

Tuberculosis control in the Pacific: update and future hopes



Work Together ▪ Improve Lives ▪ Make a Difference

Tuberculosis in the Pacific

Tuberculosis is a serious issue in the Pacific.

- It is estimated that 16,000 people become sick with TB every year while only 6000 cases are detected annually.
- Tuberculosis deprives TB-afflicted families of an average of 20%–30% of annual household income¹ (equivalent to four months of lost wages).
- Several countries in the Pacific report tuberculosis notification rates above 100 per 100,000 population, placing these countries amongst the highest TB burden countries in the world.
- There is a proven epidemiological and biological link between TB and HIV². As an opportunistic disease that takes advantage of weakened immune defences, TB greatly increases the threat posed by HIV/AIDS. At least seven Pacific Island countries are currently at high risk of TB/HIV co-infection.

Diagnosis of TB using direct smear microscopy



Microscopy is a core element of curing TB through DOTS. In low-resource settings, direct smear microscopy (viewing sputum specimens through a microscope) offers a reliable and inexpensive method for accurately identifying TB cases. The challenge is to develop and maintain the expertise needed to perform accurate and safe microscopy despite geographical isolation in the countries and high staff turnover.

Since 1998, the SPC TB Section has been conducting regular regional and national level training courses for laboratory technicians and managers in how to accurately diagnose tuberculosis. To counter the effects of high staff turnover, standard operating procedures have been developed for most national tuberculosis programmes.

The TB Section is also involved in developing a programme of external quality assurance for TB microscopy in the Pacific. The PATLAB initiative sets in

Working towards a cure through DOTS

SPC, the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC) are working in partnership to improve TB control across the whole region, using a strategy called the Directly Observed Treatment Short-course; commonly known as DOTS.

First introduced into the region in 1995 by WHO, DOTS is a proven and highly effective strategy for tuberculosis control. Implemented correctly, DOTS cures nine out of ten TB cases in just six to eight months and is one of the most cost-effective of all health interventions. DOTS has five key components, each of which is essential for TB control.

1. Diagnosis of TB using direct smear microscopy
2. Accurate recording and reporting of data
3. Reliable drug supply
4. Directly observed treatment using a standardised drug regimen
5. Strengthening political commitment

¹ International Journal of Tuberculosis and Lung Disease 1999 Oct; 3(10):869-77

² The Deadly Intersection Between TB and HIV-CDC National Prevention Information Network

place a quality checking system which allows verification of TB laboratory data as well as assessment of the technical skills and performance of TB technicians, thus ensuring accurate and reliable results. The TB Section's vision is to develop a sustainable laboratory network whereby diagnostic capacity is regularly reviewed in the national laboratories and knowledge is readily exchanged through a variety of peer review mechanisms.

Directly observed treatment using standardised, readily available drugs



TB is a chronic disease requiring six to eight months of drug treatment. Owing to the long period required for completion of drug therapy, the challenge is to ensure treatment compliance. Preventing treatment failure both protects the patient and greatly diminishes the risk of the emergence of drug-resistant strains of TB.

The SPC TB Section sees TB management training as an important foundation for ensuring direct observation of treatment. TB managers are trained to ensure regular and effective communication between the laboratories and the nursing clinics and are also trained in maintaining adequate drug stocks.

One other vital part of the solution is to ensure adequate training and technical support for TB nurses and community health workers. Working with a Sydney-based NGO, Community Health and Tuberculosis Australia (CHATA), the SPC TB Section is developing a community training programme for TB nurses. The training will be piloted in Kiribati and then delivered throughout the Pacific.

Accurate recording and reporting of data



Quality data is vital to generating an accurate epidemiological snapshot of TB in the Pacific and to determining ongoing training needs faced within individual national TB programmes. The challenge is to develop 1) a culture of reporting; 2) a reliable tool for verifying quality of data; and 3) a variety of ways in which TB programme managers can work with their own data to enhance the quality of the national programmes.

The key principles the SPC TB Section have worked to observe are simplicity, capacity building and harmonisation. To maximise simplicity, the section has developed a simple database specifically tailored to national TB programmes in the Pacific. Through a tailored tool that minimises the reporting load of TB managers by only requesting essential, standardised data, the Section has found it progressively easier to retrieve the required data from the national programmes.

Secondly, the database has been designed to act as an internal management tool. TB managers can use the system to work with their own data more effectively and dynamically.

Finally, working with CDC, SPC is working toward developing harmonised reporting mechanisms which minimise administrative burden in the countries.

Strengthening political commitment



Perhaps most importantly, to achieve sustainable quality in TB control, decision makers at the national level need to provide adequate levels of financial and human resource support. TB is a chronic disease capable of remaining latent and invisible for long periods of time. The challenge the SPC TB Section therefore faces is to develop and maintain adequate levels of commitment to continued TB control, despite the fact that we can only see the "tip of the iceberg".

The solution lies in awareness-raising of policy decision makers within the Pacific. The section is working to lobby politicians in the Pacific to support TB staff, through reinforcing the threats TB poses to the most vulnerable in society.

Vision for TB control in the Pacific

Six years ago, with funding support from France and New Zealand, SPC was able to assist four Pacific Island countries (Cook Islands, Kiribati, Samoa and Tonga) to develop their TB control and prevention capacity through the implementation of DOTS. Today, in large part thanks to additional funding support from the Global Fund to Fight AIDS, TB and Malaria (GFATM), SPC has expanded its direct assistance to nine additional Pacific Island countries and territories (French Polynesia, Federates States of Micronesia, New Caledonia, Niue, Palau, Solomon Islands, Tokelau, Vanuatu, and Wallis and Futuna) and is working closely with WHO and CDC to develop harmonised whole-of-region policies, procedures and surveillance networks which impact the entire Pacific.

The SPC TB Section's vision for future TB control in the Pacific is based on these key principles:

1. Eliminate isolation of TB workers, providing opportunities for peer support and external quality assurance wherever possible
2. Develop simple, harmonised systems for reporting on and verifying the quality of TB data
3. Strengthen the capacity of TB health workers to support TB control, not just in terms of diagnosis but also in relation to treatment and care of patients as well as supply logistics
4. Raise awareness among decision makers in order to build commitment to TB control throughout the Pacific

Conclusion

Since the introduction of the DOTS programme in 1995, the Pacific has seen some significant and lasting improvements in TB control. DOTS has now been adopted in all 22 Pacific Island SPC member countries or territories; technical proficiency of TB managers and a core group of technicians has been developed to the point where DOTS can be maintained at a basic level; external quality assurance networks have been established and the national programmes are gradually building knowledge and confidence as a result of this technical support.

Most importantly, Pacific Island countries have made significant progress in achieving the WHO recommended 85% cure rate and 70% case detection rate for sputum smear-positive TB.

Our hope in the SPC TB Section is that, through ongoing successful implementation of TB control activities in the Pacific, all countries will be able to not just meet but exceed these targets.

**Mark Lambert,
Tuberculosis Technical Officer
SPC**