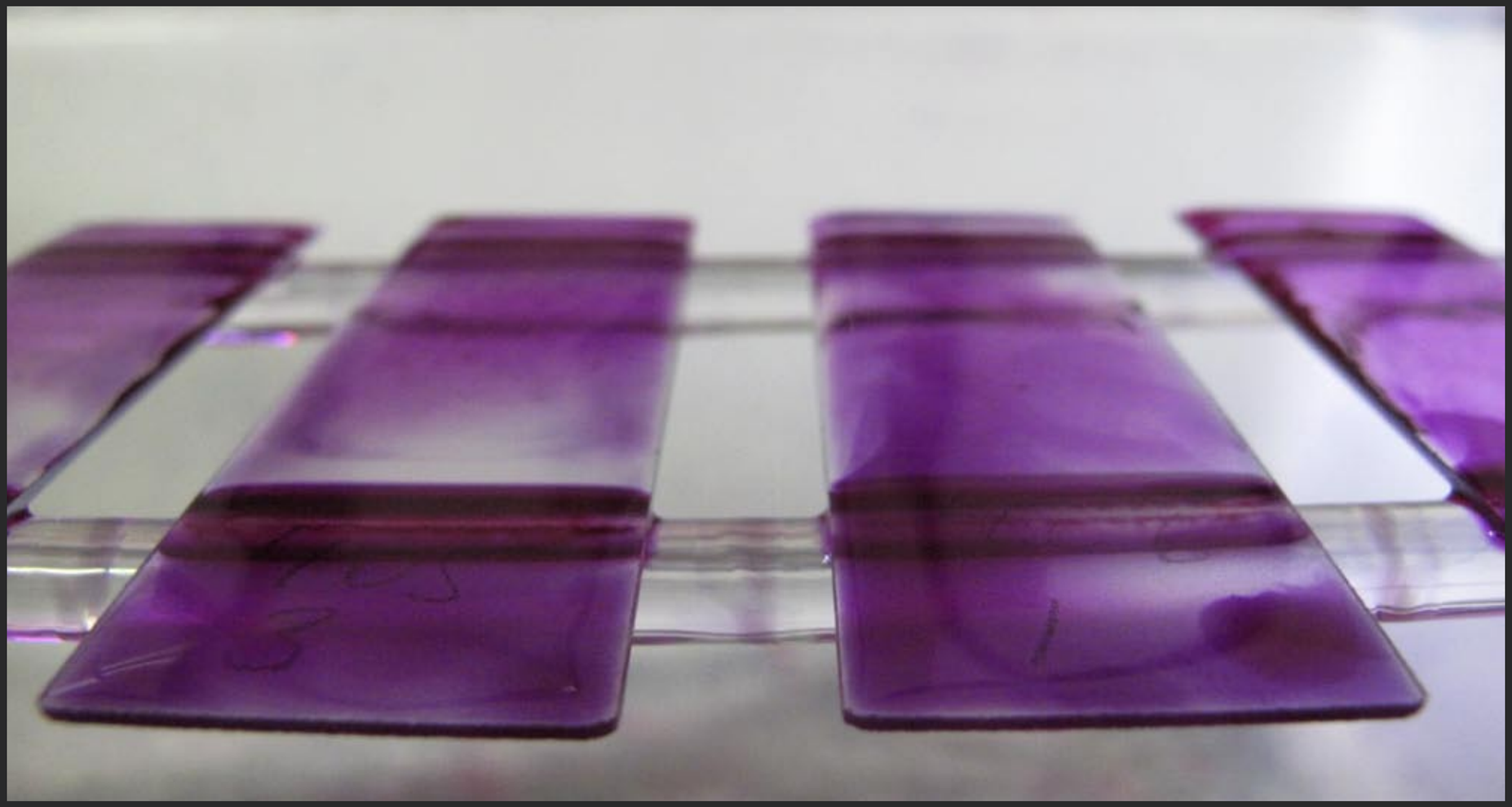
AIRBORNE

A JOURNEY INTO
THE CHALLENGES
AND SOLUTIONS
TO STOPPING
MDR-TB AND XDR-TB

BY JOHN DONNELLY
PHOTOGRAPHS BY DOMINIC CHAVEZ

World Health Organization



Rows of patient sputum smears, stained and ready for microscopy examination in the Central TB Laboratory at Queen Elizabeth II Hospital in Lesotho.

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WHO Library Cataloguing-in-Publication Data :

Airborne: a journey into the challenges and solutions to stopping MDR-TB and XDR-TB / by John Donnelly.
1.Tuberculosis, Multidrug resistant - prevention and control. 2.Extensively drug-resistant tuberculosis - prevention and control. 3.Tuberculosis, Multidrug resistant - epidemiology.
4.Extensively drug-resistant tuberculosis - epidemiology. 5.Antitubercular agents. 6.International cooperation. 7.Anedoctes. I.World Health Organization. II.Donnelly, John.

