

**Independent Evaluation of
Core Funding Support to the
Pacific Paramedical Training Centre,
2007–2010**

Evaluation Report

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Preface

How to read this report

The *Findings and Conclusions* (Section 5 of the main body of the report) are grouped according to each of the objectives from the terms of reference (TORs) for the evaluation; within each objective, the actual evaluation questions are clearly identified. Consultations with development partners and in the countries visited (Vanuatu, Cook Islands and Samoa) provided additional contextual information that was not included in the TORs; where necessary, this is explained under an additional sub-heading under the relevant objective.

The *Executive Summary* aggregates and synthesises the principal findings of the evaluation at a broader level.

To avoid overloading the Pacific Paramedical Training Centre (PPTC) with an excessive number of finely detailed recommendations (which might distract attention from the more important overall strategic directions), additional recommendations arising from this evaluation are generally higher order ones. Less fundamental or strategic recommendations and 'opportunities for PPTC' are not highlighted separately in the body of the report as most have already been brought to the attention of PPTC through *aides memoire* prepared following each country visit; others should be clear within the discussion in the present report. PPTC is well positioned to analyse and act on those opportunities in the course of the forthcoming strategic planning process and annual work plan development.

Links with the first PPTC review in 2005

The organisational development that PPTC has embarked on since the 2005 review remains highly relevant, as do some of the recommendations for PPTC and the New Zealand Aid Programme arising from that review.

To maintain continuity, those recommendations have been updated to reflect the current operating context in Pacific health systems and included as recommendations of the present evaluation.

Acknowledgements

The evaluation was undertaken and the report written by Rob Condon, a public health physician and health development specialist.

The evaluation was managed by Geoff Woolford, Development Programme Manager, Ministry of Foreign Affairs and Trade in close consultation with John Elliot, Director of PPTC.

Rob would like to express his sincere thanks to everyone who participated in consultations in New Zealand and by telephone, and who contributed to the three country case studies on which this report is based – they are acknowledged separately in the country *aides memoire* and in Appendix IX of the present report. They include, in particular, Junior George Pakoa, Paul Makikon, Douglas Ngaekura-Tou and Vaomalo Kini, the managers of the four laboratories visited during the country case studies who gave so patiently and generously of their time.

Special thanks also to John Elliot, Phil Wakem, Christine Story and the PPTC Board for their major contributions to discussions in Wellington and for providing access to PPTC documents and records.

A final word of appreciation goes to the late Nancy Sheehan, with whom Rob worked on the 2005 review. Many of Nancy's insights into PPTC as a business entity (as well as being a technical and development organisation) remain highly relevant to this day.

Statement addressing potential conflict of interests

The consultant is familiar with the work of PPTC and was engaged as a technical specialist for the first PPTC review in 2005. He has also previously worked as a consultant with the Secretariat of the Pacific Community and, in that role, provided technical guidance to PPTC on undertaking an assignment funded by the Global Fund. Neither of these roles included any responsibility for direct supervision or implementation of any PPTC activities.

He is familiar with the health systems and operating environment for many PIC laboratories, was closely involved in the Pacific and Asian region consultations for development of the World Health Organization *Asia-Pacific Strategy for Strengthening Health Laboratory Services 2010-2015*, and provided input into later drafts of the *Strategy* itself.

While none of these factors constitutes a direct conflict of interests, it does provide a degree of familiarity with PPTC's operating context and a prior awareness of the scope of their activities.

Objectivity has been protected as much as possible by consulting very widely – in Wellington, in-country and with other development partners (including by telephone and email) – and obtaining a broad diversity of evidence and opinions about the work of PPTC and the key issues affecting its programme.

Executive Summary

Introduction and background

The Pacific Paramedical Training Centre (PPTC) is a non-government organisation that was founded 30 years ago in Wellington, New Zealand.

PPTC aims to help to develop basic health laboratory capacity in the Pacific region and smaller South East Asian countries in a way that is appropriate, affordable and sustainable for the health care setting in which laboratory services will be used. It does this in three ways:

- Training for laboratory staff through short courses and attachments in New Zealand and via distance education through the World Health Organization (WHO) Pacific Open Learning Health Network (POLHN)
- A regional external quality assurance programme (EQAP), under which unknown specimens are sent to participating laboratories to test, PPTC then independently provides scores and feedback on the results
- Establishing and supporting Laboratory Quality Management Systems (LQMS) in selected Pacific Island countries (PICs)

PPTC's work on LQMS is increasingly guided by the WHO *Asia-Pacific Strategy for Strengthening Health Laboratory Services 2010-2015*, which places support for laboratories in a health systems strengthening context. Many countries in the Pacific – including two visited during the present evaluation – are preparing for or have begun significant health sector reform; it is timely to seek opportunities to consolidate laboratory strengthening within the new sector plans.

PPTC has been funded by the New Zealand Aid Programme since 1981 and became a WHO Collaborating Centre in 1990 – these two agencies represent the principal sources of PPTC income, with the New Zealand Aid Programme by far the largest (just over NZD 1.09 million in core funding since July 2007). PPTC also undertakes consultancy services for the Secretariat of the Pacific Community (SPC), WHO and other technical agencies, and provides *pro bono* technical support and advice to PIC laboratories on an *ad hoc* basis.

Objectives and methodology of the evaluation

An independent evaluation of PPTC was conducted in November and December 2010. It builds on the findings and recommendations of a review in late 2005, and examines the implementation to date of the *PPTC Strategic Plan 2007-11* that was developed as an outcome of that review.

The evaluation was conducted under the oversight of a joint Ministry of Foreign Affairs (MFAT) – PPTC Steering Committee. Its objectives fall broadly into two groups:

- To assess the relevance, effectiveness, efficiency and sustainability of PPTC support for health laboratory services in the Pacific under the current *PPTC Strategic Plan*.
- To consider what lessons have been learned and what recommendations can be made about future PPTC and New Zealand support for laboratory services in the Pacific

After reviewing PPTC, MFAT and WHO records, reports and documentation, four days of detailed consultations were undertaken with PPTC and MFAT in Wellington, followed by presentation of an *aide memoire* and interim de-briefing with the Steering Committee.

Based on the findings of the 2005 review, aspects of health system reform implemented since that time and the level of support that laboratories and staff have received from PPTC during its

current *Strategic Plan*, three countries were invited to participate in the evaluation: Vanuatu, Cook Islands and Samoa. The additional objectives of these country case studies were to test and further develop the findings from preliminary consultations and document review in Wellington, and to examine the effectiveness and sustainability of PPTC training and QA inputs within the country health system and laboratory operating contexts.

Telephone consultations were also undertaken with key development partners at WHO (Western Pacific Regional Office and POLHN), SPC, the Pacific Island Health Officers' Association (PIHOA) and Counties Manukau District Health Board.

Relevance

Although laboratory services are not yet well articulated in national health strategic plans in the Pacific, the training and quality improvement activities of PPTC and its work on developing regional laboratory standards are highly relevant to strengthening PIC capacity to provide effective clinical and public health laboratory services. In relation to prevalent health problems and the Millennium Development Goals (MDGs), support for safe blood transfusion is a crucial aspect of safe motherhood and the achievement of MDG 5 targets; technical assistance for microbiology, serology and clinical biochemistry is highly relevant to HIV, sexually transmissible infections (STIs) and non-communicable diseases, respectively, and the achievement of MDG 6 in many PICs.

PPTC's collaboration with WHO, SPC and PIHOA in operationalising the WHO *Asia-Pacific Laboratory Strategy* through national laboratory policies and plans is strongly aligned with a focus in many PICs on health reforms and strengthening health service delivery.

This aspect of PPTC's work can consolidate the place of the laboratory within the overlying health system and its relationship with core health system functions (including work force and other planning, quality improvement, financing and information management). However, it also requires excellent coordination and advocacy for laboratory strengthening at the country level, and senior health decision makers and other development partners need to be aware of these links.

The Regional EQAP represents a key step in maintaining laboratory standards and the quality and accuracy of testing. Participation in an EQAP will be an important element of the national laboratory policies and plans (and is already mandatory in the North Pacific).

Efficiency

Offering training through distance and flexible learning (DFL) represents the greatest efficiency in the services PPTC delivers. The POLHN courses and the on-line Diploma in Medical Laboratory Technology fill an important niche between on-the-job training for high school recruits and a degree from the Fiji School of Medicine or an Australian or New Zealand university. POLHN is free to the end-user, and no alternative cost effective models of delivering laboratory training exist in the region.

The application process for training placements in New Zealand is generally positive and efficient, with good support offered through the Short Term Training Awards contractor or other funding partners.

'Hybrid' approaches that combine a DFL component with subsequent in-country practical training are worth piloting and evaluating, especially where they can also nurture the skills of laboratory managers and senior staff as trainers and mentors.

Regional EQAP materials – particularly haematology slides – could potentially be used as an in-house training resource in the laboratory. However, there does not seem to be an efficient or methodical approach in the laboratory for filing completed reports and slides.

PPTC reporting is inefficient, with considerable duplication. Its institutional planning cycle, annual Chairman's Reports and reports to WHO are all aligned with the calendar year, while reports to the New Zealand Aid Programme align with the July-June financial year. Each report takes a different format and covers different time periods and outputs.

Effectiveness and Sustainability

An important outcome of the 2005 review was the development of a 5-year *PPTC Strategic Plan 2007-11*. The *Strategic Plan* explicitly addressed two key recommendations of that review: first, that PPTC develop a business plan; and second, that the business plan should reflect a more strategic approach to PPTC's work in the region and its engagement with the Aid Programme and other donors.

Taken as a whole, core PPTC technical activities contributing to Outcomes 1 (training) and 2 (Regional EQAP and LQMS) of its *Strategic Plan* have continued to be effective.

Whether delivered via a residential course in New Zealand or through DFL, training outcomes have been highly effective (in terms of reach, impact and being pitched at the right level) and are likely to have led to sustainable improvements in individual knowledge and performance. During field visits, graduates and trainees were able to describe or demonstrate key learnings from their distance education or residential courses; colleagues had also noticed and commented on the change in participants' practice following study or training attachments.

Participation in an external quality assurance programme has a key role in monitoring the quality and accuracy of laboratory performance; it also provides the opportunity for trainees to test their skills against unknown specimens. The Regional EQAP has been moderately effective. Participation rates average 75% across all countries and topic areas, but have varied across a wide range during the 3½ years under review. Scores of 100% are usual for infectious diseases serology and not uncommon for microbiology, but many laboratories seem to find haematology and biochemistry more challenging. Accuracy scores also vary across a wide range, and may fluctuate unexpectedly for a given laboratory; this may reflect EQA testing being undertaken by a nominated "expert" within the laboratory or possibly that EQA specimens are given "special" attention rather than being treated as "routine".

The EQAP is unlikely to be fully sustainable until PICs are prepared to pay a fee to participate (which would symbolise an explicit level of national ownership, and a performance responsibility that the laboratory would have to senior health sector management). However, the impact of the global recession on smaller PIC economies makes this unlikely in the short- to medium-term (and hence also the period of the next *PPTC Strategic Plan*). PPTC has a philosophical and philanthropic preference not to charge fees for EQAP participation, and this needs to be respected (but also monitored and challenged from time to time).

Activities in support of LQMS have been less effective than the other two areas. Inputs have been curtailed through a paucity of dedicated funding, and have therefore needed to be approached opportunistically (e.g. coupled with independently funded in-country consultancies for training or capacity assessment).

Opportunities or resources have not been found to act on the recommendations of the 2005 review to maintain support for LQMS until quality practices are well embedded and, even then, to only withdraw technical support in a predictable, carefully phased manner.

Of the three countries visited, the LQMS at Rarotonga Hospital in the Cook Islands shows the most signs of sustainability (mainly a result of the hard work and dedication of the Laboratory Quality Coordinator). The LQMS in Samoa remains subject to the same limitations identified in the 2005 review; a Quality Coordinator has been appointed, but he is likely to need expert

independent mentoring and technical support to restore the LQMS. Neither laboratory visited in Vanuatu has a LQMS or Quality Coordinator.

PPTC Strategic Plan and monitoring framework

Overall implementation of the *Strategic Plan* and the attainment of its institutional Outcomes (3, 4 and 5) have been less effective and less sustainable than the implementation of core PPTC technical activities contributing to Outcomes 1 and 2.

Appropriately for an organisation going through significant reorganisation, the *Strategic Plan* focused as much on PPTC's internal processes as on its relationships, outputs and outcomes at country level. However, the longer term outcomes of the *Plan* and its monitoring and evaluation framework (MEF) were extremely broad, were often not within PPTC's mandate or ability to achieve on its own, and do not anticipate a shift in donor attention from regional to country level funding mechanisms; some were not feasible to achieve within a 5-year time span.

PPTC's annual reporting was not structured according to the MEF. This includes reporting to the New Zealand Aid Programme – the only reporting specified in the Grant Funding Agreement (GFA) was activity level descriptions and financial acquittal.

Implementation of other major recommendations from the 2005 review

Little momentum has been achieved in addressing the recommendation from 2005 about strengthening commitment to LQMS and human resources for health (HRH) planning. This is likely to receive more attention through the WHO Asia Pacific Laboratory Strategy (including where PPTC is sub-contracted to provide technical assistance).

The recommendation in relation to telepathology was probably premature. However, there is now increasing interest in the region in using telemedicine links to support histopathology and haematology services. PPTC needs to be prepared to engage in these developments during the course of its next strategic plan.

The PPTC Board has not yet responded to the finding of the 2005 review that it needs to address its own succession planning; this need has now become more pressing.

Conclusions and Lessons Learned

PPTC's traditional role – delivery of appropriate laboratory training and highly cost-effective support for laboratory quality assurance – is unique in most of the Pacific: it continues to fulfil a function that is not available through any other regional organisation or institution, and neatly complements the work of other development partners like WHO, SPC and PIHOA.

Although PPTC's work would more accurately be described as multi-country technical support, maintaining funding and oversight through New Zealand's Regional Health Programme remains far more efficient than a series of bilateral projects. Regional Health Programme engagement with health sector reforms and development partner coordination mechanisms will enable it to monitor factors that may affect the way PPTC works in some partner countries

PPTC's strong relationships with Pacific partners is characterised by trust and reliability, backed by a deep understanding of the operating environment and HRH constraints of PIC laboratories.

Although implicit in the *Strategic Plan 2007-11*, PPTC has had relatively limited involvement in the evolving health systems context; Aid Programme representatives in-country are well positioned to keep PPTC engaged in health reform agendas. During the period of PPTC's next strategic plan, some donor funding is likely to shift from regional projects managed by multilateral or inter-governmental partners to direct bilateral support aligned with national health reforms and sector plan; this will require a change in the way PPTC access potential sources of consultancy income.

Over-extending the reach of a small organisation may pose risks to the effectiveness and efficiency with which activities are implemented. PPTC and its Board will need to ensure that the new strategic plan matches the range of intended activities with organisational capacity, and that it does not compromise its effectiveness or efficiency in PICs with an over-ambitious geographic or technical expansion of the services it provides.

Disease-specific donor funded projects have developed cohorts of health workers engaged in community-based diagnosis, such as malaria and tuberculosis (TB) microscopists. There is a risk that these workers will continue to operate outside the evolving national health laboratory quality systems, but also an opportunity to include them and, through that process, to extend the range of services they offer in the community. POLHN represents a possible mechanism for these workers to develop a broader understanding of laboratory practice.

PPTC appears ready to lead the development of its next strategic plan (with modest technical assistance). However, more specific technical assistance is likely to be needed in developing a simple, feasible MEF.

Summary of Higher Order Recommendations

Recommendations from the 2005 review that are still relevant

This first group of recommendations is carried forward from the 2005 review as they remain broadly relevant and will contribute continuity and stability to PPTC's organisational development and strategic planning process. They have been updated as necessary to reflect contextual changes such as the evolving health reforms in many PICs.

- 1) That the New Zealand Aid Programme maintains an active level of engagement with other regional partners – especially WHO (e.g. through the Quintilateral Group), but also SPC and PIHOA – and national stakeholders about operationalising the WHO *Asia Pacific Strategy on Strengthening Health Laboratory Systems* in the Pacific. This would include a focus on: operational and service development planning, costing and budgeting; HRH planning and development; and, in particular, identifying how and from where funds might best be mobilised for developing LQMS and other aspects of national laboratory policies and operational plans. [Discussion on pages 8–9, 11 and 14 refers; extension of recommendations 1 and 2 from 2005]
- 2) That the New Zealand Aid Programme, PPTC and other partners consider, for any national LQMS development project, the following essential pre-conditions for success (identified during the 2005 review and confirmed by the present evaluation), which should be negotiated at the design stage, reviewed at inception and carefully monitored and evaluated during all subsequent stages of implementation: [Discussion on page 17 refers; extension of recommendation 4 from 2005]
 - a) There should be formal endorsement of the national laboratory policy and commitment to the LQMS element of that policy by the MOH;
 - b) Resources for implementing the laboratory operational plan should be clearly identified and agreed by all stakeholders (and may include national resources, e.g. the SWAp trust fund in Samoa, where New Zealand and other donor funds have been directed through partner Government systems);
 - c) Agreed progress milestones should be clearly negotiated with national stakeholders early in the project;
 - d) Laboratory Management should articulate a commitment to meet these milestones (e.g. through a memorandum of understanding), and senior health sector managers should be

- fully supportive of this commitment; and
- e) A capacity development plan (encompassing HRH and technical service delivery) should be an early milestone for the project – this would be developed by the partner country, with technical assistance as necessary from PPTC and other relevant partners.
 - 3) That the partner Government, PPTC and New Zealand Aid Programme agree to support a transitional (consolidation and integration) phase to follow the completion and embedding of any LQMS project, providing access to mentoring and periodic technical support and laboratory audits over an agreed time frame. [Discussion on page 17 and in Appendix IV refers; extension of recommendation 5 from 2005]
 - 4) That PPTC remains cognisant of emerging technologies and alternative approaches, including molecular diagnosis and telepathology, incorporating these technologies into its programme of teaching or technical support as appropriate. [Discussion on page 5 refers; extension of recommendation 8 from 2005]
 - 5) Noting that PPTC is now well placed to manage the development of its next strategic plan, that the New Zealand Aid Programme provides any necessary technical support to PPTC for developing or reviewing that plan and a matching multi-year business plan, to reflect PPTC's evolving strategic approach (including in relation to other donors, technical agencies and development partners). In developing its next 5-year strategic plan, PPTC should ensure its alignment with the health systems strengthening approaches embodied in the new WHO *Asia Pacific Laboratory Strategy*. [Discussion on pages 9, 10 and 11 refers; extension of recommendation 11 from 2005]
 - 6) That PPTC, together with its WHO (POLHN) partners, continues to negotiate with the Fiji School of Medicine, the National University of Samoa and national professional and registration bodies to secure some academic and/or professional recognition and/or accreditation for the POLHN Diploma in Medical Laboratory Technology. [Discussion on page 10 refers; absorbs recommendation 9 from 2005]

Additional recommendations arising from the 2010 evaluation

- 7) Noting the virtually unique position, style and capacity of PPTC to provide cost-effective technical support for capacity development in Pacific laboratories, that the New Zealand Aid Programme extends its funding support for PPTC to cover the period of operation of the next strategic plan. [Discussion on page 28 refers]
- 8) Noting the efficiencies currently achieved by funding the work of PPTC through the New Zealand Aid Programme's regional mechanisms, that any future support is also maintained through the Regional Health Programme (rather than converting it to a series of potentially quite different bilateral agreements). Any risks of duplication with other donor funded programmes may be managed through the oversight role that the Regional Health Programme has of regional health sector reforms through the Quintilateral Group and national level donor coordination mechanisms. [Discussion on page 11 refers]
- 9) That the New Zealand Aid Programme provides any necessary funding and technical support to PPTC for developing a monitoring and evaluation framework to match the new strategic plan, and that the MEF is based on "SMART" indicators and feasible appropriately phased outcomes (not just activities and financial acquittal).¹ [Discussion on pages 22–23 refers]
- 10) That PPTC routinely reports progress against the indicators identified in the MEF, and that the means of measuring those indicators reflect a more analytical, performance-based approach

¹ S = Specific, M = Measurable, A = Achievable, R = Relevant and T = Time-bound
 "SMART" indicators and/or objectives have an important role to play in result-based management.

- to monitoring. [Discussion on pages 22–23 refers; amendment of recommendation 13 from 2005]
- 11) That, for the purposes of monitoring the GFA, the New Zealand Aid Programme: [Discussion on pages 14 and 21 refers]
 - a) negotiates a single agreed reporting format with PPTC;
 - b) accepts that format as a unified approach to performance monitoring;
 - c) allows that reporting cycle to be aligned with the calendar rather than the financial year; and
 - d) brings annual or 6-monthly funding *tranches* into line with the reporting cycle.
 - 12) That, as part of the strategic planning process, PPTC develops a risk management strategy in consultation with the New Zealand Aid Programme and any technical support engaged. The Board should examine the risk management strategy regularly and should attempt to identify responses to a range of scenarios (including how to manage an increased proportion of donor funds being channelled through partner Government systems instead of regional projects). [Discussion on pages 1, 11, 21, 24 and 26 refers]
 - 13) That PPTC develops a system for maintaining contact with course graduates and alumni, with a view to monitoring not only the career pathways of those individuals but also the continuing relevance and evolution of training programmes delivered through DFL. [Discussion on page 23 refers]
 - 14) That PPTC and POLHN jointly undertake an evaluation (including a cost-benefit analysis) of the new “hybrid” distance and in-country course in STI diagnosis that is planned to commence in 2011, and review the implications of that analysis for also transferring some Wellington-based placements to suitable PIC laboratories and the engagement of senior PIC laboratory workers as trainers or mentors. [Discussion on page 14 refers]
 - 15) That PPTC’s next strategic plan clearly defines the organisation’s intended strategy for engagement in Asia and larger Pacific region countries (e.g. Papua New Guinea), how that engagement will be phased, and how collaboration will be managed with other technical partners who may also contribute to that work. [Discussion on page 25 refers]
 - 16) That the PPTC Board actively monitors PPTC’s range of activities in relation to its core mandate, taking care that the organisation does not compromise its effectiveness with an over-ambitious scope of the services it provides. [Discussion on page 25 refers]
 - 17) That, as part of the strategic planning process to guide PPTC through the next 5 years, the Board prioritises addressing its own succession planning needs. [Discussion on page 26 refers]
 - 18) That PPTC and other development partners, in consultation with national counterparts, ensure that non-laboratory based programme staff like malaria TB microscopists are also supported by the laboratory strengthening activities envisaged under national laboratory policies and plans and the WHO *Asia Pacific Laboratory Strategy*. [Discussion on pages 10–11 refers]

1. Introduction

1.1 Laboratories in relation to the broader health system

Laboratory services are an essential component of the health system. In clinical settings, laboratories contribute to the quality of diagnosis, treatment and care and more efficient use of health resources such as hospitals and pharmaceuticals. For public and environmental health, their surveillance and screening capacity can be used to guide prevention and health promotion interventions. Effective horizontal integration with community services through point-of-care (POC) testing (e.g. malaria microscopy, diabetes screening) can contribute to disease control programmes and further support the efficient use of secondary and tertiary facilities.

To deliver their services effectively, laboratories need access to the same type of resources as the rest of the health system: a well trained and motivated work force; predictable and sustainable financing; an effective procurement and supply chain for reagents; and system for the maintenance and repair of laboratory equipment; an effective information system; and sound planning, leadership, management and relationships with other service providers.

Laboratories may therefore be viewed as a barometer of health system functionality. Efficient and reliable health laboratories will contribute to the quality and efficiency of health service outputs, and help the health system to achieve its goal of improved health for the population. Conversely, where laboratories struggle to perform, this may be symptomatic of underlying constraints that also affect other areas of the health system.

1.2 Constraints and challenges to laboratory services in the Pacific

The Pacific Island countries (PICs) and Papua New Guinea (PNG) have historically afforded a relatively low national priority to the financing, planning or quality of services delivered by their clinical and public health laboratories.² With the exception of the Institute Pasteur in New Caledonia, laboratory quality management systems (LQMS) are generally weak, opportunities for continuing professional development for staff are limited, and the range of tests available is relatively narrow.

In recent years, considerable resources have been provided to Pacific laboratories through global health initiatives. However, this support has tended to focus on disease-specific public health programmes like vaccine-preventable diseases (e.g. poliomyelitis, measles), human immunodeficiency virus (HIV) infection, tuberculosis (TB), malaria, and pandemic influenza and other emerging and re-emerging infectious diseases (EIDs).

Despite an assumption that improved disease-specific capacity would also support and strengthen laboratory systems more broadly, this has generally not been the case. Global health initiatives have focused more on short-term results than on longer-term capacity development; inefficiency, duplication and fragmentation have sometimes occurred, and attention and resources may have been diverted from clinical services.

1.3 Evolving broader health system context in the Pacific

PICs and development partners are now seeking ways to restore country leadership and ownership of health priorities, and to make sure that external support is well aligned with the *Pacific Aid Effectiveness Principles* (2007) and the *Cairns Compact on Strengthening Development Coordination in the Pacific* (2009).

² Refer discussion in Section 5.1, pages 8-9 on why this may be the case.

Some countries (e.g. Samoa, Solomon Islands) have introduced a sector-wide approach (SWAp) for coordination and development cooperation in the health sector. Vanuatu is taking an incremental approach, beginning with a Joint Partnership Agreement (JPA) to ensure that development partner support is well harmonised and aligned with Government priorities, moving on to using Government systems to manage external assistance, and eventually bringing donor support into the core sector budget.

1.4 The WHO Asia-Pacific Strategy for Strengthening Health Laboratories

The World Health Organization (WHO) has developed an *Asia Pacific Strategy for Strengthening Health Laboratory Services (2010–2015)*, which was endorsed by the WHO Regional Committee Meeting in Hong Kong in October 2009.³ The *Strategy* approaches its objective – assisting countries to provide comprehensive laboratory services to contribute to improved health outcomes – from a health systems strengthening perspective.

The WHO *Asia Pacific Laboratory Strategy* is not so much a traditional “regional” strategy as a set of guidelines and criteria for countries to develop and apply 7 strategic elements:

1. Establish a coherent national framework for laboratory services.
2. Finance laboratory services in a sustainable manner.
3. Build capacity for laboratory services.
4. Assure the quality of laboratory services.
5. Promote the rational use of laboratory services.
6. Maintain safe laboratory services.
7. Support research and ethics in laboratory services.

The new *Strategy* acknowledges that “one size does not fit all”, and suggests an approach that national authorities can adapt to their country context and integrate with their existing national health policies, strategies and resources. In addressing the first element of the *Strategy*, development partners have already assisted two larger Pacific countries (PNG and Fiji), two medium-sized ones (Kiribati and Solomon Islands) and two smaller ones (Nauru and Tokelau) to develop national laboratory strategies and plans.

1.5 Laboratory standards for the Pacific

The International Organization for Standardization (ISO) has two standards relevant to health laboratories. ISO 15189 (*Medical laboratories – particular requirements for quality and competence; 2007*) and ISO 17025 (*General requirements for the competence of testing and calibration laboratories; 2005*).

Previous attempts to operationalise these international standards in Pacific laboratories have met with very little success. It is difficult for PIC laboratories to achieve all of the ISO standards simultaneously and within the time frame allowed for application. Furthermore, applying for accreditation is expensive and most PICs would either not prioritise an expenditure of this nature within their limited health and laboratory budgets or would simply not be able to afford it.

Regional standards based on the Pacific health system and development context and phased, incremental implementation are likely to be a more achievable and appropriate option for PICs.

As part of the process of operationalising the WHO *Asia Pacific Laboratory Strategy*, development

³ WHO Regional Committee for the Western Pacific. *Asia Pacific Strategy for Strengthening Health Laboratory Services (2010–2015)*. WPR/RC60.R6, 25 September 2009.

partners are assisting PICs to establish minimum standards for medical laboratories at different levels within the health system, and an approach to implementing them.⁴ A collegiate reference group – the Pacific Association of Laboratory Medicine (PALM) – has been proposed to accredit and monitor participating laboratories.

2. Background and Rationale for the Evaluation

2.1 The Pacific Paramedical Training Centre

The Pacific Paramedical Training Centre (PPTC) was established in 1980 as a not-for-profit organisation. It has a staff of three (a Director, Programme Coordinator and Programme Assistant), and works out of a small facility and teaching laboratory located in the grounds of the Wellington Hospital, New Zealand. It is governed by a Board comprising four elected members.

The overall objective of PPTC is to provide training and other capacity development assistance for clinical laboratory and blood transfusion services in PICs and, increasingly, smaller countries in South East Asia. The principal areas of activity are:

- a) Training for Laboratory Staff – historically delivered through short courses and attachments in New Zealand but increasingly by distance and flexible learning (DFL) through the WHO Pacific Open Learning Health Network (POLHN)
- b) A Regional External Quality Assurance Programme (EQAP) – this reaches 22 national and sub-national Government laboratories and four private laboratories in 15 PICs, as well as 9 public and private laboratories in PNG and Asia
- c) A programme of support for Laboratory Quality Management Systems and Standards – increasingly focusing on helping countries to operationalise the new WHO *Asia-Pacific Strategy for Strengthening Health Laboratory Services*

The guiding principle behind all of PPTC's programmes is that "they must be appropriate, affordable and sustainable for the health care setting in which they will be used".

PPTC became a WHO Collaborating Centre for laboratory quality assurance in 1990.

It also provides *ad hoc* technical support and advice to PIC laboratories, and undertakes consultancy services for the Secretariat of the Pacific Community (SPC), WHO and other technical agencies.

2.2 New Zealand support for Pacific laboratories through PPTC

The New Zealand Aid Programme has funded PPTC since 1981. The New Zealand Aid Programme and WHO represent the predominant sources of income for PPTC, with the former by far the largest (just over NZD 1.09 million in core funding since July 2007; see also Section 2.5, *Funding the Strategic Plan*, below).

Other funding is derived from consultancy income (mainly through the Global Fund and WHO) and annual donations from the New Zealand Institute of Medical Laboratory Science (NZIMLS), the Norman Kirk Trust and New Zealand Red Cross.

⁴ The proposed laboratory standards are based on and consistent with ISO 15189: 1) Organization and management; 2) Quality management system; 3) Human resources (personnel); 4) Accommodation and environmental conditions; 5) Laboratory safety; 6) Laboratory equipment; 7) Laboratory commodity management; 8) Information management; 9) Managing laboratory specimens; 10) Customer service and resolution of complaints; 11) Outbreak alert and laboratory network.

2.3 The 2005 review of PPTC

In late 2005, the New Zealand Aid Programme commissioned a review of PPTC – this was the first external review of the organisation since it was founded 25 years previously.

The 16 consolidated recommendations arising from the 2005 review are included in Appendix IV of the present report.

The review noted PPTC's excellent relationships with PIC laboratories and MOHs and with other development partners, and the high quality of its inputs at country laboratory level. However, it also found that PPTC may have withdrawn its support prematurely from the LQMS pilot projects it had supported in Samoa and Tonga. Both countries' laboratory systems would have benefited from a longer period of consolidation and extended technical support preceding a very gradual, phased withdrawal of PPTC technical assistance.

