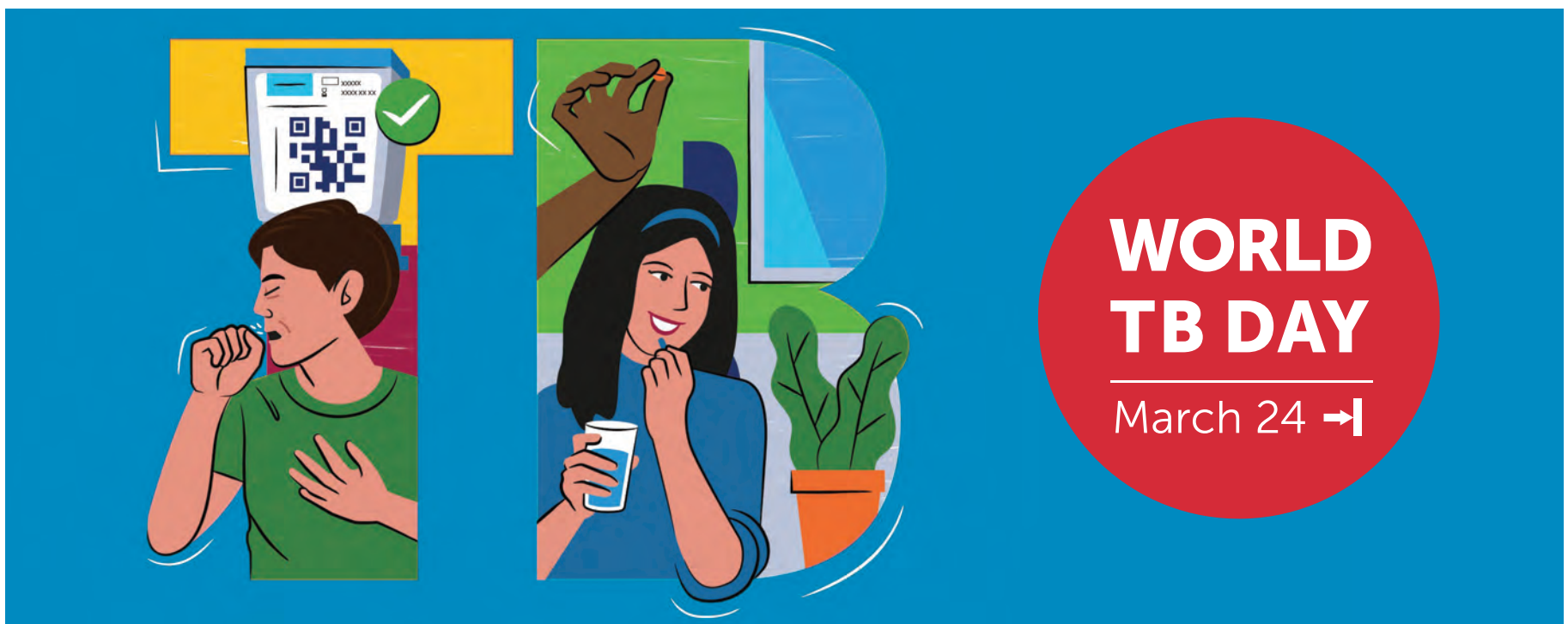


# HEALTH MATTERS

# GESONDHEID MAAK SAAK

MARCH 2022

## FOCUS: WORLD TB DAY FOKUS: WERELD TB DAG



### IN 2020 IN SOUTH AFRICA:

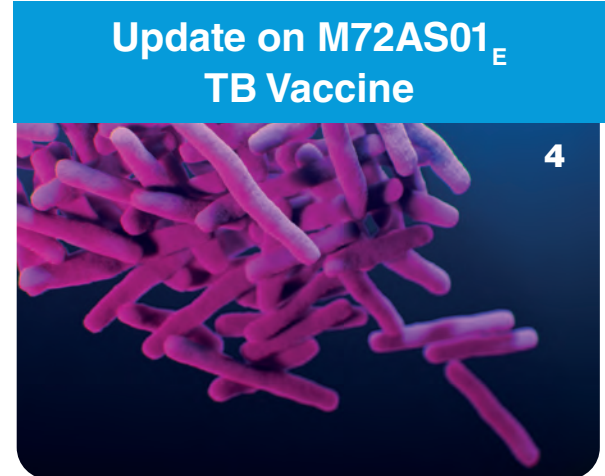
328 000 people became sick from TB  
61 000 people died from TB  
>1100 people died from TB every week

