

# MEETING REPORT



## 8<sup>th</sup> Pacific Public Health Surveillance Network (PPHSN) LabNet Meeting

3-4 October 2024, Nadi, Fiji

*“Striving Ahead, Facing the Unknown”*

Hosted by the  
Pacific Community (SPC) and  
The World Health Organization



Report prepared by the Pacific Community  
October 2024

## Contents

ITEM 1: Opening.....	Page:3
Item 2: Keynote address .....	4
Item 3: Opening remarks.....	4
ITEM 4: 2022 LabNet Recommendations & Changeover of LabNet Chair .....	5
ITEM 5: IHR & Laboratory Core Capabilities .....	7
ITEM 6: JEE and Country Experiences.....	9
ITEM 7: Discrepancy in Dengue NS1 & PCR Test Results.....	12
ITEM 8: PPHSN LabNet Sample Referral Review Report... ..	14
ITEM 9: Mpox Testing & Sample Referral... ..	16
Q & A session.....	17
ITEM10: Panel Discussion (IHR & JEE). ( <i>The challenges and how will IHR &amp; JEE benefit my country?</i> ).....	17
ITEM 11: Pacific Island Laboratories EQA Reports .....	18
ITEM 12: Review of EQA Results and Corrective Measures.....	21
ITEM13: LQMS update and Audit Template.....	23
ITEM 14 &15: LQMS Activity Update .....	23-24
Q & A session.....	24
ITEM 16: Doherty Institute COMBAT AMR Update .....	25
ITEM 17: AMR Testing & Instrumentation .....	26
ITEM 18: Country Experience in AMR Instrumentation.....	27
Q & A session.....	29
ITEM 19: Antibigram and Regional Data Collection .....	29
ITEM 20: Panel Discussion: <i>Should the Pacific have a regional AMR database? If yes... Who should keep PIC regional AMR Data?</i> .....	30
ITEM 21: Improving Blood Donation in the Pacific: <i>What can we do?</i> .....	31

ITEM 22: Blood Donation Country Experience.....	32
Q & A session.....	32
ITEM 23: Clinical Service Network & PISP.....	33
ITEM 24: Discussion: How Can PISP be more active?.....	33
ITEM 25: LabNet Meeting 2024 Recommendations.....	33
Annex 1: List of participants.....	36
Annex: 2: 2022 PPHSN LabNet meeting program.....	46

## **ACKNOWLEDGEMENT:**

The Pacific Community wishes to acknowledge the funding support of the Australian Government Department of Foreign Affairs and Trade and the World Health Organization for the collaborative partnership to host the 8<sup>th</sup> PPHSN LabNet meeting.

## Day 1: 3<sup>rd</sup> October 2024

### ITEM 1: OPENING

#### Meeting participants and objectives

1. The 8<sup>th</sup> Regional PPHSN LabNet was convened at the Tanoa Hotel in Nadi, Fiji, on the 3<sup>rd</sup> – 4<sup>th</sup> October 2024. The meeting was presided over by the out-going chairperson of the PPHSN LabNet, Melanesian country representative Dr Litia Tudravu, before handing over to the current Polynesian elected chair; Ms Hinauri Laupepe Ngau Chun.

The meeting was attended by representative from the following countries as core members of PPHSN LabNet; Cook Islands, Commonwealth of the Northern Mariana Islands, Fiji, Federated States of Micronesia (Yap State), Kiribati, Nauru, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu.

Also attending were LabNet technical working group members: Fiji Centre for Disease Control, Fiji National University, National Serology Reference Laboratory (NRL, Australia), New Zealand Institute of Environmental Science & Research (ESR), Fiji National University (FNU), Pacific Community (SPC), Pacific Islands Health Officers' Association (PIHOA), Pacific Pathology Training Centre (PPTC), Victorian Infectious Disease Reference Laboratory (VIDRL) and the World Health Organization (WHO).

**Secretariat:** SPC provided Secretariat support for PPHSN LabNet meeting.

2. **Primary objectives of the meeting:**
  - i. Review progress achieved by countries' laboratory services in the last two years.
  - ii. Discuss laboratory challenges and the way forward.
  - iii. Plan activities for PPHSN LabNet in the next two years.

### OPENING REMARKS

3. The **Chair of the LabNet, Dr Litia Tudravu** welcomed participants to Fiji and acknowledged the effort that was put in place by the organizers of the PPHSN LabNet meeting to bring the country's representatives and technical working group members together to the 2024 LabNet meeting.
4. **Ms Makarita Baleinadogo (Lab Manager, Labasa Hospital Laboratory)** led a devotional to open the meeting.

### ITEM 2: KEYNOTE ADDRESS

3. **Dr Nuha Mahmoud (Team Coordinator, Pacific Health Security & Communicable Diseases, WHO )** delivered the keynote address and commended on the challenges that the laboratories face, in however detection of COVID-19 cases during the first Public

Health Emergency of International Concern (PHEIC) in 2020 was possible with the strengthening of laboratories in the Pacific. With the laboratory capacity available, Monkeypox was able to be detected in 2022, and the second WHO PHEIC declaration of Monkeypox outbreak in September 2024. This is possible with proper surveillance, detection, and confirmation to contain infectious disease outbreaks; therefore, role of laboratories is very important and critical.

Challenges i.e. resilience, working together with clinicians and surveillance teams, and restricting laboratories do exist despite the expansion and strengthening of laboratory capacities in the Pacific Island Countries (PICs). WHO is committed to assisting and with the presence of partners working together as a team to support countries in the Pacific to achieve the results that they want to achieve.

### ITEM 3: OPENING REMARKS

**4. Dr Eka Buadromo (SPC Team Leader Laboratory Strengthening Program, LSP)** delivered the opening remarks on behalf of the Public Health Division (PHD), SPC, and Dr. Berlin Kafoa, welcoming the participants and 1<sup>st</sup> day of the meeting. Special greetings to the Pacific Region Infectious Disease Association (PRIDA) for their first attendance at the LabNet meeting as a partner in strengthening microbiology service in the region.

This year's LabNet meeting's theme is "***Striving Ahead Facing the Unknown***", a reminder to the Lab leaders that we are going through demanding time for laboratory services and we are striving ahead with new and cutting edge technologies being introduced to support laboratories in the Pacific, the future challenges are unknown. We all need to put in place a robust and good quality laboratory system as we prepare to face the future.

Acknowledgment of the hard work carried out by the countries during the Covid-19 pandemic, this was possible through good communication and robust networking established for sample referral and the logistics that was used as we introduced new testing platforms during the pandemic.

### ITEM 4: LABNET RECOMMENDATIONS DISCUSSION AND CHANGE-OVER OF LABNET CHAIR

5. The LabNet recommendations from the 2022 LabNet meeting held at Novotel hotel in were presented by the current LabNet chair and Dr Eka elaborating on implementations and progress (blue font) as below:
  - i. Policies and Planning -Review of the country's National Laboratory policies and plan.
    - *WHO worked with Samoa to review Lab Policy & Strategic Plan in preparation for IHR JEE- Ms Hinauri Leaupepe (Assistant Chief executive officer) confirmed that the documents have been endorsed by the cabinet and are currently in the implementing phase.*
    - *More work needs to be done by countries to review National Lab Policies*

- *Most countries have strategic plans that were part of National Health strategic plans, yet to be reviewed as we have passed the 5 year period.*
- ii. Sustain RT-PCR setup - Support for testing for PPHSN priority diseases and other upcoming focal diseases using RT-PCR setup through Human resource strengthening and supplies.
    - *SPC and other partners have supported PCR reagent supplies and facilitating IRR supplies of primers for PPHSN priority diseases, SOPs, training, validation, mentorship and testing algorithm, LQMS strengthening*
    - *- WHO facilitating collaborating centre assistance and an outbreak investigation workshop including lab surveillance*
  - iii. LabNet Secretariat to keep a database of potential technologists and scientists for recruitment during the surge in demand (eg. pandemic)
    - *Technology information captured in the PPHSN LabNet Catalogue*
    - *Database has not been created (SPC to continue to work with FNU and PISP to create the database)*
  - iv. Public and Private Partnership – LabNet encourages and will support private partnership
    - *Ongoing inclusion of private laboratory staff in the SPC laboratory programs in Fiji. Countries with private labs are encouraged to include private labs in their lab strengthening program as private labs do provide surveillance disease testing therefore the public health reporting system..*
  - v. Lab Information System (LIS) - There is an urgent need for LIS in all countries. Partners to provide support/advice and work with countries on the most appropriate LIMS that to be used in PICTs.
    - *Challenging - Most countries still have challenges in having LIS and those with LIS that cannot be interfaced with other lab software (WHONET Antibigram, CanReg etc)*
  - vi. One Health - Health laboratories to offer assistance to the development of animal and environmental health Labs in capacity building, quality management, and technical advice.
    - *Partners are putting in place programs, Pacific Island countries are yet to fully embrace and pick up the integration concept. (How can we do it better??)*
  - vii. LQMS -Countries to use LQMS audit findings as a tool to improve lab services and capacity build.
    - *Ongoing with Quality Improvement projects. ( refer to Partners presentation)*
  - viii. Specimen transfer and courier service – partners to work with PICTs to establish the most appropriate courier service and mechanisms to transfer infectious substances to reference labs.
    - *There is an Ongoing review by WHO at this stage.*

- ix. Blood service – Laboratories to share information on ways to support voluntary blood donations
  - *No action*
- x. Pacific Island Society for Pathology- Reviving PISP as the regional body and the need to be more active.
  - *Office bearers were nominated on 2<sup>nd</sup> October 2024. The following officers have been nominated: - Dr Josephine Jodie Chanoan (PNG) has been nominated as Chair and PICs Lab Managers as office bearers. Mr Dexter Takau to serve as secretary working in collaboration with Dr Chanoan*







*Xi: Change over of LabNet chairmanship-*

- *The PPHSN LabNet chair has been handed over to the Polynesian representative, Ms. Hinauri Lauasi Leaupepe to chair the LabNet for the next 2 years.*

## ITEM 5: INTERNATIONAL HEALTH REGULATIONS (IHR) AND LABORATORY CORE CAPACITIES

7. **Dr Nuha Mahmoud** (Team Coordinator, Pacific Health Security & Communicable Diseases, WHO) congratulated Samoa for completing the Joint External Evaluation (JEE) recently.
  - i. IHR 2005 is a *“A legally-binding instrument agreed upon by 196 states parties **to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade**”*. All States Parties are required to develop **minimum core public health capacities to implement the IHR 2005** effectively.
  - ii. **Recommendation from the 15th Pacific Health Minister Meeting (PHMM) on September 2023:** *“Strengthening health system resilience (including resilience to climate crises, and applying lessons learned from COVID-19 incl. mental health)”*
    - States to Lead multisectoral coordination to maximize opportunities such as:
      - **Joint External Evaluations (JEE),**
      - **State Party Self-Assessment Annual Reporting (SPAR),**
      - **Intra- or after-action (AAR/IAR)** reviews to identify best practices and areas for improvement.
      - Ensure that recommendations result in concrete action.
  - iii. IHR implementation