The review also made some recommendations about PPTC adopting a more analytic type of reporting of its activities, which would be aligned with an over-arching set of strategic objectives and intended outcomes.

The 2005 review commented on the need for PPTC to upgrade its financial and business strategies to reduce its funding reliance on the New Zealand Aid Programme and ensure a more sustainable future for the organisation. Factors that PPTC might take into account in revising its business platform were identified in the 2005 report as "opportunities" (and are included in Appendix V of the present report).

2.4 The PPTC Strategic Plan, 2007-11

As a result of the 2005 review, one of the reviewers was engaged to provide technical assistance to PPTC to develop a 4-5 year strategic plan and business plan.

Each of the 16 recommendations and 9 "opportunities" arising from review was analysed and discussed at length by the reviewer and the PPTC Board and staff. A response and, for most, a related action was determined for each one, which was then assigned to one of four strategic outcome areas aligned with PPTC's overall mission statement:

To assist in building sustainable health laboratory capacity, to better meet the needs of the Pacific Region and South East Asia through collaboration and partnership.

The result was a five-year strategic plan spanning the calendar years 2007 to 2011.

2.5 Funding the Strategic Plan

Based on the *Strategic Plan*, a financial analysis and projections of income and expenditure were undertaken and indicative annual budgets developed for PPTC's core operational services and its principal activities.

A Grant Funding Agreement (GFA) was negotiated between PPTC and the New Zealand Aid Programme. The period of validity of the GFA was from 1 July 2007 to 30 June 2011.⁵

An interim allocation of NZD 49,500 was approved in July 2007. Subsequent *tranches* would be based on acquittal of expenditure by PPTC and submission of an annual work plan and budget, with additional funding commitments mutually agreed between MFAT and PPTC and formalised in a letter of variation (LOV) to the GFA.

An additional NZD 153,711 in core funding support for the 2007/08 financial year was made available under a LOV in October 2007. This brought total New Zealand Aid Programme funding

⁵ Information and financial data in this section and in Section 5.6 (pages 25-26) are sourced from the original GFA and subsequent LOVs, and cross-checked against the PPTC annual financial statements.

for 2007/08 to NZD 198,711 – within a few dollars of the estimated operating costs for 2007 in the *PPTC Strategic Plan* (excluding NZD 40,000 in contributions from the other donors listed in paragraph 2.2, above, and an estimated NZD 10,000 in interest income).

Funding submissions identify four broad areas of support and, in most years, funding is allocated between them in approximately the following proportions: core operational costs 60.5%; Regional EQAP 18.5%; training activities 18.5%; and LQMS activities 2.5%.

The total value of New Zealand Aid Programme funding for PPTC from 1 July 2007 to date is NZD 1,091,619.50.

WHO makes an annual grant of USD 15,000 (this year worth just over NZD 20,000 but, in previous years, closer to NZD 25,000) in recognition of PPTC's status as a Collaborating Centre and its role in EQA in the region. This contributes about one-quarter to one-third of the annual costs of running the Regional EQAP (with the balance drawn entirely from New Zealand Aid Programme funding).

PPTC's other sources of income include contributions from other donors (listed in Section 2.2, above), consultancy income, and an estimated NZD 10,000 in interest income.

See Section 5.6, *Institutional Sustainability*, for further discussion of PPTC's funding streams.

2.5 Scope of the present evaluation

The present evaluation builds on the findings and recommendations of the 2005 review and the *PPTC Strategic Plan 2007-11* that was developed as a result of that review. That review and the *Strategic Plan* both obviously pre-dated the WHO *Asia Pacific Laboratory Strategy*, which now provides an important context for the evaluation.

PPTC's various sources of funding contribute jointly to its work in the region; it is therefore difficult to attribute PPTC's results only to a single source of its donor funding (although the New Zealand Government, through MFAT, is the principal one).

In most cases, PPTC will also have contributed jointly with inputs from the partner Government and other development partners (like ROLAH or the Global Fund) to laboratory improvement.

The evaluation has therefore taken a broad view of the effectiveness of these joint efforts, the full range of PPTC activities and, in some cases, the mechanisms used to coordinate and monitor them under a single national programme.

2.6 Purpose and rationale of the evaluation

The 2005 review presented a number of challenges and new strategic directions for PPTC. The slow progress being made by several PICs towards the Millennium Development Goals (MDGs), the *Paris Declaration* and *Pacific Aid Effectiveness Principles* and the emergence of the new WHO *Asia Pacific Laboratory Strategy* as a catalyst for increasing development assistance for health laboratories all represent important contextual factors that were not in place at the time of the review and during the life of the current *PPTC Strategic Plan*.

With the current GFA about to enter its last 6 months, it is therefore timely to examine how PPTC and its laboratory partners have responded to those challenges and the evolving context for their work, the continuing relevance and validity of the organisation's work in the region, and how it has harmonised with the work of other donors and technical partners.

The results of the evaluation will inform the next PPTC strategic plan and guide MFAT's decisions about future funding support for health laboratories and PPTC.

2.6 Objectives and terms of reference for the evaluation

The objectives of the evaluation are:

- 1) To assess the relevance of PPTC's work
- 2) To assess the efficiency of the PPTC
- 3) To assess the effectiveness and sustainability of the PPTC
- 4) To identify lessons learned and make recommendations about the future focus of PPTC programmes and support from the New Zealand Aid Programme and other sources

Detailed Terms of Reference (TORs) are included as Appendix II of the present report.

3. Methodology

The methodology and approach to the evaluation is described in detail in the *Evaluation Plan* (Appendix III of the present report) and need not be repeated in detail here.

The evaluation has been conducted in an open, consultative, participatory manner in close consultation with a joint Steering Committee with membership (self-selected) from both the New Zealand Aid Programme (i.e. MFAT) and PPTC.

3.1 Preliminary consultations and document review

Briefly, the evaluation began in early November. The first step was a detailed review of relevant literature (including the *WHO Asia Pacific Laboratory Strategy*), PPTC Annual Reports, PPTC reports to WHO on POLHN and PPTC reports to MFAT in relation to the GFA.

The consultant then spent four days in Wellington, from 7-11 November, for formal briefing with MFAT, detailed consultation with PPTC and review of relevant New Zealand Aid Programme documents that were not available electronically.

During this time, candidate countries for field visits were also considered and discussed with PPTC and New Zealand Aid Programme staff. Based on the findings of the 2005 review, aspects of health system reform implemented since that time and the level of support that laboratories and staff have received from PPTC during its current *Strategic Plan*, three countries were invited to participate in the evaluation: Vanuatu, Cook Islands and Samoa.

3.2 Finalisation of evaluation plan

The Evaluation Plan was finalised over the subsequent week, and preliminary contact made with Laboratory Managers and senior health officials in the three countries that would contribute to the evaluation as case studies.

At the same time, telephone consultations continued with key development partners in the region who had a detailed knowledge of PPTC's work. These included: the WHO focal point for laboratory strengthening at the Regional Office for the Western Pacific (WPRO); the WHO South Pacific focal point for POLHN; the Laboratory Specialist and EID focal point at SPC; and the Regional Laboratory Coordinator, Pacific Island Health Officers Association (PIHOA).

An extensive email survey of current students, graduates and alumni was initially considered as a possible means of following up the outcomes and work experience of graduates from PPTC placements in New Zealand and POLHN laboratory courses. However, it was noted that similar surveys for other studies and evaluations had experienced response rates that were so low – of

the order of 15-20% – as to compromise the validity of the method; in the run-up to Christmas, it was thought that the response rate to an email survey would be as low (if not lower), and that attempting a similar survey by telephone would be excessively expensive and time consuming. Instead, it was decided that more detailed focus group discussion and individual consultation would be held with trainees and students in the three countries that would be visited.

3.3 Country case studies

The two additional objectives of the three country case studies were:

- a) to test and further develop the findings from preliminary consultations and document review, and
- b) to examine the effectiveness and sustainability of PPTC training and QA inputs within the country health system and the laboratory operating context.

Noting the challenges that laboratory workers in peripheral centres and outer island laboratories face (communication difficulties and the availability of a suitably skilled and experienced supervisor), a visit to a provincial laboratory was strongly encouraged by PPTC and trainees who were in Wellington at the time of the November consultations for a PPTC blood transfusion course. Following discussion with the New Zealand Aid Programme's country office in Port Vila and the Vanuatu MOH Laboratory Manager, the laboratory at Northern Districts Hospital (NDH; Luganville, Espiritu Santo) was included in the Vanuatu case study.

The country case studies were undertaken in the same order and on the dates indicated in the *Evaluation Plan*, Section 11, *Timeline and Itinerary* (see Appendix III).

On conclusion of each country visit, a de-briefing and presentation of significant findings was undertaken with the Laboratory Manager, senior health officials and, where possible, representatives of the New Zealand Aid Programme's country office. A written record of each country visit was prepared for the de-briefing and presented as an *aide memoire* (included as Appendices VI, VII and VIII of the present report).

4. Possible Limitations

The limitations of the evaluation are essentially the same as those anticipated in the *Evaluation Plan* (Appendix III).

4.1 Limitations of PPTC logic model and monitoring and evaluation framework

As noted in the *Evaluation Plan*, the intended causal logic behind the *PPTC Strategic Plan 2007-11* is not completely clear. The presumed program logic has been interpreted diagrammatically in Annex 1 to the *Evaluation Plan* (page 64 of this report) and it is on this basis that achievement or otherwise of intended outcomes has been assessed (in Section 5 of the present report).

Moreover, the structure of the *Evaluation Logic Model* from the *PPTC Strategic Plan* (included as Annex 2 to the *Evaluation Plan*) is not such that it can be used to directly ascertain the achievement of all intended outcomes. In particular, the *Evaluation Logic Model* builds its short-, medium- and longer-term outcomes around some very high-order principles and aspirations – i.e. PPTC's Mission Statement – rather than a defined set of objectives and indicators; this can make it difficult to determine the intended causal linkages between inputs and activities on the one hand and expected outcomes on the other.

However, the longer-term outcomes are likely to be evaluable; consequently, more attention has been focused on this level.

Among these, quantitative indicators are inherent in Longer-term Outcome 2 (i.e. expansion of the Regional EQAP and support for LQMS at the country level). All other longer-term outcomes have required some qualitative assessment, based on PPTC and other stakeholders' responses to the questions that have guided key informant interviews and group discussions (see Annex 4 to the *Evaluation Plan: Questions for Interviews and Group Discussions*, pages 69–72).

4.2 Access to key informants

The field visits were undertaken at the end of the school year and just prior to Christmas holidays. This is a busy time for Pacific travel, and some risk was anticipated that key informants might not be available.

In practice, good access was obtained to key informants during each of the country visits. Where any individual was not available or in-country at the time of the visit, contact was made quite readily by email or telephone (either during or after the country visit).

4.3 Extrapolation of findings from samples and individual interviews

Only one provincial laboratory (Luganville) was included in the country case studies. Luganville is a major regional centre in northern Vanuatu and the laboratory is located in a recently constructed part of the Northern Districts Hospital. Communications with Port Vila are reasonable, and include email and at least once-daily flights. The NDH laboratory is relatively small with only two full-time employees (the Manager and one scientist), one contract laboratory worker and three junior trainees; it therefore replicates conditions that would be expected in any larger provincial laboratory in the Pacific. However, the findings from that site may not be entirely generalisable to smaller outer island laboratories or diagnostic facilities like malaria microscopy points.

Similarly, as noted in the *Evaluation Plan*, it was determined that the evaluation would follow up the experiences of PPTC trainees and POLHN graduates and alumni in detail in the three countries visited rather than attempting a survey with a more inclusive sample size by email or telephone. Although the reviewer's knowledge of the PIC operating environment suggests that the responses from laboratory workers and trainees in the four facilities visited are likely to be consistent with similar-sized laboratories in other countries, it is possible that some additional responses might have been elicited from a broader sampling frame.

4.4 Independence and potential conflict of interests

This was brought to the attention of the steering committee and addressed to their satisfaction during preparation of the *Evaluation Plan* (see also the statement on page v).

5. Findings

5.1 Relevance

How are health laboratory issues in the Pacific articulated in national and regional priorities?

Although laboratories are an important component of health systems and health service delivery (see Section 1.1, *Laboratories in relation to the Broader Health System*), they are not always identified as such in national health strategic plans (NHSPs). This may reflect that, to a certain

extent, laboratory and other allied health services (e.g. radiography, physiotherapy) lack a clear “presence” and rationale in health policy, and therefore risk being overlooked, taken for granted or not highly prioritised by senior decision makers.⁶

It may also reflect on the quality and depth of analysis that has been applied to developing and costing NHSPs. Until the recent development of the WHO *Asia-Pacific Laboratory Strategy*, no PIC had a national laboratory strategy, plan or detailed budget to inform the NHSP and forward estimates of health expenditure.

In the three countries visited during the present evaluation, only the *Cook Islands Health Strategy 2006-10* and the *Samoa Health Sector Plan 2008-2018* even mention the place of laboratories, and only the *Cook Islands Health Strategy* lists any type of laboratory output. National human resources for health (HRH) plans are of variable quality and detail and, among the three countries, only the *Cook Islands HRH Development Plan 2010-20* specifies the required number of laboratory workers and a career pathway that leads from the POLHN Diploma (which PPTC developed and recently upgraded) to a formal qualification from the Fiji School of Medicine (FSMed) and ultimately, for some workers, a degree from a university in the region.

The volume and costs of laboratory services are being factored into the health sector medium term expenditure framework (MTEF) that is currently under development in Samoa.

Recommendation – *That the New Zealand Aid Programme maintains an active level of engagement with other regional partners – especially WHO (e.g. through the Quintilateral Group), but also SPC and PIHOA – and national stakeholders about operationalising the WHO ‘Asia Pacific Strategy on Strengthening Health Laboratory Services’ in the Pacific. This would include a focus on: operational and service development planning, costing and budgeting; HRH planning and development; and, in particular, identifying how and from where funds might best be mobilised for developing LQMS and other aspects of national laboratory policies and operational plans. [Extension of recommendations 1 and 2 from 2005]*

Laboratories have achieved a higher priority within the work plans of regional agencies and development partners. The Pacific Regional Influenza Pandemic Preparedness Project (PRIPPP), the regional multi-country Global Fund HIV and TB projects and the Asian Development Bank HIV project have all been managed by SPC and all have, at various times, engaged a laboratory specialist; the WHO South Pacific office in Suva has also had a laboratory specialist on staff for 5 months of 2010,⁷ while PIHOA has a full-time Laboratory Coordinator.

To what extent does PPTC’s Strategic Plan reflect Pacific priorities and how do PPTC’s activities reflect these priorities?

The work of PPTC in relation to LQMS and operationalising the WHO *Asia-Pacific Strategy for Strengthening Health Laboratory Services* is highly relevant to the current focus on health systems strengthening and broader health reforms in many PICs. Based on the WHO *Strategy*, 6 national laboratory policies and operational plans have already been developed (see Section 1.4) – these policies reaffirm the central place of laboratories within the health system, and their relationship with core health system functions (e.g. human resources, procurement, governance, and especially financing).

PPTC is now working closely with WHO, SPC and PIHOA to operationalise the new *Strategy* in PICs, and two of the 6 pilot plans that have been developed drew on the direct involvement of PPTC (including one from Nauru that was made available for the present evaluation). Although the *PPTC Strategic Plan 2007-11* pre-dated the WHO *Asia-Pacific Laboratory Strategy* and did

⁶ Forsman RW. Why is the laboratory an afterthought for managed care organizations? *Clin Chem*, 1996; 42(5): 813–816.

⁷ This position was to provide technical support to laboratories in Suva.

not anticipate its development, PPTC's long term Outcome 5 places laboratory support within a health system strengthening context and is consistent with evolving national health priorities and the focus of development partners in the region.

Recommendation – Noting that PPTC is now well placed to manage the development of its next strategic plan, that the New Zealand Aid Programme provides any necessary technical support to PPTC for developing or reviewing that plan and a matching multi-year business plan, to reflect PPTC's evolving strategic approach (including in relation to other donors, technical agencies and development partners). In developing its next 5-year strategic plan, PPTC should ensure its alignment with the health systems strengthening approaches embodied in the new WHO Asia-Pacific Laboratory Strategy. [Extension of recommendation 11 from 2005]

The actual content, structure and intended Outcomes of the PPTC Strategic Plan 2007-11 are considered in Section 5.3, below.

To what extent does PPTC's Strategic Plan 2007-11 position it to meet the needs of Pacific Countries for laboratory strengthening?

The three arms of PPTC's core activities (as defined in the Strategic Plan, i.e. training, QA and LQMS) are prominent among the needs and priorities for health laboratories and MOHs in the Pacific. In particular, long term Outcome 1 of the PPTC Strategic Plan emphasises the importance of aligning the PPTC training programme with the "current and emerging needs" of laboratories in the region.

In relation to Outcome 2 (which covers the Regional EQAP and LQMS), the draft national laboratory policies and plans that have already been developed prioritise LQMS, and identify that internal quality control, standard operating procedures (SOPs) and participation in an EQAP are both essential elements of such a system – the role of an EQAP being to monitor the quality and accuracy of laboratory performance, and also to provide laboratory workers with the opportunity to test their skills against unknown specimens.

Other elements of the PPTC Strategic Plan – especially longer term Outcomes 3 and 4 – are rather inward-looking and focus on the needs and functions of PPTC itself. This needed to be done as part of strengthening the capacity of the organisation, and was the result of specific recommendations arising from the 2005 review. While this is still relevant, it may now be regarded more as strategic guidance and "ways of working"; the next strategic plan may focus more strongly on more tangible outcomes for the organisation and in the countries where it works.

Where does the work of the PPTC sit within a continuum of minimum standards, qualifications and continuing professional development for laboratories?

The POLHN courses and qualification fill an important niche between on-the-job training for high school recruits and enrolment in a degree course at FSMed or a university in the region.

Upgrading the PPTC course from a Certificate to a Diploma in Medical Laboratory Technology has helped its increasing recognition by MOHs as the base-line or career-defining qualification for laboratory workers, especially in countries with relatively poor access to other vocational or academic training for laboratory workers (e.g. in the North Pacific).

However, the Diploma has not yet been granted accreditation or joint recognition by FSMed and questions persist in the region about the academic standing of the qualification and whether it contributes to a career pathway or is simply a stand-alone qualification.

Recommendation – That PPTC, together with its WHO (POLHN) partners, continues to negotiate with FSMed, the National University of Samoa and national professional and registration bodies to secure some academic and/or professional recognition and/or

accreditation for the POLHN Diploma in Medical Laboratory Technology. [Absorbs recommendation 9 from 2005]

Laboratory managers commented that one aspect of this uncertainty is the objectivity of the POLHN assessment system, and whether there might be collusion or assignments between candidates who are taking laboratory subjects concurrently. Competency standards for laboratory workers have not yet been introduced or become part of training or career pathways (appropriate to the size of the country, laboratory work force and HRH development plan) in the Pacific.

From 2011, the efficiency and completeness of skill transfer and supervision will be enhanced by trainees having to maintain a PPTC log book, which would be signed off by a nominated supervisor as practical skills and competencies are acquired, demonstrated and absorbed into practice. Developing stronger relationships with field supervisors will be an essential element of this approach.

The POLHN courses also represent a possible mechanism for malaria and TB microscopists and, in Samoa, the staff of a small stand-alone water quality testing laboratory in the Public Health Division of the MOH to develop a broader understanding of laboratory practice (noting also that the more remote location of some community microscopists may present challenges with delivery and supervision).

Recommendation – *That PPTC and other development partners, in consultation with national counterparts, ensure that non-laboratory based programme staff like malaria TB microscopists are also supported by the laboratory strengthening activities envisaged under national laboratory policies and plans and the WHO Asia Pacific Laboratory Strategy*

The Regional EQAP represents another key step in maintaining the quality and accuracy of laboratory performance. In North Pacific countries with a Compact of Free Association with the United States (Federated States of Micronesia, Palau and the Republic of the Marshall Islands), participation in an EQAP is an absolute pre-requisite for maintaining registration as a clinical or public health laboratory.

What has been the rationale for a regional approach? Do the assumptions or reasons still hold?

Although the New Zealand Aid Programme's support for PPTC is channelled through its Pacific Regional Health Programme, the work of PPTC would be more accurately described as multi-country technical assistance. However, directing this development assistance through bilateral programmes would be excessively cumbersome, and would entail negotiation with several alternative donors in countries where New Zealand does not have a bilateral programme.

As noted in the *Introduction* to the present report (Sections 1.1, 1.3 and 1.4), the WHO *Asia-Pacific Laboratory Strategy* places laboratories firmly within the context of health system strengthening and the current health sector reforms in the Pacific. Moreover, it is through the Regional Health Programme and the Quintilateral Group that the New Zealand Aid Programme maintains its close engagement with these reforms.

As national systems mature, more donor resources are likely to be channelled through Government health sector financing mechanisms. This presents some risk of duplication or non-harmonisation of donor inputs, i.e. where one donor applies resources that might be used for laboratories through national mechanisms while others are channelling support for laboratories through regional organisations (e.g. WHO) or an organisation with a multi-country presence (e.g. PPTC) or mandate (e.g. SPC). The Regional Health Programme is well placed to monitor how available resources might assist laboratory strengthening, and to guide the New Zealand Aid Programme and its partners to work strategically and synergistically with other mechanisms and in a way that aligns with national policy priorities.

It therefore remains relevant, appropriate and very efficient to direct New Zealand support for laboratory systems in the Pacific through the Regional Health Programme – even though PPTC is targeting national issues like vocational education and training and service quality (which are shared but not strictly “regional” needs) alongside more genuinely regional priorities like laboratory standards and support for trans-boundary surveillance for EIDs.

Recommendation – *Noting the efficiencies currently achieved by funding the work of PPTC through the New Zealand Aid Programme’s regional mechanisms, that any future support is also maintained through the Regional Health Programme (rather than converting it to a series of potentially quite different bilateral agreements). Any risks of duplication with other donor funded programmes may be managed through the oversight role that the Regional Health Programme has of regional health sector reforms through the Quintilateral Group and national level donor coordination mechanisms.*

How does the PPTC’s work align with international and regional standards and best practice and with regional strategies for laboratory strengthening?

PPTC has taken a leadership role in developing appropriate laboratory standards for the Pacific (see Section 1.5, *Laboratory Standards for the Pacific*).⁸ The draft standards will soon be promulgated as a WHO document, for which WHO/WPRO will seek country endorsement.⁹

The draft standards are already finding their way into the new national laboratory policies and plans, giving a feeling of consistency across the laboratory development agenda. It is important that the WHO *Asia-Pacific Laboratory Strategy* is rolled out in a way that is appropriate to the size and scale of PIC health systems and services and the needs of their populations and their laboratory and other health work force.

PPTC is well placed to advise countries and PALM on the use of the evolving standards as a basis for laboratory accreditation. Its knowledge of laboratory services in the Pacific and expertise in LQMS give it an important role in managing the risks of a ‘one size fits all’ approach (the *Strategy* also notes these risks) and guiding, monitoring and supervising the implementation of the proposed standards.

To what extent does PPTC’s work complement the work of other agencies in laboratory strengthening? Are there any areas of duplication? Are there gaps that PPTC could usefully fill?

Based on extensive consultations with WHO, SPC and PIHOA, PPTC’s partnership and relationships with other development partners are excellent and generally well-coordinated, especially in addressing emerging issues. Communication is clear and regular enough to ensure that there is currently minimal duplication or overlap.

However, some risks are apparent if WHO adopts a “cookie-cutter” approach to the drafting of national laboratory policies and operational plans, using a standard template and without adequate or genuine consultation with all national stakeholders or acknowledgement of local factors. The outcome of such a process might be a set of very similar policies and plans that are difficult to implement because they are not well aligned with the national context – e.g. a laboratory funding strategy designed for a country with a health SWAp (Samoa) is unlikely to be applicable to a small country with a single dominant donor (Nauru or Palau) or a complex, multi-donor, bilateral environment (Fiji).

⁸ Paper presented by PPTC at the WHO *Regional workshop on the implementation of the “Asia Pacific Strategy for Strengthening Health Laboratory Services, 2010-2015” in Pacific Island Countries* (Suva, 14-17 September 2010)

⁹ WHO may seek endorsement of the proposed standards through the next Pacific Health Ministers’ Meeting, which is due to be held in Honiara, Solomon Islands in 2011.

Recommendation – The first recommendation in Section 5.1, page 9, is also relevant here

PPTC already fulfils a function that no other regional organisation can – delivery of appropriate laboratory training and highly cost-effective support for laboratory quality assurance. Other agencies in the region noted that these are the potential “gaps” in technical assistance for laboratories, and that PPTC has been filling these gaps for many years.

What is the PPTC’s comparative advantage in delivering its services compared to other organisations?

PPTC’s principal advantage is that its programmes address basic (rather than comprehensive or technologically advanced) laboratory capacity.¹⁰ This is supported by its comprehensive knowledge of the staffing and technical capacity of its Pacific and smaller Asian partner laboratories,¹¹ and its ability to match the needs of trainees with the right opportunities available among its extensive network of laboratories in New Zealand.

This understanding and these relationships mean PPTC is able to align its technical support closely with the Pacific operating environment, and its teaching curricula with the laboratory environment in which trainees will be working.

A further advantage is its warm and collegial relationships with Laboratory Managers and staff in virtually every Pacific country. (Laboratory workers consulted during the evaluation invariably described PPTC as a “big brother”). This gives PPTC unparalleled access and credibility among Pacific laboratory staff.

5.2 Efficiency

Overall Efficiency of PPTC’s Approaches to Training and Capacity Development –

Trainees, graduates and collaborators interviewed during the country visits confirmed the validity of offering training through DFL, which represents perhaps the greatest efficiency in the services PPTC delivers.

Since the beginning of 2006, 53 candidates from the Pacific, two from Asia and one from Africa have attended PPTC residential courses or placements in New Zealand. By comparison, 190 students have enrolled in POLHN courses and, among these, 41 have completed the requirements for the Diploma in Medical Laboratory Technology. Placements will remain relevant into the future; however, the emergence of DFL techniques has greatly boosted the ‘reach’ of PPTC training activities.

Skills and practical assignments for the on-line courses are straightforward to implement in-country, even with minimal supervision, and knowledge can generally be applied in the day-to-day work place. Internet connectivity, the ability to submit assignments on time and the availability of suitable supervision remain significant constraints for candidates working in outer island laboratories.

Offering an objective, *ad hoc* advisory service to PIC Laboratory Managers on aspects of laboratory service development or technical questions also represents a major efficiency for PICs. (It should be noted that this service places significant demands on PPTC and does not contribute to the operational efficiency of PPTC itself; however, in the absence of clear, cost-effective alternative advice, it would seem valid and reasonable to maintain this very demand-driven output).

¹⁰ Smith D. *Engagement of Australian and New Zealand Laboratories in the Asia-Pacific Region: A Scoping Study* (AusAID, 2008). Also David R, Laboratory Adviser, Ospital Nacional Guido Valadares, Dili, Timor Leste (personal communication)

¹¹ Key informant interviews with WHO, SPC and PIHOA laboratory specialists.

Efficiency of Support Systems –

The experience of the application process for placements of trainees interviewed to date has generally been positive and efficient, with good support offered through the Short Term Training Awards contractor or WHO.

The clear exception among the three countries included as case studies for the evaluation is Samoa, which was previously a regular user of residential courses in New Zealand but has not sent a candidate to a PPTC residential programme for the last two years (2009-10). This probably represents difficulty mobilising funds from the Samoa health SWAp trust account, but this is now the subject of review and likely realignment and streamlining of processes. As principal development partner in the Samoa SWAp, it will be important for the New Zealand Aid Programme country office in Apia to help the National Health Service and Laboratory Manager to monitor access to funding through the SWAp, to help ensure (through policy dialogue) that those funds are able to be used in a way that supports programme strengthening rather than just discrete technical tasks, and to guide PPTC inputs accordingly.

There does not seem to be a methodical approach in laboratories participating in the Regional EQAP for allocating responsibility for analysis of specimens, or for filing completed reports and slides. The haematology slides could potentially be used as a library and training resource in the laboratory (but are not).

Although filing of documents and slides is primarily an individual laboratory responsibility, opportunities exist for PPTC to develop a simple, standardised work book or log book for recording EQAP participation and a storage system for documentation and slides; it would be useful if such a system could also accommodate slides from the stand-alone EQA program for TB microscopists that is run by the US CDC out of Hawaii and the State Health Mycobacteriology Reference Laboratory in Brisbane.

Could a different approach lead to similar results at a lower cost (to students, PICs, PPTC and/or the Aid Programme)?

It is unlikely that a more cost-effective approach than DFL can be found for delivery of laboratory training that is geared to the needs of smaller laboratories in PICs or smaller Asian countries.

Laboratory managers and staff note that opportunities for face-to-face and practical training are also important, and that DFL is not a substitute for this. Conducting practical training programmes predominantly in Wellington gives trainees the opportunity to view and experience working in efficiently run laboratory systems in a mature health system setting. However, each placement is currently costed at NZD 15,450. PPTC has not yet addressed the recommendation of the 2005 review to examine prospects and options for placements in larger PIC laboratories (rather than in New Zealand), and to explore the cost efficiencies that may be possible with this approach.

Conducting training off-island may also reduce the ability to reach more trainees in individual laboratories, as there is no assurance that skills and knowledge acquired on a course or placement in New Zealand (or a larger Pacific laboratory, for that matter) will be transferred to colleagues working back home. The 2005 review suggested that PPTC examine prospects and options for what was described in that report as 'localising' training – i.e. conducting more training activities in candidates' own countries and laboratories.

An evolving concept is one that uses 'hybrid' training approaches. The first phase of such a course would include core theoretical knowledge and some introductory information about practical procedures delivered through POLHN or a similar DFL methodology. The second phase of training would be conducted in candidates' own laboratory, and would consist mainly of practical training and the assessment and certification of specific skills and competencies. Engaging with Pacific Laboratory Managers and Quality Coordinators and developing their capacity as trainers and mentors for such courses are inherent parts of this approach.

A hybrid course of this type in diagnostic methods for sexually transmissible infections (STIs) has recently secured funding through the Pacific Regional HIV/STI Response Fund and will be delivered by POLHN in 8 PICs from 2011, in partnership with PPTC. The overall Response Fund budget for the development of the curriculum and course materials and implementation of in-country activities is around AUD 400,000.

Recommendation – That PPTC and POLHN jointly undertake an evaluation (including a cost-benefit analysis) of the new “hybrid” distance and in-country course in STI diagnosis that is planned to commence in 2011, and review the implications of that analysis for also transferring some Wellington-based placements to suitable PIC laboratories and the engagement of senior PIC laboratory workers as trainers or mentors.

Efficiency of Reporting –

PPTC reporting is inefficient, with much duplication. Its institutional planning cycle, annual Chairman’s Reports and reports to WHO on the POLHN courses are all aligned with the calendar year, while reports to the New Zealand Aid Programme align with the July-June financial year. Each report takes a different format.

