

# The Pacific Community



- **The Pacific Community (SPC) is the principal scientific and technical organization supporting development in the Pacific region since 1947.**
- **We are an intergovernmental organization**
- **The Public Health Division (PHD) is one of 8 Divisions within SPC.**
- **[www.spc.int](http://www.spc.int)**



**Climate Change  
and  
Environmental  
Sustainability  
(CCES)**



**Educational  
Quality and  
Assessment  
Programme  
(EQAP)**



**Human Rights and Social  
Development (HRSD) Division**



**Fisheries,  
Aquaculture &  
Marine  
Ecosystems  
(FAME)**



**Geoscience,  
Energy and  
Maritime  
Division (GEM)**



**Land Resources  
Division (LRD)**



**Public Health  
Division (PHD)**



**Statistics for  
Development  
Division (SDD)**

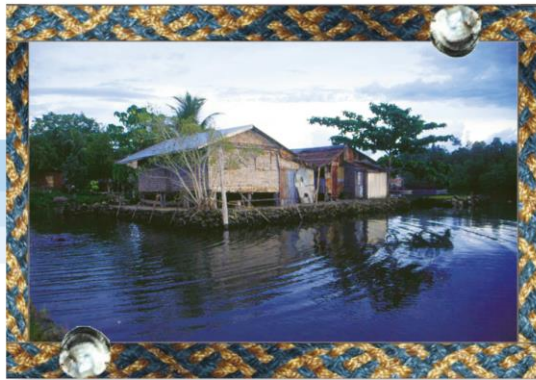


**Special Projects**

# Pacific Health Ministers Meeting

## Meeting Report

Ninth Meeting of Ministers of Health  
for the Pacific Island Countries

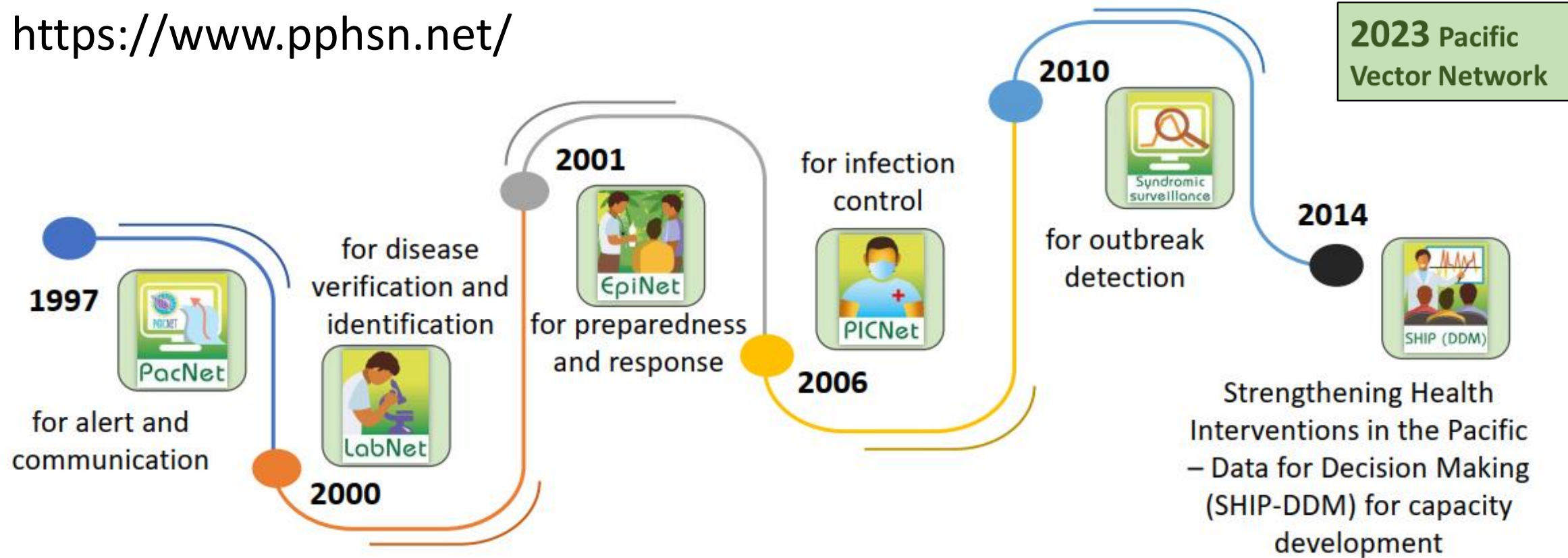


Honiara, Solomon Islands  
28 June–1 July 2011

- “Train staff to analyse and interpret health data”
- “We want an evidence-base to inform decision”
- “Develop Pacific-specific training programme”

# Pacific Public Health Surveillance Network (PPHSN) / ROSSP

<https://www.pphsn.net/>



**Pacific Public Health Surveillance Network (PPHSN)**

# What is Strengthening Health Interventions in the Pacific (SHIP)

... a 3-tier capacity development programme





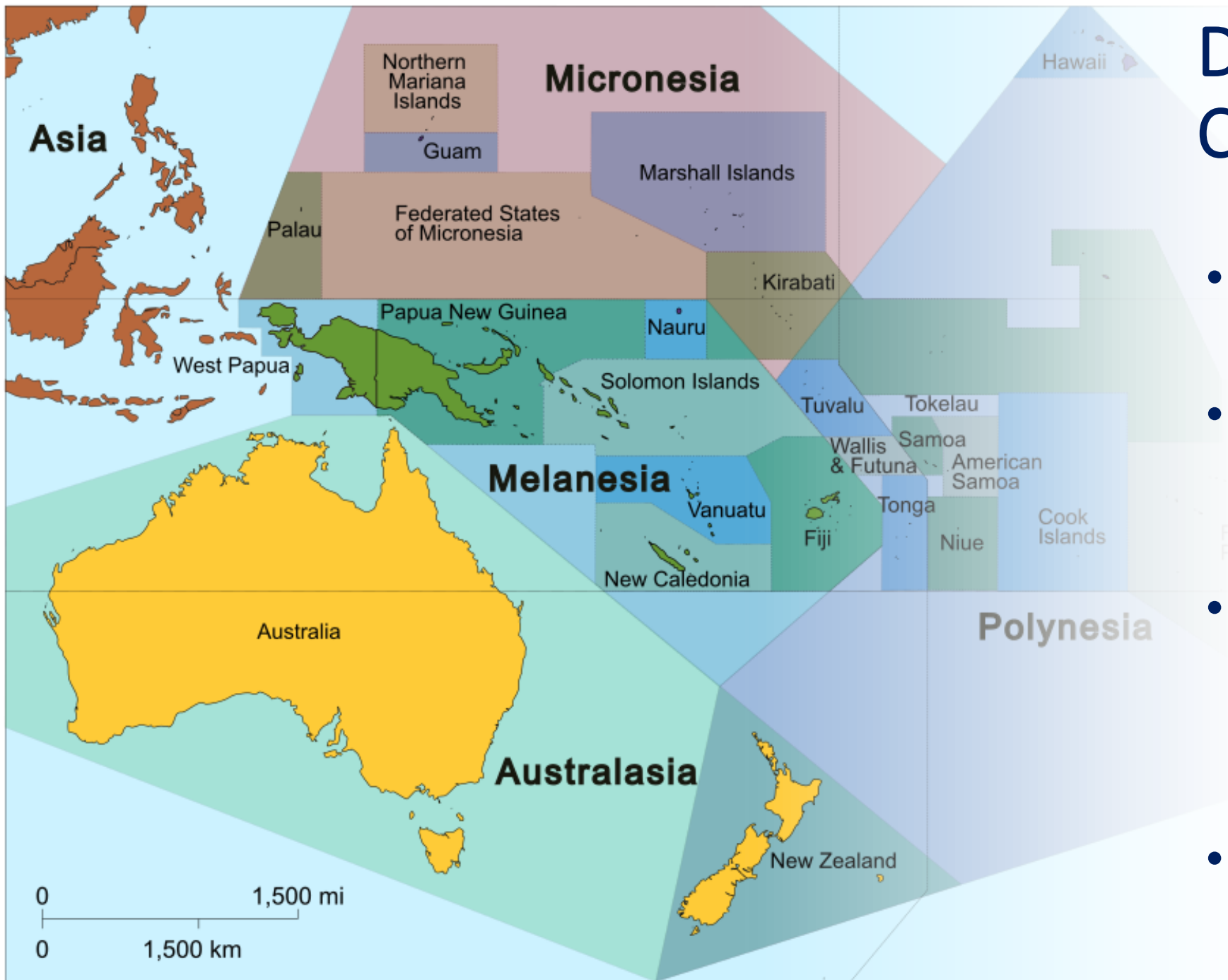
# How we deliver SHIP - DDM?