WHO/HTM/STB/2009.52

ISBN 978 92 4 159784 5 (NLM classification: WF 200)

Printed in China

Graphic Design: Silvia López Chávez
Illustrations: José Cintrón

FRONT COVER PHOTO: Beibut, a former soldier, is a patient at the National TB Center in Almaty, Kazakhstan.
BACK COVER PHOTO: Matsepe Lenkoe smiles at her son at their home in Sekhutlong, Lesotho.

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FOREWORD

DR MARGARET CHAN
DIRECTOR-GENERAL
WORLD HEALTH ORGANIZATION

I was struck by the words, recorded in this booklet, of a teenager from Manila. She was explaining what multidrug-resistant tuberculosis has meant for her life.

“I want to be a nurse and help others who are sick,” said Charlene Laguinday. “I want to give back what was given to me.”

Charlene has personally experienced the toll of this airborne infectious disease that sickens and kills so many people every year. She recently lost her mother to multidrug-resistant tuberculosis, or MDR-TB. She is now undergoing treatment for the same disease, and her health is improving with every week.

Her experience demonstrates the importance of high commitment to good-quality TB control. MDR-TB, which can spread from one person to another, is a tragedy that should not happen. Properly managed, TB can be cured. Poorly managed, TB can develop into a form that resists multiple drugs, with successful treatment undermined and costs multiplied at least 100 times.

The figures are alarming. MDR-TB is now causing an estimated half a million new cases every year. The stories collected in this booklet give you an idea of the suffering behind the statistics. Even more ominous is the recent rise of extensively drug-resistant TB, or XDR-TB. This form of the disease, which is extremely difficult to diagnose and in some cases impossible to treat, is now being reported from more than 50 countries.

If the right action is not taken right now, the continuing spread of MDR-TB could transform a disease that is curable with affordable medicines into a costly and deadly epidemic. If the right action is not taken right now, the continuing rise of XDR-TB could take the world back to the era that predates the development of antibiotics, with nothing in hand to guarantee treatment success.

This would be a vastly bigger tragedy. Some countries burdened with MDR-TB are showing the way forward with commitment, leadership and good results. However, to tackle this preventable problem on an adequate scale, national TB control programmes will depend on progress on a larger health agenda that aims at universal health coverage, high-quality patient-centred care, laboratory strengthening and infection control in health facilities. That agenda must also include improved mechanisms for drug prequalification and rational use of drugs, as well as the intensive engagement of the private sector, patients and communities.

I urge you to read the personal stories collected in AIRBORNE. These are human tragedies that should never have happened. But these are also stories about the uplifting success possible when the right elements are in place.

I further urge you to accept this call to action. The microbial world has given us a clear either-or situation. Either we tackle the problem now with rational and proven approaches, or we pay later with an epidemic of an airborne disease that renders our modern-day medicines and straightforward treatment regimens obsolete. This would truly be a tragedy, on a huge and costly scale, that should not happen.

Charlene Laguinday laughs in her two-room home in Manila. “I want to be a nurse and help others who are sick,” she said.

INTRODUCTION

INSIDE A DARK HUT, CUT INTO A REMOTE MOUNTAINSIDE IN LESOTHO, A PRIEST WEARING A LEOPARD-PRINT CAPE AND SITTING ON A THRONE-LIKE CHAIR LED HIS PARISHIONERS IN HARMONIES THAT FILLED THE ROOM.

Sweat dripped from the tip of his nose, and the still air was so warm that my cheeks burned. I wanted to escape outside for the promise of a breeze; but I stood still, almost transfixed by the sounds and images.

Then I noticed a woman sitting against a wall.

She sat apart from 20 people squeezed together on the dirt floor. I had met her the day before. Her name was Matsepe Lenkoe, and the remarkable thing about her was that for the past year she had been living a world away in the capital city Maseru receiving treatment for multidrug-resistant tuberculosis (MDR-TB). Seeing her, the thought crossed my mind that this would be an ideal place to catch MDR-TB – if an infected person coughed, any of us could be breathing in the bacterium during the

who had drug-resistant strains, we were safe. Thanks to this political commitment, Lenkoe was not only alive – she was no longer infectious.

This was quite remarkable. Still I wondered: Was she lucky?

There is no doubt.

The World Health Organization (WHO) estimates that as few as 10% of the roughly 500,000 people who contract MDR-TB every year receive treatment. And only 3% of the half-million were receiving drugs procured through the Green Light Committee, an initiative of WHO and the Stop TB Partnership that helps countries access quality-assured drugs needed to treat MDR-TB.

It is early days in the global response to treating drug-resistant TB. For the past decade or more, many countries around the world have successfully built TB control efforts. Now they have to build on those efforts to control the more dangerous threat of drug-resistant TB – strains that cannot be cured by the most commonly used drugs.

Experts from the WHO's Stop TB Department and the Stop TB Partnership warn that if countries do not act now to stop MDR-TB, the world will face an airborne contagion that will become increasingly untreatable and increasingly global. It will stop at no border, and it will infect much greater numbers of people. The early signs are already apparent: At the beginning of 2007, 20 countries reported cases of