### TB IN SUID AFRIKA IN 2020:

328 000 mense siek geword van TB  
61 000 mense gesterf van TB  
>1100 mense elke week gesterf van TB

### NGO 2020 EMZANTSI AFRIKA:

328 000 abantu abagula yi TB  
61 000 abantu abasweleka yi TB  
>1100 abantu abasweleka yi TB iveki zonke



# Your recovery from TB is not complete until you share your journey with others, so that we can bring an end to TB

Written by Sandra Maritz, Western Cape Department of Health.

This is the message that Mr Joffrey Jack (43) of Worcester shares as he describes his recovery from multi-drug resistant (MDR) TB. Western Cape Government Health congratulates Jack on his recovery and encourages others to faithfully complete treatment for TB or to reach out for help if they stopped.

"I told myself that my journey with TB won't be complete until I become a mouthpiece for it, because people don't take their health seriously," says Jack.

In September 2020, Joffrey experienced COVID-19 symptoms but tested negative. A couple of months later he was again tested for COVID-19 - this time the result was posi-

TB is a leading underlying natural cause of death in the Western Cape. Globally it kills thousands of people each day. There is an urgent need for communities to partner with healthcare workers to find, treat and end the disease.

He recovered, but in April 2021 he started coughing up blood. "I drove myself to the hospital. They took X-rays and after some time confirmed that I had MDR-TB. On the X-ray you could clearly see damage to one of my lungs."

While he had MDR-TB, he often felt light-headed and achy. His progress was continually monitored, and his medication adjusted accordingly. Today his face beams when he

says he is fully recovered - even the damage TB did to his lung. "Know the symptoms," he pleads. "Also, surround yourself with people who will support you. It doesn't help to be diagnosed, but then the person next to you, breaks you down. When we heard I had MDR-TB, my wife immediately said that we would go on this journey together. I am very grateful to her and staff like Dr Steyn, Sr Felix and Sr Wilson at Worcester Community Day Centre for their encouragement.



■ Mr Joffrey Jack, Worcester.

## Wat is latente tuberkulosis

Geskryf deur Tarwuin, Ashton Secondary School

Om jou TB medisyne te vat is baie belangrik. Jy moet die behandeling, medisyne gebruik om beter te word sodat jy nie die TB kiem versprei nie.

Wanneer jou liggaam die kiem beheer, dan het jy Latent TB infeksie. Wanneer dit gebeur voel jy nie siek nie, en het nie TB simptome nie en kan ook nie die kiem versprei.



## Het jy geweet?

### Enige iemand kan van TB siek raak









Dit is makliker vir die TB kiem om jou siek te maak as jy **suikersiekte** (diabetes) het, as jy **MIV positief** is, as jy **rook** of as jy nie **regte kosse eet** (wanvoeding).