Core Capacities for countries to develop:

- **Detect** – Surveillance systems for the timely detection of public health events which consists of the following activities or indicators :
    -  D1.1 Specimen referral and transport system
    -  D1.2 Laboratory quality system
    -  D1.3 Laboratory testing capacity modalities
    -  D1.4 Effective national diagnostic network.
  - **Assess and Report** – Use Annex 2 of the IHR to assess the public health event and report to WHO through the National IHR Focal Point events which may constitute a PHEIC
  - **Respond** – Responding to public health risks and emergencies
- iv. The target for countries is to establish a national laboratory system for surveillance across key sectors, including human and animal health, with effective modern diagnostics and to be measured by:
-  A national lab system can safely transport and test specimens from at least 80% of districts.
  -  Presence of national quality standards and systems for laboratory licensing.
- v. The JEE -Indicator colour scoring system to measure Laboratory capacities elaborated under ITEM 5(7iii) is demonstrated below:

1	No Capacity	Attributes of a capacity are not in place
2	Limited Capacity	Attributes of a capacity are in development stage (implementation has started with some attributes achieved and others commenced).
3	Developed Capacity	Attributes of a capacity are in place; however, sustainability has not been ensured (such as through inclusion in the operational plan of the national health sector plan with a secure funding source).
4	Demonstrated Capacity	Attributes are in place and sustainable for a few years and can be measured by the inclusion of attributes or IHR core capacities in the national health sector plan and a secure funding source.
5	Sustainable Capacity	All attributes are functional and sustainable, and the country is supporting one or more other countries in their implementation. This is the highest level of the achievement of implementation of IHR core capacities.

vi. Vanuatu and Cook Islands have shown interest in JEE for 2025.

vii. Countries have been advised on how to move forward with improving laboratory systems by

- 🚦 Recent JEE and SPAR assessments are tools to strategically determine where focus efforts for improving laboratory systems
- 🚦 Strengthening laboratory systems is not only a job for the lab – a more integrative, whole-of-government response is needed, especially with contributions from surveillance
- 🚦 Strengthening isn't just about new equipment – what are the systems that need strengthening to help the lab operate better?
- 🚦 WHO and partners are ready to assist PICs in further strengthening their laboratory systems

## ITEM 6 : JEE AND COUNTRY EXPERIENCES

### 8. Ms. Hinauri Lauasi Leaupepe ( Assistant Chief Executive Officer, Clinical Lab, Samoa)

presented

on Samoa's experience on JEE conducted in country. She elaborated on the objectives of JEE :

- To assess Samoa's capacities in 19 technical areas.
- To identify strengths and areas for improvement.
- To enhance health security and system resilience.

- i. Samoa went through the following JEE process:
  - Self-evaluation
    - a. Virtual meetings discussing the process
    - b. Multi-stakeholder orientation
    - c. Multiple multi-stakeholder consultative process.
    - d. Follow-up emails
    - e. Self-evaluation workbook
      - ✚ Technical questions and provide supporting documents with a list of stakeholders
  - JEE Mission (30 October – 3 November 2023)
  - External multinational, multidisciplinary expert JEE team assessment
  - Presentations from the team leader and co-lead of each technical area.
  - (Laboratory lead P4-AMR, P7-Biosafety and Biosecurity, D1-National Laboratory Systems)
  - Site visits
  - Presenting of findings to country
- ii. Each technical area has its recommendations, however, the 5 overarching recommendations are noted below
  1. Develop a five-year, risk-based, prioritized, cost and financed National Action Plan for Health Security (NAPHS. Implement the plan with a monitoring and evaluation (M&E) framework that includes regular exercises.- Stakeholders have started consultations between them and this is the only recommendation that had been implemented with some of the laboratory-specific priority actions ticked off.
  2. Map and review the wider policy landscape and design a stepwise plan to streamline the full implementation of any policies and plans relevant to public health.
  3. Establish a multisectoral body, or adapt and/or empower an existing body, to provide strong coordination of efforts to meet the requirements of the IHR (2005), not only during emergencies but also during preparedness and recovery phases and at all other times.
  4. Develop, finance, and implement a One Health framework in Samoa.
  5. Develop and implement a coherent package of Human Resource policies, strategies, and plans that mandate the strengthening of human resources for health security as per the recommendations from the JEE.
- iii. Ms. Hinauri Leaupepe shared her personal experience and elaborated on the challenges faced

- Difficult to make decisions on self-assessment scoring – considers all sectors involved and its current situation regarding an indicator.
- Tool does not reflect the true picture of how a human health lab is prepared to cater for a human disease outbreak.
- Time-consuming and such a hassle especially for clinical laboratory had other activities at the same time.
- Assessors were not that mean! There was time given to discuss the scores again.
- Good overall experience in assessing the laboratory capacity plus all others involved with Health emergencies.

**9. Ms. Mele Mougaevalu (Lab Scientist, Vaiola Hospital, Tonga)** presented for Tonga's JEE Experience. Tonga went through the phases of JEE preparation (October 2023) the same as Samoa with multi-sectorial meetings with WHO, and WHO country consultants to assist in answering the evaluation questions, providing documents and evidence to support answers and presentations of findings. The overall findings in each technical area as highlighted below:

**a. Prevent – Antimicrobial resistance**

- Ensure funding for implementation and monitoring of the national AMR Action Plan
- Set up AMR surveillance systems in animal health and agriculture
- Set up a system for colonization screening of patients admitted to the hospital
- Set up a system for surveillance, detection, and control of carbapenem-resistant organisms in hospitals
- Implement "Access, Watch and Reserve" (AWaRe) classification of antibiotics throughout the national healthcare system
- Enact legislation to promote the optimal use of antibiotics in animal health and agriculture

**b. Biosafety and Biosecurity**

- Establish a multisectoral Biosafety and Biosecurity Committee
- Provide staff with access to biosafety and biosecurity training
- Advocate for the inclusion of biosafety, biosecurity, and biorisk management training in relevant curricula in Tongan educational institutions
- Revise the current Biosafety and Biosecurity Regulation to establish authorized access controls and security and inventory systems for areas handling or storing infectious and hazardous materials
- Strengthen laboratory infrastructure for biosafety and biosecurity to ensure compliance with biosafety standards. Develop and implement a code of conduct for staff working with hazardous materials
- Ensure that the Occupational Health & Safety Committee meets regularly and documents proceedings

**c. National Laboratory System**

- Perform a needs assessment for the continuous development of national laboratory capacities, to reduce costs and turnaround time for tests for high-priority and outbreak-prone diseases

- Perform a national review and gap analysis of laboratory facilities and equipment; based on the results, strengthen laboratory infrastructure to a level adequate for the detection, surveillance, and early detection of health threats
- Implement a digital inventory management system for reagents and diagnostics
- Appoint a pathologist in Vaiola Hospital

**10. Mr. Alfred Dofai (Head of Medical Laboratory, MOH, Solomon Island)** presented on Solomon Island's (SB) experience on JEE which was conducted on 23/09- 27/09/24 and shared the same Challenges as Samoa and Tonga in difficulties in coordination and collaboration between humans , animal and environmental health diagnostics. Each technical area was presented with the strengths and best practices available, however, they have areas that need to be strengthened and challenges as highlighted below:

**a. Specimen referral and transport system**

- Procurement and financial support for payment of shipment and testing overseas.
- Regular training of staff for IATA regulations and procedures

**b. Laboratory Quality System**

- Certification and Accreditation internationally
- Internal audits
- Upgrade lab equipment [RDTs to ELISA]
- Staff recruitment and management
- Procurement process of lab reagents and test kits.

**c. Laboratory testing capacity modalities**

- Equipment updates and maintenance
- To introduce more diagnostic tests for molecular/microbiology
- Need of backup equipment for testing of priority diseases
- Training on new methods (attachments in Reference Labs
- Training of staff on equipment use and maintenance

**d. Effective national diagnostic network**

- Cooperation between human, animal, and environmental diagnostic systems (One Health Approach)
- Develop lab policy for streamlining diagnostic networking.
- Establish and/or update the priority disease list, including definitions, notification procedures, and reporting amongst all labs [& private] including researches finding positive cases.
- Development of a national lab electronic "One Health" information system

**e. National Laboratory system -Priority areas for action**

- To have a laboratory Act that regulates the operational and quality management of all laboratories in the context of a “One Health” approach
- Define the priority diseases for Solomon Islands and strengthen disease notification as well as a national lab quality assurance program (e-system)
- Comprehensive quality training for lab staff (Human, Animal, and Environmental) including relevant medical staff.
- Quality and audit of laboratory operations, including provisions for equipment availability and care.

#### ITEM 7 : DISCREPANCY IN DENGUE NS1 & PCR TEST RESULTS

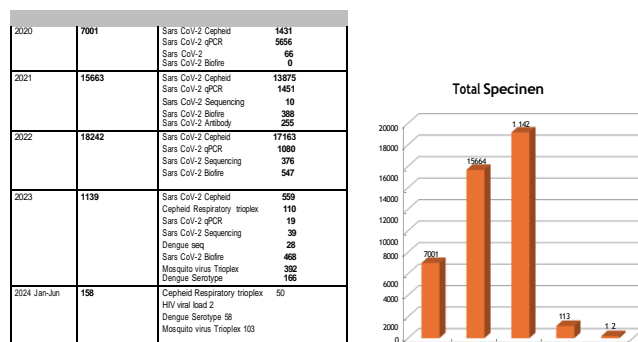
##### 11. Ms Shalini Singh ( Lab Manager, Fiji CDC ) highlighted key points about Dengue NS1 Ag :

- **NS1 Protein:** The NS1 (Non-Structural Protein 1) is a glycoprotein produced by the dengue virus during replication. It is secreted into the bloodstream and can be detected in the serum of infected individuals.
  - **Diagnostic Marker:** NS1 Ag testing is used as a diagnostic tool for dengue fever. It can be detected during the acute phase of infection, typically within the first few days after the onset of symptoms.
  - **Early Detection:** NS1 Ag can help in the early identification of dengue infection. This is crucial for timely clinical management and intervention.
  - **Serological Tests:** NS1 antigen detection can be done using enzyme-linked immunosorbent assays (ELISAs) or rapid diagnostic tests RDT.
  - **Differentiating Dengue Types:** While NS1 Ag testing helps confirm dengue infection, **it does not** differentiate between dengue serotypes or distinguish dengue from other febrile illnesses.
- i. She elaborated that in mid-2022 and 1<sup>st</sup> quarter of 2023, NS1 Ag Positive samples were referred to the Reference Lab (Institute Pasteur of New Caledonia (IPNC) for serotyping and results were negative for Dengue (DNV), Zika (ZKV) and Chikungunya (CHKV) virus. Due to the contradicting results received, tests were repeated at Fiji CDC for rapid tests and ELISA.
  - ii. Institute Louis Malarde (ILM) of Tahiti also sent primers and probes for DENV and serotyping and the Pacific Community assisted with primers and probes for arboviral Trioplex and samples were tested accordingly with the inclusion of NS1 Ag Positive for ELISA IgM and running RT-PCR for arbovirus.
  - iii. Upon discussions with partners (WHO, SPC, VIDRL) it was noted that Samoa samples tested at the Fiji CDC were also negative, they were referred to VIDRL.
  - iv. Fiji CDC testing results however showed one of the Samoa NSI positive sample tested positive for Leptospira RT-PCR, and another sample was positive for RSV.