- Training “*from work, at work, for work*” like all other FETPs
- System improvement projects pre-planned with senior leaders
- Trainers: Experienced PPHSN members, partners and DDM graduates
- “classroom” teaching and hands-on work



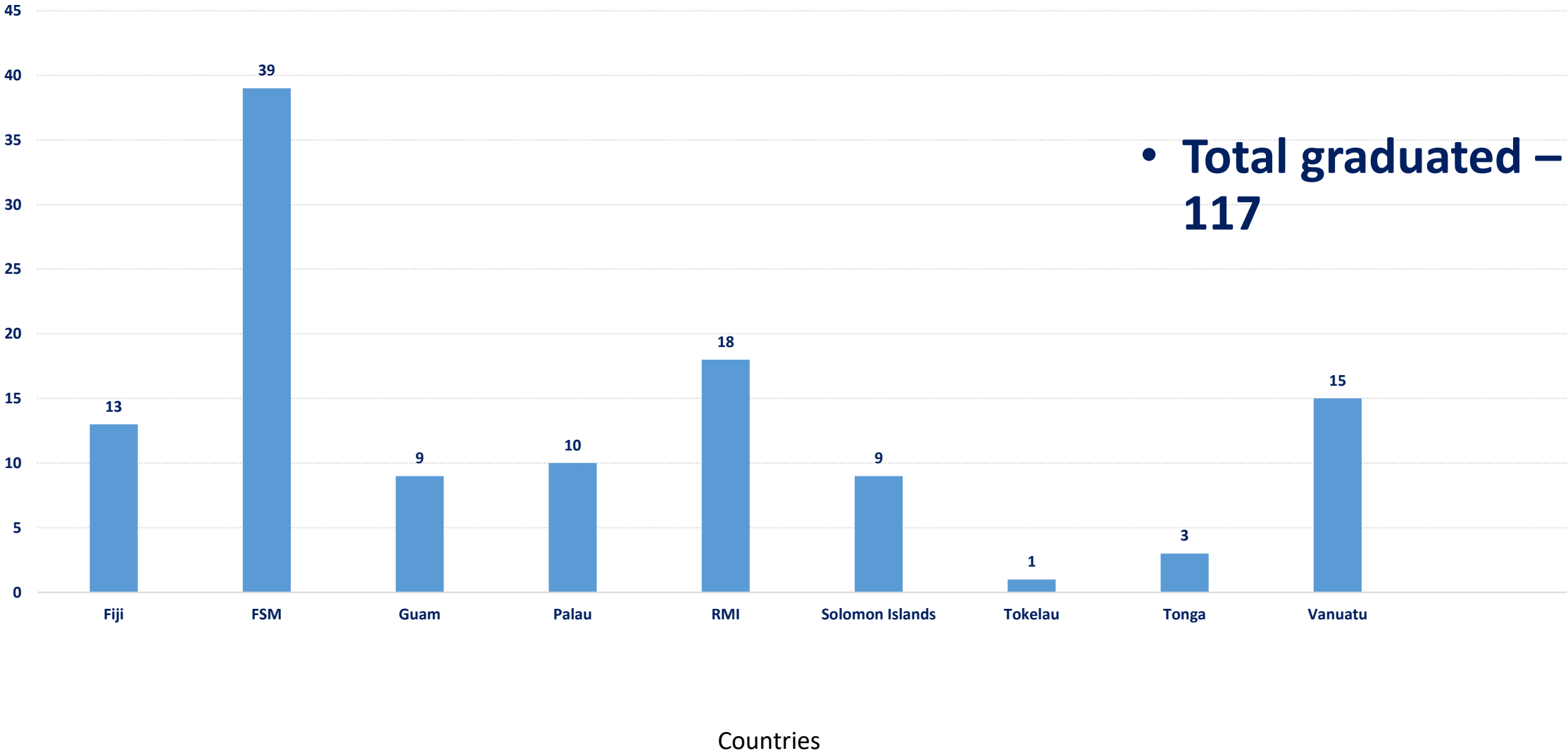
# DDM – PGCFE Coverage

- 17 PICTs covered
- PNG – with own FET program
- French Polynesia, New Caledonia, Wallis and Futuna
- Pitcairn Island





# Frequency of PGCFE (Tier 1) Graduates by Countries (2019 – 2023)



# Training programme integrated with capacity development

## Increased competencies

- **>320** health officers trained on at least 1 module of the DDM-PGCFE course

What we did?

## Improved reporting practices

- **91%** change in the number of countries experiencing outbreaks regularly posting reports on PacNet  
*(35% in 2016 vs 67% in 2018)*

Immediate Outcome

**Improved tools:** recording and reporting tools revised; protocols and guidelines updated; laboratory algorithms developed; dashboard; information products, etc.

Intermediate Outcome

- Enhanced structure:**
- Additional surveillance positions created
  - Job descriptions and Terms of Reference refined to align with new skills and capacities

**Improved health systems:** surveillance, laboratory, public health

# Operational Research Published

## Impact of Laboratory Practice Changes on the Diagnosis of Tuberculosis with the Introduction of Xpert MTB/RIF in Kiribati

Alfred Tonganibeia MD; Anthony D. Harries MD; Onofre Edwin Merilles Jr, MD; Tekeiaeta Tarataake; Teatao Tiira MD; and Takeieta Kienene

