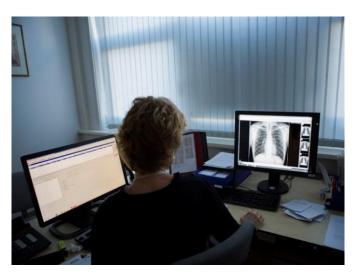
In 2016 → 5.0 /100.000 ብዝሒ ህዝቢ

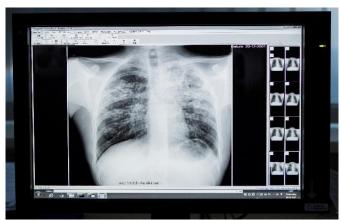


## መርመራ ዓባይ ሰዓል ኣብ ሃገረ ኔዘርላንድ



**መርመራ ኣብ ምእታው** ኩሉም ስደተኛታት ካብተን ተርእዮ ዓባይ ሰዓል ዝኽሰተለን ሃገራት ዝመጹ





**ናይ ምክትታል መርመራ** ኩሉም ስደተኛታት ካብተን ተርእዮ ዓባይ ሰዓል **ብዝለዓለ** ዝኽሰተለን ሃገራት ዝመጹ

## ሕማም ዓባይ ሰዓል እንተተረኺቡ ዝስዕብ *መ*ስርሕ እንታይ<sup>'</sup>ዩ?

ኩሉ ዓባይ ሰዓል ዝተረኽቦ ሰብ ፡ ብመድሃኒት ዝውሰድ ፍወሳ ይወሃቦ







- ናይ 6 ወርሒ መድሃኒት
- **■** መዓልታዊ ዝውሰድ መድሃኒት
- ናይ ዓባይ ሰዓል ነርስ ሓንዝ ትልባስ

## ፊልም

ሕማም ዓባይ ሰዓል፡ ሓቀኛ ዛንታ

https://www.youtube.com/watch?v=89XaAFbaFwU (Tigrinya version)

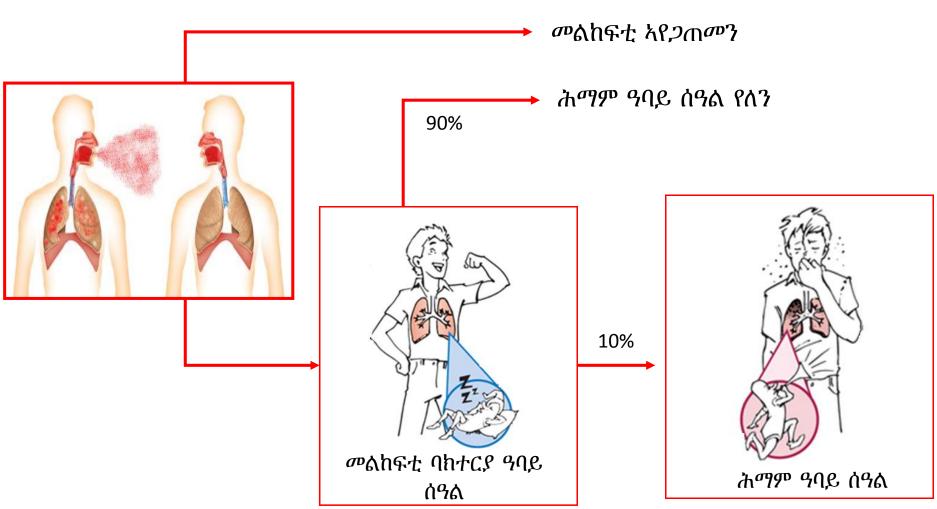
https://www.youtube.com/watch?v=a2vAmk8aFjQ (English version)

# ዓባይ ሰዓል ክንከላሽሎ ወይ ክግታእ ይከኣል'ዶ?





# ዓባይ ሰዓል ብሽመይ ክግታእ ይኽእል?



### መልከፍቲ ባክተርያ ዓባይ ሰዓል <u>ምስ</u> ሕማም ዓባይ ሰዓል <u>ክነጻጸር</u>

| ዘይንሑፍ ባክተርያ ዓባይ ሰዓል ኣብ ኣካላተይ ደቂሱ<br>ይርከብ <i>እንተኾ</i> ነ ኣብ <i>መ</i> ጻኢ ንሑፍ ክኸውን ይኽእል'ዩ | ባክተርያ ዓባይ ሰዓል ንጡፋት ኮይኖም፡ ሕጣም<br>ኣኸቲሎምለይ ይርከቡ                        |
|---|---|
| አይሓ <i>መ</i> ምኩን ዝኾነ ናይ ሕጣም ምልክታት <sup>'</sup> ውን የብለይን                               | ሐሚ <i>መ</i>   |
| ናይ ሳንቡእ ስእሊ (X-ray) <b>ንቡር</b> ምልክት የርኢ   | ናይ ሳንቡእ ስእሊ (X-ray) <b>ዘይንቡር</b> ምልክት የርኢ                           |
| ባክተርያ ዓባይ ሰዓል ከማሓላልፍ <b>ኣይክእልን</b>  | ባክተርያ ዓባይ ሰዓል ከማሓሳልፍ <b>ይክእል</b>                                    |
| ናይ ዓባይ ሰዓል ናይ ቆርበት ወይ ድም <i>መርመራ <b>አወንታ</b><br/>ውጽኢት <b>የርኢ</b></i>                  | ናይ ዓባይ ሰዓል ናይ ቆርበት ወይ ድም <i>መርመራ</i><br><b>አወንታ</b> ውጽኢት <b>የርኢ</b> |





## ዓባይ ሰዓል ናይ ምሕማም ዝለዓለ ተኽእሎ ዘለዎ መን'ዩ?

ኣብ ቀረባ እዋን ዝተለኽፈ ሰብ (እቲ መልከፍቲ ኣብ ውሽጢ ዝሓለፈ 2 ዓመትን ፈረ*ቓ*ን ምስዝኸውን)

ከምኡ'ውን.....