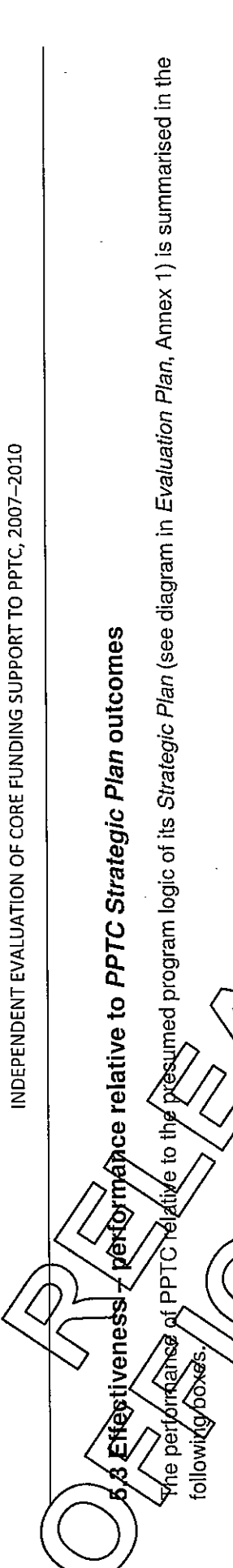
Recommendation – This is discussed further on pages 22–23; the first recommendation under Section 5.4, page 23, refers.

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5.3 Effectiveness – performance relative to PPTC Strategic Plan outcomes

The performance of PPTC relative to the presumed program logic of its Strategic Plan (see diagram in Evaluation Plan, Annex 1) is summarised in the following/boxes.

Higher Order Outcome (Development of Laboratory Services)	Indicator(s) of Achievement	Evidence of Actual Achievements (Information Source)
<p>National health laboratories in supported countries have a laboratory service that is affordable and sustainable, and provides appropriate support to preventive and curative health service delivery</p>	<ul style="list-style-type: none"> Essential laboratory services being planned, funded and provided within MOH budget and NHSP MOH commitment to funding laboratory services in medium-term expenditure framework or similar All elements of LQMS and/or National Laboratory Policy and Plan in place and operational Range of services provided is matched to prevalent clinical and public health priorities and appropriate to clinical work load and size of health facilities supported 	<ul style="list-style-type: none"> Essential laboratory services are being planned and provided from within MOH budget [budgets and strategic plans viewed] Future MOH commitments to laboratory funding are usually based on previous years' budgets rather than a costed, prospective operational plan; laboratory policies and plans are only just being introduced in PICs [consultations with MOH planners and Laboratory Managers] Funding for laboratory services drawn from a variety of sources, but with the majority of operational and recurrent costs met by Government [consultations with MOH planners] None of the laboratories visited has a functional histopathology service; the range of services provided is otherwise well aligned with clinical and public health priorities [laboratory visits in Vanuatu, Cook Islands and Samoa] Donor inputs are not necessarily aligned with NHSP priorities, and are mainly for capital investment and a narrow range of consumables related to disease-specific programmes, rather than the recurrent costs of the laboratory service as a whole [consultations with development partners, Laboratory Managers] In some cases, donor expenditure is aligned with donor priorities and has diverted resources from routine operations, indirectly increasing personnel costs for delivering routine services [consultations with development partners, Laboratory Managers and PPTC]



Conclusion –

This higher order Outcome (called the “organisational goal” in the *PPTC Strategic Plan*) was extremely ambitious and arguably beyond the capacity and mandate of PPTC to achieve on its own and within the 5-year *Plan*. Although PPTC can make (and has made) a valuable but discrete contribution to what is effectively an aspirational outcome, it could only be properly achieved through the coordinated inputs of a range of development partners working under well-organised Government leadership of the sector.

Realistically, this outcome will require a much longer time frame (e.g. 5-15 more years) to achieve across the spectrum of countries that PPTC assists.

Recommendation – *That PPTC envisage cognisance of emerging technologies and alternative approaches, including molecular diagnosis and telepathology, incorporating these technologies into its programme of teaching or technical support as appropriate. [Extension of recommendation 8 from 2005]*

Long-term Outcome 1 (Capacity Development)	Indicator(s) of Achievement	Evidence of Actual Achievements [Information Source]
<p><i>Through its training programme, PPTC has developed capacity for current and emerging needs of the health laboratories in the Pacific Region and increasingly South East Asia</i></p>	<ul style="list-style-type: none"> • Completed qualifications • Evidence of improved work practices that are aligned with content of courses • Assessment of content of training programme to determine whether it aligns with prevalent health problems and needs 	<ul style="list-style-type: none"> • Outputs include 58 participants in placements or residential courses in New Zealand and 41 completed Diplomas in Medical Laboratory Technology through POLHN PPTC trainee database, annual reports) • Graduates and trainees interviewed during field visits make consistent and appropriate use in the work place of technical knowledge and skills acquired during courses and placements, and make appropriate and continuing reference to course materials, key informant interviews and observation of practice in laboratories visited in Vanuatu, Cook Islands and Samoa. • On an epidemiological basis, content of course materials is well aligned with prevalent health problems and demands on PIC laboratories (with the possible exception of anatomical pathology), clinical biochemistry courses support non-communicable disease (NCD) screening, diagnosis and clinical monitoring very soundly [review of available course materials and key informant interviews with trainees in-country, WHO POLHN and other development partners] • PPTC is in touch with capacity development needs for EIDs through LabNet, but has provided little input in this area (as it is within the operational area of the SPC Laboratory Specialist) [key informant interviews with SPC Laboratory Specialist for EIDs, reports of LabNet meeting 2010]

<ul style="list-style-type: none"> Emerging organisational and strategic planning needs of Pacific laboratories are still to be addressed through the new Laboratory Management course [consultation with PPTC, interviews with candidates enrolled in POLHN 013] 	
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Comment on Long-term Outcome 1 –

PPTC has a relatively small training footprint in Asia, with just one placement each from Bhutan and Timor Leste and one POLHN trainee from Bhutan. Although the focus and vision of this Outcome is appropriate, the demands and needs in the Pacific are increasing (and set to continue) and it is also appropriate for Asia to remain a secondary geographic focus for PPTC (see also *Managing risks to sustainability*, Section 5.6, pages 26-27).

<p>Long-term Outcome 2 (Quality Management)</p>	<p>Indicator(s) of Achievement</p>	<p>Evidence of Actual Achievements [Information Source]</p>
<p>PPTC has included three additional laboratories in the Regional EQAP with fully implemented LQMS systems, and has supported the capacity development of the Samoa and Tonga LQMS</p>	<ul style="list-style-type: none"> Regional EQAP records show at least three new participating laboratories by November 2010 compared with January 2007 PPTC records show re-establishment of LQMS systems in Samoa and Tonga and establishment of LQMS systems in [unclear number of] other laboratories 	<ul style="list-style-type: none"> Since the 2005 review, the number of additional laboratories participating in the Regional EQAP has increased by 10 (5 public, 5 private), exceeding the performance target in the Strategic Plan [PPTC Regional EQAP records] Participation rates among enrolled laboratories remain low (mean regional rate of submission ~75% during the period under review) [PPTC Regional EQAP records] No resources mobilised to provide additional structured longer term support to establish or re-establish LQMS in Tonga, Samoa or elsewhere [key informant interviews with PPTC and in laboratories visited in Vanuatu, Cook Islands and Samoa; PPTC reports on laboratory audits] Audits of laboratories in Cook Islands, Samoa and Tonga highlighted need to strengthen or re-establish LQMS [reports of PPTC laboratory audits]

Comments on Long-term Outcome 2 –

There has been no dedicated funding or clear invitations from MOHs to establish a LQMS, and no clear approach to securing this funding or Government commitment in annual work plans. Moves to operationalise the new WHO Strategy present a clear opportunity to secure interest and commitment in LQMS. In practice, funding and expenditure on LQMS activities have been around half the estimates included in the financial projections arising from the strategic planning process.

Recommendation – That the New Zealand Aid Programme, PPTC and other partners consider, for any national LQMS development project, the following essential pre-conditions for success (identified during the 2005 review and confirmed by the present evaluation), which should be negotiated at the design stage, reviewed at inception and carefully monitored and evaluated during all subsequent stages of implementation: [Extension of recommendation 4 from 2005]

- a) There should be formal endorsement of the national laboratory policy and commitment to the LQMS element of that policy by the MOH;
- b) Resources for implementing the laboratory operational plan should be clearly identified by all stakeholders (and may include national resources, e.g. the SWAP trust fund in Samoa, where New Zealand and other donor funds have been directed through partner Government systems);
- c) Agreed progress milestones should be clearly negotiated with national stakeholders early in the project;
- d) Laboratory management should articulate a commitment to meet these milestones (e.g. through a memorandum of understanding), and senior health sector managers should be fully supportive of this commitment; and
- e) A capacity development plan (encompassing HRH and technical service delivery) should be an early milestone for the project – this would be developed by the partner country, with technical assistance as necessary from PPTC and other relevant partners.

Recommendation – That the partner Government, PPTC and New Zealand Aid Programme agree to support a transitional (consolidation and integration) phase to follow the completion and embedding of any LQMS project, providing access to mentoring and periodic technical support and laboratory audits over an agreed time frame. [Extension of recommendation 5 from 2005]

Long-term Outcome 3 (Coordination Function)	Indicator(s) of Achievement	Evidence of Actual Achievements (Information Source)
<p>PPTC is a well functioning regional service organisation that provides multi-tiered coordination nexus between the health laboratory services in New Zealand and increasingly within the Pacific Region and increasingly South East Asia</p>	<ul style="list-style-type: none"> • Description of PPTC coordination activities • Qualitative assessment of functionality of those networks 	<ul style="list-style-type: none"> • Delivery of training outputs is well coordinated with other development partners and operates effectively at a number of levels (in-house, in-house interface with donors, interface with participants) [consultations with development partners, other donors, Laboratory Managers and PPTC] • PPTC actively involved in dialogue to strengthen laboratory services and organisation within the region (although attendance at some regional meetings may be self-funded via PPTC's own monitoring and evaluation [M&E] budget line) [agendas and records of regional meetings, consultations with development partners and PPTC] • PPTC maintains its profile within New Zealand laboratory networks through NZIMLS and a regular column in the New Zealand Journal of Medical Laboratory

Science (NZJMLS) [consultations with PPTC, inspection of hard and on-line copies of NZJMLS]

Comments on Long-term Outcome 3-

WHO WPRO and Regional Office for South East Asian (SEARO) have, jointly, secured significant funding from AusAID for this purpose (AUD 1 million over two years, 2010-11, with the possibility of additional funding for laboratories after that and the ability to access some of the AUD 6.43 million allocated to core funding for health systems strengthening in WPRO). Laboratory strengthening also aligns with the work of other programmes within WHO WPRO, including Communicable Diseases Surveillance and Response (CSR) and Expanded Programme on Immunisation (EPI).

However, it may not be appropriate for PPTC to aspire to a major coordination role for laboratory strengthening in the Asia-Pacific region (refer again to *Managing risks to sustainability*, Section 5.6, pages 26-27)

**Long-term Outcome 4
(Regional Role and Linkages)**

PPTC is a critical link in the Regional Health Strategy of NZAID and other donor partners in the Pacific Region and increasingly South East Asia

Indicator(s) of Achievement

- Documented role for PPTC in implementing [interim] Regional Health Strategy of New Zealand Aid Programme
- Contracts between WHO, SPC and PPTC in implementing defined aspects of WHO Asia Pacific Laboratory Strategy and other laboratory strengthening activities

**Evidence of Actual Achievements
(Information Source)**

- The Regional Health Strategy of the New Zealand Aid Programme is currently subject to revision [consultations with New Zealand Aid Programme officials in Wellington, review of current [interim] Pacific and Health policies]
- PPTC's role is only documented through the GFA for specific activities [review of GFA and LOMs]
- PPTC is regularly involved in dialogue with other development partners on laboratory strengthening activities in the Pacific [agendas and records of regional meetings, consultations with development partners and PPTC]

Comments on Long-term Outcome 4 -

Although PPTC is funded from the Aid Programme's regional health budget, its role is effectively multi-country. Efficiency and ease of coordination determine that any future funding should continue through the Regional Health Programme; however, it is equally important that PPTC maintains an active relationship with Aid Programme country offices (including in countries where the health programme is relatively modest).

<p>Long-term Outcome 5 (Sectoral Harmonisation)</p>	<p>Indicator(s) of Achievement</p>	<p>Evidence of Actual Achievements [Information Source]</p>
<p>PPTC is a key part of a coordinated multi-lateral effort between NZAID, (AusAID), WHO and SPC that supports building technical capacity support in the regional health sector in the Pacific Region and increasingly South East Asia</p>	<ul style="list-style-type: none"> Assessment of alignment of PPTC activities with operationalising WHO-Asia Pacific Laboratory Strategy and where relevant, national Laboratory Strategies and Plans 	<ul style="list-style-type: none"> PPTC activities are strongly aligned with health systems strengthening approach and supportive of other development partners working in the health sector [agendas and records of regional meetings, draft national laboratory policy for Nauru, consultations with development partners and PPTC] Collaboration with countries and other development partners on operationalising the new WHO Strategy consolidates PPTC's position within this agenda in the region [consultations with development partners and PPTC, agendas and records of regional meetings]

Comments on Long-term Outcome 5 -

Again, the wording of this Outcome is somewhat imprecise and brings in elements that are beyond the ability of PPTC to control or deliver... Moreover, the contraction of donor support away from regional projects and more on to national budgets through mechanisms like the Samoa SWAp and the Vanuatu JPA creates significant risks to PPTC, which may not be able to mobilise consultancy income as readily as when more resources were being directed through regional agencies.

5.4 Other measures of Effectiveness

Has PPTC implemented the recommendations from the 2005 review?

PPTC's response to each recommendation from the 2005 review and its current implementation status are summarised in Appendix IV of the present report. Overall, many recommendations have only been partly implemented (and some not at all).

Viewed from a 2010 perspective (but also noting the health sector context at the time of the 2005 review), all the recommendations emerging from that review are appropriate. Recommendations 1 and 2 have, to a certain extent, been overtaken by the emergence of the *WHO Asia-Pacific Laboratory Strategy* and the national policies and plans that will emerge from it. Responsibility for ensuring adequate resourcing, service development and monitoring of laboratories is part of the bilateral and regional policy dialogue (rather than resting solely on the shoulders of PPTC).

Recommendations 4 and 5 (and potentially also Recommendation 6) remain highly relevant but have been virtually untested as no LQMS pilot or restoration project has been embarked on during the period of the current *Strategic Plan*.

Recommendations 7 and 8 may have been premature (but nevertheless worth actively monitoring and testing).

Recommendations 9-14 mainly relate to the process of development and monitoring the implementation of the *PPTC Strategic Plan*. It is likely that the implementation performance in relation to these recommendations would have been stronger if the *Strategic Plan* had been more actively monitored and managed, and reporting against intermediate and longer-term outcomes of the Plan would have facilitated this. (See also the comments about PPTC's monitoring and evaluation framework, pages 23–24 of this section; the first two related recommendations – i.e. dealing with active monitoring of appropriate indicators – are likely to improve implementation performance under the next strategic plan).

As noted on page iv, the additional recommendations arising from the current evaluation are generally higher order ones. It is hoped that this will allow PPTC some organisational 'space' to address several of the 2005 recommendations that are still relevant (adapted to reflect current circumstances).

Have these increased the effectiveness of their work and the relationship with the New Zealand Aid Programme?

One of the most important recommendations of the 2005 review was recommendation 11, for a multi-year business plan (and for technical support to help develop it). This was implemented, and the 5-year *Strategic Plan* was an important outcome.

It has improved (although not completely) the effectiveness of PPTC's work and their relationship with the New Zealand Aid Programme.

Appropriately for an organisation going through significant realignment, the *Strategic Plan* focused as much on PPTC's internal processes as on its relationships, outputs and outcomes at country level. Financial analysis and projections conducted during the strategic planning process have been particularly helpful, and have guided PPTC's submissions to MFAT for continued funding.

However, the longer term outcomes of the *Plan* and its monitoring and evaluation framework (MEF) were extremely broad, were often not within PPTC's mandate or ability; some were not feasible to achieve within a 5-year time span.

Importantly, PPTC's annual reporting was not structured according to the MEF (including reporting to MFAT, which only required activity level descriptions and financial acquittal).

Recommendation – That, for the purposes of monitoring the GFA, the New Zealand Aid Programme:

- a) negotiates a single agreed reporting format with PPTC;
- b) accepts that format as a unified approach to performance monitoring;
- c) allows that reporting cycle to be aligned with the calendar rather than the financial year, and
- d) brings annual or 6-monthly funding tranches into line with the reporting cycle.

How well has the PPTC met the needs of Pacific Island Countries?

Development partners, laboratory managers and senior health officials consulted are consistent in their views that PPTC has met (and continues to meet) the capacity development and quality assurance needs of PIC laboratories extremely well.

It should be noted that quality improvement is an ongoing process that cannot be regarded as “complete” until laboratory standards have been adopted in the Pacific and systems for monitoring and accreditation have been agreed and institutionalised in the region.

The focus on operationalising the WHO *Asia-Pacific Laboratory Strategy* at country level represents a key entry point for PPTC to influence the performance of diagnostic services and surveillance in support of national clinical and public health systems. Governments may not yet have articulated the importance of this to their health systems and diagnostic services.

What have been the facilitating factors for PPTC meeting PICs’ needs? What are the constraints?

Facilitating factors include many of those that have been addressed under Section 5.1, *Relevance*.

PPTC’s consistent historic funding base and its focus on basic rather than advanced laboratory capacity are also potent facilitating factors.¹²

Related to this, other development partners may be looking for opportunities to mobilise funding for laboratory support through consultancies and PPTC may be the first (and only) option. The *Strategic Plan* needs a firm view of PPTC’s role, expertise and mandate, and the organisation should not waver from this (unless there is a very good reason) – especially where there is an intention to increase income from consultancies (see also *Managing risks to sustainability*, Section 5.6, pages 26–27).

What types of relationships does the PPTC have with other relevant organisations? What factors constrain and enhance the relationship of the PPTC with those organisations? Identify which of these factors are outside PPTC’s control

These questions have been addressed conjointly under a similar heading in Section 5.1, *Relevance*.

PPTC’s familiarity with the laboratory development issues and its almost unique status in the region may also be regarded as potential constraints: i.e. there is a risk that it will be expected to meet a broad range of needs and demands, and this may out-strip its capacity.

Describe and comment on the PPTC’s monitoring and evaluation framework. Does this framework provide appropriate and robust information on outputs and contribution towards outcomes and impact? If not, why not?

This has been addressed at Section 5.3, above, but is worth reiterating.

¹² Smith D (*op cit*, 2008)

The longer term outcomes of the *Strategic Plan* and its MEF were extremely broad, were often not within PPTC's mandate or ability to achieve on its own, and did not anticipate important risks (e.g. a shift in donor attention from regional to country level funding mechanisms); some outcomes were not feasible to achieve within a 5-year time span.

Many of the proposed outcomes in the MEF are mainly for PPTC itself, and were designed to help the organisation to monitor its response to some of the recommendations of the 2005 review. Subsequent strategic plans and MEFs will need to seek a balance between organisational performance, periodic situation analysis in the region, and the development effectiveness of PPTC activities at the country level.

Budget lines for M&E are mainly allocated to situation monitoring in the region (e.g. through attendance at regional meetings) rather than performance monitoring of PPTC's programme of activities.

Recommendation – That the New Zealand Aid Programme provides any necessary funding and technical support to PPTC for developing a monitoring and evaluation framework to match the new strategic plan, and that the MEF is based on "SMART" indicators and feasible appropriately phased outcomes (not just activities and financial acquittal).¹³

Recommendation – That PPTC routinely reports progress against the indicators identified in the MEF, and that the means of measuring those indicators reflect a more analytical, performance-based approach to monitoring. [Amendment of recommendation 13 from 2005]

Recommendation – That, as part of the strategic planning process, PPTC develops a risk management strategy in consultation with the New Zealand Aid Programme and any technical support engaged. The Board should examine the risk management strategy regularly, and should attempt to identify responses to a range of scenarios (including how to manage an increased proportion of donor funds being channelled through partner Government systems instead of regional projects).

5.5 Sustainability of Outcomes

What have been the training and career paths of students graduating from the PPTC Diploma in Medical Laboratory Technology?

In the three countries visited during the evaluation, a total of 29 candidates had enrolled for POLHN laboratory subjects (17 from Samoa, 8 from Cook Islands and 4 from Vanuatu). In Apia and Port Vila, this represents about half the respective laboratory staff while, in Rarotonga, almost the entire laboratory staff have enrolled.

Among these, 6 candidates from Samoa and 5 from Cook Islands but 0 from Vanuatu have already completed the requirements for the Diploma.

Two of the Samoan graduates and one from the Cook Islands have gone on to enrol in degree courses in Medical Laboratory Science at the Auckland University of Technology. The other 6 graduates in Samoa and four in the Cook Islands continue to work in the principal national hospital laboratories in Apia and Rarotonga, respectively.

PPTC does not systematically follow up the performance and work experience of alumni and graduates; however, this information may be relevant to monitoring country needs and evolving technical assistance to better meet them. Establishing periodic, ongoing contact with trainees would provide important information on the effectiveness of training inputs and (although not

¹³ See Footnote 1, page xi

strictly the role or mandate of PPTC once training is concluded) opportunities for on-the-job supervision and support.

Recommendation – That PPTC develops a system for maintaining contact with course graduates and alumni, with a view to monitoring not only the career pathways of those individuals but also the continuing relevance and evolution of training programmes delivered through DFL.

To what extent has the work of PPTC established / enhanced systems, capacity, process that are likely to be sustained? What factors support and constrain sustainability of PPTC outcomes? How are these factors best addressed nationally and regionally or by PPTC / other agencies?

Training activities are now strongly institutionalised, either through POLHN or the Short Term Training Awards system.

Completion rates and performance accuracy for the Regional EQAP remain variable between countries and within laboratories. The reasons for this are unclear, but may reflect a degree of sub-specialisation within laboratories and the availability of key staff who have expertise in particular procedures. Such issues can only be addressed within the laboratory concerned (although, as manager of the EQAP, PPTC is well placed to stimulate and support more sustainable practices, e.g. treating EQA specimens as “routine” rather than as somehow “special”).

The EQAP is unlikely to be fully sustainable until PICs are prepared to pay a fee to participate (which would symbolise an explicit level of national ownership, and a performance responsibility that the laboratory would have to senior health sector management). However, the impact of the global recession on smaller PIC economies makes this unlikely in the short- to medium-term (and hence also the period of the next *PPTC Strategic Plan*).

It should be noted that PPTC has a philosophical and philanthropic preference not to charge fees for participation in the Regional EQAP, and this needs to be respected (but also monitored, challenged and tested from time to time).

5.6 Institutional Sustainability

What opportunities are there for PPTC to diversify funding sources?

The process leading to the GFA and New Zealand Aid Programme funding for the 2007/08 financial year is described in Sections 2.4 and 2.5, above.

Subsequent submissions and LOV grants for core MFAT funding support aligned almost exactly with income and expenditure estimates for the calendar year that began 6 months before the relevant financial year. A budget item called Course Fees was fully funded by the New Zealand Aid Programme in 2007/08 and was still about 83% funded by the New Zealand Aid Programme in 2010/11.

The Table at the top of page 26 summarises actual MFAT funding for PPTC (i.e. through the Pacific Regional Health Programme), by financial year; these amounts are also shown as a percentage of the mean projected costs extrapolated from the relevant calendar years in the *PPTC Strategic Plan*.

This analysis suggests that PPTC remains highly dependent on the New Zealand Aid Programme for its budget bottom line.

Actual MFAT disbursements to PPTC (NZD) as a proportion of mean annual projected expenditure, PPTC Strategic Plan, by financial year, 2007/08 to 2010/11

Financial Year	2007/08	2008/09	2009/10	2010/11	TOTAL
MFAT (actual)	198,711	268,273	306,617.50	318,018	1,091,619.50
% (projected)	83.3%	99.9%	99.9%	100.8%	96.6%

Opportunities for consultancy based income or special course development projects will continue through POLHN and avenues like the HIV/STI Response Fund; the new 'hybrid' course in STI diagnosis is a good example, and the turnover of funds through PPTC will be significant (see Section 5.2, page 15).

WHO and other multilateral agencies will also continue to require consultancy services, including for operationalising and implementing the *Laboratory Strategy* in the Pacific. PPTC has already accessed some of the AusAID support for this process that has been directed through WPRO.

However, donors are becoming more selective of the way funding is directed to countries, including for health and HIV, and we are likely to see a contraction of regional projects and the allocation of more donor resources to core budget support or SWAp-related trust accounts. This will place an increasing responsibility on SPC to negotiate access to in-country resources held by Government.

Managing risks to sustainability associated with over-reaching –

From consultations during the course of the evaluation, it is clear that countries and development partners alike continue to look to PPTC for its familiarity with Pacific laboratories and, by implication, its ability to transfer those principles to smaller Asian countries or smaller, sub-national laboratories in Asia or PNG. While this obviously presents many attractive opportunities for PPTC to expand its range of consultancy services and participation in the Regional EQAP and reduce its level of dependence on the New Zealand Aid Programme, it also presents risks.

Principal among these risks is over-extending the reach of a small organisation, which may compromise the effectiveness and efficiency with which activities are implemented in PPTC's core constituency, i.e. the PICs.

Engagement at the wrong level in PNG (e.g. the Government laboratories located in the 18 provincial hospitals located outside Port Moresby) and a too-rapid expansion of the Asian network of partner laboratories represent two clear examples of possible over-reaching. The needs in PNG are manifest, but there is also capacity within the Central Public Health Laboratory (CPHL) in Port Moresby that could be nurtured.¹⁴ Together with other health SWAp partners in PNG, a more effective approach (with less inherent risk to PPTC) might be to identify ways of strengthening the capacity of the CPHL to develop and manage its own EQAP – i.e. a national coordinating body taking responsibility for its own sub-national network, with PPTC providing occasional, well-targeted, efficient support for that national body.

Similar approaches may be relevant to Solomon Islands and Vanuatu (each of which has a network of provincial laboratories), and to any PIC with a network of community based POC testing sites.

In Asia, it may be possible (with the support of regional technical partners such as WHO SEARO and WPRO) to develop a similar approach to that proposed for the CPHL in PNG, i.e. developing

¹⁴ A CPHL delegate participated, along with PICs, in the Pacific region consultations for the WHO *Asia Pacific Laboratory Strategy*.

the capacity of a national or sub-regional reference laboratory to develop and manage a Regional EQAP serving the needs of smaller national and sub-national laboratories. Again, the preferred role for PPTC might be as a facilitator and technical adviser, but not as a manager.

The current *PPTC Strategic Plan* is non-specific about the strategy for expansion and management of the associated risks, talking only about an “increasing” role for the organisation in “South East Asia” under Long-term Outcomes 3, 4 and 5. The new strategic planning cycle presents a good opportunity for PPTC to define more clearly:

1. its intended role in Asia,
2. the balance between consolidation of inputs and outcomes in PICs and expansion beyond the Pacific, and
3. the way any associated risks will be managed (see also the recommendation in relation to developing a risk management strategy, Section 5.4, page 24).

Recommendation – That PPTC’s next strategic plan clearly defines the organisation’s intended strategy for engagement in Asia and larger Pacific region countries (e.g. PNG), how that engagement will be phased, and how collaboration will be managed with other technical partners who may also contribute to that work.

Recommendation – That the PPTC Board actively monitors PPTC’s range of activities in relation to its core mandate, taking care that the organisation does not compromise its effectiveness with an over-ambitious scope of the services it provides.

Succession planning for PPTC

The 2005 review noted the need for active succession planning for the PPTC Board and staff, and the engagement of a Programme Coordinator has been an important response. However, succession planning for the Board has not yet been actively addressed.

Opportunities exist to attract current, practising laboratory scientists, health practitioners or individuals with skills and experience in the management of small enterprises; a Pacific Island background would further enhance the scope and effect of such an appointment. This would need to be actively promoted (e.g. through sponsoring another international development session at the annual scientific meeting of the Institute of Medical Laboratory Science, as was done once before).

The consultant has discussed this at length with the three Board members interviewed during the visit to Wellington.

Recommendation – That, as part of the strategic planning process to guide PPTC through the next 5 years, the Board prioritises addressing its own succession planning needs.

This is now such a priority for PPTC that it should be an agreed outcome of any New Zealand Aid Programme support for the next cycle of strategic planning.

6. Conclusions and Lessons Learned

6.1 Changes brought about by the intervention

Whether delivered via a residential course in New Zealand or through DFL, training outcomes appear to have been effective (in terms of reach, impact and being pitched at the right level) and are likely to have led to sustainable improvements in individual knowledge and performance.

PPTC's partnership with POLHN for the delivery of appropriate laboratory training has enabled it to multiply the reach of its programme several-fold over a period of just 3-5 years. The POLHN courses not only fill an important niche for older laboratory workers without formal training and newly recruited staff straight out of high school; their reach and their complementarity with on-the-job training have stimulated a culture of continuous learning that, previously, only a few laboratory workers could aspire to – this effect was tangible in all national laboratories visited.

Hospital laboratory workers who had been on a placement in New Zealand also found the experience extremely effective for gaining additional knowledge and skills.

The Regional EQAP has been more modestly effective. Participation rates average 75% for all countries and topic areas, but vary across a wide range; accuracy scores also vary across a wide range, and may fluctuate unpredictably for a given laboratory. Scores of 100% are usual for infectious diseases serology and not uncommon for microbiology, but laboratories seem to find haematology and biochemistry more challenging.

Overall, EQA participation and accuracy scores have shown a small (but variable and not statistically significant) upward trend over the last 5 years.¹⁵

6.2 Gender

In the four laboratories visited during the field evaluation, participation in PPTC training activities by gender had been consistent with the gender balance in the work force in the individual laboratory. No gender differences were noted in access to laboratory services or the access of laboratory workers to PPTC training and other technical support.

The work of PPTC includes helping health laboratories to improve maternal outcomes (e.g. by providing access to safe blood transfusion for caesarean section and cases of maternal haemorrhage), thereby making an important contribution to the achievement of MDG 5.

6.3 Other cross-cutting issues

Human rights

The principal human rights aspects explored during the evaluation related to the quality, efficiency and equity of access to health and laboratory services.

In the Cook Islands and Vanuatu, residents of remote outer island communities face significant challenges accessing health and laboratory services. While this is beyond the scope of PPTC as an individual organisation to address, better engagement with health service planning and quality assurance through local representatives of the Aid Programme will potentially assist PPTC to provide appropriate support, e.g. through broadening the scope of activities of community based malaria microscopists to also offer haemoglobin testing, urinalysis and other simple POC testing.

Environment

Biosafety and biosecurity are key considerations of the WHO *Asia Pacific Laboratory Strategy* and the work of PPTC on essential laboratory standards for the Pacific.

In the four laboratories visited during the field evaluation, all had adequate facilities and practices for the safe disposal of medical and laboratory waste (commensurate with the medical waste incineration standards of the parent hospital), and for the storage and shipment of biological samples to reference laboratories.