### Abstract

The Republic of Kiribati, Central Pacific, has the largest tuberculosis epidemic in the region. There is a national tuberculosis control program, which has used smear microscopy for acid-fast bacilli as the main diagnostic tool for many years. In 2015, an Xpert MTB/RIF machine was procured and became functional within the tuberculosis hospital. The aim of this cross-sectional study, using routinely collected data, was to determine the effects of introducing Xpert MTB/RIF on laboratory smear microscopy practices and the pattern of registered tuberculosis cases. Between February 2015 and January 2016, there were 220 Xpert MTB/RIF assays performed with 6.4% errors and 15% detection of Mycobacterium tuberculosis: one patient showed rifampicin-resistance. One year before and after introducing Xpert MTB/RIF, the number of presumptive tuberculosis patients increased by 9% from 2,138 to 2,322. There were no changes in demographic characteristics, smear-positive results or acid-fast bacilli grade between the two periods. The number of specimens cultured for Mycobacterium tuberculosis significantly declined from 638 to zero, with 76 positive MTB cultures before and none after introducing Xpert MTB/RIF. There was a significant change in the profile of registered tuberculosis with more children (34% versus 21%) and fewer bacteriologically-confirmed cases (29% versus 43%) –  $P < .001$ . Since the deployment of Xpert MTB/RIF in Kiribati, there have been a small number of assays performed and this has been associated with no adverse effects on smear microscopy, a stoppage in mycobacterial cultures, and a change in the types and categories of diagnosed tuberculosis.