## Did you know?

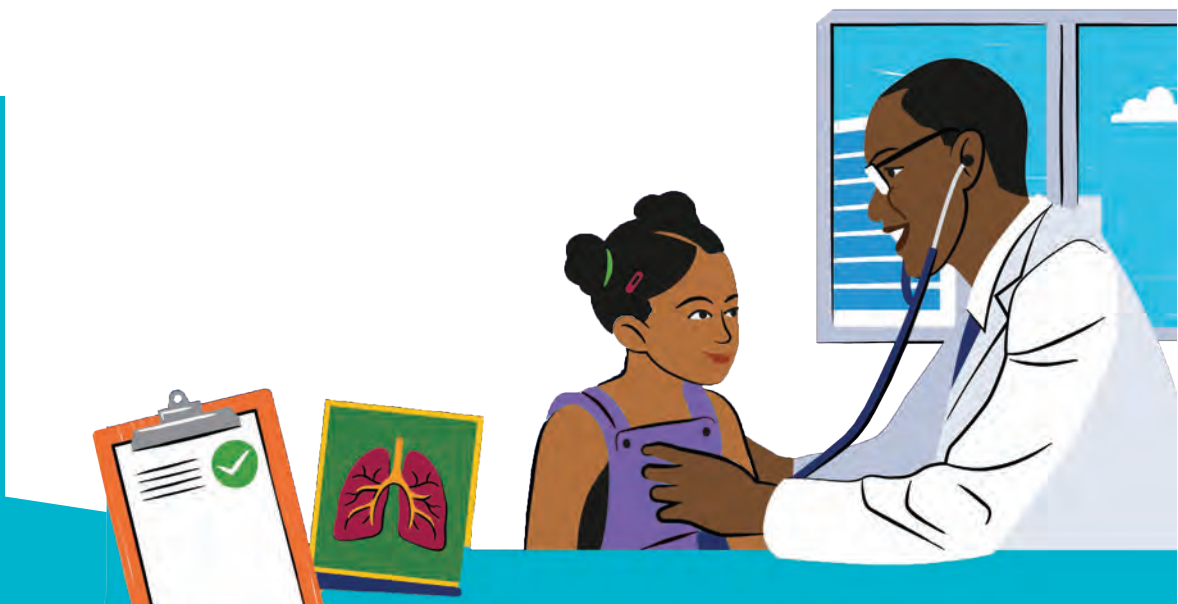
### Anyone can get TB

Did you know there are certain conditions which make it easier to fall sick from TB when exposed to the TB bug. These are if you are **diabetic**, if you are **HIV positive**, if you **smoke**, or if you are **malnourished**.



 Hoes vir langer as 2 weke	 Borspyne	 Koorse	 Nag sweet
 Koue koorse	 Eetlus verlies	 Swakheid of moegheid	 Gewigsverlies

**GET CHILDREN AND ADOLESCENTS TESTED AND TREATED IF THEY HAVE SYMPTOMS OR ARE AT RISK**



# WHAT HAPPENS IN THE LUNGS DURING TB?

When people get sick with Tuberculosis (TB), there is a complex process that happens in the lungs as the body tries to fight off the bug that infects us. Here is a storyboard of what happens in the lungs during TB.

Written by: Carly Young



**Let me introduce you to our players**

**Mycobacterium tuberculosis**

Mycobacterium tuberculosis  
**The enemy**

**Our body's immune system - The Good Cells**

Lymphocyte  
**The Helper and The Fighter**

Phagocyte  
**The Eater**

We have a team of immune cells that are made up of good helpers, fighters and eaters that fight the enemy, Mycobacterium tuberculosis (Mtb for short). You can see what they look like up close under the magnifying glass. Let's explore what happens when Mtb enters the lungs.

**LET'S SEE**  
what happens when Mtb enters our body

**QUICKLY!**  
Get into the lungs while they breathe

**WHAT HAPPENS**  
when Mtb enters our lungs?

Our eating cells try to eliminate Mtb in our lungs and the enemy dies

**OM NOM NOM**  
nom nom nom nom nom  
nom nom nom nom

Phagocyte  
**The Eater**

**BUT**  
Mtb is sneaky and sometimes it escapes the eaters

**I HAVE ESCAPED!**  
I have defeated the eaters and I am free!

**THIS SOUNDS**  
Like a job for our helpers & fighters

Our body's immune cells surround Mtb to keep it trapped

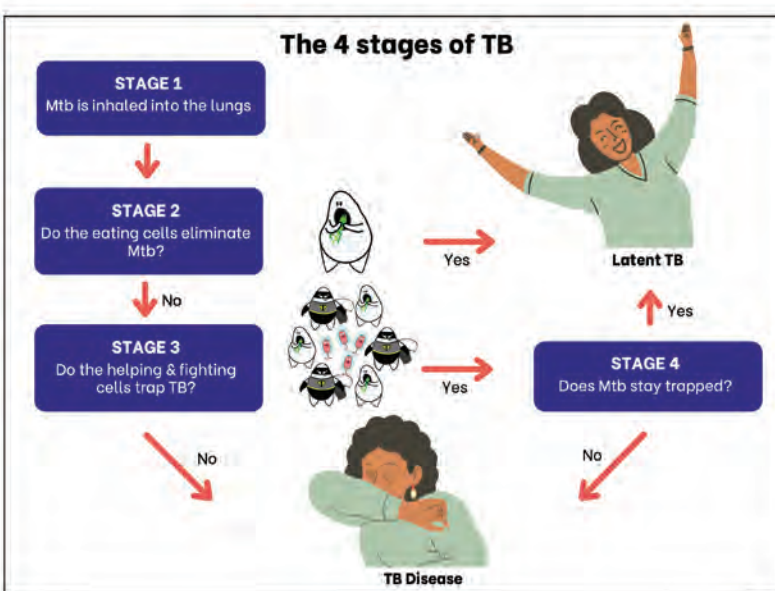
**STOP RIGHT THERE!**  
We have you surrounded!  
You are trapped Mtb!