¹⁵ The purpose of EQA is not to compare laboratories with each other but to allow laboratories to compare trends in their own performance at different points in time. For this reason, individual laboratory scores are not tabulated in this report; only aggregated or indicative scores are quoted from the PPTC EQAP records.

HIV Infection and impact on People Living with HIV

Laboratories play a key role in strengthening access, availability and quality of HIV-related counselling and testing services, supporting access to continuing health care for people living with HIV (PLHIV; especially those already taking anti-retroviral therapy), and in minimising the risk of HIV transmission in health care settings through safe blood transfusion and good quality infection control and safe disposal of medical waste.

The work of PPTC in supporting HIV and STI diagnosis in the laboratories visited (especially in Vanuatu) has been highly relevant to PLHIV and those at risk of acquiring HIV or other STIs.

None of the four laboratories visited had effective or visible guidelines or systems for staff to follow after a needle-stick injury or other exposure to hazardous materials; no laboratory worker interviewed was able to describe criteria or procedures for obtaining post-exposure prophylaxis against HIV infection. While outside the direct responsibility of PPTC, this is a core element of the WHO *Asia Pacific Laboratory Strategy* and PPTC can play a role in strengthening relevant SOPs.

Development effectiveness

Development effectiveness is central to the concepts behind the WHO *Asia Pacific Laboratory Strategy* and the evolving mechanisms for development cooperation in the health sectors in Samoa and Vanuatu. While it is too early to assess the degree to which a discrete area of technical support like the laboratory is making to overall development effectiveness, it will be important for PPTC and the New Zealand Aid Programme to be able to cost the value of PPTC inputs in individual countries so that the value of these services is transparent to counterparts (instead of being regarded as a "free good").

PPTC's availability to provide *ad hoc* advice and support to its partner laboratories (i.e. in addition to structured training or EQA programmes) demonstrates a willingness to be responsive to demands and needs at the country level.

Improved engagement with sectoral planning mechanisms through in-country New Zealand Aid Programme and WHO representatives will help PPTC to continue to align its support with national policy priorities (see also Section 6.5, below).

6.4 Costs and Benefits

What has been the cost of the intervention(s) compared to the programme results? Has MFAT obtained value for money?

PPTC's traditional role – delivery of appropriate laboratory training and highly cost-effective support for laboratory quality assurance – is unique in most areas of the Pacific: it continues to fulfil a function that is not available through any other regional organisation or institution, and neatly complements the work of other development partners like WHO, SPC and PIHOA.

As noted in Section 5.4, PPTC's consistent and predictable funding base and its focus on basic rather than advanced laboratory capacity have been central factors contributing to the results of its programme of activities.

Cumulative funding by the New Zealand Aid Programme over the last four years is equivalent to just over NZD 270,000 / year – a very modest cost for the quality and reach of services provided (even allowing for the ongoing strategic and organisational challenges noted in this evaluation).

PPTC is the only EQAP in the Asia-Pacific region that does not charge participation fees to public sector laboratories. The equivalent EQAP in the North Pacific must conform to the requirements of the United States Clinical Laboratory Improvement Amendments (CLIA) Act, for which participating laboratories pay around USD 10,000 / year to participate; similar costs apply to the programmes offered through the Royal College of Pathologists of Australasia (although

charges vary according to the package of tests subscribed to). At the present time, without this subsidised programme of support, it is likely that only the larger laboratories in PNG and Fiji would pay to participate in an EQAP.

Recommendation – Noting the virtually unique position, style and capacity of PPTC to provide cost-effective technical support for capacity development in Pacific laboratories, that the New Zealand Aid Programme extends its funding support for PPTC to cover the period of operation of the next strategic plan.

6.5 Implications for future work and continued relevance

Although implicit in the *Strategic Plan 2007-11*, PPTC has had relatively limited involvement in the evolving health systems context; New Zealand Aid Programme officers in-country are well positioned to keep PPTC engaged in health reform agendas. During the period of PPTC's next strategic plan, some donor funding is likely to shift from regional projects managed by multilateral or intergovernmental partners to direct bilateral support aligned with national health reforms and sector plan; this may require a change in the way PPTC accesses some potential sources of consultancy income.

While the *PPTC Strategic Plan 2007-11* has provided good general focus for the organisation's work and overall direction, it has not been actively managed, monitored or reported on. Clear indicators are needed to measure progress towards proposed outcomes and guide the structure of annual and periodic reports.

Finally, over-extending the reach of a small organisation may pose risks to the effectiveness and efficiency with which activities are implemented. PPTC and its Board should ensure that the new strategic plan matches the range of intended activities with organisational capacity, and that it does not compromise its effectiveness or efficiency with an over-ambitious geographic or technical scope for the services it provides.

Appendix I: Acronyms and Abbreviations

AUD	Australian dollar
AusAID	Australian Agency for International Development
CLIA	United States Clinical Laboratory Improvement Amendments Act
CMDHB	Counties Manukau District Health Board
CPHL	Central Public Health Laboratory, Port Moresby, PNG
CSR	Communicable Diseases Surveillance and Response programme
DFL	Distance and flexible learning
EQAP	External Quality Assurance Programme
EIDs	Emerging and re-emerging infectious diseases
EPI	Expanded Programme on Immunisation
FSMed	Fiji School of Medicine
GFA	Grant Funding Agreement
HIV	Human Immunodeficiency Virus
HRH	Human resources for health
ISO	International Organization for Standardization
JPA	Joint Partnership Agreement, Vanuatu
LabNet	Laboratory Network, PPHSN
LQMS	Laboratory quality management system
LOV	Letter of Variation (to the GFA)
M&E	Monitoring and evaluation
MDG	Millennium Development Goal
MFAT	Ministry of Foreign Affairs and Trade
MOH	Ministry of Health
MTEF	Medium term expenditure framework
NCD	Non-communicable disease
NDH	Northern Districts Hospital, Luganville, Vanuatu
NHS	National Health Service, Samoa
NHSP	National health strategic plan
NUS	National University of Samoa
NZAID	The former New Zealand Agency for International Development ¹⁶
NZD	New Zealand dollar
NZIMLS	New Zealand Institute of Medical Laboratory Science
NZJMLS	New Zealand Journal of Medical Laboratory Science
RALM	Pacific Association of Laboratory Medicine
PCR	Polymerase chain reaction
PIC	Pacific Island country
PIHOA	Pacific Island Health Officers Association
PLHIV	People living with or affected by HIV infection
PNG	Papua New Guinea
POC	Point-of-care (testing)
ROLHN	Pacific Open Learning Health Network
PPHSN	Pacific Public Health Surveillance Network
PPTC	Pacific Paramedical Training Centre
PRIPPP	Pacific Regional Influenza Pandemic Preparedness Project

¹⁶ In practice, the term NZAID may be taken to apply to the same range of functional responsibilities as the present New Zealand Aid Programme under MFAT.

SEARO	Regional Office for South East Asia (WHO)
SOP	Standard operating procedure
SPC	Secretariat of the Pacific Community
STI	Sexually transmissible infection
SWAp	Sector-wide approach ¹
TB	Tuberculosis
TORs	Terms of reference
UNFPA	United Nations Population Fund
USD	United States dollar
WHO	World Health Organization
WPRO	Regional Office for the Western Pacific (WHO)

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Appendix II: Terms of Reference

Pacific Paramedical Training Centre

Evaluation of Core Funding Support

Terms of Reference

Background information and context

Laboratories are an essential component of public health systems, particularly for disease surveillance, diagnosis, prevention and treatment. Health laboratories in Pacific Islands Countries and Territories (PICTs) have identified multiple challenges to effective performance, including financing, qualified and skilled workforce, information, medical products and technologies, service delivery and leadership and governance. Multiple inputs for support to laboratory strengthening through vertical, disease-specific programmes and communicable disease outbreaks, such as Influenza A (H1N1) may exacerbate these weaknesses.

The World Health Organisation (WHO) recently developed the Asia Pacific Strategy for Strengthening Health Laboratory Services (2010 – 2015) and is now working with the Secretariat of the Pacific Community (SPC) to implement the Strategy in the Pacific region.

The Pacific Paramedical Training Centre (PPTC) was established from within the NZ Ministry of Health in the 1980's as a non-government organisation to strengthen health laboratory capacity in the Pacific. The goal of the PPTC is "to assist national health laboratories of the Pacific region to develop a laboratory service that is appropriate, affordable and sustainable and will provide immediate benefits to the healthcare settings in which they are used".

The PPTC undertakes a range of programmes to achieve this goal, including:

- **Training:** short-term courses run in Wellington, Pacific Open Learning Health Network (POLHN) certificate and other specific in-country/regional training sessions.
- **Regional External Quality Assurance Programme (REQA):** measuring and comparing the performance of laboratories in assaying specimens with a known value or result.
- **Laboratory Quality Management System Programme (LQMS):** organised system of policies, processes, programmes, procedures and instructions to reduce the range and number of errors in laboratories.

The Ministry of Foreign Affairs and Trade (MFAT) NZAID¹⁷ programme commenced funding of the PPTC in 1981. NZAID funding covers core costs (salaries, overheads etc), training courses in Wellington, REQA and LQMS. NZAID commissioned an independent review of the PPTC in 2005. The review found that the PPTC had excellent collaborative relationships and strong stakeholder support for their work. It also made a number of recommendations to increase the effectiveness of their work and the relationship with NZAID.

Following the review, the PPTC developed a Strategic Plan 2007 – 2011, which formed the basis for a four year Grant Funding Arrangement (GFA) 2007/08 to 2010/11 with NZAID.

¹⁷ NZAID refers to the New Zealand Government's international aid and development programme (since 2010). The Ministry of Foreign Affairs and Trade is responsible for managing the NZAID programme. Prior to 2010 'NZAID' was also used to describe the agency managing the programme. Thus, when referring to events prior to 2010, or to the aid and development programme, the term 'NZAID' will be used.

Rationale and purpose of the evaluation

With the conclusion of the current GFA and the increasing development assistance focus on health laboratories, it is timely to evaluate MFAT support to the PPTC. The results of the evaluation will be reported primarily to the PPTC and MFAT Programme team, and will be used to inform the strategic direction of both agencies. This includes the next Strategic Plan for the PPTC and whether and how MFAT continues to provide support.

It is expected the findings will also be of relevance/use to other regional and national stakeholders to their own policy and programmes regarding health laboratory strengthening.

Scope of the evaluation

The evaluation will cover all aspects of the MFAT/PPTC GFA over the period Financial Years 2007-08 to 2010-11. Given the close relationship between activities funded by the MFAT programme and other sources (e.g. POLHN), MFAT and the PPTC have agreed that the evaluation should cover all PPTC activities. The full scope of the evaluation will be confirmed following submission of the evaluation plan.

The consultant is expected to draw on the results of the review in 2005 for the preceding period. Evaluation stakeholders are primarily the health laboratories and Ministries of Health of targeted countries. Other stakeholders include organisations with which the PPTC has worked with closely; this includes the WHO, SPC and the Pacific Islands Health Officials Association (PIHOA).

The evaluation will address four of the Development Assistance Committee (DAC) evaluative criteria: effectiveness, efficiency, relevance and sustainability.

Objectives of the evaluation

1 To assess the relevance of PPTC's work

Specific questions include but are not limited to:

- How are health laboratory issues in the Pacific articulated in national and regional priorities? To what extent does PPTC's Strategic Plan reflect Pacific priorities and how do PPTC's activities reflect these priorities?
- To what extent does PPTC's Strategic Outline 2007 – 2011 position it to meet the needs of Pacific Countries for laboratory strengthening?
- Where does the work of the PPTC sit within a continuum of minimum standards, qualifications and continuing professional development for laboratories?
- What has been the rationale for a regional approach? Do the assumptions / reasons still hold?
- How does the PPTC's work align with international and regional standards and best practice and with regional strategies for laboratory strengthening?
- To what extent does PPTC's work complement the work of other agencies in laboratory strengthening? Are there any areas of duplication? Are there gaps that PPTC could usefully fill?
- What is the PPTC's comparative advantage in delivering its services compared to other organisations?

2 To assess the efficiency of the PPTC

Specific questions include but are not limited to:

- Could a different approach lead to similar results at a lower cost (to students, PICTs, the PPTC and/or NZAID)? (Refer NZAID Operational Guideline on Value for Money).

3 To assess the effectiveness and sustainability of the PPTC

Specific questions include but are not limited to

- What outputs and outcomes has PPTC achieved over the funding period?
- Has PPTC implemented the recommendation from the 2005 review and have these increased the effectiveness of their work and the relationship with NZAID?
- How well has PPTC achieved its strategic goals and objectives?
- How well has the PPTC met the needs of PICTs?
- What have been the facilitating factors for PPTC meeting PICTs' needs? What are the constraints?
- What types of relationships does the PPTC have with other relevant organisations?
- What factors constrain and enhance the relationship of the PPTC with those organisations? Identify which of these factors are outside PPTC's control.
- Describe and comment on the PPTC's monitoring and evaluation framework. Does this framework provide appropriate and robust information on outputs and contribution towards outcomes and impact? If not, why not?
- What have been the training and career paths of students graduating from the PPTC Diploma in Medical Laboratory training (MLT)?
- To what extent has the work of PPTC established / enhanced systems, capacity process that are likely to be sustained? What factors support and constrain sustainability of PPTC outcomes? How are these factors best addressed nationally and regionally or by PPTC / other agencies?
- What opportunities are there for PPTC to diversify funding sources?

4. To identify lessons learned and make recommendations about future opportunities for additional support from the NZ Aid Programme to PPTC

Specific questions include but are not limited to

What changes have been brought about by the intervention – positive and negative, intended and unintended, qualitative and quantitative?

What have been the differential effects of the intervention on men and women?

How has the intervention addressed other cross-cutting issues (e.g. human rights, etc)

What has been the cost of the intervention(s) compared to the programme results? Has MFAT obtained value for money?

What are the lessons that can be learned from this project that are relevant to future work?

What changes could be made so that PPTC future assistance remains relevant to the changing laboratories landscape in the Pacific?

Make recommendations to guide MFAT decision making after the current funding agreement ends.

Methodology

The consultant is expected to undertake/participate in the following tasks

- Attend an initial briefing with the MFAT programme team and the PPTC.

- Carry out a Wellington based review of files and interviews with MFAT programme staff and key stakeholders including PPTC, SPC (South Pacific Community) and (WHO) World Health Organisation
- Write an initial progress report identifying findings to date and key information gaps that will guide future work. This report can be in bullet point format.
- Develop an evaluation plan using the initial findings and outlining the detailed methodology for conducting the remainder of the evaluation. The evaluation plan will be approved by the MFAT programme team and the PPTC prior to further work commencing. This should include:
How the consultant will answer the questions in Annex B.

Rationale for selection of countries for field visits (up to 3 including a rationale for any changes to the field visit programme presented in the initial work plan).

Details of what, if any, support and involvement from the PPTC and MFAT programme team is required.

A revised budget, if any changes to the field visit or initial work plan are agreed with MFAT. (MFAT would prefer that any such changes are fiscally neutral).

The final evaluation plan (including any questionnaires and checklists of questions, should be attached to the main report as an appendix, see Annex A)

- Write a draft and final report to meet the standards set out in Annex A

The following principles should be employed in development of the evaluation plan and the evaluation more broadly:

- Working in partnership
- Ensuring transparency and independence
- Ensuring a consultative participatory process
- Ensuring the capacity building of key partners and stakeholders as a key element of the process.

Governance and management of the evaluation

Governance

MFAT and the PPTC are jointly responsible for the governance of the evaluation through a Steering Committee comprising key members of both organisations (self-selected). The Steering Committee has approved this TOR and will approve the evaluation plan. It will send collated feedback on the draft report to the evaluator. The Steering Committee will work towards joint sign-off on the final report, however in the event of disagreement MFAT will make the final decision.

Management

The Development Programme Manager (DPM) MFAT is responsible for the management of the review including responsibility for contracting issues with the partner and the consultants and leading for MFAT on the joint governance process. The DPM will seek support from the Development Programme Administrator (DPA) as necessary.

The consultant is responsible for managing feedback from stakeholders and ensuring accurate analysis is included in the reporting. The Steering Committee may engage on the accuracy and clarity of the analysis during consultation on the draft report.

Independence

The consultant is responsible for presenting the findings, analysis and any recommendations throughout the evaluation. In support of the collaborative participation and capacity building principles, the consultant is expected to engage the PPTC, MFAT programme team and other stakeholders as appropriate in the evaluation. The consultant will need to determine whether such involvement may influence the independence of the evaluation. Should issues arise, the consultant will need to raise them with the Steering Committee which will agree resolution.

Skills of the Evaluator

The evaluation will be undertaken by one consultant with the following skills and experience:

- Evaluation experience, including as the sole team member or as team leader
- Understanding of public health systems and health laboratories in the Pacific context;
- Experience working with civil society;
- Skilled in being both an objective evaluator and an empathetic observer;
- Strategic planning, design and programme management skills.

The consultant will be responsible for recommending the inclusion of the PPTC, MFAT programme staff and other stakeholders in the evaluation as necessary.

Time line and final reporting requirements

Outputs/Milestones	Due Date
Initial Progress report	TBC
Evaluation Plan	TBC
Draft Report	TBC
Final Report	Preferably by 31 January 2011

MFAT prefers that the evaluation is completed by 31 January 2011 but will consider proposals that have a later completion date. Submitted Work Plans should include dates for all milestones.

The final report will be structured as per Annex A. The outputs (excluding briefing) should be delivered electronically to the relevant manager in the MFAT Programme team who will facilitate the feed back process with the PPTC. The main body of the report should be no longer than 20 pages (excluding annexes).

A draft of the final report will be peer reviewed by the Steering Committee, including PPTC. Further work, or revision of the report, may be required if it is considered the report does not meet the ToR, there are errors of fact or the report is incomplete or of an unacceptable standard.

The final report will be appraised before being considered for public release by MFAT Programme Evaluation and Research Committee. The evaluation report will be made publicly available, unless there is prior agreement not to do so. Any information which should not be made publically available should be placed in a confidential annex.

The report will comply with MFAT programme requirements for review and evaluation, and meet the quality standards as described in the Development Assistance Committee (DAC) Evaluation Quality Standards.

Sources of written information (to be provided during initial briefing)

Relevant Programme Documents

- Pacific Paramedical Training Centre Strategic Outline 2007 – 2011
- Pacific Paramedical Training Centre Review Report for NZAID 2005

WHO Asia Pacific Strategy for Strengthening Health Laboratory Services 2010 -2015
SPC Draft Concept Paper: Contributing to the Asia Pacific Strategy for Strengthening Health
Laboratory Services (October 2009)
NZ Aid Health Policy
NZ Aid Health Strategy 2008

Relevant background information on MFAT Evaluation Policy

NZ Aid Evaluation and Research Committee Process Guideline
NZ Aid Evaluation Policy Statement
NZ Aid Guideline on Evaluation and the Activity Cycle
NZ Aid Evaluation Guidelines on Participatory Evaluation
NZ Aid Guideline on the Structure of Review and Evaluation Reports
NZ Aid Guideline on Dissemination and Use of Evaluation Findings
NZ Aid Screening Guide for Mainstreamed and Other Cross-Cutting Issues
NZ Aid Operational Guideline on Value for Money
OECD DAC Evaluation Quality Standards

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Structure of Evaluation Report

The consultant should refer to the 'MFAT NZAID programme Guideline on the Structure of Review and Evaluation Reports'.

Title Page

- Title of report (including project/programme evaluated, country, region etc)
- Author(s) name(s) and affiliation(s) including designation
- Date (month and year) & location (e.g. Wellington)

Executive Summary

The Executive Summary should be no more than six pages. It should include:

- A brief background of why the review or evaluation was carried out.
- The purpose and objectives of the evaluation
- A succinct description of the methodology used, who was involved, how? This section ought to describe how project/programme stakeholders participated in the evaluation
- Key findings
- A section on value for money (refer MFAT NZAID programme Value for Money Operational Guideline).
- Recommendations and suggested follow up action

Main body of the report

The main text of the report will vary according to the specific study. However, it is important that this section contains:

- A description of the background of the evaluation and the main users of the findings/report
- Methodology used (including who participated, how and at what stage)?
- The timing of the evaluation
- Findings and conclusions:

Appendices:

These should include:

- Glossary of acronyms used
- Terms of Reference for the evaluation
- Approved evaluation plan
- List of data sources
- Diagrams, drawings, photographs, summary of survey results generated through the processes, etc (if appropriate). Refer to page 11 of the MFAT programme Guideline on Participatory Evaluation.
- Confidential Annex, if necessary

NOTE: MFAT intends to place a summary of each evaluation on its website and will release the full report on request. To facilitate this, information that could prevent the release of the report under the Official Information or Privacy Acts, or would breach evaluation ethical standards should be placed in a Confidential Annex.

Evaluation Plan

The consultant should consider the following when developing the evaluation plan:

- Who are the stakeholders, what is their interest, type and what issues might there be with their involvement in the evaluation?
- What information (including from whom) is needed to answer the evaluation questions? What stakeholders can address which questions? What questions would be in any surveys etc (if used)?
- What are appropriate methods for data collection?
- How will information be cross-checked and analysed (including qualitative)?
- How will cross-cutting and mainstreamed issues be taken into account? Have the needs of women, men, boys and girls been identified and addressed? Is sex-disaggregated data available?
- How will the findings be fed back/discussed with appropriate stakeholders?
- What risks, limitations, constraints might there be and how will these be mitigated?
- How will ethical issues be addressed?

Appendix III: Evaluation Plan

The Evaluation Plan was structured according to a draft revised format being trialled by MFAT that was introduced to the consultant during briefing in Wellington. This format superseded the approach summarised in Annex B of the TORs.

1. Introduction

This section of the Evaluation Plan has been modified, updated and included in Sections 1 and 2 of the Evaluation Report; hence it is not repeated here.

2. Objectives and Evaluation Questions

2.1 Objectives

The objectives of the Evaluation are as described in the TORs, i.e.

- 1) To assess the relevance of PPTC's work
- 2) To assess the efficiency of the PPTC
- 3) To assess the effectiveness and sustainability of the PPTC
- 4) To identify lessons learned and make recommendations about the future focus of PPTC programmes and support from the New Zealand Aid Programme and other sources

For Objective 4, noting the recommendations of the 2005 Review in relation to PPTC's organisational structure and strategic planning, it may be helpful to consider specific lessons emerging from PPTC's and the Aid Programme's experience in implementation of the PPTC *Strategic Plan 2007-11*. However, this will not entail any amendment to the present wording of the Objective.

2.2 Evaluation Questions

In considering Objectives 1 and 2 (i.e. the relevance and efficiency of PPTC's work and approaches), it will be helpful to also consider what alternatives to PPTC are available to PIC laboratories and laboratory workers.

Under Objective 3, the evaluation questions refer to "the PPTC's monitoring and evaluation framework" (MEF). In the PPTC *Strategic Plan*, the MEF is called an *Evaluation Logic Model*. It should be noted that the *Evaluation Logic Model* lacks clear indicators against which progress towards many of the outcomes proposed in the *Strategic Plan* can be measured. (The programme logic and its impact on the evaluation methodology are considered further under *Evaluation Design* (Section 4) and in Annexes 1 and 2.

The evaluation questions otherwise remain as described in the TORs (and are listed and discussed further at Section 4.2, below).

3. Stakeholder Analysis

The following matrix summarises the principal stakeholder groups and their interest in the work of PPTC, their involvement in the proposed Evaluation, and potential issues or constraints in relation to their participation:

Stakeholder	Interest / Stake	Issues / Constraints	Involvement
1. Laboratory workers and trainees in partner laboratories in Pacific Island and other countries	<ul style="list-style-type: none"> Primary beneficiaries of PPTC's training activities Primary targets of PPTC's regional external quality assurance programme (EQAP) and support for LQMS 	<ul style="list-style-type: none"> Potential concern that critical viewpoint may compromise future access to PPTC support Difficult to reach trainees in countries not being visited during Evaluation, with low response rates to surveys 	<ul style="list-style-type: none"> Structured interviews and group discussions in those countries visited during the Evaluation Performance in training activities analysed through PPTC and POLHN training records
2. Laboratory Managers in Pacific Island and other partner countries	<ul style="list-style-type: none"> Primary beneficiaries of PPTC's support for LQMS Primary targets of PPTC's regional external quality assurance programme (EQAP) Primary stakeholders determining nature of PPTC support and who gets access to training opportunities 	<ul style="list-style-type: none"> Potential concern that critical viewpoint may compromise future access to PPTC, New Zealand and Programme or other development partner support May be difficult to communicate with Laboratory Managers in countries not being visited during Evaluation 	<ul style="list-style-type: none"> Structured face-to-face interviews in those countries visited during the Evaluation Structured telephone interviews or questionnaires delivered by email in those countries not visited during the Evaluation
3. Clinical and public health workers in Pacific Island and other partner countries	<ul style="list-style-type: none"> Secondary beneficiaries of PPTC's training activities and support for LQMS and EQAP 	<ul style="list-style-type: none"> May not be familiar with scope of PPTC's training activities May not be able to differentiate laboratory constraints from broader health system ones 	<ul style="list-style-type: none"> Structured interviews and group discussions in those countries visited during the Evaluation

Stakeholder	Interest / Stake	Issues / Constraints	Involvement
<p>4. Health sector decision makers and managers in partner countries</p>	<ul style="list-style-type: none"> Primary interest in relevance and effectiveness of PPTC's support for laboratory activities in their country Principal stakeholder able to influence how National Laboratory Strategy and Plan is reflected in the National Health Strategic Plan (NHSP) Policy-makers in relation to how inputs of New Zealand Regional Aid Programme are reflected in NHSP and/or coexist within national health budget 	<ul style="list-style-type: none"> May not be familiar with scope of PPTC's training activities May not have reflected laboratory services accurately or in sufficient detail in NHSP 	<ul style="list-style-type: none"> Structured interviews in those countries visited during the Evaluation
<p>5. Aid Management Unit and/or Ministry of Finance in partner countries</p>	<ul style="list-style-type: none"> Primary responsibility for coordinating external development assistance for health where reflected on-budget and in NHSP 	<ul style="list-style-type: none"> May seek broader impact on health sector budget from Regional or overall New Zealand Aid Programme 	<ul style="list-style-type: none"> Structured interviews in those countries visited during the Evaluation
<p>6. PPTC itself (Director, staff and Board)</p>	<ul style="list-style-type: none"> Primary beneficiaries of revised approach to managing and monitoring PPTC's activities through the <i>PPTC Strategic Plan 2007-11</i> 	<ul style="list-style-type: none"> May have some uncertainty about how to apply <i>Strategic Plan</i> to develop effectiveness of PPTC inputs 	<ul style="list-style-type: none"> Structured interviews and telephone consultations during preliminary visit to Wellington
<p>7. Regional Aid Programme Managers</p>	<ul style="list-style-type: none"> Interest in how a multi-country activity funded through the Regional Aid Programme interfaces with Bilateral Aid Programme 	<ul style="list-style-type: none"> Uncertain policy environment for Regional Aid Programme activities 	<ul style="list-style-type: none"> Semi-structured interviews and consultations during preliminary visit to Wellington

Stakeholder	Interest / Stake	Issues / Constraints	Involvement
Regional Aid Programme Managers (soni)	<ul style="list-style-type: none"> Interest in how Regional Aid Programme initiatives are reflected in countries where a sector-wide or similar approach (SWAp) to development partner coordination is in place 		
8. Bilateral Aid Programme Managers	<ul style="list-style-type: none"> Primary oversight of PPTC contractual arrangements and reporting 	<ul style="list-style-type: none"> May be unsure of areas of focus for Regional Aid Programme activities May be unfamiliar with PPTC and its activities 	<ul style="list-style-type: none"> Semi-structured interviews and consultations during preliminary visit to Wellington Semi-structured interviews and consultations during country visits
9. Other development partners	<ul style="list-style-type: none"> Interest in how Regional Aid Programme initiatives are reflected in countries where a sector-wide or similar approach (SWAp) to development partner coordination is in place Collaborators in operationalisation of WHO <i>Asia-Pacific Strategy</i>, and coordination with their own regional programmes that may address laboratory strengthening 	<ul style="list-style-type: none"> Harmonisation of training activities and funding Alignment with Government programmes 	<ul style="list-style-type: none"> Telephone interviews with those based out-of-country Semi-structured face-to-face interviews and consultations during country visits with those based in-country

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4. Evaluation Design

4.1 Activity Logic Model

The inferred program logic diagram for PPTC is included as Annex 1, and the *Evaluation Logic Model* from page 22 of the *PPTC Strategic Plan 2007-11* is included as Annex 2.

The *Evaluation Logic Model* builds its short-, medium- and longer-term outcomes around the organisations Mission Statement (rather than a defined set of objectives). This means that it is not always straightforward to determine the intended causal linkages between intended inputs and activities and the expected outcomes.

However, the longer-term outcomes are likely to be evaluable and the Evaluation will focus on this level of the activity logic model.

Quantitative indicators may be identified for Longer-term Outcome 2 (i.e. expansion of the Regional EQAP and support for LQMS at the country level). All other longer-term outcomes require some qualitative assessment, based on PPTC and other stakeholders' responses to the questions that will be used for interviews and group discussions.