- v. Results from ILM and VIDRL showed Dengue PCR Negative - Dengue Arbovirus Panflavirus (West Nile, Zika, Yellow Fever, Rift Valley) Alpha (Ross River, Chikungunya) and Conventional PCR Negative with no flavivirus genomes detected respectively.

12. Mr Andrew Darcy (Director of National Health Training & Research, Solomon Island) presented on the Molecular testing capacity of SI and elaborated on the Molecular testing workload carried out in the last 4 years as shown below in Figure 1.0.

### Workload in the last 4 years



PPHSN LABNET Meetin | 3<sup>rd</sup> - 4<sup>th</sup> October 2024

Figure 1.0 Solomon Island Molecular Lab Workload

- i. Mr. Darcy highlighted the testing capacity available locally which includes rapid test kits, PCR, and serotyping. He also shared the dengue serotypes that were circulated in the SI as illustrated in Figure 2.0 and further elaborated on the 3 circulating serotypes (DENV2, DENV 4, DENV-1) from 2023 January -2024 July.

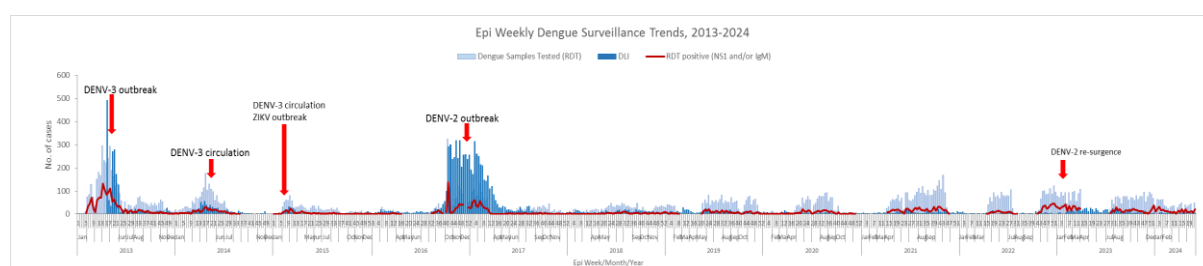







Figure 2.0 Dengue serotype in Solomon Island from 2013-2024.

- ii. Some challenges were addressed in the presentation such as
- secondary dengue cases indicated by increase positive cases of NS1 + IgM positive cases that could confuse dengue diagnosis
  - Limited stock of rapid test kits
  - Good storage with related consumables for serotyping and a competent database for sample tracking and recording.
  - No Laboratory information system available for reporting results
  - No local provider for Biosafety Cabinet maintenance
  - PCR Amplification for calibration and preventative maintenance.
- iii. Mr. Darcy concluded his presentation with the following key points:
- Molecular testing is here to stay

- How do we use it to full utilization in a local setting
  -  Dengue serotype confirmation
  -  Respiratory outbreak confirmation
    - ✓ Human Health
    - ✓ Animal Health
  -  Death audits
  -  Survey
    - ✓ Arboviruses (Trioplex Denv, ZikaV Chikungunya)
- => Mosquito infection
- => Mosquito resistance to Pyrethroid
  - ✓ Respiratory
  - ✓ Diarrheal incidents

## ITEM 8: PPHSN LABNET SAMPLE REFERRAL REVIEW REPORT

**13. Ms Sandra Semi (WHO Consultant)** presented an overview of her consultancy to support WHO's Division of Pacific Technical Support (DPS) Pacific Health Security and Communicable Diseases (PSC); to effectively support Pacific Islands in managing national, and regional surveillance and response capacity, by providing an analysis of sample referral patterns and practices for Pacific Islands national laboratories; and from that analysis, the provision of appropriate recommendations for the improvement of practices and the overall sample referral network.

- Labs in the Pacific islands are limited in the breadth and depth of their epidemic-prone disease testing capacities. While there is constant effort to widen and strengthen testing capabilities, the referral of samples between labs remains a key component in testing for clinical/public health purposes.
- Recent efforts to support sample referrals from Pacific islands to overseas referral labs have illustrated that countries are inconsistent in their referral patterns and that there remain gaps in terms of pathogens covered in the entire sample referral network.
- The methodology used in Samoa to gather information from Ministry of Health Lab focal point, courier services and airline staff was through interviews and questionnaires. The preliminary finding on Samoa's sample referral pathway to Reference Labs to assist in the recently declared dengue outbreak situation was found to be delayed, therefore required testing was compromised. It was noticed that samples must transit via New Zealand and then transferred to Fiji as all Samoa courier services can only use AIR New Zealand
- Stated below are some issues and challenges faced by the Samoan Clinical Lab and courier service
  -  No dedicated position for specimen referral to ensure responsibility of looking after the whole referral process - from specimen storage to following up results with reference labs

- ✚ Some tests require that specimens are tested within 24 hours of collection
- ✚ Samples collected outside of the lab sometimes arrive very late and are not transported in the necessary conditions
- ✚ Poor infrastructure - the temperature of the lab is often out of appropriate range due to poor AC
- ✚ Restrictions and policies of couriers and airlines esp. with their cut-off times while the lab is also short-staffed to pack shipments/logistics on time.
- ✚ NO temperature-controlled cargo service – no fridge at the airport for temporary storage before shipment
- ✚ The communication with Lab Personnel (locally) can be challenging when 1 POC is non-respondent
- ✚ The need to establish a contact of the courier with Lab Personnel at the destination
- ✚ Delays in payments of invoices

14. The following recommendations listed are based on the preliminary findings in Samoa and yet to visit two more countries (Fiji & Vanuatu) in the coming weeks.

- Consider the referral process at all levels
  - ✚ Pre-analytical
  - ✚ Analytical
  - ✚ Post-analytical
- The initial selection of samples must be based on in-house lab results
  - ✚ High CT positives cannot be sequenced
  - ✚ gM/IgG positive samples cannot be serotyped etc.
- Review sample storage in-country.

#### **ITEM 9: MPOX COLLECTION, TESTING AND SAMPLE REFERRAL**

**15. Ms Sandra (Epidemiologist delivered the presentation on behalf of Dr Darwin Operario ( Laboratory Technical Officer, WHO).**

- i. Highlights of the current situation of Mpox in the Western Pacific
  - As of 30 September 2024, Western Pacific Region has reported 4 223 confirmed and probable mpox cases
  - 111 new cases reported in the past week
  - 90 cases from Australia, 15 cases from the Philippines and six cases from Taiwan, China
  - Only clade II has been reported in the region to date
  - not all countries are sequencing so clade information is incomplete
  - Low disease severity: Case Fatality Ratio 0.3%

- ii. The current testing guidance for PICs depends on:
  - a. The decision to sample a patient should be based on both clinical and epidemiological criteria
    - Early mpox symptoms is non-specific will appear similar to other diseases such as flu
    - Clinical evaluation and epidemiological investigation forms should record relevant information such as travel history, contacts, etc.
    - A patient with epidemiological links but no symptoms should NOT be tested but monitored for up to 21 days
- iii. Sampling requires 2 lesions using a dry swab (1 swab per lesion) -refer to Mpox Guidance circulated
- iv. Establishing local testing and precautions
  - Ensure storage at -20C or -80C until shipment is available and to be shipped using cold chain.
  - Cepheid GeneXpert cartridges are available; however, Samoa will be the first country to access testing due to the Heads of Commonwealth Meeting to take place in the country.
  - PCR testing should include both an mpox test and an orthopox (opox) test
  - Opox testing is necessary due to a mutation that causes false negatives in some mpox tests
  - Any laboratory intending to implement mpox testing should undergo a laboratory biosafety risk assessment beforehand
  - WHO can provide tools for these risk assessments
- v. Referral testing – There are 3 referral laboratories available to PICs which are VIDRL (South Pacific) and Guam Public Health Lab or Hawai'i State Lab for the North Pacific countries. These Reference Labs are to be contacted before sending samples to avoid samples being rejected and destroyed. It is also important to ensure that Laboratories have sufficient staff with current IATA certifications.
- vi. Mpox positive results should be reported via IHR channels, even without clade results.

## **DISCUSSION:**

The participants noted the following:

- Tonga JEE results to be published by the end of October 2024.
- PPHSN LabNet catalogue 2024 edition contains information on all tests conducted in Reference Labs and tests available in countries.
- Countries have challenges and limitations when referring samples within.
- Laboratory guidance sent out by partners (WHO & SPC) is to be contextualized according to countries.
- WHO will assist in reviewing health legislation on Laboratory standards to align with IHR for some countries.

- Strengthen laboratory data analysis by Lab officers and share with surveillance and clinicians.

#### **ITEM 10: PANEL DISCUSSION – THE JEE CHALLENGES AND HOW WILL IHR AND JEE BENEFIT MY COUNTRY**

##### **16. Panel Chair: Dr Seventeen (WS)**

**Panel members (Ms. Shalini Singh (FJ), Ms. Hinauri Leaupepe (WS), Mr. Alfred Dofai (SI), Ms. Rosemary Tekoaia (KI), Dr. Eka Buadromo (SPC), Dr. Nuha Mahmoud (WHO)**

##### **i. Key Highlights**

- IHR regulations have been reviewed in 2022 and one area of amendment discussed was focused on the development of IHR health authority to replace the IHR national focal point which incorporates the whole government
- SPC is already assisting countries with laboratory quality management system (LQMS), shipping of infectious substances, and strengthening laboratory capacity to antimicrobial resistance to infectious diseases.
- Kiribati has an overall score of 40% in Self-Assessment Annual Reporting (SPAR) in 2023 and facing challenges due to a lack of multisectoral involvement.
- Fiji is using SPAR to assess the core capacities of JEE. Has been facilitating One Health meetings with the inclusion of AMR in the agenda and stressed that animal testing is impossible to be conducted in the human health lab.
- The JEE period in the SI has brought different arms of the government together which involves the 19 core areas assessed. It was noted that LQMS documentation contributes positively to JEE and the Human Health Lab is performing better compared to the Animal Health Lab
- Samoa also shared some benefits of having JEE similar to SI with the participation of the 19 core capacities including the Prime Minister and Ministers of Finance and Customs & Revenue.
- Discussion was concluded that Individual countries still have work to do with multisectoral involvement within and partner's (WHO SPC) involvement in tasks has to be indicated.