### Keywords

Xpert MTB/RIF; tuberculosis; Kiribati; smear microscopy services; culture for Mycobacterium tuberculosis; types of tuberculosis

### Introduction

Sputum smear microscopy for acid-fast bacilli is still the most widely used method for the diagnosis of pulmonary tuberculosis (TB) in low- and middle-income countries.<sup>1</sup> Although inexpensive to perform and despite attempts made to improve its sensitivity and specificity, smear microscopy is cumbersome, costly for patients (although the test is free, patients have to pay for several trips to the hospital and they also incur lost wages from time off work), and does not detect drug-resistant disease.<sup>1,2</sup> With over 10 million people estimated to have developed new TB globally in 2015, and 580,000 having multidrug-resistant or rifampicin-resistant (MDR or RR) TB (ie, resistant to rifampicin or both rifampicin and isoniazid), new diagnostic tools to replace or complement smear microscopy are urgently needed.<sup>3,4</sup>

The most important recent diagnostic development to date is the Xpert MTB/RIF machine and assay (Cepheid Inc, Sunnyvale, CA, USA) for use with sputum and other body specimens.<sup>5</sup> The cartridge-based system means there is no need for prior sputum processing, minimal laboratory expertise is needed to perform the assay, the results are provided in less than two hours, sen-

sitivity and specificity and investigator is or resistance to

In 2011, the recommended cially for indivi Immunodefici WHO updated RIF be used as presumptive T

Kiribati is an 32 coral atolls ing along the e Tarawa being t capita of USD and least devel largest per cap in 2013.<sup>14</sup> Estim 24 per 100,000 although there: There is a ratio the WHO Dire strategy and ha tool for many y of directly ob using the stan contact tracing years of age ar of community TB control effi are managed i

With fundin Program and t procured an X became functi 5, 2015. After information al the results. Ad interest. First, the introductio of the Xpert M and aired in th whether this may have prompted more patients with presumptive TB to come forward and submit sputum specimens. Second, we wanted to assess the impact of this new technology on the

whether this may have prompted more patients with presumptive TB to come forward and submit sputum specimens. Second, we wanted to assess the impact of this new technology on the

## Syndromic surveillance in Vanuatu since Cyclone Pam: a descriptive study

George Worwor,<sup>a,b</sup> Anthony David Harries,<sup>c,d</sup> Onofre Edwin Merilles Jr,<sup>e</sup> Kerri Viney,<sup>f</sup> Jean Jacques Rory,<sup>g</sup> George Taleo,<sup>g</sup> and Philippe Guyani<sup>h</sup>

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In 2012, Vanuatu designed and implemented a syndromic surveillance system based on the guidelines developed by the Pacific Community and the World Health Organization to provide early warning of outbreaks and other important public health events. Four core syndromes were endorsed for surveillance: acute fever and rash, prolonged fever, influenza-like illness and acute watery diarrhoea. In March 2015, Vanuatu was struck by Cyclone Pam, after which several important changes and improvements to the country's syndromic surveillance were made. To date, there has been no formal evaluation of whether regular reports are occurring or that core syndromes are being documented. We therefore carried out a descriptive study in the 11 sentinel sites in Vanuatu conducting syndromic surveillance between July and December 2015. There was a total of 53 822 consultations which were higher in the first 13 weeks ( $n = 29 622$ ) compared with the last 13 weeks ( $n = 24 200$ ). During the six months, there were no cases of acute fever and rash or prolonged fever. There were cases with influenza-like illness from week 27 to 35, but no case was reported after week 35. Acute watery diarrhoea occurred in one or two cases per week during the whole study period. For these two core syndromes, there were generally more females than males, and about one third were children aged under 5 years. In conclusion, Vanuatu implemented changes to its new syndromic surveillance system from July to December 2015, although laboratory components had not yet been incorporated. The laboratory components are working in 2016 and will be the subject of a further report.

