



## RESPONDING TO THE RISE OF MULTI-DRUG RESISTANT TUBERCULOSIS: *Scaling up services in the National Capital District and improving diagnostics, private sector engagement and treatment options for children*

AUSTRALIA IS SUPPORTING THE GOVERNMENT OF PAPUA NEW GUINEA TO REDUCE THE HEALTH AND ECONOMIC IMPACTS OF TUBERCULOSIS. THE IMMEDIATE GOAL IS TO SUPPORT AN EFFECTIVE AND COORDINATED RESPONSE TO MULTI-DRUG RESISTANT TB WHILE ALSO BUILDING THE CAPACITY OF PNG'S HEALTH SYSTEM TO SUSTAINABLY MANAGE THE DISEASE.

PNG is one of the highest TB burden countries in the world, with the disease estimated to kill more adults than any other communicable disease. There are three recognised multi-drug resistant TB (MDR-TB) hotspots: Western Province, Gulf Province and the National Capital District (NCD).

Australia is the lead donor addressing TB in Western Province and NCD (with Médecins Sans Frontières leading the response in Gulf Province). In addition, Australia is providing assistance to improve national diagnostic services, private sector engagement and treatment outcomes for children affected by TB (*for Australia's support in Western Province refer to alternate factsheet*).

The response is being led by the PNG National Department of Health and a consortium of strategic partners including: the Australian Government, World Health Organisation, Global Fund to Fight AIDS, TB and Malaria, Médecins Sans Frontières, and international NGOs.



Upgrading laboratories and trainings for staff have been a key element of the Australian Government's investment to improve TB diagnostics across PNG.

## THE NATIONAL CAPITAL DISTRICT RESPONSE

NCD is home to only 5 percent of the country's population, but contributes to one in five of all TB cases nationally. NCD is the most important and visible 'TB hotspot' with TB case detection rates that are more three times higher than the national average (1,215/100,000 population compared to the national average of 351/100,000 population in 2016).

NCD is also a key transmission 'hot spot' that could act as an epidemic amplifier. It is therefore a priority area for focused and enhanced TB control efforts. A weak TB response in NCD has the potential to accelerate the transmission of TB due to the region's role as the central transport hub of PNG, with TB patients potentially travelling to other provinces and internationally.

In 2016, a five year TB Strategy was launched by the NCD Health Service outlining a costed plan to scale up services and sustainably manage the disease.

To support implementation of the strategy, Australia is providing grants to three NGOs to establish and support basic management units (i.e. clinics with specialist TB services) and to conduct community outreach and patient identification activities.

## STRENGTHENING LABORATORY SERVICES

Having accurate and rapid diagnostics for TB culture and drug-susceptibility testing is a critical element in an effective TB program.

The Australian Government is investing in strengthening the Central Public Health Laboratory (CPHL) and creating a national network of GeneXpert and GxAlert systems for the early identification of TB cases. By the end of 2017, there were 21 locations around PNG with functioning GeneXpert and GxAlert systems. This has enabled on-site testing for TB and some forms of drug-resistance.

There have also been substantial improvements in upgrading the CPHL and provincial laboratories, and building the capacity of staff to provide accurate and rapid TB diagnostics. The establishment of TB culture and drug-susceptibility testing at the CPHL means that PNG now has the ability to perform TB cultures in-country, reducing the need to send specimens internationally.

## ENGAGING THE PRIVATE SECTOR

The Australian Government is providing seed funding to the 'Business for Health: TB' initiative to engage the private sector in TB prevention, treatment support and fund-raising efforts.

The initiative is progressing towards the goal of having a full cost recovery model, where the private sector fully funds the program. In 2017, 76% of the overall funding came from the private sector despite the economic downturn.

In addition, the initiative has been very successful with its public communications program – evidenced by the widespread distribution of the 'Cover your cough' stickers around Port Moresby.

Over the past year, the project has also achieved strong support from the business community to deliver its three-day TB workplace training program. Over the past year, the fee-based course has been completed by employees from 32 companies.

## CHILD TB IN PNG: BETTER TREATMENT AND PREVENTION SOLUTIONS

PNG has one of the highest rates of child to adult TB ratios in the world - complicated further by the rise of drug-resistant strains of TB. About one in four confirmed cases of TB in PNG are among children, substantially higher than the international average of one in 20.

Under the Child TB Project, funded by the Australian Government, PNG is the fourth country in the world to roll-out a new treatment regime - known as fixed dose combination (FDC) therapy - specifically designed for children.

### CHILD-FRIENDLY TREATMENT

#### OLD TB TREATMENT



**Incorrect doses**



**Bad taste**



**Broken and crushed pills**

#### NEW TB TREATMENT



**Correct doses**



**Good taste**



**Dissolvable**

Since its commencement in mid-2016 at the Port Moresby General Hospital, about 500 children have now either completed or are participating in the new treatment program. The positive outcomes in improving treatment compliance and TB cure rates among children have meant the approach is now recommended for national roll-out.

In addition, the project is developing new guidelines for child treatment and prevention services. This includes the trial and use of preventive therapies for children in higher-risk households.

The project is also providing best practice examples in the use of new technologies for monitoring treatment adherence, follow up mechanisms and the use of incentives. This is important as TB is curable when patients complete their treatment.