

Preventing tuberculosis through a TB Alert (UK)-sponsored TB contact tracing initiative: A case study from Malawi



William Chisale is three years old. He lives in a village in northern Malawi with his parents, two brothers and one sister. He is the only child under the age of 5 years in the family.

William's parents, Mr Chisale and Mrs Chisale run a small business selling tomatoes at Mzimba local market. Both parents were educated up to grade 5 of primary education.

Unfortunately, William's parents are both infected with HIV, the virus that weakens the immune system and causes acquired immunodeficiency syndrome (AIDS). His mother is well and does not need any medications to treat the HIV infection at the moment. His father, however, was unwell when the HIV infection was found in 2006. At the time, William's father's immunity was very low and because of this, he was started on treatment to control the HIV virus and improve the function of his immune system in December 2006.

Two weeks after starting treatment for HIV infection William's father started coughing. He went Mzimba district hospital to seek treatment for his cough. The doctors suspected that William's father was suffering from tuberculosis (TB) of the lungs, so they asked him to give them some of the sputum that he coughed up to test for TB. When they examined the sputum using a microscope, the germs that cause TB were found, confirming that William's father had TB of the lungs. He had sputum smear positive TB (open TB), the form of TB that can easily be passed on to other people through coughing. William's father was, therefore, likely to infect people who were in close contact with him and needed to start treatment for TB immediately to reduce the risk of spreading TB. He started treatment for TB on 22nd January 2007. On the day that he started TB treatment, Mr Chisale was approached by a team of healthcare workers from the TB Alert contact tracing project to identify members of his household members or other close contacts who he may have infected with TB.

All the other 5 members of the household were screened for TB and no one was found with active TB disease. The screening mainly involved asking for a cough of 3 or more weeks. Additional screening questions include unintentional weight loss, presence of swellings (lymph nodes) particularly around the neck. As the only child under the age of 5 years, William was started on Isoniazid, one of the drugs used to treat TB, on 27th January 2007 to help him fight off any TB germs that he may have breathed in from his father and prevent the development of TB.

At the time this case study was being compiled William was in the last month of taking IPT. Both William and his father looked well. His parents are still running their tomato business, an indication that IPT for William and treatment of TB and HIV have helped this family to continue to be productive with a better quality of life.

In most of hospitals in Malawi TB contact tracing is not routinely performed largely because of transport problem to enable health workers to visit households of index smear positive TB patients. In the absence of this TB Alert-sponsored intervention, it is likely that William could not have received the treatment and his risk for developing active TB would have greatly increased. William is an example of children under the age of five years who are benefiting from IPT in Mzimba district.

Submitted by Rhehab Chimzizi, Project Manager, 2007