#### **ITEM 11: PACIFIC ISLAND LABORATORIES External Quality Assurance (EQA) REPORTS**

**17. Ms Sandy Walker (Senior Scientist- Scientific, Consulting & Training, NRL)** introduced her presentation on NRL's mission is to promote the quality of tests and testing for infectious diseases globally with over 2,000 Labs in more than 70 countries. Emphasis on the importance of Quality Assurance in different areas such as :

#### **People**

- Misinterpretation of subjective results
- Sample traceability
- Transcription errors
- Intentional or unintentional misuse of test

#### **Processes**

- Shipping and transportation
- Storage
- Use of expired test kits

#### **Equipment**

- Test kit production failures
- Poorly maintained or inappropriate equipment

- i. NRL provides the following EQA panels:
  - Blood Screening EQAS (eg. Multimarker Blood Screening Serology)
  - Specialised EQAS (e.g. SARS-CoV-2 Antibodies, Leptospirosis Molecular)
  - Comprehensive Molecular EQAS (eg. HBV/ HCV Molecular)
  - Point-of-care Molecular EQAS
  - Comprehensive Serology EQAS
- ii. Samoa participated in the pilot POCT QA program which consists of 12 test sites from the Ministry of Health and a mixture of GP clinics, health care centers, and hospital labs with PCR access. Four different POCT kits were used with the results showed that it had 92% discordant for positive samples and negative sample results were acceptable. It was identified that 2 popular RDT kits were underperforming, therefore causing the change of testing algorithm for the country.
- iii. Presentation concluded with key highlights:
  - Infectious disease testing underpins diagnosis, treatment, surveillance and quality of care
  - Quality assurance is critical to accurate test results
  - NRL offers EQAS for laboratories and PoCT sites for molecular and serology testing
  - Laboratory-based quality assurance is not suitable for PoCT
  - NRL has developed a fit-for-purpose PoCT QA system, designed to remove barriers and make PoCT QA accessible globally

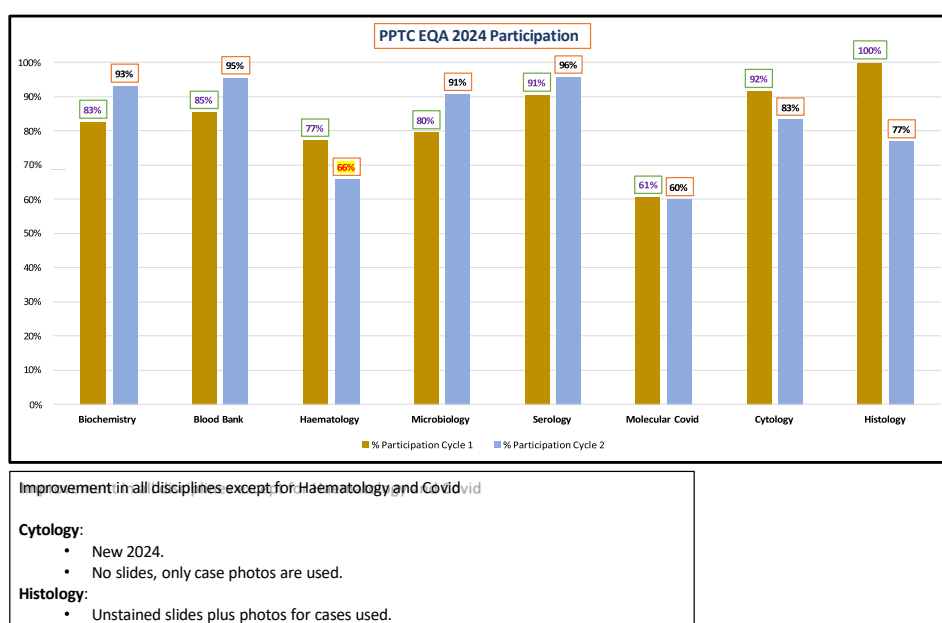
**18. Mr. Navin Karan (Training and Capacity Manager, VIDRL, Australia)** mentioned that VIDRL offers reference testing for viral hepatitis, Mycobacteria, mycology, parasitology, HIV, public health reference laboratory services, including surveillance, outbreak investigations, reference testing, and research, along with diagnostic testing for the community. VIDRL is one of the WHO Collaborating Centre designated for Reference and Research on Influenza, *Mycobacterium ulcerans*, and viral hepatitis. In addition, VIDRL Holds WHO Regional Reference Laboratory designated for poliovirus, measles, and Hepatitis B is a WHO National Influenza Centre Western Pacific reference laboratory.

- i. 2024 – Doherty DFAT Partnership has identified priority work areas in countries that engage Fiji and Solomon Islands under the Tier 1 program while Tier 2 looks after Vanuatu and Kiribati . Priority work areas elaborated are :
  - ✚ Laboratory strengthening
  - ✚ Combat -AMR (Antimicrobial Resistance)
  - ✚ Pathogen genomics
  - ✚ Elimination of Hepatitis B
  - ✚ Data for decision-making.
- ii. The Serology Laboratory section of VIDRL facilitates the preparation and evaluation of Measles and Rubella ( M/R) proficiency testing (PT) panels in collaboration with WHO. During the 2023 round of PT, 97% of laboratories submitted measles results and 98% of laboratories submitting rubella results obtained a passing score.
- iii. For future Quality Assessment Programs for the region, VIDRL to increase capacity for Measles and Rubella testing on ELISA platform with the inclusion of PT panels in countries i.e. Vanuatu, Tonga, Samoa, Solomon Islands, Kiribati, and Cook Islands as part of elimination goal. It was mentioned that Pacific Pathology Training Centre (PPTC) is the biggest provider for QAP provider in the Pacific region covering all laboratory services e.g. biochemistry, haematology, Infectious diseases.
- iv. Furthermore, there will be increased molecular testing capability on Open Real Time PCR platforms on:
  - ✚ **Dengue/ Zika/ Chikungunya**
    - NAAT and Subtyping QAP, Serology
  - ✚ **Leptospirosis**

- NAAT and Serology
- 🚩 Influenza A/B/ RSV including for subtyping
- 🚩 MPXV Molecular EQAP (WHO)

**19. Mr Russell Cole (Quality manager & Consultant, PPTC, WHO Collaborating Centre External Quality, New Zealand)** highlighted the amendment to the **requirement of ISO 15189** as stated “The Laboratory shall participate in an interlaboratory comparison programme(s) (such as an external quality assessment programme or proficiency testing programme) appropriate to the examination and interpretations of examination results. The laboratory management shall monitor the results of external quality assessment and participate in the implementation of corrective actions when control criteria are not fulfilled.”

- i. 95 laboratories in the Pacific region have participated in PPTC EQA 2023/2024 as in the breakdown below:
  - 23 National Laboratories (Pacific Island Countries)
  - 9 Divisional Laboratories (Pacific Island Countries)
  - 3 Laos Laboratories
  - 31 Cambodia Laboratories
  - 4 FSM Laboratories
  - 2 Timor Leste Laboratories
  - 5 Bhutan Laboratories
  - 1 Maldives
  - 13 Private Laboratories
  - 3 NZ POCT
- ii. The EQA program covers 7 laboratory disciplines of Hematology, Biochemistry, Microbiology, Blood Transfusion, Infectious Disease Serology, Molecular Covid-19/RSV/Influenza and Anatomical Pathology (Histology and Cytology (new 2024) and has 3 cycles yearly. Figure 3.0 depicts the PPTC EQA 2024 participation



**Figure 3.0 : PPTC EQA 2024 Participation**

iii. Summary

- ✚ Important part of LQMS
- ✚ Requirement for international accreditation
- ✚ Expensive, however, provided “Free of Charge” to all Hospital and PH labs in PIC plus some in South East Asia,
  - *Courtesy of the New Zealand government (MFAT)*

**ITEM 12: REVIEW OF EQA RESULTS AND CORRECTIVE MEASURES**

**20. Ms Senisaleti Pasikala (Principal Medical Scientist, Vaiola Hospital, Tonga Ministry of Health)** mentioned that all four laboratories under the Tonga MOH participate in the only EQA program delivered by PPTC which has 3 cycles per year.

- i. The team identified key findings such as a lack of testing capacity to identify species level in Microbiological testing, out-of-stock reagents or analyzers malfunction, and transcriptional errors contributing to the loss of scores.
- ii. Priority areas for the team to work on were highlighted as below:
  - Collate data for comparison of different test methods used in biochemistry (Eua, Haapai, Vaiola) in order to get common performance outcomes.
  - Improve testing capacity in Micro – utilization of molecular methods.
  - Standardize/harmonize analyzers used in all labs(biochem)
  - Continuous training, and advance training for all lab staff.
  - Increase participation in other EQAs.
- iii. Therefore, following recommendations were made:
  - Enhance testing capacity in the Microbiology lab with adequate equipment and resources.

- Implement development plans with relevant stakeholders on clear roles in the development of labs---in terms of facilities, equipment, training, safety('Eua ,Haapai, Microbiology, Hematology )
- Create a clear process flow with procurement and finance

**21. Ms Makarita Baleinadogo (Lab Manager, Labasa Hospital Laboratory)** elaborated on the 3 EQA programs i.e. PPTC (New Zealand), RCPA (Australia), and EQUAL ( Inter- hospital ) Labasa Laboratory participate and challenges experienced by the team.

- i. Challenges faced by the Labasa Hospital Lab are similar to the ones shared by Ms Seni of Tonga however with training requirements highlighted. She concluded her presentation with key points such as:
  - EQA is a system for objectively checking the laboratory's performance using an external source/agency/facility.
  - All laboratories should participate in an EQA process for all tests performed.
  - Laboratories working towards or looking for accreditation are required to participate in EQA.
  - No difference in the treatment of an EQA sample from a patient sample.
  - Normal testing methods must be followed, and the procedure must involve personnel who routinely perform the testing.