4.2 Information Collection

The information required to address each evaluation question, by objective, is summarised in the following table:

Question	Approach, Information required	Source or Method
Objective 1 – To assess the relevance of PPTC's work		
How are health laboratory issues in the Pacific articulated in national and regional priorities? To what extent does PPTC's <i>Strategic Plan</i> reflect Pacific priorities and how do PPTC's activities reflect these priorities?	<ul style="list-style-type: none"> • Whether laboratory issues are mentioned in National Health Strategic Plan (NHSP) • Whether a Laboratory Strategy and Plan has been developed • Whether PPTC <i>Strategic Plan</i> identifies links with NHSPs 	<ul style="list-style-type: none"> • National Health Strategic Plan or Laboratory Strategy and Plan of countries included in case studies • PPTC <i>Strategic Plan</i>
To what extent does PPTC's <i>Strategic Plan 2007–11</i> position it to meet the needs of Pacific Countries for laboratory strengthening?	<ul style="list-style-type: none"> • Analysis of content of PPTC <i>Strategic Plan</i> • Comparison with WHO <i>Asia-Pacific Strategy</i> and plans of other development partners to operationalise the WHO <i>Strategy</i> 	<ul style="list-style-type: none"> • PPTC <i>Strategic Plan</i> • WHO <i>Strategy</i> • SPC and PIHOA laboratory strengthening documents or guidelines • Interviews with WHO and other key institutional partners
Where does the work of the PPTC sit within a continuum of minimum standards, qualifications and continuing professional development for laboratories?	<ul style="list-style-type: none"> • Analysis of content of PPTC <i>Strategic Plan</i> • Comparison of laboratory functions with draft minimum standards 	<ul style="list-style-type: none"> • PPTC <i>Strategic Plan</i> • Visits to partner country laboratories • Interviews with WHO and other institutional partners

Question	Approach, Information required	Source or Method
What has been the rationale for a regional approach? Do the assumptions / reasons still hold?	<ul style="list-style-type: none"> Background information on priorities from Aid Programme strategy documents and Pacific and health sector advisers Comparison with national health sector development coordination principles and strategies 	<ul style="list-style-type: none"> Aid Programme strategy documents Interviews with Aid Programme managers SWAp documentation in Samoa Draft JPA documentation in Vanuatu
How does the PPTC's work align with international and regional standards and best practice and with regional strategies for laboratory strengthening?	<ul style="list-style-type: none"> Comparison of PPTC <i>Strategic Plan</i> and reports of activities with WHO <i>Asia Pacific Strategy</i> 	<ul style="list-style-type: none"> PPTC <i>Strategic Plan</i> WHO <i>Strategy</i> Interviews with WHO and other key institutional and development partners
To what extent does PPTC's work complement the work of other agencies in laboratory strengthening? Are there any areas of duplication? Are there gaps that PPTC could usefully fill?	<ul style="list-style-type: none"> Comparison of PPTC reports of activities with reported work of other development partners Balance of laboratory strengthening activities in the Pacific and how they are shared between development partners and PIC governments 	<ul style="list-style-type: none"> PPTC activity reports WHO <i>Strategy</i> Interviews with WHO and other key institutional and development partners
What is the PPTC's comparative advantage in delivering its services compared to other organisations?	<ul style="list-style-type: none"> Comparison of PPTC capacity and mandate with other agencies 	<ul style="list-style-type: none"> AusAID <i>Regional Lab Scoping Study</i>
Objective 2 – To assess the efficiency of the PPTC		
Could a different approach lead to similar results at a lower cost (to students, PICTs, the PPTC and/or NZAID)?	<ul style="list-style-type: none"> Comparison of costs of service delivery through different approaches (where possible and available) Identification of possible other sources of funding for laboratory strengthening 	<ul style="list-style-type: none"> <i>Regional Lab Scoping Study</i> commissioned by AusAID, 2008 New Zealand Aid Programme Operational Guideline on <i>Value for Money</i> Interviews with other development partners Consultant's own familiarity with AusAID programmes that may support laboratory strengthening
Objective 3 – To assess the effectiveness and sustainability of the PPTC		
What outputs and outcomes has PPTC achieved over the funding period?	<ul style="list-style-type: none"> Comparison of PPTC <i>Annual Reports</i> and other activity reports with <i>Evaluation Logic Model</i> in <i>Strategic Plan</i> 	<ul style="list-style-type: none"> Review of <i>Annual Reports</i> Interviews with Director, Programme Manager and Board and detailed review of performance against <i>Evaluation Logic Model</i>

Question	Approach, Information required	Source or Method
Has PPTC implemented the recommendation from the 2005 review and have these increased the effectiveness of their work and the relationship with NZAID?	<ul style="list-style-type: none"> • Tabulation of each recommendation of the 2005 Review with PPTC response, NZAID response and activities 	<ul style="list-style-type: none"> • As above
How well has PPTC achieved its strategic goals and objectives?	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • As above
How well has the PPTC met the needs of PICTs?	<ul style="list-style-type: none"> • Review of <i>Annual Reports</i> • Interviews with Director, Programme Manager and Board and detailed review of performance against <i>Evaluation Logic Model</i> 	<ul style="list-style-type: none"> • Review of PPTC <i>Annual Reports</i> • Interviews with Laboratory Managers in countries visited (and, where possible, by telephone in other countries)
What have been the facilitating factors for PPTC meeting PICTs' needs? What are the constraints?	<ul style="list-style-type: none"> • Detailed review of needs and constraints with Laboratory Managers 	<ul style="list-style-type: none"> • Interviews with Laboratory Managers in countries visited (and, where possible, by telephone in other countries)
What types of relationships does the PPTC have with other relevant organisations?	<ul style="list-style-type: none"> • Opinion and qualitative assessment based on interviews with other development partners and agencies 	<ul style="list-style-type: none"> • Interviews with other development partners
What factors constrain and enhance the relationship of the PPTC with those organisations? Identify which of these factors are outside PPTC's control.	<ul style="list-style-type: none"> • As above 	<ul style="list-style-type: none"> • As above
Describe and comment on the PPTC's monitoring and evaluation framework. Does this framework provide appropriate and robust information on outputs and contribution towards outcomes and impact? If not, why not?	<ul style="list-style-type: none"> • Independent appraisal of <i>Evaluation Logic Model</i> in <i>Strategic Plan</i>, including feasibility of using it to measure performance against intended short-medium- and longer term outcomes 	<ul style="list-style-type: none"> • Consultant's own analysis of PPTC <i>Evaluation Logic Model</i> in <i>Strategic Plan</i>
What have been the training and career paths of students graduating from the PPTC Diploma in Medical Laboratory Technology (MLT)?	<ul style="list-style-type: none"> • Based on PPTC and POLHN Diploma records, follow-up interviews 	<ul style="list-style-type: none"> • Face-to-face interviews with graduates in countries visited • If sample too small, follow-up interviews by phone or email with a sample of other graduates
To what extent has the work of PPTC established / enhanced systems, capacity process that are likely to be sustained? What factors support and constrain sustainability of PPTC outcomes? How are these	<ul style="list-style-type: none"> • Audit of capacity and LQMS in laboratories visited, matched with content and effectiveness of training inputs by PPTC 	<ul style="list-style-type: none"> • PPTC audit reports on Cook Is, Samoa and Tonga laboratories • Observations by consultant in laboratories inspected during country visits

Question	Approach, Information required	Source or Method
factors best addressed nationally and regionally or by PPTC / other agencies?		
What opportunities are there for PPTC to diversify funding sources?	<ul style="list-style-type: none"> • Review of potential sources of funding with other development partners 	<ul style="list-style-type: none"> • Discussion with PPTC Director and Board • AusAID Regional Lab Scoping Study
Objective 4 – To identify lessons learned		
What changes have been brought about by the intervention – positive and negative, intended and unintended, qualitative and quantitative?	<ul style="list-style-type: none"> • Detailed follow-up of effectiveness and impact of PPTC training and capacity development inputs in countries visited 	<ul style="list-style-type: none"> • Direct observation of implementation of LQMS principles and WHO Asia-Pacific Strategy • Interviews with Laboratory Managers in countries visited (and, where possible, by telephone in other countries)
What have been the differential effects of the intervention on men and women?	<ul style="list-style-type: none"> • Analysis of gender balance in training records • Matching gender impact of PPTC inputs in countries visited, especially in relation to health service delivery in support of MDG 5 	<ul style="list-style-type: none"> • Direct observation of implementation of LQMS principles and WHO Asia-Pacific Strategy • Interviews with Laboratory Managers in countries visited (and, where possible, by telephone in other countries) • Interviews with health sector decision-makers in countries visited • Interviews with other development partners
How has the intervention addressed other cross-cutting issues (e.g. human rights, etc)	<ul style="list-style-type: none"> • Analysis of how PPTC inputs have supported improved equity, access and efficiency of health service delivery in countries visited • Analysis of environmental impact of laboratory activities and how PPTC support may have mitigated that • Analysis of how PPTC support may have strengthened laboratory capacity to support HIV counselling and testing and clinical monitoring of PLHIV 	<ul style="list-style-type: none"> • Interviews with Laboratory Managers in countries visited (and, where possible, by telephone in other countries) • Interviews with health provider end-users in countries visited • Interviews with other development partners
What has been the cost of the intervention(s) compared to the programme results? Has MFAT obtained value for money?	<ul style="list-style-type: none"> • Quantitative and qualitative assessment of costs to Aid Programme and synergies with other funding sources, relative to outcomes 	<ul style="list-style-type: none"> • Consultant's own analysis based on PPTC <i>Evaluation Logic Model</i> and all-sources funding support provided to PPTC

Question	Approach, Information required	Source or Method
What are the lessons that can be learned from this project that are relevant to future work?	<ul style="list-style-type: none"> Assessment based on achievement of intended outcomes and what factors worked in favour of or against achieving those outcomes 	<ul style="list-style-type: none"> Consultant's own analysis based on all the above data sources
What changes could be made so that PPTC future assistance remains relevant to the changing laboratories landscape in the Pacific?	<ul style="list-style-type: none"> Analysis of relevance of PPTC <i>Strategic Plan</i>, given emerging development coordination in the region and commencement of operationalisation of WHO <i>Regional Strategy</i> 	<ul style="list-style-type: none"> As above

4.3 Information about Higher Order and Longer-Term Outcomes

Subject to the limitations of the programme's own *Evaluation Logic Model* noted above (and summarised in Annexes 1 and 2), the information required to assess the achievement of intended longer-term outcomes (i.e. those due to be achieved by 2011) is summarised in the following table.

Note that intended information sources are not specified in the *Evaluation Logic Model*.

Outcome	Indicator(s) of Achievement	Information required and Source or Method
<p>Higher Order Outcome: National health laboratories in supported countries have a laboratory service that is affordable and sustainable and provides appropriate support to preventive and curative health service delivery.</p>	<ul style="list-style-type: none"> Essential laboratory services being planned, funded and provided within MOH budget and NHSP MOH commitment to funding laboratory services in medium-term expenditure framework or similar All elements of LQMS and/or National Laboratory Strategy and Plan in place and operational Range of services provided is matched to prevalent clinical and public health priorities and appropriate to clinical work load and size of health facilities supported 	<ul style="list-style-type: none"> NHSP (and budget or indicative commitments, if available) National Laboratory Strategy and Plan if available, otherwise documentation related to LQMS (including audits) Epidemiological data on prevalent health conditions Qualitative synthesis of observations and interviews
<p>Long-term Outcome 1: Through its training programme, PPTC has developed capacity for current and emerging needs of the health laboratories in the Pacific Region and increasingly South East Asia</p>	<ul style="list-style-type: none"> Completed qualifications Evidence of improved work practices that are aligned with content of courses Assessment of content of training programme to determine whether it aligns with prevalent health problems and needs 	<ul style="list-style-type: none"> POLHN course outlines WHO <i>Asia Pacific Strategy</i> National Laboratory Strategy and Plans as available Epidemiological data

Outcome	Indicator(s) of Achievement	Information required and Source or Method
<p>Long-term Outcome 2: PPTC has included three additional laboratories in the Regional EQAP with fully implemented LQMS systems, and has supported the capacity development of the Samoa and Tonga LQMS</p>	<ul style="list-style-type: none"> Regional EQAP records show at least three new participating laboratories by November 2010 compared with January 2007 PPTC records show re-establishment of LQMS systems in Samoa and Tonga and establishment of LQMS systems in [unclear number of] other laboratories 	<ul style="list-style-type: none"> PPTC Annual Reports and activity records Confirmation by telephone or face-to-face interview with relevant Laboratory Managers
<p>Long-term Outcome 3: PPTC is a well functioning regional service organisation that provides multi-tiered co-ordination nexus between the health laboratory services in New Zealand and increasingly within the Pacific Region and increasingly South East Asia</p>	<ul style="list-style-type: none"> Description of PPTC coordination activities Qualitative assessment of functionality of those networks 	<ul style="list-style-type: none"> Descriptions of PPTC coordination networks in Annual Reports, WHO meeting reports, etc
<p>Long-term Outcome 4: PPTC is a critical link in the Regional Health Strategy of NZAID and other donor partners in the Pacific Region and increasingly South East Asia</p>	<ul style="list-style-type: none"> Documented role for PPTC in implementing [interim] Regional Health Strategy of New Zealand Aid Programme Contracts between WHO, SPC and PPTC in implementing defined aspects of WHO Asia Pacific Strategy and other laboratory strengthening activities 	<ul style="list-style-type: none"> Contracts Grant Funding Agreements
<p>Long-term Outcome 5: PPTC is a key part of a co-ordinated multi-lateral effort between NZAID, (AusAID), WHO and SPC that supports building technical capacity support in the regional health sector in the Pacific Region and increasingly South East Asia</p>	<ul style="list-style-type: none"> Assessment of alignment of PPTC activities with operationalising WHO Asia Pacific Strategy and, where relevant, national Laboratory Strategies and Plans 	<ul style="list-style-type: none"> Records of PPTC participation in consultation and coordination meetings for WHO <i>Asia Pacific Strategy</i>

4.4 Implementation of Recommendations of the 2005 Review

The Evaluation itself will build on the findings of the Review conducted in late 2005 and reported in early 2006.

It will attempt to map (in an Annex to the Evaluation Report) how PPTC activities during the life of the *Strategic Plan 2007-11* have responded to each of the recommendations of the 2005 Review and the process of organisational change over the intervening 4 years.

5. Methods and Approach

The Evaluation is being conducted by one consultant across 7 phases of activity over approximately a 10-week period (from 1 November 2010 to about 7 January 2011).

The approach is a hybrid of a more conventional evaluation (for planning and management and the achievement of quantifiable outcomes) and participatory evaluation (for stakeholder consultation and assessment of the strengthening of PPTC's own organisational functions).

Where possible, the evaluation will also assess the relevance and performance of PPTC in relation to available National Health Strategic Plans or relevant sub-sectoral plans (e.g. for the development of human resources, laboratory services or public health surveillance and response).

Phase 1 – Background Reading

Desk review of key documents, including:

- Background documents available in electronic format from the New Zealand Aid Programme web site (e.g. relevant MFAT policy documents)
- Core documents provided by email from the MFAT Development Programme Manager (e.g. Grant Funding Agreements and Letters of Variation between MFAT and PPTC)
- Core strategies and reports available in electronic format from PPTC (e.g. the PPTC *Strategic Plan 2007-11*, Annual Reports, records of meetings and course participation, and other higher order activity reports).

Conducting a preliminary desk review before travel to New Zealand (Phase 2) has helped to maximise the efficiency of time to be spent with MFAT and PPTC in Wellington, and to confirm or elaborate on the questions included in the Objectives section of the TORs (which are, nevertheless, quite inclusive and comprehensive – see also Section 4.2, above).

Phase 2 – Briefing and Background Research in New Zealand

Travel to Wellington, New Zealand for:

- Initial briefing with the MFAT Development Programme Manager and Health Advisers on the Regional Health Programme, the place of PPTC activities within the Programme, how they see the Programme evolving, and the purpose, objectives, scope and methodology of the present evaluation
- Review of additional documentation not available electronically prior to the briefing
- Meet with PPTC Council and Staff, review of records and documentation (e.g. in-country training curriculum, attendance and evaluation records; Regional EQAP records; examples of QMS manuals and standard operating procedures and other activities in support of implementation of the WHO *Asia Pacific Strategy*; budget and costing of activities for the period under review, review of MFAT and other sources of funding, and other data able to inform assessment of value-for-money; and reports to Council and minutes of Council meetings)
- Identify names, positions and contact details of potential key informants (including trainees and participants in POLHN courses) who might be approached by email for a follow-up survey

- Telephone consultation with available key collaborators identified in meetings with PPTC (e.g. SPC Noumea and Suva, the POLHN focal point and other health systems staff at WHO Suva and Western Pacific Regional Office [WPRO], Pacific Islands Health Officers Association [PIHOA])
- Meet with and Pacific laboratory staff currently in Wellington for training.

Any key issues related to the Scope of the Evaluation, its feasibility and the draft schedule and itinerary for field activities (Section 11) were discussed with the Development Programme Manager and PPTC in the course of that week

While still in Wellington, and following this initial cycle of consultations and document review, this information has been compiled into an *aide memoire* of interim findings, including an outline of the proposed methodology for completing the Evaluation.

Countries to be visited for case studies have been confirmed at this stage (see also phase 5).

Phase 3 – Finalisation of Evaluation Plan and Budget Revision

Following acceptance of the draft report and outline of the proposed methodology, the Evaluation Plan will be finalised and submitted to the MFAT-PPTC Steering Committee for approval or clarification.

Once the final draft of the evaluation has been approved, any necessary budget revision will also be attended to and submitted to MFAT for approval.

Phase 4 – Telephone and Email Consultations with Key Informants

Following approval of the revised Evaluation Plan and budget, telephone consultations will continue with any development partners who were not available during Phase 2 and any available Laboratory Managers from countries not to be visited for the case studies.

Concurrently, logistic arrangements for country visits will be finalised. The availability of key health and laboratory managers and staff in countries to be visited will be confirmed, and an Information Sheet (Annex 3) briefing them about the purpose of the Evaluation will be circulated by email.

The assistance of Aid Programme staff in-country may be sought to help with confirmation of meetings, etc.

An Information Sheet about the Evaluation (Annex 3) has been drafted and will be adapted to individual countries and circulated by email to key informants with a short covering letter prior to the field visits (Phase 5).

Due to the risk of a low response rate (especially as the Evaluation is being undertaken in the run-up to the Christmas–New Year break, an extensive email survey of POLHN course graduates and alumni will not be undertaken. Rather, in-country consultations will include more in-depth guided group and individual interviews with staff who have participated in those training activities.

Phase 5 – Field Activities in Vanuatu, Cook Islands and Samoa

Objectives

The primary objective of the country case studies is to test, confirm or validate preliminary conclusions and recommendations from the initial consultations in Wellington (summarised in the *aide memoire*), and to observe the effectiveness and impact of specific PPTC inputs in the laboratory.

A secondary objective is to explore the interface between a multi-country programme of technical support that operates in a discrete area of service delivery in the health sector and is funded through the Regional Health Programme (i.e. PPTC) with the evolving mechanisms for health sector integration, Government leadership and development partner coordination in Samoa and Vanuatu, and to determine if there are any lessons or recommendations emerging from this for the New Zealand Aid Programme.

Selection of Countries for Case Studies –

The selection of countries that have been invited to contribute to the Evaluation has principally been guided by three sets of factors:

- the findings of the 2005 Review,
- aspects of broader health system reform implemented since that time, and
- the level of support that laboratories and staff have received from PPTC.

Samoa was one of two pilot countries for implementation of a LQMS, supported by the New Zealand Aid Programme and with technical assistance from PPTC. Samoa has also received significant technical support through PPTC, including via distance education (17 participants, with 7 already qualified) and placements and short courses (12 staff members). However, the 2005 Review and a follow-up audit by PPTC in 2009 both identified significant performance issues in the lab that suggested that at least some aspects of the LQMS had lapsed; it would be informative to see if any of the outcomes and recommendations of those reviews are being implemented.

In relation to the broader health sector context, Samoa has now implemented a sector-wide approach (SWAp) to coordination of development partner inputs with Government systems. Consistent with the secondary objective of the country visits, it will be instructive to explore how regional technical assistance mechanisms (i.e. PPTC and the Regional Health Programme) interact with bilateral Aid Programme support for the SWAp and the work of other development partners.

Vanuatu is also implementing a system for development partner coordination and alignment with Government systems, called a Joint Partnership Agreement (JPA). The JPA is less complex than the Samoa SWAp, but incorporates similar principles for Government leadership and development partner harmonisation. It will be instructive to compare the place of regional technical assistance mechanisms in relation to the JPA with the Samoa SWAp.

The laboratory at Vila Central Hospital has historically also experienced some performance issues, but has received significant support through PPTC in the form of training (including four currently enrolled in POLHN distance education), in-country technical assistance and placements in New Zealand (7 staff members). The laboratory participates in regional EQAPs for tuberculosis and malaria that sit alongside the PPTC programme.

Noting the challenges that laboratory workers in peripheral centres face (e.g. internet access for distance education, supervision), a visit to the laboratory at Northern Districts Hospital in Luganville, Santo has been strongly encouraged by PPTC and two ni-Vanuatu trainees currently in Wellington for the blood transfusion course. This would be undertaken on the second day of the country visit (see proposed itinerary at Section 11, below).

The inclusion of the **Cook Islands** provides an opportunity to examine the funding and organisation of laboratory services and technical assistance under the Aid Programme's partially devolved model of development assistance for health in that country.

The laboratory in Rarotonga was audited by PPTC in 2009, and several recommendations made to strengthen the LQMS. Several staff members have participated in capacity development

activities, including 8 who have studied through POLHN (4 are already qualified) and 5 via placements and courses in New Zealand. The Laboratory Manager has been active in the SPC-WHO Pacific Public Health Surveillance Laboratory Network (PPHSN Lab Net) and the Pacific regional consultations leading to the WHO *Asia Pacific Strategy*.

Activities and Approach –

Consultations with Laboratory Managers, staff (including PPTC and/or POLHN trainees), health worker end-users of laboratory services and senior health decision makers will be guided by a semi-structured framework of questions for key informant interviews (Annex 4) that, with the Information Sheet, will be shared with informants by email in advance of the country visit; interviews will typically take approximately 45 mins to 1½ hours. Where necessary, additional questions will be developed to address evolving issues and/or country-specific aspects of the Evaluation.

Validation of PPTC LQMS inputs will be sought through observation of laboratory procedures and the availability of evidence of adherence to the evolving Pacific standards that PPTC has been instrumental in developing (e.g. manuals, standard operating procedures, log books, etc).

Two alumni of PPTC training programmes in Samoa are currently undertaking university studies in medical laboratory technology in Auckland, and will be back home in Apia and available for consultation at the time of the proposed visit.

Logistics –

Subject to flight availability, it is proposed that the three countries are visited in the order that they are listed. This will avoid overlapping or clashing with a malaria design mission in Vanuatu, the national elections in the Cook Islands and the first phase of the review of the health SWAp and sector realignment in Samoa.

The Evaluation is likely to benefit from the recent work of those missions in Vanuatu and Samoa, exploring the interface of the laboratory with disease-specific programmes in Vanuatu and the broader health system in both countries.

The proposed Itinerary is explained in more detail in Section 11.

De-Briefing with Aid Programme and PPTC –

After conclusion of the final country visit, it is proposed that de-briefing with the MFAT-PPTC Steering Committee be undertaken by telephone (early in the week of 13 December).

A short *aide memoire* summarising additional observations and recommendations arising from the country case studies will be prepared and submitted prior to the telephone de-briefing.

Phase 6 – Development of Draft Evaluation Report

Interim findings summarised in the *aide memoire*, results from interviews and observations from the field will be compiled into a draft Evaluation Report. This will be undertaken from the consultant's home base.

The structure of the Evaluation Report would follow the outline presented in Annex A of the TORs.

The Report will also identify lessons learned and make recommendations for future programme planning and implementation (including in relation to Aid Programme management of the relationship with PPTC) to achieve the desired outcomes – including alignment with the WHO *Asia Pacific Strategy* and evolving NHSPs.

Any necessary follow-up telephone consultations with Laboratory Managers, PPTC, the Development Programme Manager, other in-country counterparts (MOH or Aid Management Unit officials), or other development partners will also be undertaken during this time.

Phase 7 – Completion of Final Evaluation Report

Feedback and comments from MFAT-PPTC Steering Committee will be incorporated into the final Report prior to 7 January 2011.

6. Cross Cutting and Mainstreaming Issues

The Evaluation will draw on current guidance on cross-cutting issues in the Aid Programme.

Cross-cutting issues of relevance to the work of PPTC (and therefore also the Evaluation) include human rights, gender equality, environment, HIV and development effectiveness. These are not addressed in periodic PPTC reports and will therefore be explored in depth during interviews with Laboratory Managers and senior health sector decision-makers during the country case studies.

6.1 Human Rights

The principal human rights aspects to be explored during the Evaluation relate to the quality, efficiency and equity of access to health and laboratory services.

Core questions on these topics are included at Annex 4.

6.2 Gender

Gender aspects of the work of health laboratories and the support provided by PPTC include improving maternal outcomes (e.g. access to safe blood transfusion for caesarean section and cases of maternal haemorrhage). There may also be gender differences in access to services and the access of laboratory workers to PPTC training and other support.

Core questions on these topics are included at Annex 4 and will be discussed during interviews with laboratory and health workers in-country.

6.3 Environment

The work of health laboratories in relation to the environment may include food and water quality testing. The principal environmental risks include disposal of medical and laboratory waste and storage and shipment of biological samples.

Core questions on these topics are included at Annex 4. Practices will be explored and observed during visits to the laboratory and health facilities.

6.4 HIV Infection

Laboratories can play a key role in strengthening the access, availability and quality of voluntary, confidential HIV counselling and testing (VCCT) services and in minimising the risk of HIV transmission in health care settings through safe blood transfusion and good quality infection control and safe waste disposal in the laboratory itself.

The role of the laboratory, the awareness of laboratory workers and in-house practices will be explored and observed during visits to the laboratory and health facilities.

6.5 Development Effectiveness

Development effectiveness is central to the concepts behind the WHO *Asia Pacific Strategy*, the formulation of national Laboratory Strategies and Plans and the evolving mechanisms of development coordination in the health sector in Samoa and Vanuatu.

The Evaluation will be guided by the *Paris Declaration*, the *Pacific Aid Effectiveness Principles* and the *Accra Agenda for Action*, to which New Zealand and participating countries (through the Pacific Islands Forum Secretariat) are signatory. These considerations will under-pin discussions with senior health sector leaders and decision-makers during in-country consultations.

7. Ethical Considerations

7.1 Full Disclosure

The Information Sheet that will be circulated to key informants and other participants prior to meeting with the Consultant (Annex 3) will fully inform them of the purpose of the Evaluation, how the information they provide will be used, and their rights regarding being identified in the Evaluation Report or not.

Prior to commencement of any interview or site visit, the Consultant will ensure that participants have received and understood the Information Sheet, briefly summarise its content and intention, and clarify if they have any questions or there is any information that they would like excluded from the main Evaluation Report or otherwise treated differently.

7.2 Informed Consent

Prior to commencement of any interview or site visit, the Consultant will ensure that participants are willing to participate in the Evaluation.

As no experimentation is involved, written informed consent will not be required.

7.3 Potential Harm

No potential harm to participants has been identified during background reading or preliminary consultations in Wellington.

As the participatory aspects of the Evaluation will incorporate counselling techniques and include elements of capacity development, it is likely that the Evaluation will actually have a positive impact on participants' understanding of laboratory systems and quality, their own careers, their knowledge of avenues of technical support and the interface between laboratories and other aspects of the health system.

7.4 Confidentiality

It is intended that all informants be acknowledged by name and country and/or institutional affiliation in the Evaluation Report. However, they will not be quoted directly in the Report and specific information will not be ascribed to individuals.

All participants will be given the option of not being named in the Report.

Notes taken during interviews and group discussion will be kept under lock and key for a period of 7 years and then destroyed.

7.5 Gender and Cultural Considerations

No specific gender or cultural considerations have been identified other than those that reflect the normal and ethical operation of the New Zealand Aid Programme.

8. Potential Limitations and Constraints

8.1 PPTC Monitoring and Evaluation Framework

As noted above, the structure of the PPTC *Evaluation Logic Model* is not such that it can be used directly to ascertain the achievement of some of the intended outcomes. The discussion at Section 4.1, above, proposes how this will be addressed in the Evaluation Report.

8.2 Poor Response Rate to Email Questionnaires

Background information and consultation suggests that the response rate to emailed questionnaires in many surveys undertaken in the Pacific has historically been around 15-20%, with little or no improvement following several cycles of follow-up emails. For this reason, it has been decided to undertake more in-depth interviews of a smaller number of PPTC and POLHN graduates and alumni during country visits.

8.3 Logistics and Access to Key Informants

The Evaluation is being undertaken at the end of the school year and just prior to Christmas holidays. This is a busy time for Pacific travel, with students and expatriate workers returning home for the break.

This may create some difficulties with the proposed itinerary, and poses some risk that key informants may already not be available.

Only one provincial laboratory (Luganville) has been included in the proposed itinerary. The findings from that site may not be entirely generalisable to other sub-national laboratories.

8.4 Statement Regarding Potential Conflict of Interests

The consultant is familiar with the work of PPTC and was engaged as a technical specialist for the first PPTC Review in 2005. He has also previously worked as a consultant with SPC and, in that role, provided technical guidance to PPTC on undertaking an assignment funded by the Global Fund. Neither of these roles included any responsibility for direct supervision or implementation of any PPTC activities.

He is also familiar with the health systems and operating environment for many PIC laboratories, was closely involved in the Pacific and Asian region consultations for development of the WHO *Asia-Pacific Strategy*, and provided input into later drafts of the *Strategy* itself.

While none of these factors constitutes a direct conflict of interests, it does provide a degree of familiarity with PPTC's operating context and a prior awareness of the scope of their activities.

Objectivity will be protected by consulting as widely as possible and obtaining a broad diversity of evidence and opinions about the key issues affecting the programme and the work of PPTC.

9. Feedback of Findings

9.1 De-Briefing In-Country

An *aide memoire* has already been presented to the Aid Programme prior to departure from Wellington.

It is proposed that a short report or *aide memoire* be left with the Laboratory Manager and New Zealand Aid Programme representatives following each of the country visits.

Whenever possible, this will be discussed at a de-briefing with key stakeholders prior to departure.

9.2 Availability of the Evaluation Report

Subject to discussion and acceptance by the MFAT PPTC Steering Committee, it is the intention of the Aid Programme to make the final Evaluation Report widely available via the MFAT web site.

It is recommended that the final draft of the Report is also circulated to Laboratory Managers and health sector decision makers in each of the countries contributing to the case studies.

10. Documents to be consulted

Background documents are as listed in the TORs ('Sources of written information to be provided during initial briefing' and 'Relevant background information on MFAT Evaluation Policy').

Specific references are listed in Appendix X of the 'Evaluation Report'.

