

# Project in West Africa sees dramatic drop in TB death rates

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This photomicrograph reveals *Mycobacterium tuberculosis* bacteria using acid-fast Ziehl-Neelsen stain; Magnified 1000 X. The acid-fast stains depend on the ability of mycobacteria to retain dye when treated with mineral acid or an acid-alcohol solution such as the Ziehl-Neelsen, or the Kinyoun stains that are carbolfuchsin methods specific for *M. tuberculosis*. Credit: public domain

Doctors in Togo, West Africa have seen a 10% drop in tuberculosis death rates after redesigning diagnosis and treatment services in one of the country's health districts.

The full results are published in *BMJ Quality Improvement Reports* today - an open access forum to help clinicians share improvement ideas.

Tuberculosis (TB) is the second leading cause of death among infectious diseases worldwide, killing nearly 2 million people each year, mostly in less developed countries.

Even though there have been improvements in tuberculosis control over the past two decades, it has increased in Africa, mainly as a result of the burden of HIV infection.

In Lacs Health District in Togo, TB treatment success rate was 80% in 2011 and the mortality rate was 13%. An analysis of the system found weak coverage and quality of TB services, as well as a low degree of patient participation in their care.

So a team of [health](#) professionals aimed to cut TB mortality by increasing the treatment success rate to at least 85% by the end of July 2014.

Using a System Quality Improvement Model (SQIM), they redesigned the system to correct weaknesses in information, health workforce, follow-up and availability of HIV tests and antiretroviral drugs.

Health centres and dispensaries acted as TB diagnosis and treatment service providers. Each newly diagnosed TB patient was screened for HIV and asked to identify a family member to supervise their treatment.

Treatment was split into an intensive (two-month) phase followed by a four-month continuation phase. Treatment was directly observed either by a health care provider, a community health worker or a selected family member.

As a result of these changes, treatment success rate was increased from 80% to 95% between February 2012 and July 2014 and the death rate dropped from 13% to 3%. The failure to follow-up rate dropped from 3% to 2%.

In conclusion, the authors say that district health systems performance depends on factors such as the closeness of services to population; skilled workforce; ability to collect and analyse data and use information for action; population empowerment and good management and improvement capabilities. High TB patients' success rate depends also on the availability of antiretroviral drugs.

By raising TB patients' [treatment success](#) rate, "we allow hope to eliminating TB in Lacs Health District," they add. And they suggest other districts use the System Quality Improvement Model to improve their health programs performance.

Provided by British Medical Journal

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