**22. Mr. Jason Pangelinan (Respiratory & Laboratory Manager, Commonwealth Healthcare Corporation, CNMI)** is one of the Clinical Laboratory Improvement Amendments (CLIA) Regulated laboratories in the North Pacific and indicated regulatory compliance under CLIA

- Enroll in a CMS-approved PT program
  - Analyze at least 5 PT samples per event
  - Obtain an 80% correct score on each testing event
  - Perform satisfactorily on two out of three testing events
  - Test PT samples in the same manner as patient samples
  - Do not send PT samples or portions of the samples to another lab for analysis
  - Do not engage in inter-lab communication pertaining to the PT until after the due date for reporting results to the PT program.
- i. CNMI uses the American Proficiency Institute and College of American Pathologists as PT providers and uses these PT panels to assess staff competencies and retesting analyzers. He elaborated on the process followed for root cause analysis when a lab submits incorrect PT results or fails a PT program, the submitted results are reviewed to identify any transcriptional errors. Secondly, documented investigation has to be conducted with corrective actions and ongoing monitoring which involves data review, recalibration of the analyzer and QC limits, reagent review, and staff interview.
  - ii. In summary, enhancing good communication between junior and senior laboratory staff as it creates a good learning environment, and every staff member is up to date with the required information to limit the occurrence of mistakes.

23. Ms. Shanyko Benjamin (Lab Scientist, Republic of Nauru Hospital Lab) highlighted 2 errors in Microbiological testing EQA in which they lost marks in antimicrobial susceptibility testing (AST) for *Haemophilus influenzae* (***H. influenzae***) due to the non-viable of the EQA strain and had to seek assistance from PPTC to send new ATCC strain of ***H. influenzae***. The second corrective action was the acquiring and access to the CDC Parasite size charts sheets and WHO parasitology & bench aids to assist in parasite identification.

## DISCUSSION

### The participants noted the following:

- Haematology training and laboratory attachments are required as Zoom sessions during lunch hour are not possible for lab staff to attend due to workloads.
- WHO to collaborate with countries for training needs.
- Strengthen reviewing of EQA results and conduct corrective measures.
- Importance of performing analyser calibration during the day to identify the occurrence of calibration drift.

## ITEM 13: LQMS UPDATE AND AUDIT TEMPLATE

24. **Mr. Russell Cole (Quality manager & Consultant, PPTC, WHO Collaborating Centre External Quality, New Zealand)** elaborated on the importance of having an effective Quality Management System and mentioned that the revised PPTC Audit Checklist 2024 is compliant to ISO 15189: v2022, revised SLIPTA Guidelines v 2023, W.H.O Minimum Std's 2012 and CLSI GP26-A4.2011.
- i. He highlighted the great achievement made by Tungaru Central Hospital Lab team, Kiribati Lab team in scoring 2 stars (640-737 pts) in the 2024 audit comparing to no stars gained in the 2023 audit.
  - ii. More emphasis was placed on the risk matrix which identifies the rationale of the consequences on the impact of patient or staff and regulation breach if not compliant to Accreditation standards, Internal Policy & Regulations.
  - iii. In addition, problematic areas that are identified during audits such as Clinical Governance and Clinical supervision, Inadequate management system review of processes that involves management review meetings, quality management failings and follow-up, and failure to carry out audits and follow-up of corrective actions.

## ITEM 14: LQMS ACTIVITY UPDATE

25. **Mr. Simione Turaganiwai (Quality and Operation Standards Lab Officer, SPC)** presented LQMS updates for 2023 and 2024. For 2023, there was Quality managers training held in Fiji for 12 countries (11 South Pacific, 1 North Pacific) while 3 countries declined to attend due to other priorities.
- i. In 2024, training and quality improvement supervision were done together while visiting the 4 countries, and 23 laboratory staff were trained with basic LQMS knowledge. In addition to

training, Laboratory Leadership training has been delivered to pathologists, lab managers, and quality managers from 12 countries.

- ii. SPC also supported the procurement of LQMS stationery (Files, laptops, fire extinguishers, cabinets, signages) for 7 countries as requested have been received from them.

## DISCUSSION

The participants noted the following:

- Kiribati Lab Manager acknowledged her lab staff for achieving the 2-star rating for SLIPTA audit and also the support given by partners to countries.
- Countries to submit requests to SPC if requiring assistance in procurement.
- Countries to take ownership to recognize and acknowledge hard work done by laboratory staff e.g. Best staff/Technician award.

### DAY 2: 4<sup>TH</sup> OCTOBER 2024

#### ITEM 15: LQMS ACTIVITY UPDATE – PIHOA

26. Dr. Vasiti Uluiviti presented on the activities undertaken to Improve

**quality of lab services in the USAPI through the LQMS and Strengthening Laboratory Management Towards Accreditation (SLMTA) initiatives.** The PIHOA regional network

consists of 133 lab staff (5-10% qualified Lab Scientists), 4 CLIA-regulated labs, and working on the 7 Non-regulated to become regulated. SLMTA is a training and mentoring program developed to achieve immediate, measurable improvement in laboratories in resource-limited settings and an approach to help labs progress toward accreditation by national or international standards.

- i. She highlighted the LQMS scores vs SLIPTA scores since 2010 (Figure 4.0) to current and noted there was not a lot of improvements done over the years therefore good outcomes are expected to be produced in the next 2 years with Regional Lab Program Specialist onboard.

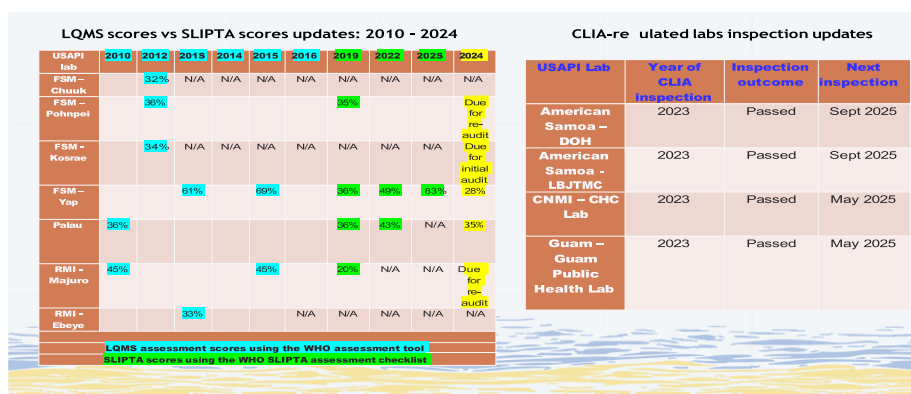


Figure 4.0 LQMS scores vs SLIPTA scores updates: 2010-2024

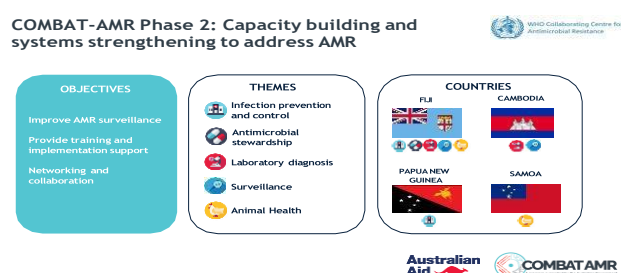
- ii. Medical /Public Health Laboratory Workforce which relates to recruitment of Lab Quality officers in each USAPI lab to further support and facilitate the progress of lab quality improvements and hiring of Microbiology technologists
- iii. Microbiology Enhancement Training (MET) which is supported by US CDC to have Microbiology staff to be attached at the American Samoa LBJTMC Microbiology lab for 3 months.
- iv. Participates in Pacific Public Health Fellowship Program, a 2-year course and requires enrolled lab staff to work in the country lab. One lab fellow from Palau has graduated in August while a second fellow to graduate next year, 2025.
- v. Proposed to have more PIHOA lab representatives to attend the next LabNet meeting to participate in discussions and knowledge sharing.

#### ITEM 16: DOHERTY INSTITUTE AMR UPDATE

26. **Ms Kylie Hui (Scientist, AMR Trainer, WHO CC FOR AMR, MDU, MELBOURNE)** elaborated on the Asia- Pacific Strategic partnership for Infectious Diseases which has grant of AUD \$12.5M (2024-2027) to improve equitable health outcomes by anticipating, preventing, detecting and controlling communicable diseases threats focussing on the following themes:

- ✚ Infection prevention and control
- ✚ Antimicrobial stewardship
- ✚ Laboratory diagnosis
- ✚ Surveillance
- ✚ Animal Health

- i. The WHO Collaborating Centre for AMR supports the WHO and International partners to strengthen prevention, surveillance and response to antimicrobial resistance
- ii. COMBAT -AMR, one of the priority areas that strengthens AMR laboratory diagnosis and surveillance in Fiji has been undertaken in 2021 with situational assessments completed and workplans developed, however it was a relatively slow and challenging year due to the pandemic.
- iii. COMBAT-AMR Phase 2: Capacity building systems strengthening to address AMR with the 5 themes to address the 3 key priorities as in **Figure 5.0** in the 4 countries listed.






**Figure 5.0 – COMBAT -AMR Phase 2**

#### ITEM 17: AMR TESTING & INSTRUMENTATION

27. **Ms Kylie** presented on antimicrobial resistance detection techniques and instrumentation as below with the emphasis on the importance of having an 18-24 hour

pure culture for:

- Traditional Antimicrobial Susceptibility Testing (AST)
- Comparison of manual and automated AST methods
- Automated ID & AST analysers
  -  Biomerieux Vitek 2 Compact and Vitek 2
  -  BD Phoenix M50
  -  Matrix Assisted Laser Desorption/Ionisation Time-of-Flight (MALDI-TOF)
- Comparison of ID & AST analysers and MALDI-TOF
- Manual Antimicrobial Resistance (AMR) detection techniques

i. It is important to note the advantages and limitations of AST automated analysers as described in **Figure 6.0 & 7.0**:

Advantages	Limitations
<ul style="list-style-type: none"> <li>• Simple workflow</li> <li>• Reliable with consistent results</li> <li>• Timely results               <ul style="list-style-type: none"> <li>- 2 to 2.5 hours for organism identification</li> <li>- 4 to 7 hours for AST</li> </ul> </li> <li>• Available for a range of organisms               <ul style="list-style-type: none"> <li>- Gram positive, Gram negative and Yeast</li> </ul> </li> <li>• Can test a large range of antimicrobials at once</li> <li>• Results automatically interpreted by guidelines               <ul style="list-style-type: none"> <li>- EUCAST, CLSI</li> </ul> </li> <li>• Expert rules available               <ul style="list-style-type: none"> <li>- Advanced Expert Systems (AES) – VITEK</li> <li>- BD Xpert System – Phoenix M50</li> </ul> </li> <li>• Capability of linking to LIMS</li> </ul>	<ul style="list-style-type: none"> <li>• ID linked AST interpretation</li> <li>• Specific cards/panels required for specific organism</li> <li>• Storage</li> <li>• Cost</li> <li>• Purity of organism</li> <li>• Known limitations of instruments</li> <li>• Standardized against non-selective media only</li> <li>• Need other measures for confirmation and testing               <ul style="list-style-type: none"> <li>→ Troubleshooting and follow ups</li> <li>→ Alternate testing method for fastidious</li> </ul> </li> </ul>



**Figure 6.0 – Advantages & Limitations of AST automated analysers**

MALDI-TOF	Other Systems (VITEK, Phoenix)
<ul style="list-style-type: none"> <li>• Identification only</li> <li>• Fast results (~&lt; 1minute/sample)</li> <li>• Consumables stored in fridge and freezers</li> <li>• Large identification database               <ul style="list-style-type: none"> <li>• Works well for fastidious and infrequent organisms</li> </ul> </li> <li>• Requires &lt;1xCFU to sample</li> <li>• Can test 96 isolates on one plate</li> <li>• Limitations identifying organisms (eg. <i>E.coli</i>, <i>S.pneumoniae</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Identification and AST</li> <li>• Results in 2-7 hours</li> <li>• Consumables stored in both fridge (VITEK) and room temperature (Phoenix)</li> <li>• Limited identification database</li> <li>• Requires 0.5McF standard (at least 1xCFU)</li> <li>• Can test one isolate per card/panel</li> </ul>

**Figure 7.0 – Comparison of MALDI-TOF and Other Systems**

ii. Kylie's presentation was concluded with the updated list of WHO Priority Pathogens and elaborated on their characteristics and phenotypic methods of detection.