11. Timeline and Itinerary

Phase 1 – Background Reading

Indicative duration: 2 days

1-5 November 2010: Desk review of key documents; telephone communication with MFAT Development Programme Manager and PPTC as required

Phase 2 – Briefing and Background Research in New Zealand, Preparation of Interim Report and Further Development of Evaluation Plan

Indicative duration: 4.5 days (including travel)

7 November 2010: Travel Canberra to Wellington, New Zealand

8-11 November 2010: Meetings and consultations in Wellington

11, 15 November 2010: Travel Wellington to Canberra, Australia (stop-over in Sydney at consultant's own expense)

Phase 3 – Finalisation of Evaluation Plan and Budget Revision

Indicative duration: 2 days

12 November 2010: Budget revision, preliminary exploration of travel logistics

14-16 November 2010: Completion of final draft of Evaluation Plan

By 18 November 2010: MFAT-PPTC Steering Committee to comment on Evaluation Plan

By 19 November 2010: Submission of final, approved draft of Evaluation Plan

Phase 4 – Telephone and Email Consultations with Key Informants, and completion of Logistic Arrangements for Country Visits

Indicative duration: 5 days

19 November 2010: Continue logistic arrangements for country visits

22-26 November 2010: Completion of logistic arrangements; continue consultation with key informants by email and telephone interviews

Phase 5 – Field Activities in Vanuatu, Cook Islands and Samoa

Indicative duration: 14.5 days (including travel)

28 November 2010: Travel Canberra to Brisbane; overnight in Brisbane (AusAID expense)

29 November 2010: Travel Brisbane to Port Vila, Vanuatu

30 November 2010: Consultations in Port Vila

1 December 2010: Travel to Luganville, Santo; consultations at Northern Districts Hospital (laboratory and clinicians) and Provincial Health Office; return to Port Vila on evening flight

2 December 2010: Consultations and de-brief in Port Vila; travel Port Vila to Sydney (overnight in Sydney)

3 December 2010: Travel Sydney via Auckland to Rarotonga, Cook Islands (arrive evening of 2 December, local time)

3 December 2010: Consultations in Rarotonga

4-5 December 2010: Reading, review of results and report-writing, Rarotonga

6 December 2010: Consultations and de-brief in Rarotonga

7 December 2010: Early morning departure from Rarotonga via Auckland to Apia, Samoa (arrive evening of 7 December, local time)

8-10 December 2010: Consultations in Apia, including visit to primary care facilities on Upolu if feasible; de-brief afternoon of 10 December

11 December 2010: Early morning departure from Apia via Auckland and Brisbane to Canberra (arrive Sunday 12 December, local time)

12-13 December 2010: Prepare for de-briefing; continue to work on draft Evaluation Report

14 December 2010: De-briefing by telephone with MFAT-PPTC Steering Committee

Phase 6 – Development of Draft Evaluation Report

Indicative duration: 5 days

15-20 December 2010: Completion of remaining telephone consultations and Draft Evaluation Report, aiming for submission late in the week of 13-17 December (and no later than Monday 20 December)

Phase 7 – Completion of Final Report

Indicative duration: 1 day

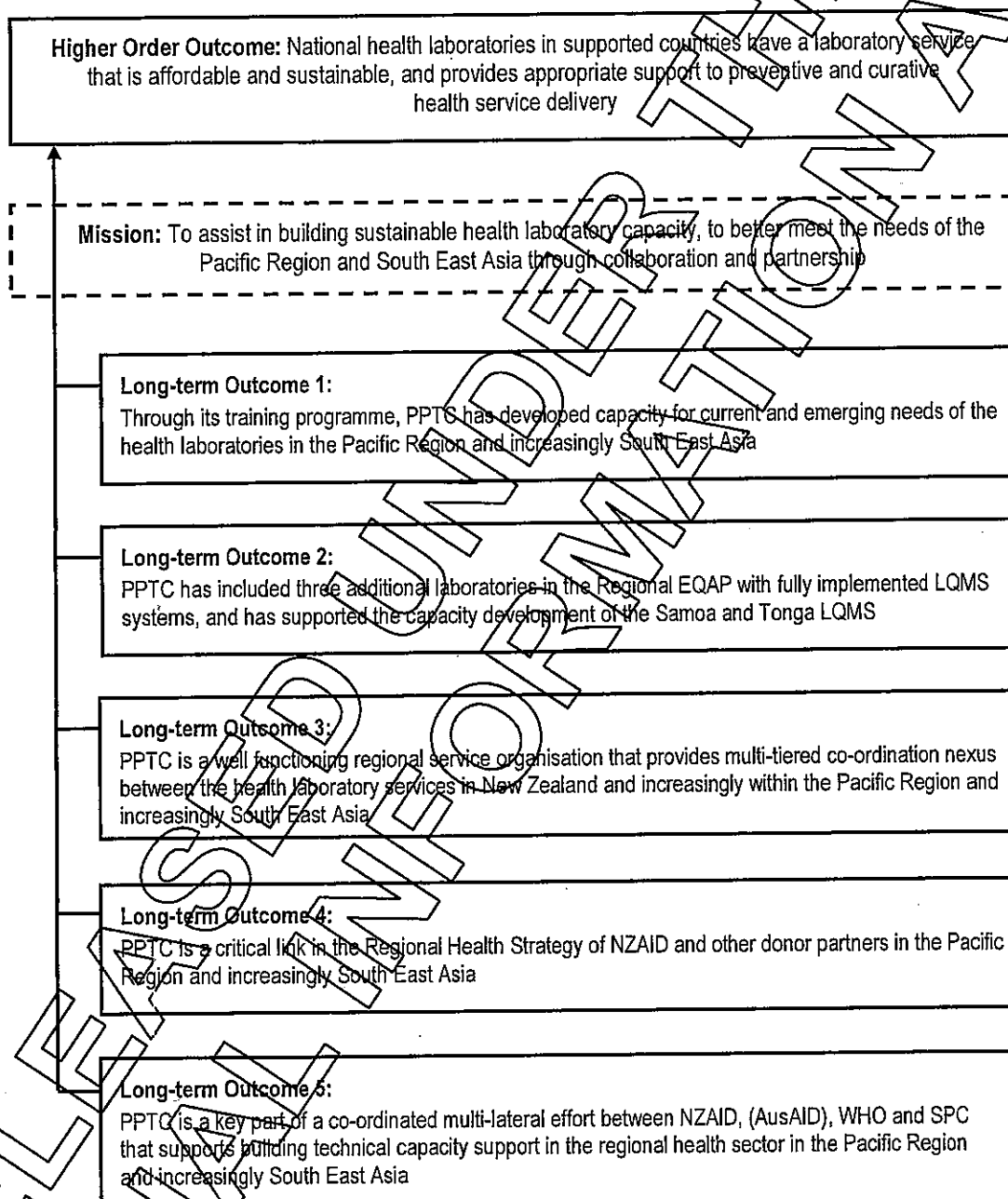
24 December 2010: Proposed date for MFAT-PPTC Steering Committee to respond to Draft Report

4-5 January 2011: Incorporation of feedback into Final Report, aiming for submission around Friday 7 January

14 January 2011: Last date for submission of Final Report

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Annex 1: Inferred Program Logic Diagram, based on PPTC Strategic Plan



Annex 2: Evaluation Logic Model, PPTC Strategic Plan

Mission	Outcomes 2007 (short-term-12 months)	Outcomes 2009 (medium term – 3 years)	Outcomes 2011 (long term – 5 years)
To assist in building sustainable health laboratory capacity...	PPTC offers a range of services (training, secondments, consultancies, REQA and LQMS) that builds capacity for current and emerging needs of the health laboratories in the Pacific Region and increasingly South East Asia	<p>PPTC has extended its range of services to include Pandemic preparedness and biochemistry training to build capacity for current and emerging needs of the health laboratories in the Pacific Region and increasingly South East Asia</p> <p>PPTC has extended its laboratories to include three additional laboratories in its REQA programme</p> <p>PPTC prepares a project plan for supporting the residual capacity for Samoa national laboratory</p> <p>PPTC prepares a project plan for providing review and audit support for Tonga</p>	<p>PPTC offers a comprehensive training programme to build capacity for current and emerging needs of the health laboratories in the Pacific Region and increasingly South East Asia</p> <p>PPTC has included three¹⁸ additional laboratories in its REQA services with fully implemented LQMS systems and supported the capacity development of the Samoa¹⁹ and Tongan²⁰ health laboratory LQMS capacity</p> <p>PPTC is a well functioning regional service organisation that provides multi-tiered co-ordination nexus between the health laboratory services in New Zealand and increasingly within the Pacific Region and increasingly South East Asia</p>
... to better meet the needs...	PPTC is a well functioning service organisation that provides a co-ordination nexus between the health laboratory services in New Zealand and in the Pacific Region and increasingly South East Asia	<p>PPTC is a well functioning service organisation that provides a co-ordination nexus between the health laboratory services in New Zealand and increasingly within the Pacific Region and increasingly South East Asia</p> <p>PPTC expands its staff capacity to support its expanded training and project consultancy programme</p>	<p>PPTC is a critical link in the Regional Health Strategy of NZAID and other donor partners in the Pacific Region and increasingly South East Asia</p>
...in the Pacific and South East Asian Region...	PPTC looks to strengthen its profile with NZAID and other donors who have a Regional Health Strategy in the Pacific Region and increasingly South East Asia	PPTC is included in the Regional Health Strategy of NZAID and other donor partners in the Pacific Region and increasingly South East Asia	PPTC is a key part of a co-ordinated multi-lateral effort between NZAID, (AUSAID), WHO and SPC that supports building technical capacity support in the regional health sector in the Pacific Region and increasingly South East Asia
...through collaboration and partnership.	PPTC looks to partner more effectively with NZAID and other donors to develop a co-ordinated multi-lateral effort to support building technical capacity support in the regional health sector in the Pacific Region and increasingly South East Asia	PPTC is part of a regional forum that seeks to build greater co-ordination between NZAID, (AUSAID), WHO and SPC to support building technical capacity in the regional health sector in the Pacific Region and increasingly South East Asia	PPTC is a key part of a co-ordinated multi-lateral effort between NZAID, (AUSAID), WHO and SPC that supports building technical capacity support in the regional health sector in the Pacific Region and increasingly South East Asia

¹⁸ Kiribati, Solomon Islands and Vanuatu

¹⁹ Includes re-building LQMS systems, strategic HRD planning and internal training capacity

²⁰ Includes audit and support systems

Annex 3: Information Sheet

The content of the Information Sheet will be adapted slightly for each country to be visited for the case studies, and formatted so that it fits on one double-sided A4 page. The Consultant will carry additional hard copies for interviewees who have been unable to access the Information Sheet electronically.

INDEPENDENT EVALUATION OF CORE FUNDING SUPPORT TO THE PACIFIC PARAMEDICAL TRAINING CENTRE, 2010

Introduction

Laboratories are an essential component of the health system, especially for clinical management and for disease surveillance. Health laboratories in Pacific Island countries face numerous challenges – securing appropriate recognition and support within national health strategic plans, sustainable financing, maintaining the skills of the laboratory work force, information management, procurement of medical products, and keeping abreast of new technologies. Externally funded, disease-specific programmes (e.g. HIV, tuberculosis), clinical monitoring of increasing numbers of patients with chronic diseases, and outbreaks of communicable diseases (including pandemic influenza) can all place additional demands on Pacific laboratories.

The World Health Organisation (WHO) recently developed the *Asia Pacific Strategy for Strengthening Health Laboratory Services (2010–2015)*, and is working with the Secretariat of the Pacific Community (SPC) and the Pacific Islands Health Officers Association (PIHOA) to operationalise the *Strategy* in the Pacific.

The Pacific Paramedical Training Centre (PPTC) is a non-government organisation that was established in the 1980s to strengthen the capacity of health laboratories in the Pacific. It receives core funding through the New Zealand Aid Programme, as well as through other regional organisations and health programmes.

The New Zealand Aid Programme conducted a review of PPTC towards the end of 2005; recommendations from that review informed PPTC's *Strategic Plan* for 2007–11 and the current 4-year Grant Funding Agreement with the Ministry of Foreign Affairs and Trade (MFAT).

The 2010 Evaluation of PPTC

As we move towards the end of the current Grant Agreement, it is timely for the Aid Programme to again evaluate its support to PPTC. We would like to invite you to take part in that evaluation, which will be conducted during November and December 2010.

The findings of the Evaluation will primarily inform PPTC and the Aid Programme, and will be used to guide the strategic direction of both agencies. It will help us to understand how effective PPTC has been in supporting the delivery of essential laboratory services in the Pacific, what has worked and what hasn't, what has changed over the last four years and what hasn't, and how well the Aid Programme and PPTC inputs aligned with Ministry of Health (MOH) priorities and harmonised with other regional organisations like WHO, SPC and PIHOA, and other partners. This will help us to work out improved approaches for strengthening health laboratory services and implementing the new WHO *Strategy* at the country level in the future, in partnership with MOHs and Pacific laboratories.

External Consultant

The Evaluation will be undertaken by an independent consultant, **Dr Rob Condon**.

Rob is an Australian public health physician and health development specialist whose interests include infectious and tropical diseases and the strengthening of national and district level health systems. He was closely involved in the development of the new WHO *Laboratory Strategy*, and also participated in the 2005 review of PPTC. He has lived and worked in the Pacific, China and Africa, and is now based in Canberra.

He will work closely with a joint MFAT–PPTC Steering Committee, which includes **Mr John Elliot**, Director of PPTC, and **Mr Geoff Woolford** of the New Zealand Aid Programme in Wellington.

Your Involvement in the Evaluation

Rob will visit Wellington and a number of Pacific Island countries, where he will visit partner laboratories and meet a range of Government and other health decision makers, Aid Programme managers, training centres, health workers and laboratory staff (including trainees and graduates of PPTC programmes).

Thank you for agreeing to take part in the Evaluation, and to meet with the independent consultant – subject to travel requirements, we expect your meeting to last between ¾ and 1½ hours.

Thank you also (in advance) for your assistance in providing relevant data and/or arranging laboratory and health centre visits or meetings with key decision-makers in the MOH.

For those not based in Wellington or one of the countries selected for a visit, your input to the Evaluation will be sought by email and/or telephone consultation.

Reporting and Confidentiality

The consultant will be taking some notes during your time with him, which will be used to prepare a report for MFAT, PPTC and partners. He will also aim to de-brief with key informants as he completes his work in each country.

The report will acknowledge your involvement in the Evaluation. However, if you do not wish some of your comments to be recorded, please let Rob know when you meet with him.

Brief Outline of the Approach to the Evaluation

The Evaluation will cover all aspects of the MFAT–PPTC Funding Agreement since 2007–08, addressing two over-arching groups of questions:

1. *Has the work of PPTC over the last 3–4 years been relevant, effective, efficient and sustainable in the way it has sought to improve the delivery and the quality of essential laboratory services in the Pacific?*
2. *What lessons have been learned and what recommendations can be made about future support for laboratory services in the Pacific, particularly through the New Zealand Aid Programme and PPTC?*

While we will focus to a certain extent on areas that have received MFAT support, our aim is not to attribute results only to New Zealand funding. In most cases, PPTC will have contributed jointly with Government and other development partners (like WHO's Pacific Open Learning Health Network [POLHN] or the Global Fund) to laboratory improvement – the Evaluation will examine the effectiveness of these joint efforts and, in some cases, the mechanisms used to coordinate and monitor them under a single national programme.

We are also interested to understand how effectively the programme of support is aligned with Pacific Island government systems and harmonised with the inputs of other donors, especially in countries like Samoa and Vanuatu where new models of development assistance in the health sector are being introduced.

To do this, the consultant would like to work through a series of questions with you that will help him to understand:

- what your role is in the delivery of health or laboratory services at the national level or in your health facility;
- how effectively laboratory services are working in your country or health facility, and whether you have begun to operationalise the new WHO *Laboratory Strategy*;
- what contact you have had with PPTC and/or other avenues of technical or financial support for laboratory services, including through in-country training, courses or placements in New

Zealand or elsewhere, distance education through POLHN, or the regional external quality assurance (REQA) programme that is managed by PPTC;

- how you view the work of PPTC in strengthening laboratory workers' skills and the coordination, planning, management and quality of laboratory services in your area, and
- what you see is working well in the health sector more broadly and for laboratory services in particular, what isn't, and what has changed and what hasn't over recent times.

Where possible, we will try to email you a short list of specific, additional questions related to your work in the laboratory or health service management before your meeting.

Questions or further comments? How to contact us:

Rob will be moving around the region quite a lot over the next few weeks, so the best way to reach him will be to leave a message by email. If you have any questions about the Evaluation, or wish to make some additional comments or submit further information after your meeting, please feel free to send these to:

pptc.2010@yahoo.com.au

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Annex 4: Questions for Interviews and Group Discussions

Laboratory Managers

1. How well do you think your laboratory and quality management are working at the moment?
2. What are the principal challenges you face in your work as a Laboratory Manager? What sources of technical or financial assistance are available to you?
3. How are the laboratory staff recruited? What qualifications do they have?
4. What involvement or contact have you had with PPTC (either directly or indirectly)?
 - a) How relevant do you think that has been to your laboratory and your role as a Laboratory Manager?
 - b) How effective has it been in improving the way the staff work or the quality of service that your laboratory provides?
5. How many of the staff in this laboratory have enrolled in the PPTC Diploma course that is available through distance education via POLHN?
 - a) How do you decide who enrolls in the course?
 - b) How many have completed the course? How many have dropped out, and why?
 - c) What do you think of the course overall? Could it be improved in any way?
6. How many staff have been on attachments in New Zealand with PPTC?
 - a) What do you think of the attachments – are they useful, and why?
 - b) How does that experience benefit the lab here?
 - c) Is there any way we could help make the attachments better?
7. How could we help the training programmes available through PPTC to be more effective? Is there a way we could draw PPTC training courses closer to the country level in the Pacific?
8. Does your lab participate in the PPTC external quality assurance programme (or any other EQAP, e.g. for blood-borne viruses like HIV, for TB or for malaria)?
 - a) If so, how does your lab perform?
 - b) What might improve the performance of your lab in the EQAP?
9. Do you have a national Laboratory Strategy or Plan?
 - a) If so, how does it relate to your National Health Strategic Plan? Does it ensure resources (e.g. funding) in the way that you need?
 - b) If not, how do you plan and manage the procurement and supply of reagents for the lab and the maintenance of instruments? How well is that working?
 - c) How well coordinated are the various types of lab assistance that you get through donors or development partners?
10. To what extent are laboratory services accessible to the whole population?
 - a) Are there some people who miss out?
 - b) Has PPTC assistance helped to improve access to the benefits of laboratory services?
11. To your knowledge, have there been any problems that arose out of the PPTC programme that you can identify?
 - a) If so, what contributed to these problems?

- b) Were they sorted out effectively when they arose? What process was used? Who took responsibility for these problems? Were the problems sorted out to everyone's satisfaction?
 - c) What was not sorted out? How did this affect the effectiveness of the support provided through PPTC?
12. The New Zealand Aid Programme seeks to help countries to address issues like gender, the health needs of minorities (including people living with HIV), human rights and protecting our beautiful Pacific environment. Thinking about the services provided by your lab and the work of PPTC:
- a) How does your lab help to minimise risks to the environment, or contribute to protecting it?
 - b) How does the work of your lab support your Ministry of Health to achieve better maternal health outcomes (MDG 5)?
 - c) How do you help to minimise the impact of HIV infection in your society?
 - d) Is there any difference in the way male and female laboratory workers have access to PPTC training and courses?

Laboratory Workers and Trainees

1. How did you come to be working in the laboratory? What were you doing and what education level did you have before that?
2. What are the best things about working in the lab here? What are the principal challenges you face in your work?
3. Have you had any contact or involvement with PPTC (e.g. attending courses or attachments in New Zealand, or through POLHN)?
 - a) If so, how relevant do you think that has been to your work here in the laboratory?
 - b) How have you used those skills in your day-to-day work in the lab?
 - c) Have there been any difficulties using that knowledge and skills in your work?
4. If you have enrolled in the Diploma course through POLHN):
 - a) How easy is it to do these studies through distance education course?
 - b) Is there anything we can learn from your experience about how to make the POLHN course better (e.g. more relevant, or a more efficient way to study)?
5. How effective has PPTC's involvement been in improving the way the staff work or the quality of service that your laboratory provides?
6. How could we help the training programmes available through PPTC to be more relevant or effective? Is there a way we could draw PPTC training courses closer to the country level in the Pacific?
7. Do you have a quality management system here in the laboratory? If so, could you describe how it works?

Clinicians and Public Health Workers

1. What are the principal health problems here in your community?
 - a) How are you addressing them?
 - b) What is your involvement in that?
2. How are health services and the support of donors coordinated in this country?
 - a) How is that working?

- b) Does it have a direct impact (positive or negative) on your work, or your ability to do your job well?
3. What sort of support do you look for from the lab?
4. How effective is the lab in meeting your needs as a clinician or a public health worker? Are there ways we could help to make it better?
5. Are you aware of the work of PPTC?
 - a) If yes, can you say how relevant that has been to the work of the lab here?
 - b) Can you say how effective it has been in improving the way the lab works?
6. To what extent are health services in general and laboratory services in particular accessible to the whole population?
 - a) Are there some people who miss out?
 - b) Are you aware of any factors that are helping to improve access to the benefits of laboratory services?

Health Sector Managers and Senior Decision Makers

1. How are health services and the support of donors coordinated in this country?
 - a) How is that working?
 - b) Does it have a direct impact (positive or negative) on the ability of health workers to do their job well?
2. How is the work of the lab represented in the National Health Strategic Plan?
 - a) Do you have (or plan to have) a National Laboratory Strategy?
 - b) If so, how does (or would) this link to the National Health Strategic Plan?
3. How well is the lab working?
 - a) Is the quality of services it provides improving, staying the same or deteriorating? Why?
 - b) How does the Laboratory Manager go about securing resources for the lab?
4. To what extent are health services in general and laboratory services in particular accessible to the whole population?
 - a) Are there some people who miss out?
 - b) What factors are helping to improve access to health services and laboratory services?
5. How do you determine whether lab workers are able to attend courses or training?
6. Have you heard of PPTC? If so:
 - a) What do you know and understand about their role and function in relation to the lab here?
 - b) How relevant is the training offered through PPTC to the way the lab works in your country?
 - c) What about the Regional External Quality Assurance Programme?
 - d) How effective is this support?
 - e) Is there a way we could make it more effective?
7. Have you had any contact with PPTC (either directly or indirectly)?
8. The New Zealand Aid Programme seeks to help countries to address issues like gender, the health needs of minorities (including people living with HIV), human rights and protecting our beautiful Pacific environment. Thinking about the services provided by your lab and the work of PPTC:

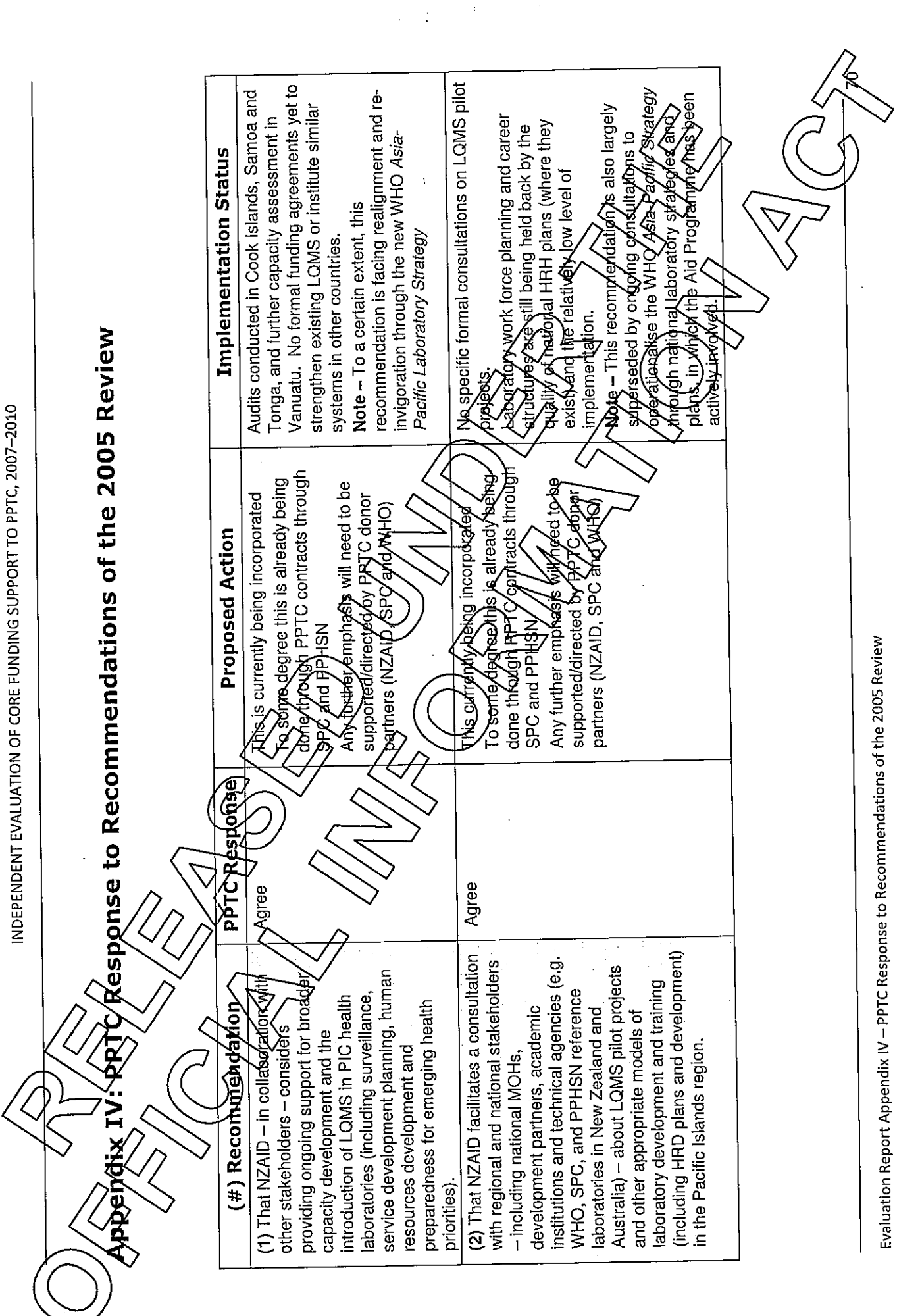
- a) How does your lab help to minimise risks to the environment, or contribute to protecting it?
- b) How does the work of your lab support your Ministry of Health to achieve better maternal health outcomes (MDG 5)?
- c) How do you help to minimise the impact of HIV infection in your society?
- d) Is there any difference in the way male and female laboratory workers have access to PPTC training and courses?

Development Partners

1. What is the size and value of your country's / organisation's programme in this country?
2. How are health services and the support of donors coordinated in this country? How is that working?
3. Does this capture the work of development partners who have regional programmes that are funded (and perhaps managed) from outside the country?
4. How do we ensure that this remains aligned with country priorities and the National Health Strategic Plan?
5. Have you heard of PPTC or the work that the New Zealand Aid Programme supports for laboratory strengthening?
 - a) If so, how well harmonised is that with your own programmes?
 - b) Do you think the work of PPTC has made a difference to the way the laboratory functions here, or to the quality of health services?

Appendix IV: PPTC Response to Recommendations of the 2005 Review

(#) Recommendation	PPTC Response	Proposed Action	Implementation Status
<p>(1) That NZAID – in collaboration with other stakeholders – considers providing ongoing support for broader capacity development and the introduction of LQMS in PIC health laboratories (including surveillance, service development planning, human resources development and preparedness for emerging health priorities).</p>	<p>Agree</p>	<p>This is currently being incorporated to some degree this is already being done through PPTC contracts through SPC and PPHSN Any further emphasis will need to be supported/directed by PPTC donor partners (NZAID, SPC and WHO)</p>	<p>Audits conducted in Cook Islands, Samoa and Tonga, and further capacity assessment in Vanuatu. No formal funding agreements yet to strengthen existing LQMS or institute similar systems in other countries. Note – To a certain extent, this recommendation is facing realignment and re-energisation through the new WHO Asia-Pacific Laboratory Strategy</p>
<p>(2) That NZAID facilitates a consultation with regional and national stakeholders – including national MOHs, development partners, academic institutions and technical agencies (e.g. WHO, SPC, and PPHSN reference laboratories in New Zealand and Australia) – about LQMS pilot projects and other appropriate models of laboratory development and training (including HRD plans and development) in the Pacific Islands region.</p>	<p>Agree</p>	<p>This currently being incorporated To some degree this is already being done through PPTC contracts through SPC and PPHSN Any further emphasis will need to be supported/directed by PPTC donor partners (NZAID, SPC and WHO)</p>	<p>No specific formal consultations on LQMS pilot projects. Laboratory work force planning and career structures are still being held back by the quality of national HRH plans (where they exist) and the relatively low level of implementation. Note – This recommendation is also largely superseded by ongoing consultations to operationalise the WHO Asia-Pacific Strategy through national laboratory strategies and plans, in which the Aid Programme has been actively involved.</p>



(A) Recommendation	PPTC Response	Proposed Action	Implementation Status
<p>(3) That NZAID consider, within the regional dialogue, to address the funding requirements for strengthening laboratory services in the Pacific, the balance between the cost of developing in-country testing capacity versus specimen referral (including to other PIC laboratories), and the co-ordination of donor and development partner inputs.</p>	<p>Agree</p>	<p>This is currently being incorporated To some degree this is already being done through PPTC contracts through SPC and PPHSN</p>	<p>Ongoing, and will be the subject of individual laboratory strategies and plans as the WHO Strategy is operationalised. Costs of specimen referral generally covered by national laboratory budgets and/or disease-specific project budgets (e.g. Global Fund or PRIPP, through SPC); however, harmonisation and alignment of development partner funds remain patchy.</p>
<p>(4) That NZAID consider, for any national LQMS development project, the following essential pre-conditions for success identified during the present Review are negotiated at the design stage, are reviewed at inception, and are carefully monitored and evaluated during all subsequent stages of implementation:</p> <ul style="list-style-type: none"> - There should be formal commitment by the MoH; - Agreed progress milestones should be clearly negotiated with national stakeholders early in the project; - Laboratory Management should articulate a commitment to meet these milestones, and - A capacity development plan (encompassing human resources and technical service delivery) should be an early milestone for the project. 	<p>Agree This will help ensure a greater likelihood for successful outcomes/impact for PPTC and NZAID</p>	<p>These key learnings will be incorporated into PPTC process and required pre-conditions for engaging a pilot with NZAID prior to commencing a pilot programme.</p>	<p>Limited progress (see response to recommendation 1). This recommendation remains highly relevant, especially as this approach will be the next step in most PICs after development of their laboratory strategies and operational plans.</p>

# Recommendation	PPTC Response	Proposed Action	Implementation Status
<p>(5) That NZAID support a transitional (consolidation and integration) phase to follow the completion of any LQMS projects providing access to lower order mentoring and periodic technical support.</p>	<p>Agree This will help ensure a greater likelihood for successful outcomes/impact for PPTC and NZAID</p>	<p>These key learnings will be incorporated into PPTC process and required pre-conditions for engagement with NZAID prior to commencing a pilot programme.</p>	<p>Limited progress (see response to recommendations 1 and 4). This recommendation also remains highly relevant.</p>
<p>(6) That NZAID considers funding a special consolidation and integration phase for each of the LQMS pilot projects addressed by the present Report, providing limited mentoring support in Tonga but aiming to restore and strengthen some of the earlier achievements in Samoa</p>	<p>Agree This will help ensure a greater likelihood for successful outcomes/impact for PPTC and NZAID</p>	<p>PPTC has discussed and indicated that the earliest time for this can be scheduled is year two (Tonga) and year three (Samoa) in the business plan; this is dependent on NZAID and the commitment and need confirmed by the Tonga and Samoa government and MoH officials These key learnings will be incorporated into PPTC process and required pre-conditions for engagement with NZAID prior to commencing a pilot programme</p>	<p>Limited progress, but is subject to funding being identified – this could be sourced from a donor or through the national health budget of partner countries. This recommendation also remains highly relevant. Following a review of the national laboratory in Samoa in 2009, PPTC offered to support the restoration of the LQMS that it helped to establish between 1998 and 2003. Funding for this work could conceivably be mobilised through the SWAp trust account.</p>
<p>(7) That NZAID suggests PPTC conduct an objective investigation of PICs' ability and willingness to pay a small fee for participation in the Regional EQAP.</p>	<p>Disagree PPTC have discussed this recommendation and are in favour of generating higher income streams rather than incorporating a user-pays system for the Regional EQAP.</p>	<p>Will NOT include recommendation in Strategic Outline However, PPTC will be looking to develop strategies that will generate \$70,000 consultancy income by the end of year 5 in their strategic business plan, to mitigate against the risk of having to find a new premises</p>	<p>No action taken</p>