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## Public Health Action

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International Union Against Tuberculosis and Lung Disease  
Health solutions for the poor

## Should Kiribati continue to aim for 100% voluntary non-remunerated blood donation as recommended by the WHO?

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6,0068

Capital Blood Bank Laboratory.

Characteristics, deferrals and blood donors from 2011 to

using routinely collected

March 2016, 8531 poten-

erated blood donors th-

ough it increased to 13%

of blood donors deferred

year period, from 44% to

deferrals in VNRBD and

RD. Among all blood do-

nales than males (59% vs.

56% vs. 44%) were de-

ferred due to 1) failing the

2) having anaemia and/or

3) transfusion-transmissi-

RD were deferred due to

ire, while more FRD were

for high white-cell count,

similar for transfusion-trans-

fusion-trans-

fusion-trans-

fusion-trans-

fusion-trans-

blood donation should be phased out by this date.<sup>2,3</sup> By 2012, however, 72 countries were still obtaining less than 50% of their blood supplies from voluntary unpaid donors, with much of the blood supply still dependent on family replacement and paid blood donors.<sup>1</sup>

Kiribati, an island country in the Central and North-East Pacific, has three main hospitals where blood transfusion services are located. All potential blood donors are screened through an algorithmic approach (see Setting), and may be deferred (i.e., not allowed to donate blood) at each step.

For many years, the blood transfusion services in Kiribati have mainly relied on family replacement donors (FRD), resulting in a significant proportion of donors being deferred. In 2009, the WHO led a global consultation urging countries to adopt 100% voluntary non-remunerated blood donation.<sup>4</sup> A large number of countries participated in this consultation, including Kiribati, which signed the Melbourne Declaration.<sup>3</sup> A National Blood Policy was developed, which resulted in changes to the information collected about family-based or voluntary blood donation in registers and worksheets as well as increased advocacy about the importance of voluntary blood donations.

We were therefore interested to find out whether, in the last few years, from 2011 to early 2016, there were any changes in the number and proportion of voluntary non-remunerated blood donors (VNRBD), any changes in the number and proportion of deferrals and documented reasons for these deferrals. Specific objectives were to determine 1) the number of potential blood donors in each full year from 2011 to 2015 who were VNRBD or FRD and the number and proportion who were deferred; 2) the characteristics of all potential blood donors and those who were deferred from January 2011 to March 2016; and 3) the principal reasons for their deferral, stratified by VNRBD and FRD.

### METHODS

#### Study design

This was a retrospective cross-sectional study of potential blood donors and deferrals between January 2011 and March 2016 using already collected data.

#### Setting

##### General setting

Kiribati is an island republic comprising 33 coral atolls, reef islands and one raised coral atoll stretching along the equator. It has a total land area of 800 km<sup>2</sup> (310 square miles), with the islands dispersed over 3.5

### AFFILIATIONS

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- 2 International Union Against Tuberculosis and Lung Disease, Paris, France
- 3 London School of Hygiene & Tropical Medicine, London, UK
- 4 Secretariat of the Pacific Community, Noumea, New Caledonia

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### KEY WORDS

blood donors; deferrals; Kiribati; voluntary non-remunerated blood donors; family replacement donors

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# Learning from Experience

- **Regional / Subregional Intervention**
- **Resource Intensive –transition to a more cost effective**
- **Sustainability – resources (People), institution e.g FNU, SPC**
- **Collaboration - Partner (CDC, FNU, WHO, PIHOA)**
  - **Network (SAFETYNET, TEPHINET etc)**
  - **Development Partners (AFD, DFAT, MFAT, EU)**
- **Context & Culture**