### WHO Priority Pathogens

#### Priority 1: Critical

- *Enterobacterales*, carbapenem-resistant, third generation cephalosporin-resistant
- *Acinetobacter baumannii*, carbapenem-resistant

#### Priority 2: High

- *Enterococcus faecium*, vancomycin-resistant
- *Pseudomonas aeruginosa*, carbapenem-resistant
- *Staphylococcus aureus*, methicillin-resistant
- *Shigella* spp., fluoroquinolone-resistant
- *Salmonella typhi*, fluoroquinolone-resistant
- Non-typhoidal *Salmonella*, fluoroquinolone-resistant
- *Neisseria gonorrhoea*, third-generation cephalosporin, and/or fluoroquinolone-resistant

#### Priority 3: Moderate

- Group A *Streptococci*, macrolide-resistant
- *Streptococcus pneumoniae*, macrolide-resistant
- *Haemophilus influenzae*, ampicillin-resistant
- Group B *Streptococci*, penicillin-resistant

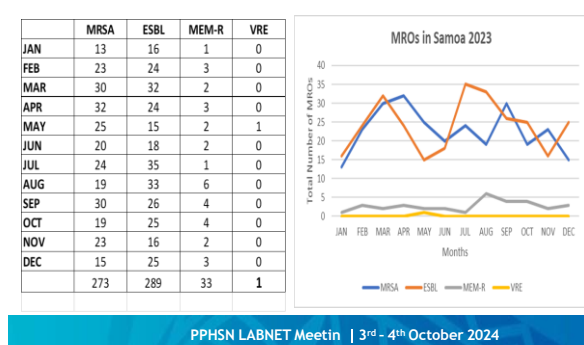


**Figure 8.0 – WHO Priority Pathogens**

## ITEM 18: COUNTRY EXPERIENCE IN AMR INSTRUMENTATION

28. **Ms. Hinauri Leauepepe** presented Samoa's experience with the use of BD Phoenix M50 for antimicrobial susceptibility testing which was installed in 2019. She provided a snapshot of 596 cases of multi-resistant organisms (MRO) identified in the Lab in 2023 as described in Figure 9.0 isolated from different samples received of which 48.5% (289) were Extended-spectrum beta- beta-lactamase-producing gram-negative (ESBL) isolated from blood cultures, 45.8% (273) were methicillin-resistant Staphylococcus aureus (MRSA) mostly from general specimens, 5.5% (33) was Meropenem-resistant Acinetobacter baumani (MEM-R) and 0.2% (1) was Vancomycin-resistant enterococci (VRE) both isolated from blood culture.

### MRO Sanoa Data 2023

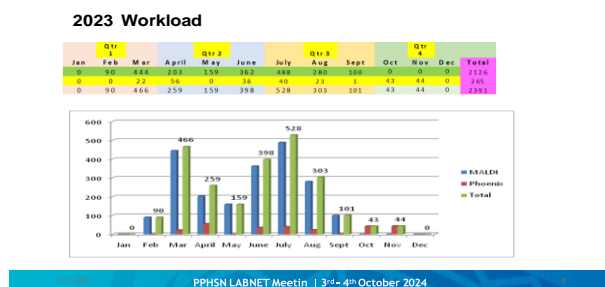


**Figure 9.0 MRO Samoa Data 2023**

- i. BD Phoenix M50 is a full system for rapid identification (ID) and AST which can hold up to 50 panels at a time. It utilizes an optimized colorimetric redox indicator for AST and a variety of colorimetric and fluorometric indicators which broadens the identification of different organisms. ID. It can identify organisms such as gram-negative & positive bacteria, streptococcus, and yeast. Furthermore., it is safer to use as it is a closed system, slightly faster and more accurate identification of pathogens and the system is easy to interface with the Laboratory information system (LIS). Although technology has its advantages, manual tests are always reliable and used as a backup with consumables and reagents available.
  - ii. For future direction, Samoa is exploring another ID and AST analyser to upgrade the current analyser.
29. **Ms Janlyn Kumbu (Acting Lab Manager, Central Public Health Lab, PNG)** gave a highlight of the 5 AMR testing sites in PNG with the use of BD Phoenix in Goroka and Port Moresby General Hospital Central while Central Public Health Laboratory uses BD Phoenix and MALDITOF.
- i. The experience on usage of the MALDITOF instrument is noted to have a faster bacterial, accurate ID of 95% in less than a minute and convenient to be used by Human and Animal health including research. However, the MALDITOF instrument is very expensive including

reagents, requires continuous training of staff and is limited only to organism identification and has no AST capacity.

- ii. Below is the 2023 workload done on the 2 instruments available in PNG with a total of 2391 tests conducted.



**Figure 10. 2023 PNG Workload**

30. **Mr Ravendra Prasad (Laboratory Superintendent, CWMH Laboratory, Suva, Fiji)** shared the experience of using VITEK which was introduced in 2019 and processes an average of 800 tests/ month. VITEK Compact 2 provides fast, accurate, and automated solutions for microorganism identification and antimicrobial susceptibility testing, improving both efficiency and patient care.

- i. Some advantages of the use of VITEK are:
  - **Rapid Identification:** It takes about 7-8 hours to do identification and 24hrs for both identification and susceptibility.
  - **Automation and Efficiency:** reduces the workload on laboratory personnel, allowing for high-throughput testing.
  - **Comprehensive Database:** VITEK has a vast database of microbial profiles and susceptibility patterns, which aids in identifying a wide range of pathogens and their resistance mechanisms.
  - **User-Friendly Interface:** easier for laboratory staff to operate and interpret results, reducing the potential for human error.
- ii. Challenges are also highlighted such as:
  - Sustaining the consumables and Reagents
  - Uncertainty in the machine maintenance
  - VITEK database needs constant updating
  - Limited Fungal and Anaerobic Organism Testing
  - Dependence on Pre-set Algorithms: the system needs to be updated every year. (CLSI).
- iii. Furthermore, elaboration was done on the availability of whole genome sequencing (WGS) at the Fiji CDC with Bioinformatics (data analysis done at MDU, Australia that contributes to saving time and money for referral. COMBAT AMR – Fiji MDU DFAT- is working closely to establish AMR surveillance in Fiji and this influences clinical management of patients allowing clinicians to have new antibiotic choices.

## DISCUSSIONS

### The participants noted the following:

- Primary isolates are required when using the automated platforms (VITEK, MALDITOF, BD PHOENIX M50). Lab scientists to ensure that quality assurance must be implemented and strengthened during cultivation, and isolation of these isolates before placing them into the instruments.
- COMBAT-AMR team does not select countries to work in, however, Countries and Ministries of Health contact DFAT requesting assistance in areas identified by them.
- VITEK costs are around AUD 6,000.
- Fiji AMR Surveillance is well established with the pharmacy department chairing the committee.

## ITEM 19: ANTIBIOGRAM AND REGIONAL DATA

31. **Mr. Tebuka Toatu (PPHSN LabNet Coordinator, SPC)** presented and highlighted the following objectives of having AMR data collection in countries and regions.

- summarizes resistance patterns of pathogens against specific antimicrobials
- Provide health data to inform evidence-based interventions at local, national, and international levels.
- Useful in monitoring antibiotic use in Animal Health
- Can be linked to Environmental Health – manure/waste disposal.
- Strengthen IPC in Health care setting
- Data can be linked to other research topics.
- Useful data in guiding restriction/banning antibiotics in livestock where they are used as growth promoters.

i. He elaborated on the status of AMR strengthening activities in each country as reflected in Figure 11 and countries to inform SPC if any activity has taken place resulting in a change in the dashboard.

Country	No. of Microbiology Staff	No. of Qualified Microbiology Staff	AMR Action Plan/Policy	AMR Committee	National Treatment Guidelines	Antibiogram database	International Guidelines used for AST	ATCC Control Strains	IPC linkage with Microbiology & AST	Linkage between Animal health and Human Health
Tonga	5	4	Available Draft	Available but not active	Available and active	WHONET	CLSI	All available except for Staphy & S. flexneri	Only to Microbiology	No
CHMI	2	5	Available and active	Available and active	Available and active	WHONET	CLSI	All available except for Staphy & S. flexneri	Only to Microbiology	No
Cook Islands	2	2	Available and active	Available but not active	Available and active	Excel	EUCAST	All available except for Staphy & S. flexneri	Only to Microbiology	No
FSM - Pohnpei	4	3	Available and active	Available but not active	Under Review	Excel	CLSI	All available except for Staphy & S. flexneri	Only to Microbiology	No
FSM - Yap	4	4	Available Draft	Available but not active	Available and active	Excel	CLSI	All available except for Staphy & S. flexneri	Only to Microbiology	No
Kiribati	4	3	Available Draft	Available but not active	Available and active	Excel	CLSI	All available except for Staphy & S. flexneri	Only to Microbiology	No
Nauru	2	3	Available Draft	Available but not active	Available and active	Excel	EUCAST	All available except for Staphy & S. flexneri	Only to Microbiology	No
Niue	2	2	Not available	Not available	None (paper-based)	CLSI	None	None	Not to Microbiology	No
Samoa	3	3	Available Draft	Available but not active	Under Review	Excel	EUCAST	All available except for Staphy & S. flexneri	Not to Microbiology	No
Solomon Islands	5	5	Available Draft	Available	Under Review	Excel	EUCAST	All available except for Staphy & S. flexneri	Not to Microbiology	No
Tuvalu	2	2	Available Draft	Available but not active	Under Review	Excel	EUCAST	All available except for Staphy & S. flexneri	Not to Microbiology	No
Fiji - Labasa	3	3	Available and active	Available	Available and active	Excel	CLSI	All available except for Staphy & S. flexneri	Not to Microbiology	No
Fiji - Suva	10	>5	Available and active	Available	Available and active	Excel	CLSI	All available except for Staphy & S. flexneri	Not to Microbiology	No
Vanuatu	3	3	Available Draft	Available	Under Review	Excel	EUCAST	All available except for Staphy & S. flexneri	Not to Microbiology	No

### **Figure 11: PICs AMR Dashboard**

- ii. Entering quality data in the antibiogram is critical, therefore Quality assurance procedures in culturing, isolating, and performing AST are very important to be followed. It was also reemphasized that Microbiology staff do not document antibiotic zone sizes and 0.5 Macfarland standard for lawn culture is not maintained and may contribute to inadequate sensitivity results.
- iii. More elaboration was done on the harmonization of the antibiogram tool and reflects selected and agreed variables from PICTs. Countries are encouraged to share AMR data widely -internally and externally to increase AMR awareness in their respective countries. Also, countries are encouraged to enroll in the WHO GLASS reporting system. AMR data for 2023 from a few PICTs L1 Laboratories have been received and acknowledged.
- iv. The presentation was concluded with the following:
  - Strengthening AMR surveillance is critical.
  - Achieving and maintaining accurate and reliable antibiogram is essential to guide informed decisions in AMR surveillance and control.
  - Data sharing is important but ownership and consensus from countries must be respected.
  - Maximise use of the AMR data to Animal Health and Environmental Health to address AMR issues in a more holistic approach – One Health Approach.
  - Professionals at all levels, whether Assistants, Technicians, Lab Scientists or Lab Managers, need opportunity to expand their knowledge in AMR surveillance.