#) Recommendation	PPTC Response	Proposed Action	Implementation Status
<p>(6) That NZAID-funded support for laboratory capacity development remains cognate and aligned with emerging technologies and alternative approaches, including telepathology.</p>	<p>Partly Agree This is however dependent on a number of market scoping initiatives PPTC will need to undertake</p>	<p>PPTC has discussed this and do not foresee the need to follow-up on the potential for telepathology services/training Of the new technologies PPTC is predicting it will support through training e.g. PCR, this could be available through its SPC and PPHSN contracts. The earliest time for this can be scheduled for is after 2011; this is dependent on NZAID and the commitment and need confirmed by PIC government and MOH officials</p>	<p>This recommendation was quite forward looking and may have been a little premature – little action taken to date, but it will assume greater relevance during the period of the next PPTC Strategic Plan. However, SPC has supported the introduction of molecular diagnosis (PCR) for STIs in 5 countries, with training provided by the supplier of the analysers. Cook Islands laboratory will implement a microscope with digital camera attachment for haematology slides in 2011, and is interested in developing a histology service.</p>
<p>(9) That NZAID recognises the current limitations of medical laboratory training in Samoa and considers the development of a pragmatic plan to support strengthening of the laboratory service capacity</p>	<p>Agree This will help ensure a greater likelihood for successful outcomes/impact for PPTC and NZAID</p>	<p>PPTC has discussed and the indicated that the earliest time for this can be scheduled for year three in the business plan; this is dependent on NZAID and the commitment and need confirmed by the Samoa government and MoH officials These key learnings will be incorporated into PPTC process and required pre-conditions for engagement with NZAID prior to commencing a pilot programme.</p>	<p>No commitment from Samoa National Health Service. Samoa Allied Health Council remains committed to Bachelor of Health Science Degree at NUS. Further progress should focus on developing a national laboratory strategy and, in partnership with the NUS and CMDHB, an operational plan and human resources plan. Funding may be available through the SWAp trust fund.</p>
<p>(10) That NZAID discusses with PPTC the findings from this review and that PPTC considers the 'Opportunities for PPTC' sections within relevant Objectives and the results of a regional dialogue (Refer Recommendation 2) to inform the development of a strategic business plan spanning 5 years.</p>	<p>Agree PPTC have reviewed each of the 'Opportunities', the outcomes of this discussion is noted in Attachment 1 [to the Strategic Plan]</p>	<p>The 'Opportunities for PPTC' noted in Attachment 1, refer to those under Objective 5 of the PPTC Strategic Review page 48. Other 'Opportunities for PPTC' have been noted under other objectives and will be reviewed on a case by case basis.</p>	<p>Mostly implemented However, the Aid Programme has not supported PPTC to fully reference the Strategic Plan or its monitoring framework in annual and periodic reports. A new 5-year Strategic Plan is due for development over the next 6 months.</p>
<p>(11) That NZAID provide financial and, if</p>	<p>Agree</p>	<p>PPTC will have Strategy 2011 available</p>	<p>Mostly implemented.</p>

# Recommendation	PPTC Response	Proposed Action	Implementation Status
<p>(12) Necessary technical support to PPTC for developing a multi-year business plan, to reflect PPTC's more strategic approach (including in relation to other donors, technical agencies and development partner(s)), (in part informed by this review).</p> <p>(12) That NZAID and PPTC re-negotiates a 5 year funding commitment from NZAID, and PPTC looks to reduce its reliance on core NZAID funding to a level capped between \$50,000 and \$75,000 p.a. (in part informed by the 'Opportunities for PPTC' sections in the 2005 report)</p>	<p>PPTC is currently undertaking this process</p> <p>Agree PPTC is currently undertaking this process</p>	<p>for all partners to review as part of its value-added strategies to support clients and partner relationships</p> <p>A more detailed work plan will be incorporated into the PPTC 2008 funding application, which is based on the Strategy 2011 document</p> <p>PPTC will be looking to develop strategies that will generate \$70,000 consultancy income by the end of year 5 in their strategic business plan, to mitigate against the risk of having to find a new premises</p>	<p>Technical assistance may again be needed to help PPTC to develop its next 5-year Strategic Plan. This will most likely focus on M&E, with PPTC taking greater responsibility for the structure, format and content of strategic elements of the Plan.</p> <p>Partially implemented.</p> <p>The New Zealand Aid programme continues to provide approximately 75% of PPTC's core funding, and at levels higher than anticipated in the Strategic Plan 2007-11.</p>
<p>(13) That NZAID suggests to PPTC that they adopt a more analytical approach to reporting, including graphic monitoring of performance in the REQAP and comments about any factors that clearly influence the reporting parameters</p>	<p>Agree This is within PPTC current capacity.</p>	<p>PPTC has discussed this and will incorporate this immediately as part of their intention to add value to their laboratory clients</p>	<p>Partially implemented.</p> <p>PPTC has included some graphic analysis in its internal reporting of the Regional EQAP, and annual grant funding proposals are clear. Annual reports are not structured as an analysis against the Strategic Plan (nor does the Aid Programme require them to be).</p> <p>Not implemented.</p> <p>However, most of this information is available in both formal and informal course records.</p>
<p>(14) That NZAID requests from PPTC, in future progress reports, the inclusion of tables or graphs showing selected outreach indicators – i.e. gender, coverage of smaller PICs, coverage outside principal national population centres (e.g. sub-divisional or outer island trainees) and a tracer analysis of students 12 months after attending training</p>	<p>No comment in Strategic Plan</p>	<p>No comment in Strategic Plan</p>	<p>Mostly implemented.</p> <p>The Aid Programme has been actively</p>
<p>(15) That NZAID carefully monitors emerging regional Pandemic</p>	<p>Agree</p>	<p>This is currently being incorporated To some degree this is already being</p>	<p>Mostly implemented.</p> <p>The Aid Programme has been actively</p>

#) Recommendation	PPTC Response	Proposed Action	Implementation Status
<p>Preparedness and Response Plans for pandemic influenza, and that PPTC be actively involved in establishing the laboratory aspects of any sentinel surveillance scheme for this and other conditions defined by the revised International Health Regulations.</p>		<p>done through PPTC contracts through SPC and (Pacific Public Health Surveillance Network) PPHSN</p> <p>Any further emphasis will need to be supported/directed by PPTC donor partners (NZAID, SPC and WHO)</p>	<p>engaged in monitoring pandemic preparedness and response through PPHSN, and PPTC has been an active participant in LabNet meetings (which report on activities like PRIPPP).</p>
<p>(16) That NZAID suggests that PPTC expands the content of its training courses to address the evolving needs of laboratory workers in relation to non-communicable diseases (e.g. diabetes mellitus, renal insufficiency).</p>	<p>Agree</p>	<p>This is currently being incorporated PPTC already plans to hold a biochemistry workshop in May 2007 (theory based) which will cover, diabetes, liver function and cardiovascular disease</p>	<p>Implemented</p> <p>The biochemistry course available via DFL through POLHN and attachments in Wellington are both highly relevant to laboratory aspects of NCD screening, diagnosis and clinical monitoring; both have been extremely well received by participants.</p>

Appendix V: Adoption by PPTC of Opportunities identified in the 2005 Review

Opportunities for PPTC	PPTC Response	Proposed Action	Achievements and Comments
<p>Evaluate the opportunities/capacity agreed by Kiribati, Vanuatu, Solomon Islands and Cook Islands to undertake a laboratory capability assessment as part of an LQMS programme – including continuing participation in the Regional EQAP</p>	<p>Agreed</p>	<p>PPTC will look to progress this strategy for Vanuatu, Solomon Islands and Kiribati and follow-up a continuation of its support in LQMS for the Cook Islands (the Cook Islands has not been included in the consultancy income for Strategy 2011). The implementation and sequencing of these countries will be incorporated in the five year strategic plan</p>	<p>Audit or laboratory capacity assessment conducted in:</p> <ul style="list-style-type: none"> • Vanuatu (Port Vila and Northern Districts Hospital, as part of UNFPA consultancy on HIV and STI diagnostic capacity) • Cook Islands • Samoa • Tonga <p>No formal audit or assessment in Kiribati or Solomon Islands</p>
<p>Review its way of working, philosophy and values – develop a stronger business process without losing the quality and essence of the organisation.</p>	<p>Agreed</p>	<p>An organisational capacity assessment process was conducted with PPTC and resulting strategies to build PPTC organisational capacity will be included in the Annual Business Plan. This will be evaluated in 2009 when the next assessment will take place</p>	<p>PPTC Strategic Plan 2007-11 developed, based on the organisational capacity assessment conducted after the 2005 review. Annual Work Plans and budgets developed and submitted to AID Programme. No further organisational capacity assessment in 2009.</p>
<p>Consider not undertaking unprofitable contracts – or providing services only to the level of the budget available.</p>	<p>Agreed</p>	<p>PPTC will charge for all consultancy work undertaken over and above its core funding from NZAID PPTC will increase daily rate to NZ\$350/day and actively source consultancy projects that will help to meet its consultancy income target and strategic outcomes framework as agreed to by NZAID</p>	<p>Broadly absorbed into operating practice. PPTC continues to provide valued (and valuable) ad hoc advice to PIC laboratories on a pro bono basis (funded out of core budget), and this should continue.</p>

Opportunities for PPTC	PPTC Response	Proposed Action	Achievements and Comments
<p>Review the "user-pays" option for all private sector laboratories in the Pacific, e.g. by increasing fees or adding more private sector laboratories to the participants' roster (MedCen in Samoa expressed an interest to the Team in being part of the programme).</p>	<p>Disagree</p>	<p>This is seen as counter to PPTC philosophy and less urgent as strategies for consultancy income is actively pursued and PPTC confirms core funding from NZAID</p>	<p>The Board has determined that private laboratories should pay a nominal fee to participate in the Regional EQAP. Since the last review, the number of participating, fee-paying private laboratories has increased from 5 to 10.</p>
<p>Evaluate the option of a payment of a small fee by national hospital laboratories to be part of the REQAP – this requires further investigation of countries' ability and willingness to pay a small fee for participation in the REQAP programme.</p>	<p>Disagree</p>	<p>This is seen as counter to PPTC philosophy and less urgent as strategies for consultancy income is actively pursued and PPTC confirms core funding from NZAID</p>	<p>In accordance with the Board's philosophy, Government laboratories continue to participate in the Regional EQAP free of charge. Since the last review, an additional 5 public sector laboratories have joined the programme.</p>
<p>Consider holding 1-2 more training courses each year</p>	<p>Agree</p>	<p>This will include: (1) Biochemistry introduced in May 2007 (2) Public Health course in year 5 of strategic business plan</p>	<p>On average, three training courses are now held each year, generally with between 5 and 8 participants. Much greater diversity has been introduced into funding streams, which now include the Global Fund (through SPC), AusAID, WHO and Government. The teach of these courses is supplemented by on-line courses through POLHN. The Clinical Biochemistry course began as a course run in New Zealand but is now well established as part of the POLHN curriculum. Public health content is included in the Laboratory Management module that will be offered through POLHN from 2011; additional Public Health subjects are available from FMed through POLHN.</p>

Opportunities for PPTC	PPTC Response	Proposed Action	Achievements and Comments
<p>Investigate some scenario planning to assess and develop strategies to mitigate risks – contingency and succession planning for key staff and diversification of core funding as a hedge against funding removal</p>	<p>Agree</p>	<p>This has been incorporated in the series of planning workshops over Oct-Dec 2006, in preparation for the PPTC Strategy 2011 Document</p>	<p>While this was incorporated into consultations leading to the Strategic Plan, PPTC documentation shows little evidence of active risk management. As noted above, although the Aid Programme provides a majority of PPTC's funding, some diversification of funding sources is now evident.</p>
<p>Review training costing formula for both training and consultancy work – to include all direct and indirect costs and a profit percentage for each course to cover for contingencies and provide a buffer for funding fluctuations, within fees paid through STT and WHO Fellowships.</p>	<p>Agree</p>	<p>Strategy 2011 includes 5-year financial projections, based on key financial assumptions and a risk management matrix A more detailed costing analysis will be incorporated into the PPTC 2008 funding application, which is based on the Strategy 2011 document</p>	<p>Financial reports were available for 2007 and 2008 calendar years. In 2007, there was a small operating surplus but, for 2008, a deficit was reported. Non-alignment of PPTC's reporting year (i.e. calendar year) with the Aid Programme's contributions (i.e. July-June financial year) makes it difficult to interpret the ebbing and flowing of budget surpluses.</p>
<p>Consider employing a Programme Manager – partly for succession planning but also to support functional capacity, secure other funding and develop other income streams.</p>	<p>Agree</p>	<p>This will be a Training Manager rather than a Programme Manager. It is anticipated that this will be a contract position in year one, dependent on the number of LQMS pilots PPTC is able to undertake, in negotiation with NZAID This has been costed into the Financial Projections for year 3</p>	<p>A Programme Coordinator has been employed; this position contributes to the broad spectrum of PPTC activities, including in-country laboratory audits, technical advice, teaching and coordination.</p>

Appendix VI: Aide memoire, Vanuatu, 3 December 2010

Aide Memoire

INDEPENDENT EVALUATION OF CORE FUNDING SUPPORT TO THE PACIFIC PARAMEDICAL TRAINING CENTRE, 2007–2010

Consultations in Vanuatu, 30 November to 2 December 2010

Note: in this 'aide memoire', potential opportunities for PPTC engagement and technical assistance are identified in italics. These are provisional, as they are based mainly on observations in Vanuatu (and, in some cases, background discussions in Wellington); they may be considered in more detail in the evaluation report.

Background

- 1) The New Zealand Aid Programme has funded the Pacific Paramedical Training Centre (PPTC) since 1981.
- 2) PPTC's principal areas of activity are:
 - a) **Training for Laboratory Staff** – historically delivered through short courses and attachments in New Zealand but increasingly by distance and flexible learning (DFL) through the World Health Organization (WHO) Pacific Open Learning Health Network (POLHN)
 - b) A **Regional External Quality Assurance Programme (EQAP)** – this reaches 22 national and sub-national Government laboratories and four private laboratories in 15 Pacific Island countries (PICs) – including Vila Central Hospital (VCH) in Vanuatu – as well as 9 public and private laboratories in Papua New Guinea (PNG) and Asia
 - c) A programme of support for **Laboratory Quality Management Systems (LQMS) and Standards** – increasingly focusing on helping countries to operationalise the new WHO 'Asia-Pacific Strategy for Strengthening Health Laboratory Services 2010-2015'
- PPTC became a WHO Collaborating Centre for laboratory quality assurance in 1990.
- 3) PPTC also provides 'ad hoc' technical support and advice to PIC laboratories, and undertakes consultancy services for the Secretariat of the Pacific Community (SPC), WHO and other technical agencies.
- 4) The New Zealand Aid Programme is undertaking an independent evaluation of PPTC. The evaluation builds on the findings and recommendations of a review conducted in late 2005, and examines the implementation of the four-year 'PPTC Strategic Plan 2007-11'.

Objectives and Activities

- 5) As part of the evaluation, Dr Rob Condon (Public Health Physician, independent consultant) visited Vanuatu from 29 November to 2 December 2010. Activities centred on Port Vila, but included a one-day visit to the Northern Districts Hospital (NDH) in Luganville, Santo.
- 6) The objectives of the visit to Vanuatu were:
 - a) to consult with Laboratory Managers, staff and trainees about their work and their experience with PPTC;

- b) to review laboratory facilities, infrastructure, systems and practices; and
 - c) to discuss the broader health sector and development context in Vanuatu with key Ministry of Health (MOH) decision makers and development partners.
- 7) Activities in Port Vila included:
- A briefing with the New Zealand Aid Programme
 - Detailed discussions with the national Laboratory Manager at VCH
 - Review of laboratory infrastructure and observation of processes and procedures
 - Detailed discussions with the Medical Director of VCH
 - Meetings with the Acting Director-General, Executive Officer, Acting Director of Public Health, Planning Adviser and Human Resources Manager MOH
 - Semi-structured interviews with laboratory staff and trainees at the VCH laboratories (including several who had undertaken placements or other training through PPTC)
 - Meetings with other development partners (AusAID and WHO)
- 8) Activities in Luganville included:
- Detailed discussions with the Laboratory Manager at NDH
 - Review of laboratory infrastructure and observation of processes and procedures
 - Meetings with the Medical Director and Acting Hospital Manager of NDH
 - Semi-structured interviews with laboratory staff and trainees at the NDH laboratory

Findings – Country Context

Health Sector

- 9) The health sector in Vanuatu has embarked on a Comprehensive Reform Programme; this includes:
- a) an organisational re-structuring that will see laboratories come under a new Director of Curative and Hospital Services (although programme-specific malaria and tuberculosis [TB] microscopy services will remain under the Director of Public Health), and
 - b) the alignment and coordination of development partner inputs through a health sector Joint Partnership Agreement (JPA) and a Health Partners' Group (HPG).
- 10) During 2010, the MOH has experienced major disruptions to its procurement and supply chain. The laboratory exercises a degree of control over the stock management and procurement of its own consumables, but has nevertheless experienced some negative impact from stock-outs.

Laboratory and Diagnostic Services

- 11) The principal laboratories in Vanuatu are at VCH and NDH.
- a) VCH has 9 full-time staff, most of whom have qualifications from Fiji School of Medicine (FSMed)
 - b) NDH has two full-time staff, one retiree who has returned under contract, and three trainees; the Laboratory Manager has a degree from the University of Otago.
 - c) Both laboratories offer a comparable range of tests for clinical purposes.
- 12) Smaller laboratories at Lenakel (Tanna), Norsup (Malekula), Lolowai (Ambae) and in the Banks group have just one or two staff members and offer a more limited range of tests.

- 13) The supervisory relationships between the two regional laboratories and the peripheral laboratories are not clearly defined.
- 14) The national malaria and TB programs employ their own microscopists, who generally work independently of the laboratory system, and are not reached by PPTC technical support. *There is some interest in the MOH and WHO in harmonising the work of these two cohorts of microscopists, contributing to their professional development through the wider laboratory network, and enhancing the range of services they offer to rural primary care practitioners.*
- 15) A room at the VCH laboratory is designated as a public health laboratory. This is currently non-functional; in practice, the clinical laboratories provide most public health surveillance functions.
- 16) A draft national Laboratory Strategy and Plan are under development, with the VCH Laboratory Manager as focal point; a laboratory reference group has not yet been convened.

Findings in relation to Evaluation Objectives

PPTC Support for Laboratory Staff and Services in Vanuatu, 2006-10

- 17) PPTC records indicate that, since 2006, 11 placements have been undertaken in New Zealand by Vanuatu health laboratory staff. These were in: clinical biochemistry (4 participants); haematology and blood cell morphology (4); microbiology (2); and blood bank technology (1).
- 18) VCH has a POLHN computer laboratory, and four staff have enrolled in laboratory subjects (although none has yet completed the Diploma). A new POLHN facility at NDH is under construction and nearing completion.
- 19) In April 2010, the Director of PPTC undertook an assessment of HIV and STI diagnostic capacity and the underlying laboratory systems at VCH and NDH; this work was funded by UNFPA.

Objective 1 – Relevance

- 20) PPTC training qualifications fill an important niche between on-the-job training for high school recruits, a science degree from the University of the South Pacific (USP) and studies in medical laboratory science at FSMed or a university in the region. *Under the proposed health reforms and revised career pathways, the POLHN Diploma course has the potential to be recognised as the entry level qualification for laboratory assistants.*
- 21) *The POLHN courses also represent a possible mechanism for malaria and TB microscopists to develop a broader understanding of laboratory practice (although, given the more remote location of some microscopists, there may be challenges with delivery and supervision).*
- 22) EQA has a key role in monitoring the quality and accuracy of laboratory performance.
 - a) Vanuatu's participation rate in the Regional EQAP has historically been below the regional average (which is ~75%); however, when submitted, performance (accuracy of diagnosis) tends to be high (80-100%).
 - b) VCH laboratory staff spoke enthusiastically about their participation in the Regional EQAP and its relevance to their work.
 - c) The NDH, the smaller provincial laboratories and malaria microscopists do not participate in any EQAP; *opportunities exist for PPTC to extend participation to NDH, and/or to assist the establishment of a simpler, national EQAP that would extend initially to NDH and then to smaller provincial laboratories.*

- d) TB microscopists participate in a stand-alone EQA program that is coordinated by the United States Centers for Disease Control (US CDC) out of Hawaii and the State Health Laboratory Service in Brisbane.
- 23) The work of PPTC in relation to LQMS and operationalising the WHO 'Asia Pacific Strategy' is highly relevant to the focus of the health sector reforms and the JPA on strengthening the health system; senior decision makers in the MOH are generally mindful of this link. *Opportunities exist for PPTC to provide technical support for development of the national Laboratory Strategy and Plan, which will strengthen the place of laboratories within the overlying health system and their relationship with core health system functions (especially human resources, financing and procurement, but also information management and governance).*
- 24) Clinicians commented on the absence of an in-country histopathology service to guide diagnosis and post-operative surgical management. Preliminary discussions are under way with the pathologist at Colonial War Memorial Hospital in Suva, Fiji to establish histological slide preparation capacity at VCH. *Opportunities exist for PPTC to advise on the development of this service. Subsequent steps might include extension to NDH and/or the introduction of a telepathology facility.*

Evaluation Objective 2 – Efficiency

- 25) Compared with individual placements in New Zealand, DFL through POLHN and conducting in-country training courses both represent potential efficiencies by reaching more participants and bringing training activities into the trainees' own laboratory context. *The evaluation report will further discuss the potential for efficiency gains in delivery of training and skill transfer, including through in-country and hybrid approaches.*
- 26) The application process for placements is generally efficient, with good support offered through the Short Term Training Awards coordinator at the New Zealand High Commission in Port Vila, the managing contractor in Wellington and the WHO offices in Port Vila and Suva.
- 27) Some laboratory workers who had been on placements in New Zealand questioned whether that was the most efficient way to strengthen the overall performance of their laboratory:
- a) Most had endeavoured to share their learnings with co-workers, but some also noted the *potential limitations of this approach compared with the ability of in-country or sub-regional approaches to directly reach more participants*
 - b) Some participants would have preferred a *stronger focus on practical techniques and skills during the placement.*
- 28) Laboratory Managers and staff spoke somewhat cautiously about undertaking training with PPTC through DFL (i.e. POLHN). In Vanuatu, access to a computer, internet connectivity, skills in self-directed learning and, for trainees in peripheral laboratories and microscopy centres, the availability of a supervisor are all potential constraints. Nevertheless, several laboratory workers and trainees intend to commence POLHN courses in 2011. *PPTC, POLHN centre coordinators and Laboratory Managers will all be in a position to monitor, support and assist those trainees.*
- 29) From 2011, the efficiency and completeness of skill transfer and supervision will be monitored by PPTC trainees keeping a log book. This would be signed off by a nominated supervisor as practical skills and competencies are acquired, demonstrated and absorbed into practice.

Evaluation Objective 3 – Effectiveness and Sustainability

- 30) Information from laboratory workers and clinicians suggests that PPTC placements and QA activities are well aligned with the pattern of work in Vanuatu laboratories and the priorities of

the national *Health Sector Strategy 2010-16*, and are sufficiently demand driven. *This will be further explored during in-country consultations in Cook Islands and Samoa.*

- 31) Most Vanuatu laboratory workers who had been on placements in New Zealand found the experience extremely effective for gaining additional knowledge and skills. In particular, those who had little or no formal training (e.g. through FSMed) found that the pathology content and clinical context enhanced their understanding of the relevance of their work to patient diagnosis and contributing to positive clinical outcomes. *There is no routine forum for dialogue between laboratory workers and clinicians; PPTC may be in a position to advocate for improved communication and team-based approaches to patient management in both VCH and NDH.*
- 32) The small number of candidates from Vanuatu who have undertaken POLHN laboratory courses makes it difficult to draw conclusions about the effectiveness and sustainability of DFL approaches.
- 33) Some elements of a LQMS were evident in both VCH and NDH laboratories, but others were absent. Establishing quality standards and LQMS will further enhance effective and sustainable outcomes from courses and other PPTC capacity development activities. *A new course on Laboratory Management is being introduced in 2011 as a core module within the POLHN Diploma, and may be a suitable vehicle for enhancing quality standards.*

Evaluation Objective 4 – Other Observations (and Lessons Learned)

- 34) The Aid Programme's country office in Port Vila is well engaged in the ongoing health sector reforms and the JPA process, but had limited awareness of PPTC's work in-country or through the regional health programme. PPTC's partnership and excellent relationships with WHO and SPC regional offices are also not strongly evident at the country level. *This suggests that PPTC may be operating 'under the radar' of development partners in Vanuatu; PPTC should consider meeting Aid Programme representatives after any in-country activity, and maintain contact with the WHO and proposed SPC offices about POLHN, the development of the national Laboratory Strategy and Plan, and providing technical support to broaden the skills of malaria and TB microscopists.*
- 35) The VCH laboratory faces significant demands from disease-specific public health programmes – especially those that have sizeable donor support, e.g. HIV, STI, cervical cancer and non-communicable disease (NCD) screening, and emergency surveillance for pandemic influenza A (H1N1). These activities occupy increasing amounts of staff time and laboratory space, may result in delays in turn-around times for clinical specimens and, in relation to genital tract infections, are influencing laboratory practice (through a shift in emphasis from culture and antibiotic sensitivity testing to molecular diagnosis only). *Through the JPA process and the HPG, opportunities exist for the Aid Programme and PPTC to work with the MOH and development partners to help match donor inputs with MOH policy priorities and laboratory absorptive capacity, and to minimise the risk of distortions of laboratory practice that may be caused by donor-driven priorities.*

Next Steps

- 36) Additional country visits are being undertaken in the Cook Islands (3-6 December) and Samoa (7-10 December).
- 37) The draft report is being compiled concurrently with the field visits, and is due for completion during the week of 13-17 December.

Appendix VII: Aide memoire, Cook Islands, 6 December 2010

Aide Memoire

INDEPENDENT EVALUATION OF CORE FUNDING SUPPORT TO THE PACIFIC PARAMEDICAL TRAINING CENTRE, 2007–2010

Consultations in Cook Islands, 3–6 December 2010

Note: in this 'aide memoire', potential opportunities for PPTC engagement and technical assistance are identified in italics. These are provisional, as they are based mainly on observations in Rarotonga (in some cases, stimulated by background discussions in Wellington or Vanuatu); they may be considered in more detail in the evaluation report.

Background

- 1) The New Zealand Aid Programme has funded the Pacific Paramedical Training Centre (PPTC) since 1981.
 - 2) PPTC's principal areas of activity are:
 - a) **Training for Laboratory Staff** – historically delivered through short courses and attachments in New Zealand but increasingly by distance and flexible learning (DFL) through the World Health Organization (WHO) Pacific Open Learning Health Network (POLHN)
 - b) **A Regional External Quality Assurance Programme (EQAP)** – this reaches 22 national and sub-national Government laboratories and four private laboratories in 15 Pacific Island countries (PICs) – including the Rarotonga Hospital in Cook Islands – as well as 9 public and private laboratories in Papua New Guinea (PNG) and Asia
 - c) A programme of support for **Laboratory Quality Management Systems (LQMS) and Standards** – increasingly focusing on helping countries to operationalise the new WHO 'Asia-Pacific Strategy for Strengthening Health Laboratory Services 2010-2015'
- PPTC became a WHO Collaborating Centre for laboratory quality assurance in 1990.
- 3) PPTC also provides 'ad hoc' technical support and advice to PIC laboratories, and undertakes consultancy services for the Secretariat of the Pacific Community (SPC), WHO and other technical agencies.
 - 4) The New Zealand Aid Programme is undertaking an independent evaluation of PPTC.
 - a) The evaluation builds on the findings and recommendations of a review conducted in late 2005, and examines the implementation of the four-year 'PPTC Strategic Plan 2007-11'.
 - b) The objectives of the evaluation are –
 - i) To assess the relevance, effectiveness, efficiency and sustainability of PPTC support for health laboratory services in the Pacific over the last 3–4 years.
 - ii) To consider what lessons have been learned and what recommendations can be made about future PPTC and New Zealand support for laboratory services in the Pacific

Objectives and Activities

- 5) As part of the evaluation, Dr Rob Condon (Public Health Physician, independent consultant) visited Rarotonga from 3 to 6 December 2010.
- 6) The objectives of the visit to the Cook Islands were:
 - a) to consult with Laboratory Managers, staff and trainees about their work and their experience and interactions with PPTC;
 - b) to review laboratory facilities, infrastructure, systems and practices;
 - c) to follow up the implementation of recommendations of the 2009 PPTC audit of the LQMS at the Rarotonga Hospital laboratory; and
 - d) to discuss the broader health sector and development context in the Cook Islands with key Ministry of Health (MOH) and central agency decision makers.
- 7) Activities included:
 - A briefing with the New Zealand Aid Programme, and with the Secretary for Health and the MOH Director of Funding & Planning
 - Detailed discussions with the national Laboratory Manager and the Laboratory Quality Coordinator at Rarotonga Hospital
 - Semi-structured interviews with laboratory staff and PPTC trainees at the Hospital laboratory
 - Review of laboratory infrastructure and observation of processes and procedures (including in relation to the Regional EQAR)
 - Detailed discussions with the Director of Hospital Services and Director of Clinical Services
 - Meeting with the HIV, STI and TB Coordinator, MOH
 - Meetings with the Aid Management Division (AMD) of the Ministry of Finance and Economic Management, the MOH Human Resources Manager and the National Department of Human Resources Development (NDHRD)
- 8) Time did not allow for a visit to the small laboratory attached to Aitutaki Hospital.

Findings – Country Context

Health Sector

- 9) Total expenditure on health in the Cook Islands is around 3.8% of gross domestic product (GDP). This is at the lower end of the range for PICs.
- 10) Bilateral New Zealand support for the health sector in the Cook Islands is directed via the AMD, which mobilises funds to meet expenses in response to agreed MOH expenditure and acquittals.
- 11) The AMD may not be aware of funding from the New Zealand Regional Health Programme (or other regional development funds) that is directed to national level activities – the work of PPTC in supporting in-country laboratory capacity is a typical example. Hence, the full cost of delivering health services in the Cook Islands may not be clear.
- 12) The current 'Cook Islands Health Strategy' runs from 2006-10 and is due for review.