ቆልው



#### ናይ ኣልኮላዊ መስተን ዕጸ-ፋርስን ባዙአት





#### ትሑት ሕጣም ናይ ምጽዋር ዓቅሚ ዘለዎም ሰባት

- ኤች ኣይ ቪ/ኤይድስ መድሃኒት ዝጥቀሙ
- **■** *ሕማ*ም ሽኮር
- መንሽሮ









# ሕቶ

ሕጣም ዓባይ ሰዓል ናይ ምሕጣም ዝለዓለ ተኽእሎ ዘለዎ መን'ዩ?

## መልከፍቲ ባክተርያ ዓባይ ሰዓል ብኸመይ ክንምርምሮ ወይ ከነለልዮ ንኽእል?

ናይ ቆርበት መርመራ

ወይ/ተወሳኺ

ደም መርመራ









### ውጽኢት ናይቲ ደም መርመራ አወንታ ኮይኑ ኣሎ፡ ዝስዕብ መስርሕ እንታይ'ዩ?

ሓኪም ከሕግዘካ ተዳልዩ ኣሎ፡ ስለዚ እቲ ዝስዕብ ተወሳኺ መርመራታት ግበር።



ውጽኢት ናይቲ የነበርትዮ ማርማራ የአዛያ ደብዛቤ ከየለሽልካ እየ። እቲ ውጽኢት አወነታ እንታቸይት። ናይ ሓኪም ፅጸፊ የነበርልካ እየ።



ሐኪም ናይ ሳዝፁት ስትሊ (s-ray) ይካብረልካ።



ሓኪም ነቲ ናይ ሳንበዓ ስሕሲ (s-ray) ብምፅዛብ እን/ታይ ከትተብር ከምክለት ይሕብደሳቱ



#### ባከተርያ ሕማም ዓባይ ሰዓል ኣብ ኣካላትካ ኣሎ

አቲ ባከተርያ ከምስለት ወርት, ምልክት አይሪአየባን፡፡
Τቫልአት ዕባት ከተቀቀለውና ውን አይትቸለልን ኢቫ።
አንተቸው ለዚያ ከህታትን ናብ ለጣም ማርያ ብላል
Τቪሀምዕብል ያቸውስል መድንኒት ከትወልድ ትሎሽረካ።
ወደ ጣዲ ለጣም ዓርድ በነል ካብ ምስለምም ትዕነሻ
ትስለቸል። መድንኒትት ብብክት ብምውሳድ ንሻልአት
ካስ ምልክፍውን ተድልጎ።



#### ናይ ሳንቡአ ሕማም ዓባይ ሰዓል

ብጣም ባባይ ሰዓል አለካ፣ ብሚያማነውን አለኘ። ትም ሰዓል። ድግም አካላትን ምንካይ ሚሆን ሰጡትን የሁጣስቱ ምልኪታት ሕጣም ዓባይ ሰዓል አሰውሻ። መመከትን» ባዜ፣ ንቫልአት ሰዓት ከተመላለልፍ ትሽልል። ብኪም፣ መለገና መድሃኔት ከተሕመየት እድ።

## ፍወሳ መልከፍቲ ባክተርያ ዓባይ ሰዓል

ሕንታይ? ከኒና

መዓስ መዓስ? መዓልታዊ

ንኸንደይ ግዜ? 3 ወርሒ



## ሕቶ

መልከፍቲ ባክተርያ ዓባይ ሰዓል

### ስለምንታይ መርመራ መልከፍቲ ባክተርያ ዓባይ ሰዓል ምግባር የድልየኩም?

- ኣብ ሃገረ ኔዘርላንድ ዝነብሩ ኤርትራውያን ሕማም ዓባይ ሰዓል ብብዝሒ የማ*ዕ*ብሉ

- ናይ ሳንቡእ ስእሊ (X-ray) ናይ ሳንቡእ ዓባይ ሰዓል ጥራይ'ዩ ከለሊ ዝኽእል
- ባክተርያ ዓባይ ሰዓል ንነዊሕ ግዜ ደቂሱ ክጻንሕ ይኽእል (ንልዕሊ 10 ዓመት)
- እዚ ዝደቀሰ ባክተርያ ብመርመራ ጥራይ'ዩ ክረ*ጋገ*ጽ ዝኽእል







### <del>አብ ቀረባ መጻኢ ዝካየድ መርመራ ዓባይ ሰዓል</del>

መጽናዕታዊ ፕሮጀክት TB ENDPoint ፍልይ ዝበለ ዕድል ፈጢሩ ይርከብ

- ኣብ ከባቢዥም ዝርከብ ኼ ኼ ደ ዘዳለዎ
- ናይ ናጻ መርመራ
- ናይ ናጻ ፍወሳ

ቤተሰብኩም ወይ መሓዙትኩም ተጣልሉ! ኩሉም ኣብ ኤርትራ ወይ ኢትዮጵያ ዝተወልዱን ኣብ ሃገረ ኔዘርላንድ ትሕቲ 10 ዓመት ዝገበሩን ክሳተፉ ዕዱጣት'ዮም!

ናይ **መንነት ወረቐትኩምን** ናይ **መድሕን ካርድኹም** ምሳኹም ተጣልኡ!