### **ITEM 20: SHOULD THE PACIFIC HAVE A REGIONAL AMR DATABASE? WHO SHOULD KEEP PIC REGIONAL AMR DATA?**

**32: PANEL MEMBERS: Mr Jason Pangelinan (CMI)**

**Dr Seventeen Toumoua (Samoa)**

**Ms Shalini Singh (Fiji)**

**Dr Josephine Jodie Chanoan (PNG)**

**Dr Eka Buadromo (SPC)**

**Dr Nuha Mahmoud (WHO)**

- i. CNMI uses and shares its AMR database with the pharmacy department to increase awareness of antimicrobial sensitivity and resistance data and clinicians use it for treatment (antimicrobial stewardship)
- ii. PNG raised the issue of the sustainability of the AMR database, security, and the terms of reference to be adhered to.
- iii. Fiji agreed to strengthen the current AMR surveillance system in place locally with the assistance of COMBAT AMR. Concern is raised on the acknowledgment of lab scientists or co-authors if data is used for publications.
- iv. Samoa supported the idea of having a regional AMR database and be user-friendly.
- v. SPC stressed the creation of the SPC antibiogram tool to support countries that do not have access to WHONET (WHO tool) and information sharing can only be done upon the agreement of the Pacific heads of health. More elaborations on the benefit of information

sharing within countries to limit the spread of organisms across borders and good treatment of MROs.

- vi. In summary, WHO agreed to have an AMR regional database that has regional access on a regional platform that can do analysis, user friendly and sustainable.

#### **ITEM 21: IMPROVING BLOOD DONATION IN THE PACIFIC: WHAT CAN WE DO?**

33. **Dr. Litia Tudravu (Consultant Pathologist, CWMH, Fiji)** presented on the blood transfusion services offered by the hospital and the challenges faced during the last Covid-19 pandemic. She highlighted the challenges faced by the Blood Bank Lab below:

- Decrease in voluntary non-remunerated donations hence the reliance on replacement/family donation to meet the demand
- Increase in transfusion-transmitted infections (TTI).
- Increase in HIV and HCV in the donation target population (HIV among donors 16/month, HCV among donors 12/month)
- Blood Service organization (Reporting mechanism, Lack of expertise in Human Resources)
- Poor awareness (Quality vs Quantity)
- Governance between different involved ministries

##### **i. Way forward to address the challenges above as listed:**

- Review of the Organizational structure of Blood Transfusion Services which may lead to the resurrection of the National Blood Transfusion Committee and reviewing of the National Blood Transfusion Policy
- Training for Blood Services Staff – National Director to the middle managers within the Divisional Blood Service
- Reviewing of qualifications of people working in Blood Donor Services
- Improving Blood Donation Awareness targeting the younger generation
- Learn from other successful Donor Services on how to retain regular donors rather than continue to recruit new donors only
- Change of testing modalities for donated blood
- Disaster plan

#### **ITEM 22: BLOOD DONATION COUNTRY EXPERIENCE**

34. **Ms. Theresa Tatuava (Lab Scientist, Ministry of Health, Avarua, Cook Islands)** presented on successfully recruiting blood donors as 100% non-voluntary non-remunerated blood donation (VNRBD) in the Cook Islands.

- i. The initial phase occurred between 2003 and 2007 with the adoption of LQMS in blood transfusion, the development of a memorandum of understanding (MOU) with the Cook Island Red Cross (CIRC), and key stakeholders attending workshops on safe blood and donor recruitment.

- ii. From 2007- 2024, 100% VNRBD is still achievable with a strong partnership with CIRC, maintaining a strong relationship with regular donors including high school students (>16yrs) and the expat ethnic community.

35. **Dr. Ilaisaane Fonohema (Laboratory Medical Officer, Vaiola Hospital, Tonga)** presented on Tonga's blood donation experience with 1149 bled donors from January – August 2024 and 1/3 of donors are VNRBD like Fiji. Staff shortage, procurement delay, inactive partnership with non-government organizations are some challenges faced by the Blood Bank and Transfusion service

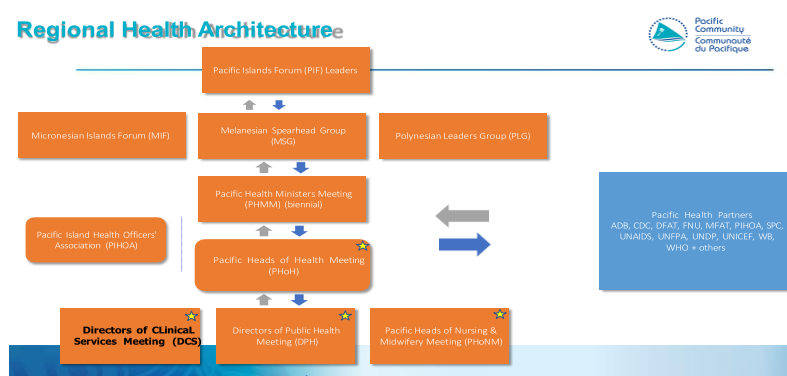
## DISCUSSION:

The participants noted the following:

- CI Blood services officers attend to donors in the community rather than in the hospital setting.
- Awareness of advocating blood donations for Fiji is not effectively done compared to previous years.
- Celebrating “World Donor Day” in countries is important to raise awareness and promote blood services with access to communication materials.
- LQMS in blood transfusion has been adopted by CI after attending second Regional Quality Management Training (QMT) course on blood transfusion services in Singapore.

## ITEM 23: CLINICAL SERVICE NETWORK & PISP (SPC)

36. **Dr. Lamour Hansell (Clinical Adviser & Programme Coordinator, SPC)** presented on the Pacific Clinical and Nursing Networks existing in the PICTs which is led by the SPC Public Health Division (PHD) in the regional health architecture is shown in **Figure 12**. He acknowledged the nominations of the officeholders for PISP and encouraged active participation in the network to support countries' needs.



**Figure 12: Regional Health Architecture (Meeting with a star indicates meetings convened /coordinated by SPC PHD)**

- i. He elaborated on the 5 key recommendations of the 15<sup>th</sup> Pacific Directors of Clinical Services Meeting held in August 2024 which focused on workforce issues, education and research, clinical governance, health emergencies, and Pacific clinical and nursing networks.

- iii. SPC is supporting 15 existing networks including 10 Medical associations of which 2 are subspecialties in surgery ENT, orthopaedics, 2 nursing, 3 allied networks (radiology, biomedical, physiotherapists & rehabilitation)
- iv. Countries are encouraged to take ownership and drive the network as they know the countries well rather than external partners taking the lead role.

#### **ITEM 24: HOW CAN PISP BE MORE ACTIVE?**

37. The discussions are carried out by the 3 regions i.e. Melanesia, Micronesia & Polynesia.

- i. The 3 regions highlighted the following:
  - PISP to be revised since its establishment in 2017.
  - PISP to define terms of reference and not overlapping roles with the existing LabNet
  - Constitution to be prepared by the nominated executives and facilitate its registration.
  - Use PISP to network with pathologists who are available in countries for knowledge-sharing in histopathology and other laboratory specialties.
  - Lab scientists to be represented in the PISP.

#### **ITEM 25: 2024 PPHSN LABNET MEETING RECOMMENDATIONS**

38. After the 8<sup>th</sup> PPHSN Labnet Meeting core members/country representatives recommended the following:

- i. **Countries Government & Ministry of Health**
  - Review of countries' laboratory Acts and related legislations to determine the need for amendment/addendum or new legislation aligned to IHR.
  - Strengthen One Health Approach in the provision of laboratory services in the region.
  - Laboratory to be represented as a part of the IHR Team in countries
- ii. **Countries Laboratories**
  - Countries to share information on software for Procurement & Inventory
  - Strengthen laboratory surveillance and lab surveillance officers (clinical and public Health Labs) to enable timely reporting of analyzed surveillance data to focal points in countries.
  - Continue strengthening AMR laboratory detection and surveillance and countries to ensure quality testing through the use of ATCC strains.
- iii. **Partners**
  - Partners (WHO&SPC) to assist in the review of Laboratory Policies and standard and National Lab Strategic plans aligned to IHR and countries' MOH strategic plans.
  - Have an antibiogram database for the region that is easy to sustain, contextualized to the Pacific setting, and user-friendly.

- Laboratories and Partners to work together to improve sample referral within countries and from countries to reference labs abroad.
- Partners to assist countries on Laboratory Safety Training
- Countries and partners to continue strengthening LQMS through training, assessment, and QIPs
- More USAPI countries to be invited to attend the LabNet meetings in every 2 years.
- LabNet Technical Working Group to be actively engaged in strengthening laboratory services in the region.
- WHO to revitalise and offer Blood transfusion training/workshops to PICTs blood service staff.
- Partners to assist with Hematology training /attachments and workshops for PICT staff.

#### **iv. PISP**

- PISP to accumulate a Regional Database for potential technologists and scientists who may be available to be recruited during a surge in testing needs and emergencies
- Review of Laboratory Information System for best fit for purpose in the Pacific.
- Labnet and PISP to support training and research in PICTS
- Accreditation of in-country trainings if possible
- Standardization of critical laboratory equipment in the region including those to be used for AMR detection. PISP to deliberate on this and come up with a list of equipment that may be standardized
- PISP to define TOR to complement and avoid duplication with LabNet.