Laboratory and Diagnostic Services

- 13) The Rarotonga Hospital laboratory is the principal laboratory in the Cook Islands.
- It has a well-equipped and pleasant (albeit slightly crowded) work environment, and is able to provide a comprehensive range of haematology, biochemistry, microbiology and blood transfusion services.
 - It has 7 experienced full-time staff, among whom the Laboratory Manager has a degree in Medical Laboratory Science and two hold a Diploma from Fiji School of Medicine (FSMed). The time is approaching when succession planning will become important.
 - The clinical laboratory at Rarotonga Hospital also provides most public health surveillance functions – there is no separate public health laboratory. All TB slide preparation and diagnosis takes place in the Rarotonga Hospital laboratory.
- 14) A small laboratory at Aitutaki Hospital has just one staff member (who is also responsible for radiography and pharmacy).
- This laboratory has, at various times, provided semi-automated haematology and biochemistry assays but currently offers only basic point-of-care tests and a specimen shipment service to Rarotonga.
 - There is some interest in developing the capacity of the Aitutaki laboratory. There may be a role for PPTC to support this process through POLHN and other means.*
- 15) The MOH uses a patient-oriented computerised information system without a dedicated laboratory information module or a digital interface with laboratory instruments. To record results, multiple manual and computer data entry steps are needed. This continues to compromise the efficiency of laboratory operations, carries a risk of transcription errors, and places additional pressure on top of a tight overall staff duty roster (due to the need to cover out-of-hours services without incurring overtime costs).
- 16) A national Laboratory Strategy and Plan have not yet been drafted. Broad laboratory outputs are included in the 'Cook Islands Health Strategy' (Key Area 2: Clinical Support Services) but are not available as a costed, itemised operational plan.

Findings in relation to Evaluation Objectives

PPTC Support for Laboratory Staff and Services in the Cook islands, 2006-10

- 17) PPTC records indicate that, since 2006, just three placements have been undertaken in New Zealand by Cook Islands health laboratory staff: one in microbiology, one in haematology and one in blood bank technology.
- 18) Rarotonga Hospital laboratory staff are enthusiastic participants in POLHN. Among 8 staff members who have enrolled in on-line PPTC courses, four have already completed the POLHN Diploma (and one of these has gone on to complete her first year of university studies in Medical Laboratory Science at Auckland University of Technology).
- 19) In April 2006 and again in June 2009, the MOH engaged PPTC to undertake audits of the LQMS that had been established in 1998.
- 20) EQA has a key role in monitoring the quality and accuracy of laboratory performance.
- Cook Islands participation rate in the Regional EQAP has generally been above the regional average (which is ~75%), although turn-around times may be slow.
 - Performance (accuracy of diagnosis and response) tends to be in the range 80-100%.

Objective 1 – Relevance

- 21) PPTC training fills an important gap between on-the-job training for high school recruits and formal studies in medical laboratory science at FSMed or a university in the region.
- 22) PPTC training – especially the POLHN courses, but also short courses and placements in New Zealand – represent an important avenue of refresher training for more senior laboratory workers.
- 23) The MOH has recognised the POLHN Diploma as a relevant qualification for laboratory workers.
- 24) All Rarotonga Hospital laboratory staff interviewed spoke enthusiastically about their participation in the Regional EQAP, the relevance of its challenging nature to their work and its suitability as a means of consolidating learning through POLHN or other courses.
- 25) The work of PPTC in relation to LQMS and operationalising the WHO 'Asia-Pacific Strategy' can make an important contribution to a revised Health Sector Strategy and laboratory aspects of health sector planning, costing and management; senior managers in the MOH should be mindful of this link. *Opportunities exist for PPTC to provide technical support for development of the national Laboratory Strategy and Plan, which will consolidate the place of the laboratory within the overlying health system and its relationship with core health system functions (especially human resources planning, information management and financing).*
- 26) Clinicians and laboratory staff commented on the absence of an in-country histopathology service to guide diagnosis and post-operative surgical management and a cytology service to support 'well woman' screening campaigns. Expenditure on specimen shipment is currently around NZD 80,000 per annum, and most of this is for surgical specimens going to New Zealand. *Opportunities exist for PPTC to advise on the development of cervical cytology and histopathology services, and potentially assist with short courses and laboratory placements in cytology and anatomical pathology. Subsequent steps might include linking these functions into the telepathology facility that is planned for the haematology section next year.*

Evaluation Objective 2 – Efficiency

- 27) Compared with individual placements in New Zealand, DFL represents a clear efficiency in the Cook Islands by reaching the majority of laboratory staff; stimulating individual staff members to pursue further study is a beneficial secondary effect. Given the centralised nature of laboratory services in the Cook Islands, supervision and, in particular, mutual support among colleagues undertaking POLHN courses are both feasible and straight-forward.
- 28) Changes in the structure of the POLHN course from 2011 raise questions about the equivalence of the old and new courses. *For the purpose of possible future accreditation – both academic accreditation for individuals and institutional accreditation of laboratories – PPTC and WHO will need to ensure that the Diploma course remains broadly acceptable to MOHs, the Pacific Association of Laboratory Medicine (PALM) and potential academic partners (e.g. FSMed).*
- 29) The new Laboratory Management module (POLHN 013) may be too broad a subject to cover in a single module. Despite their strong performance in Diploma studies, no Cook Islands candidate registered for this course has yet completed it. *The content of the revised POLHN Laboratory Management course will be further explored with PPTC.*
- 30) Short courses at PPTC and placements in New Zealand laboratories can be tailored to the skills and experience of the individual when a group includes both more and less experienced participants. Some participants would have preferred a *greater focus on practical techniques and skills during their placement.*

- 31) Conducting training courses in-country would potentially reach more participants by bringing training activities into their own laboratory context. *The evaluation report will further discuss the potential for efficiency gains in delivery of training and skill transfer, including through in-country and hybrid approaches.*
- 32) It is unclear why so few Cook Island applicants have undertaken placements in New Zealand during the period of the current 'PPTC Strategic Plan'. Misalignment of the PPTC and Cook Islands planning and financial years and the relatively low prioritisation of Government expenditure on health (see paragraph 9) may be factors. *PPTC should consider developing a rolling two-year programme of courses; this will provide sufficient advance notice to countries, regardless of whether they use a calendar year or a July-to-June financial year.*
- 33) There does not seem to be a methodical approach in the Laboratory to allocating responsibility for analysis of EQA specimens, or for filing completed reports and slides. *Although filing of documents and slides is primarily an individual laboratory responsibility, opportunities exist for PPTC to develop a simple, standardised work book or log book for recording Regional EQAP participation and a storage system for documentation and slides; the haematology slides could potentially be used as a library and training resource (but are not). It would be useful if such a system could also accommodate slides from the stand-alone EQA program for TB microscopists that is run by the US CDC out of Hawai'i and the State Health Laboratory Service in Brisbane.*

Evaluation Objective 3 – Effectiveness and Sustainability

- 34) Information from laboratory workers and clinicians suggests that PPTC placements and QA activities are well aligned with the nature of the work in the Hospital laboratory, and are sufficiently demand driven.
- 35) Each of the Cook Islands laboratory workers who had been on a placement in New Zealand found the experience extremely effective for gaining additional knowledge and skills. In particular, those who had little or no formal training or had undertaken training many years previously found that the pathology content and clinical context enhanced both their understanding of their work and their performance.
- 36) The enthusiasm of participants for the POLHN courses and the many examples of drawing on this knowledge to enhance their performance and understanding in the work place is a strong testament to the effectiveness and sustainability of DFL approaches in the Cook Islands.
- 37) Many elements of the LQMS (e.g. quality manual, standard operating procedures, evidence of routine quality control) were evident in the Rarotonga Hospital laboratory. However, others were absent (e.g. an efficient information system, visible and clear guidelines for occupational health and safety and biohazard control), and some important recommendations of the 2009 audit (e.g. preparation of TB slides) had not been implemented. *Subject to further discussion with PPTC, it may be feasible to review the revise the structure of the POLHN course on Laboratory Management (POLHN 013) into two levels, linking advanced topics with management and epidemiology courses as a Diploma specifically geared to laboratory managers and senior staff.*
- 38) The Quality Coordinator has a wide range of responsibilities, including for routine laboratory work. *There may be an opportunity for PPTC to assist the Laboratory Manager to review the allocation of responsibilities among staff, with a view to finding some dedicated time for the Quality Coordinator to devote to the back-log of LQMS-related tasks and maintenance.*

Evaluation Objective 4 – Other Observations (and Lessons Learned)

- 39) The Aid Programme's country office in Rarotonga is not strongly engaged with PPTC's work in-country. *PPTC should consider a short meeting with Aid Programme representatives after*

any in-country activity, and keep them informed about significant regional activities that may influence laboratory services in the Cook Islands.

- 40) The balance between clinical and public health laboratory functions – and especially relating to those public health programmes that have sizeable donor support – continues to be a challenge (as it is elsewhere in the Pacific). *Opportunities may exist for the Aid Programme and PPTC to work with the MOH and development partners to advocate for alignment of donor inputs with MOH policy priorities and laboratory absorptive capacity, and to minimise the potential distortions of laboratory practice caused by donor-driven priorities.*

Next Steps

- 41) A final country visit will be undertaken in Samoa (7–10 December). This will include a meeting with the WHO Representative for Cook Islands, Niue, Samoa, American Samoa and Tokelau. *It is advisable for PPTC to keep the WHO sub-regional office in Apia informed about POLHN, the development of the national Laboratory Strategy and Plan, the Regional EQAP and providing technical support for LQMS*
- 42) The draft report is being compiled concurrently with the field visits, and is due for completion during the week of 13–17 December.

Appendix VIII: Aide memoire, Samoa, 10 December 2010

Aide Memoire

INDEPENDENT EVALUATION OF CORE FUNDING SUPPORT TO THE PACIFIC PARAMEDICAL TRAINING CENTRE, 2007–2010

Consultations in Samoa, 7–10 December 2010

Note: in this 'aide memoire', potential opportunities for PPTC engagement and technical assistance are identified in italics. These are provisional, as they are based mainly on observations in Apia (in some cases, stimulated by background discussions in Wellington, Vanuatu or the Cook Islands); they may be considered in more detail in the evaluation report.

Background

- 1) The New Zealand Aid Programme has funded the Pacific Paramedical Training Centre (PPTC) since 1981.
- 2) PPTC's principal areas of activity are:
 - a) **Training for Laboratory Staff** – historically delivered through short courses and attachments in New Zealand but increasingly by distance and flexible learning (DFL) through the World Health Organization (WHO) Pacific Open Learning Health Network (POLHN)
 - b) **A Regional External Quality Assurance Programme (EQAP)** – this reaches 22 national and sub-national Government laboratories and four private laboratories in 15 Pacific Island countries (PICs) – including the Tupua Tamasese Meaole (TTM) Hospital laboratory in Samoa – as well as 9 public and private laboratories in Papua New Guinea and Asia
 - c) A programme of support for **Laboratory Quality Management Systems (LQMS) and Standards** – increasingly focusing on helping countries to operationalise the new WHO 'Asia-Pacific Strategy for Strengthening Health Laboratory Services 2010-2015'

PPTC became a WHO Collaborating Centre for laboratory quality assurance in 1990.
- 3) PPTC also provides 'ad hoc' technical support and advice to PIC laboratories, and undertakes consultancy services for the Secretariat of the Pacific Community (SPC), WHO and other technical agencies.
- 4) The New Zealand Aid Programme is undertaking an independent evaluation of PPTC.
 - a) The evaluation builds on the findings and recommendations of a review conducted in late 2005, and examines the implementation of the four-year 'PPTC Strategic Plan 2007-11'.
 - b) The objectives of the evaluation are –
 - i) To assess the relevance, effectiveness, efficiency and sustainability of PPTC support for health laboratory services in the Pacific over the last 3–4 years.
 - ii) To consider what lessons have been learned and what recommendations can be made about future PPTC and New Zealand support for laboratory services in the Pacific

Objectives and Activities

- 5) As part of the evaluation, Dr Rob Condon (Public Health Physician, independent consultant) visited Apia from 7 to 10 December 2010.
- 6) The objectives of the visit to the Samoa were:
 - a) to consult with Laboratory Managers, staff and trainees about their work and their experience and interactions with PPTC;
 - b) to observe laboratory facilities, infrastructure, systems and practices;
 - c) to follow up the outcomes and recommendations of the 2009 PPTC visit to the TTM Hospital laboratory in April 2009; and
 - d) to discuss the broader health sector and development context in Samoa with Ministry of Health (MOH) and National Health Service (NHS) decision makers and, if available, central agencies and other development partners.
- 7) Activities included:
 - Briefing with the New Zealand Aid Programme, and with the Acting General Manager (A/GM) of the NHS
 - Detailed discussions with the national Laboratory Manager and the Laboratory Quality Coordinator at TTM Hospital, and with the laboratory management adviser placed through the Japan International Cooperation Agency (JICA)
 - Semi-structured interviews with laboratory staff and PPTC trainees at the Hospital laboratory, and with a Medical Laboratory Science undergraduate currently studying in Auckland
 - Review of laboratory infrastructure and observation of processes and procedures (including in relation to the Regional EQAP)
 - Meeting with the WHO Representative for Samoa, American Samoa, Cook Islands, Niue and Tokelau and the WHO communicable diseases focal point
 - Meeting with the Assistant CEO, Health Promotion and Prevention, MOH
- 8) The Assistant CEO of the Aid Management Unit (AMU), Ministry of Finance was out of the country at the time of the visit, and the AusAID Counsellor was unavailable due to a ministerial visit.

Findings – Country Context

Health Sector

- 9) Samoa has implemented a sector wide approach (SWAp) for coordination and development cooperation in the health sector.
 - a) The MOH is responsible for Policy, Monitoring and Regulatory Oversight (including quality improvement; SWAp Component 3), and for Health Promotion and Prevention (SWAp Component 1)
 - b) The NHS is responsible for Health Care Service Delivery (SWAp Component 2), including almost all health laboratory services
- 10) Bilateral New Zealand support for the health sector in Samoa is directed via the SWAp, under which New Zealand takes the role of lead development partner.

- 11) Total expenditure on health in Samoa is around 4.9% of gross domestic product (GDP) – about mid-range for PICs.
- 12) The current 'Samoa Health Sector Plan' covers the period 2007-15.

Laboratory and Diagnostic Services

- 13) The TTM Hospital laboratory is the principal health laboratory in Samoa. It is housed in an older building, but has a spacious work environment. It is able to provide a comprehensive range of haematology, biochemistry, microbiology, histopathology (slide preparation and staining) and blood transfusion services, and some serology.
 - a) It has 31 full-time staff, including four with a university degree in Medical Laboratory Science or a related discipline from Australia or New Zealand, and several with a science degree from the University of the South Pacific (USP) or some laboratory training from Fiji School of Medicine (FSMed).
 - b) An in-house training program for laboratory workers was developed with PPTC assistance in 1989; the last intake trained in 2001-03.
 - c) There is currently no pathologist in-country, urgent slides are mailed to New Zealand and non-urgent ones are left to wait.
- 14) Although many laboratory instruments are computerised or automated, the laboratory uses a manual information system.
- 15) A small laboratory on Savai'i (located at the hospital at Tuasivi) has just three staff members and currently offers only basic tests and a specimen shipment service to Apia. District Health Services refer all specimens to Apia.
- 16) The clinical laboratory at TTM Hospital also provides most public health surveillance functions.
 - a) These include: tuberculosis (TB) slide preparation and diagnosis; screening for HIV and sexually transmissible infections (STIs); surveillance for enteric, vaccine-preventable and vector borne diseases; and screening of donated blood for blood-borne viruses and other infections of public health importance.
 - b) A small public health laboratory has just been established within the MOH for water quality testing. *If public health laboratory functions continue within the MOH, there may be a role for PPTC to support quality standards and other capacity development through POLHN and other means.*
 - c) Community outreach services are increasingly engaged in screening, which includes point-of-care testing for diabetes and other non-communicable diseases.
 - d) *It is essential that non-hospital-based laboratory services incorporate the same QA measures to those applied in regular health laboratory settings. There may be opportunities for PPTC to advise or assist in this process.*
- 17) A national Laboratory Situation Analysis, Strategy and Plan have not yet been drafted.
 - a) The 'Samoa Health Sector Plan' does not specify laboratory outputs or service standards.
 - b) The recent health sector review mission prioritised the development of a costed, itemised operational plan and medium term expenditure framework (MTEF) for the health sector.
 - c) There is no human resources (HR) development plan to guide staff placement, rotation or training opportunities.

Findings in relation to Evaluation Objectives

PPTC Support for Laboratory Staff and Services in Samoa, 2006-10

- 18) PPTC records indicate that, from 2006-08, Samoan health laboratory staff have undertaken a total of 8 placements or short courses in New Zealand: three in blood bank technology, two in biochemistry, and one each in haematology, histology and microbiology. **No candidates have been sent from Samoa for laboratory placements or courses over the last two years.**
- 19) TTM Hospital laboratory staff are keen participants in POLHN (which is free to students).
- Among 17 staff members who have enrolled in on-line PPTC courses, 7 have already completed the POLHN Diploma and another three have completed individual subjects.
 - Two POLHN graduates have already gone on to commence studies in Medical Laboratory Science at the Auckland University of Technology.
- 20) EQA has a key role in monitoring the quality and accuracy of laboratory performance.
- Samoa's participation rate in the Regional EQAP has generally been below the regional average (which is ~75%), and no results at all were returned in 2007.
 - Performance (accuracy of diagnosis and response) varies across a wide range; scores are most commonly between 75% and 100%.
- 21) A LQMS was initiated in 1998 and certified by PPTC in 2003. The PPTC review in 2005 and a follow-up visit by PPTC in April 2009 both found that several aspects of the LQMS had lapsed.

Objective 1 – Relevance

- 22) PPTC training fills an important gap between on-the-job training for new recruits and formal studies in medical laboratory science at FSMed or a university in the region. Among the 7 candidates who have completed the POLHN Diploma, three were locally trained, two had a science degree from USP, and two had started but not completed some health-related training.
- 23) A **career pathway and/or competency standards** that encompass all categories of laboratory worker in Samoa have not yet been defined. The MOH and Samoa Allied Health Council propose to recognise the Bachelor of Health Science degree – which will be available through the National University of Samoa (NUS) from 2011 or 2012 – as the career-defining qualification for laboratory workers. *The POLHN Diploma represents a potential standard that could be used for accreditation of existing laboratory workers without requiring them to start afresh with the NUS degree. Opportunities exist for PPTC to monitor and engage in ongoing dialogue about accreditation of qualifications for laboratory workers; importantly, recognition of the POLHN Diploma by FSMed is likely to include reciprocal accreditation by NUS.*
- 24) PPTC training – especially the POLHN courses, but also short courses and placements in New Zealand – represent an important avenue of skill-building and refresher training for more senior laboratory workers without formal qualifications. *This is likely to remain highly relevant for Samoa, even after establishment of the new degree programme at NUS.*
- 25) Despite their good participation and performance in Diploma studies, no Samoan candidate has commenced the new POLHN 013 (Laboratory Management) course. *Given the easing observed in LQMS standards, the new course (and FSMed health service management and public health courses offered through POLHN) represent an important resource for the Laboratory Manager, principal scientists and section heads to undertake in conjunction with more targeted technical assistance (see also Effectiveness and Sustainability, points 36–38).*

- 26) Many younger Hospital laboratory staff spoke enthusiastically about their participation in the Regional EQAP, its relevance to their work, its unpredictable and challenging nature and, in particular, its suitability as a means of consolidating learning through POLHN or other training.
- 27) The work of PPTC in relation to LQMS and operationalising the WHO 'Asia-Pacific Strategy' can make an important contribution to laboratory components of health sector planning, costing and management; senior managers in the MOH should be mindful of this link. *Opportunities exist for PPTC to provide technical support for a Laboratory Situation Analysis and development of the national Laboratory Strategy and Plan. This will consolidate the place of the laboratory within the overlying health system and its relationship with core health system functions (especially HR planning, quality improvement, financing and information management).*

Evaluation Objective 2 – Efficiency

- 28) Compared with individual placements in New Zealand, DFL represents a clear efficiency in Samoa by reaching more than half of the existing laboratory staff and without them needing to pay student fees; stimulating individual staff members to pursue further study is a beneficial secondary effect. Given the centralised nature of laboratory services in Samoa, supervision and, in particular, peer support among colleagues undertaking POLHN courses are both feasible and straight-forward and have enhanced candidates' enjoyment of on-line study.
- 29) Changes in the structure of the POLHN course from 2011 raise questions about the equivalence of the old and new courses. *For the purpose of possible future accreditation – both academic accreditation for individuals and institutional accreditation of laboratories – PPTC and WHO will need to ensure that the Diploma course remains broadly acceptable to MOHs, the Pacific Association of Laboratory Medicine (PALM), the Samoa Allied Health Council and potential academic partners (e.g. F&Med).*
- 30) Some participants would have preferred a greater focus on practical techniques and skills during their placement. Conducting training courses in-country would potentially reach more participants and bring training activities into their own laboratory context. *The evaluation report will further discuss the potential for efficiency gains in delivery of training and skill transfer, including through in-country and hybrid (i.e. DFL + in-country) approaches.*
- 31) It is unclear why laboratory workers from Samoa have abruptly stopped undertaking placements and courses in New Zealand. Contributing factors may include difficulty accessing training funds held in the SWAp trust account, the non-alignment of the PPTC and Government of Samoa planning and financial years, and concerns about covering staff rosters in their absence. Whatever the reasons, staff now tend to seek their own avenues to overseas training (i.e. outside of any managed HR development plan). *With the assistance of the New Zealand Aid Programme in-country, PPTC should consider monitoring and advocating for access to existing SWAp funds for staff capacity development. Developing a rolling two-year programme of PPTC courses and linking a national laboratory training plan to it would provide extra notice of training opportunities to the NHS and MOH (which may be important in case there are systemic delays in mobilising funds).*
- 32) There does not seem to be a methodical approach in the Laboratory to allocating responsibility for analysis of EQA specimens, or for filing completed reports and slides. *Although filing of documents and slides is primarily an individual laboratory responsibility, opportunities exist for PPTC to develop a simple, standardised work book or log book for recording Regional EQAP participation and a storage system for documentation and slides; the haematology slides could potentially be used as a library and training resource in the laboratory or at NUS (but are not). It would be useful if such a system could also accommodate slides from the stand-alone EQA program for TB microscopists that is run by the US CDC out of Hawai'i and the State Health Mycobacteriology Service in Brisbane.*

Evaluation Objective 3 – Effectiveness and Sustainability

- 33) Information from laboratory workers and clinicians suggests that PPTC placements and QA activities are extremely well aligned with the nature of the work in the Hospital laboratory, and are sufficiently demand driven.
- 34) Hospital laboratory workers who had been on a placement in New Zealand found the experience extremely effective for gaining additional knowledge and skills. In particular, those who had little or no formal training or had undertaken training many years previously found that the pathology content and clinical context enhanced both their understanding of their work, their techniques and their diagnostic performance. Colleagues who did not attend the training also noticed and commented on this effect.
- 35) The enthusiasm of participants for the POLHN courses and the many examples of drawing on this knowledge to enhance their performance and understanding in the workplace should be a strong testament to the effectiveness and sustainability of DFL approaches in Samoa. *Benefits to trainees are likely to be sustained, even if a shift towards the NUS course results in a reduced number of enrolments in POLHN.*
- 36) Some residual elements of the LQMS (e.g. standard operating procedures, evidence of routine quality control, staff rotation from quiet to busy areas) were evident in the TTM Hospital laboratory. However, others were absent (e.g. an efficient information system, efficient and timely procurement and supply management, visible and clear guidelines for occupational health and safety and biohazard control). *Subject to further discussion with the MOH, NHS, WHO and PPTC, it is strongly recommended that PPTC seeks opportunities to revitalise, restore and update the LQMS at the TTM Hospital Laboratory. Team-based management approaches (rather than the present, quite flat structure) could also be explored in collaboration with Counties Manukau District Health Board through the proposed institutional linkage; the POLHN course on Laboratory Management (POLHN 013) is likely to be an important additional resource for the Laboratory Manager and senior staff.*
- 37) Important recommendations arising from the 2009 PPTC visit in relation to TB (e.g. preparation of stains and submission of slides for external quality control) have been implemented. However, neither the records of QC feedback from PPTC nor scores from Brisbane for the regional EQA program for TB microscopists have been received in the TB laboratory. Other laboratory staff commented that they often did not receive feedback on their Regional EQAP performance. *PPTC and the Laboratory Manager are encouraged to review their communication procedures for feedback of QC results to the TB microscopist, and for feedback of EQAP scores in general.*
- 38) The Quality Coordinator has a good understanding of routine laboratory tasks and an empathetic relationship with staff. However, he is unfamiliar with the new WHO 'Asia-Pacific Laboratory Strategy' and the quality standards that are being developed for Pacific laboratories through that process. *PPTC is encouraged to mentor the Laboratory Quality Coordinator to review and enhance his knowledge and skills in relation to LQMS-related tasks and maintenance.*

Evaluation Objective 4 – Other Observations (and Lessons Learned)

- 39) The Aid Programme's country office and the WHO Representative Office in Apia are both aware of PPTC, but neither is strongly engaged with their work in Samoa (and, in the case of WHO, also in the Cook Islands and Niue). *PPTC should continue its practice of having a short meeting with Aid Programme representatives after any in-country activities, and keep them informed about significant regional activities that may influence laboratory services in Samoa. It is also advisable for PPTC to keep the WHO sub-regional office in Apia informed about*

POLHN, the development of the national Laboratory Strategy and Plans, the Regional EQAP and providing technical support for LQMS.

- 40) The visibility of laboratory services within the health sector and the balance between clinical and public health laboratory functions continue to be challenges in Samoa. *Opportunities exist for the Aid Programme and PPTC to work with the MOH, NHS and development partners to advocate for resources for laboratory development and strengthening (in line with MOH policy priorities and the proposed MTEF and laboratory strategic plan); this would include mobilisation of resources already earmarked for laboratory purposes but slow to be released.*

Next Steps

- 41) A de-briefing with the Aid Programme in November focused on findings from a preliminary review of activities with PPTC in Wellington. A further de-briefing on information emerging from the three country case studies will be undertaken early in the week of 13 December.
- 42) The draft report is being compiled concurrently with the field visits, and is expected to be completed by 17 December.

RELEASED UNDER THE OFFICIAL INFORMATION ACT

Appendix IX: List of Individuals Consulted

Potential informants were advised in writing prior to the country visits that their participation would be acknowledged in the Evaluation Report (see Evaluation Plan, Annex 3). Verbal consent was also obtained at the time of interview, including that no quotations that could be ascribed to any individual would be included in the Evaluation Report or any of the country aides memoire.

Name	Designation
Wellington	
Ministry of Foreign Affairs and Trade	
Geoff Woolford	Development Programme Manager, Regional Human Development
Miranda Cahn	Senior Adviser – Evaluation
Salli Davidson	Senior Adviser – Health
Christine Briasco	Senior Adviser – Health
Alison Carlin	Development Programme Manager, Regional Human Development
Monique Ward	Development Programme Officer, Cook Islands
Leonard Chan	Development Programme Manager, Vanuatu (Governance and Social Outcomes)
James Toa (by telephone)	Development Programme Coordinator, Vanuatu
Karen Soanes	Development Programme Officer, Kiribati
Peter Zwart (by telephone)	First Secretary – Development, Samoa
Christine Saaga (by telephone)	Development Programme Coordinator, Samoa
Pacific Paramedical Training Centre	
John Elliot	Director
Phillip Wakem	Programme Coordinator
Christine Story	Regional EQAP Manager
Rob Siebers	Board Member
Marian Eales	Board Member
Mike Lynch	Board Member
Ricky Lee	Trainee (Vanuatu)
Terry Kalorib	Trainee (Vanuatu)
Albert Keniona	Trainee (Solomon Islands)
Erat Salle	Trainee (Chuuk, Federated States of Micronesia)
Barieti Itaaken	Trainee (Kiribati)
Counties Manukau District Health Board	
Elizabeth Powell (by telephone)	Director, Pacific Development
World Health Organization	
Gayatri Shadlok (by telephone)	Essential Health Technologies Adviser, WPRO
Steve Baxendale (by telephone)	Coordinator, POLHN
Pacific Islands Health officers Association	
Vasiti Uliviti (by telephone and email)	Regional Laboratory Coordinator

Name	Designation
Secretariat of the Pacific Community	
Sala Elbourne (by telephone)	Laboratory Specialist, EIDs
Vanuatu	
New Zealand High Commission	
James Toa	Development Programme Coordinator
Susan Mania	Scholarship and Short Term Training Awards Officer
Ministry of Health	
Morris Amos	Acting Director-General
Shelley Laban	Acting Director of Public Health
Steve Anderson	Planning Adviser
Miriam Kalot	Executive Officer
Vila Central Hospital	
Willie Tokon	Medical Director
Junior George Pakoa	Laboratory Manager
Sero Kalkie	Laboratory Technologist
Northern Districts Hospital	
Jerilyn Tagaro	Acting Hospital Manager
Santus Wari	Medical Director
Paul Makikon	Laboratory Manager
John Numake	Laboratory Trainee
Tzania Wilbur	Laboratory Trainee
Amos Tema Lang	Laboratory Trainee
Sanma Provincial MOH	
Peter Malissa	Provincial Malaria Coordinator
AusAID	
Belynda McNaughton	Development Programme Manager
Kendra Derousseau	Development Programme Coordinator
World Health Organization	
Lasse Vestergaard	Medical Officer
Seyha Ros	Malaria Scientist

Cook Islands

New Zealand High Commission

Karen Nobes Development Programme Coordinator

Ministry of Health

Tupou Faireka Secretary of Health
 Fran McGrath Director of Funding and Planning
 R Farju Director of Public Health
 Temarama Angema Human Resources Manager

Name	Designation
Debbie Futter	HIV/STI Coordinator
Rarotonga Hospital	
Heather Webber-Aitu	Director of Hospital Health Services
Zaw Aung	Director of Clinical Services
Douglas Ngaeikura-Tou	Laboratory Manager
Theresa Tatuava	Laboratory Quality Coordinator
Mata Iroa	Laboratory Technologist
Meleaone Tumi'i	Laboratory Technologist
Paea Ben	Laboratory Technologist
Geoffrey Wuatai	Laboratory Technologist
Aid Management Division, Ministry of Finance and Economic Management	
Peter Ta'ivairanga	Aid Management Coordinator
Department of National Human Resources Development	
Mi'a Rongo	Director
Aphena Creswell	Human Resources Manager
Samoa	
New Zealand High Commission	
Peter Zwart	First Secretary - Development, Samoa
Christine Saaga	Development Programme Coordinator
Ministry of Health	
Andrew Peteru	Assistant CEO, Health Promotion and Prevention
Robert Thomsen	Quality Improvement Manager
Makatala Momoisea	Infection Control Consultant
National Health Service	
Limbo Fiu	Acting General Manager
Vaomalo Kini	Laboratory Manager
Auva'o Fa'apulo	Laboratory Quality Coordinator
Fetalaga Vasa	Laboratory Technologist
Tuto'atasi Toalima	Laboratory Technologist
Lupe Isaia	Laboratory Technologist
Saifagaloa Sala	Laboratory Technologist
Hinauri Leaupepe	Laboratory Technologist
Lainani Eli	Laboratory Technologist
Auckland University of Technology	
Makelita So'alo	<i>B Med Lab Sci Undergraduate</i>
World Health Organization	
Yang Baoqing	WHO Representative for American Samoa, Cook Islands, Niue, Samoa and Tokelau
Japan International Cooperation Agency	
Keiko Nakagawa	Volunteer (Laboratory Management)

Name	Designation
Aid Coordination Division, Ministry of Finance Noumea Simi (by email)	Assistant CEO

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