**OUR HELPING**  
and fighting cells get onto the job!

**BUT**  
Mtb can be sneaky again and sometimes it even escapes the trap of immune cells

**WE HAVE ESCAPED!**  
Now we are going to make you very sick!

**LET'S SUMMARIZE**  
the 4 stages of TB



TB Disease	Latent TB
<ul style="list-style-type: none"> <li>Sick</li> <li>Symptoms</li> <li>Spread to others</li> <li>Needs medication</li> </ul>	<ul style="list-style-type: none"> <li>Healthy</li> <li>No symptoms</li> <li>No spreading</li> <li>May develop TB later</li> </ul>



Carly Young

Carly Young is a PhD candidate at the South African Tuberculosis Vaccine Initiative (SATVI). As part of her research, Carly is studying immune cells in the lungs, lymph nodes, spleen and blood of people who died from TB.



If you experience symptoms of TB (cough, fever, shortness of breath), call your clinic or local health department.



**LEARN THE FACTS ABOUT TB. DON'T STIGMATISE AND DISCRIMINATE AGAINST PEOPLE WITH TB**

# Health innovation

## News from the Cape Winelands District Health team

The Drakenstein based team of Western Cape department Health, have received an award from the Premiers Office for innovation in developing a TB screening tool for the detection of TB during the COVID-19 pandemic, as well as for the use of digital platforms



According to Ms Sandra Maritz, Department Health spokesperson: “the Department is proud of its staff in the Drakenstein district. The aim of this tool was to develop new ways to identify and support people who might test positive with TB. Staff recognised that while they were screening visitors to healthcare facilities for COVID-19, it was a good opportunity to also screen for TB.”

This tool has since been implemented throughout the Cape Winelands, which means more people who may have TB are tested. Those who test positive are started on treatment, bringing us closer to ending TB and its impact on communities.

## Prospects for a new TB vaccine for adults

### Results from the M72AS01<sub>E</sub> TB vaccine trials

The final results of the M72/AS01E efficacy trial were announced at the 50th Union World Conference on Lung Health’s TB Science 2019 symposium in Hyderabad, India, and published in the New England Journal of Medicine (Tait, NEJM 2019).

This ground-breaking trial assessed the safety and efficacy of the M72/AS01<sub>E</sub> candidate vaccine in M.tuberculosis-infected adult participants in South Africa, Kenya and Zambia. More than 3,500 participants, all HIV-negative and aged 18 to 50 years, received two doses of the candidate vaccine or a placebo 30 days apart and were followed for three years.

**The efficacy of this vaccine is 50% which means that twice as many people who received the placebo got TB during the study compared with those who received M72/AS01<sub>E</sub> during the study.**

## Easy ways to prevent TB



Wash your hands regularly



Open a window/door for fresh air



Cover a cough or sneeze



Go to your clinic if you notice symptoms, or if you need help to restart your TB treatment

## Research update: Rifaquin study ACTG5349

The A5349 study, conducted by SATVI, found that a four-month regimen of rifapentine, isoniazid, pyrazinamide, and moxifloxacin (RPT-MOX) was non-inferior to the currently recommended six-month regimen of rifampicin, isoniazid, ethambutol, and pyrazinamide for the treatment of drug-susceptible pulmonary TB.

Shorter duration of TB treatment means that it will be easier for individuals to



complete their treatment without missing doses, reducing loss-to follow-up (when a TB patient does not return for treatment).

## Did you know?



**Did you know** that scientists discovered signs from bone fragments that an Egyptian woman Irtyersenu, who passed on in 600BC, died from TB.

This makes TB the oldest disease.

**Did you know** that viruses like the HIV which causes AIDS, was discovered in the 1970’s and COVID-19 more recently in 2019.

After 2 years of COVID-19, we have several effective vaccines against it.



■ Photo of vertebrae (bone in your spine) affected with Tubercular caries from a mummy in Egypt.



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Credit: Material provided by Cape Winelands District health, New Scientist.

Credits: Photos S.Maritz, K.Vollenhoven Design Samantha Mouton

Additional graphics from the World Health Organisation (WHO) and Carly Young.