#### **PLENARY CLOSING**

1. The LabNet chair thanked all participants for their active participation and valuable contributions in the 2 days of meeting with knowledge sharing and challenges faced by countries in upholding the laboratory services in the Pacific region. She acknowledged SPC for organizing the meeting and all partners in supporting and assisting countries.
2. Next face-to-face Labnet meeting to be conducted in 2 years, 2026.
3. Mr George Pakoa concluded the meeting with a word of prayer.

**END OF LABNET MEETING: 3pm**



**ANNEX 1: 8<sup>th</sup> PPHSN LabNet Meeting Participants : 3-4 October 2024, Nadi, Fiji**

**Cook Islands**

Mr. Douglas Tou  
Laboratory Manager  
Ministry of Health  
Avarua, Rarotonga  
Cook Island  
Telephone: (682) 22664  
E-mail: [douglas.tou@cookislands.gov.ck](mailto:douglas.tou@cookislands.gov.ck)

Ms Theresa Tatuava  
Lab Scientist  
Ministry of Health  
Avarua, Rarotonga Cook Islands  
Telephone: (682) 22664/ (682) 58389  
E-mail: [theresa.tatuava@cookislands.gov.ck](mailto:theresa.tatuava@cookislands.gov.ck)

**Commonwealth of the Northern**

**Mariana Islands**

Mr Jason Pangelinan  
Respiratory & Laboratory Manager  
Commonwealth Healthcare Corporation  
1178 Hinemlu St. Garapan, Saipan, MP 96950  
Telephone: (670) 234-8950 ext. 2864  
Email: [jason.pangelinan@chcc.health](mailto:jason.pangelinan@chcc.health)

**Fiji**

Dr. Litia Tudravu  
Consultant Pathologist  
Colonial War Memorial Hospital Laboratory  
Ministry of Health & Medical Services  
Suva, Fiji  
Mobile : (679) 7124543  
Email: [litia.tudravu@gmail.com](mailto:litia.tudravu@gmail.com)

Dr. Rosalind Mary Bolevakarua  
Senior Medical Officer  
Labasa Hospital Laboratory  
Ministry of Health & Medical Services  
Labasa, Fiji  
Telephone : (679) 7468707  
Email: [rosallind652@gmail.com](mailto:rosallind652@gmail.com)

Dr. Virisila Ciri  
Chief Medical Officer  
Colonial War Memorial Hospital Laboratory  
Ministry of Health & Medical Services  
Suva, Fiji

Telephone: (679) 9626303  
E-mail: [virisilaciri@gmail.com](mailto:virisilaciri@gmail.com)  
Ms. Makarita Baleinadogo  
Lab Manager  
Labasa Hospital Pathology Lab,  
Labasa, Fiji  
Telephone: (679) 8628539  
Email: [mbaleinadogo@health.gov.fj](mailto:mbaleinadogo@health.gov.fj)

Mr. Ravendra Prasad  
Laboratory Superintendent  
Colonial War Memorial Hospital Laboratory  
Ministry of Health & Medical Services  
Suva, Fiji  
Mobile : (679) 9962201  
E-mail: [Ravendra.prasad@health.gov.fj](mailto:Ravendra.prasad@health.gov.fj)

**Federated States of Micronesia**

Ms. Daisy Phal Lab Manager  
Yap Memorial Hospital Colonial Yap, FSM  
Telephone (691) 350-2110/3446 Email:  
[dphal@fsmhealth.fm](mailto:dphal@fsmhealth.fm)

**Kiribati**

Dr Tewareka Tiaeketele Pathologist  
Ministry of Health and Medical Services  
P.O. Box 268, Tarawa, Kiribati  
E-mail: [jackiribati@gmail.com](mailto:jackiribati@gmail.com)

**Nauru**

Ms Shanyko Benjamin  
Laboratory Scientist Manager  
Republic of Nauru Hospital  
Ministry of Health and Medical Services  
Denigomodu District  
Republic of Nauru  
Telephone: (674) 5582438  
Mobile: (674) 5572906  
E-mail: [shanyko137@gmail.com](mailto:shanyko137@gmail.com)

**Niue**

Ms Andy Manu  
Laboratory Manager  
Niue Fooou Hospital  
Department of Health, Kaimiti, Alofi  
Niue  
Telephone: (683) 4100 Ext: 115  
E-mail: [Andy.manu@gov.nu](mailto:Andy.manu@gov.nu)

**Papua New Guinea**

Ms Janlyn Kumbu  
Acting Laboratory Manager  
Central Public Health Laboratory  
National Department of Health  
Port Moresby

Telephone : (675) 73041467  
E-mail : [kumbuj@gmail.com/](mailto:kumbuj@gmail.com/)  
[janlynkemoi008@gmail.com](mailto:janlynkemoi008@gmail.com)  
Dr Josephine Jodie Chanoan  
Highland Region Pathologist  
National Department of Health  
Port Moresby  
Telephone : (675) 75408733  
E-mail : [chanoan.josephine@gmail.com](mailto:chanoan.josephine@gmail.com)

## Samoa

Dr Seventeen Toumoua  
Pathologist  
Clinical Laboratory, Ministry of Health  
Private Mailbag, Apia, Samoa  
Telephone: (685) 7739431  
E-mail: [tinikavitu17@gmail.com](mailto:tinikavitu17@gmail.com)

Ms Hinauri Lauasi Leaupepe-Ngau Chun  
Assistant Chief Executive Officer  
Clinical Laboratory, Ministry of Health  
Private Mail bag, Motootua, Apia, Samoa  
Telephone: (685) 7676003  
E-mail: [hinauri@health.gov.ws](mailto:hinauri@health.gov.ws)

Mr Tauli Aperaamo  
Principal Medical Laboratory Technician  
MTII Hospital Laboratory, Ministry of Health  
Private Mail bag, Motootua, Apia, Samoa  
Telephone: (685) 767617  
E-mail: [taulia@health.gov.ws](mailto:taulia@health.gov.ws)

## Solomon Islands

Dr. Roy Roger Maraka  
General Pathologist  
Ministry of Health and Medical Services  
P.O Box 349,  
Honiara, Solomon Islands  
Telephone: (677) 7251073  
E-mail: [RMaraka@nrh.gov.sb](mailto:RMaraka@nrh.gov.sb)

Mr. Alfred Dofai  
Head of Medical Laboratory  
Ministry of Health and Medical Services  
PO Box 349  
Honiara, Solomon Islands  
Telephone : (677) 44044 or +677 7414295  
E-mail: [ADofai@nrh.gov.sb/alfred.dofai@gmail.com](mailto:ADofai@nrh.gov.sb/alfred.dofai@gmail.com)

Dr. Andrew Darcy  
Director National Health Training & Research  
Ministry of Health and Medical Services

:

PO Box 349  
Honiara, Solomon Islands  
Telephone : (677)  
E-mail : [ADarcy@nrh.gov.sb](mailto:ADarcy@nrh.gov.sb)  
Ms. Majory Kwaina  
Quality Manager  
Ministry of Health and Medical Services  
PO Box 349  
Honiara, Solomon Islands  
Telephone : (677) 44044 or +677 7643680  
E-mail: [MKwaina@nrh.gov.sb](mailto:MKwaina@nrh.gov.sb)

**Tonga**

Ms. Mele Fihaki Moungaevalu  
Medical Scientist  
Vaiola Hospital  
Ministry of Health  
P.O. Box 59, Nuku'alofa  
Telephone: (676) 7400-218  
E-mail : [amihuti08@gmail.com](mailto:amihuti08@gmail.com)

Ms. Senisaleti Pasikala  
Principal Medical Scientist  
Vaiola Hospital  
Tonga Ministry of Health, Tonga  
Telephone : (676) 7400470  
Email : [senisaleti\\_pasikala@yahoo.com](mailto:senisaleti_pasikala@yahoo.com)

**Vanuatu**

Mr. Dexter Takau  
Acting Principal Laboratory officer  
Department of Allied Health  
Vila Central, Ministry of Health  
Private Mail Bag 9012,  
Port Vila, Vanuatu  
Telephone: (678)7762943  
E-mail: [Dtakau@vanuatu.gov.au](mailto:Dtakau@vanuatu.gov.au)

Mr. George Junior Pakoa  
Manager Dental and Allied Health Services & Acting  
Principal Laboratory Officer  
Department of Allied Health  
Vila Central, Ministry of Health  
Private Mail Bag 9012,  
Port Vila, Vanuatu  
Telephone: (678)7742310  
E-mail: [jgpakoa@vanuatu.gov.vu](mailto:jgpakoa@vanuatu.gov.vu)

## **PPHSN LABNET TECHNICAL WORKING GROUP MEMBERS REPRESENTATIVES**

### **Fiji Centre For Disease Control (Fiji CDC)**

Ms Dhanbhagium  
Gounder Lab Supervisor  
Fiji Centre for Disease Control  
Namaka, Nadi , Fiji  
Telephone : (679) 8068247  
Email : [dgounder1147@gmail.com](mailto:dgounder1147@gmail.com)

Ms Shalini Singh  
Laboratory Manager  
National Public Health Laboratory  
Fiji Centre for Disease Control  
Ministry of Health & Medical Services  
Suva, Fiji  
Telephone: (679) 332 0066  
Telephone: (679) 9918152  
E-mail: [shalinip588@gmail.com](mailto:shalinip588@gmail.com)

### **Fiji National University**

Ms. Shivanjali Sharma  
Head of Department  
Department of Pathology and Medical Sciences  
College of Medicine, Nursing & Health Sciences, FNU  
Pasifika Campus  
Extension Street, Suva  
Fiji  
Telephone: (679) 339400 Ext: 3414  
Mobile (679 )  
E-mail: [hos-hs@fnu.ac.fj](mailto:hos-hs@fnu.ac.fj)

### **National Serology Reference Laboratory (NRL, Australia)**

Ms Sandy Walker  
Senior Scientist -Scientific, Consulting & Training  
4<sup>th</sup> Floor Healy Building  
41 Victoria Parade, Fitzroy, Victoria 3065  
Australia  
Telephone: (61) 3 94181101  
E-mail: [sandy@nrlquality.org.au](mailto:sandy@nrlquality.org.au)

### **New Caledonia**

Dr. Myrielle Dupont  
URE Dengue et Arboviroses

**Pacific Islands Health Officer  
Association (PIHOA)**

Institute Pasteur de Nouvelle-Calédon  
11 ave P. Doumer,  
BP 61, 98845 Nouméa cedex,  
Nouvelle-Calédonie  
Téléphone : (687) 277530  
E-mail : [mdupont@pasteur.nc](mailto:mdupont@pasteur.nc)  
Dr. Vasiti Uluiviti  
Regional Laboratory Strengthening Coordinator  
Address: 414 W Soledad Avenue, Suite 906,  
GCIC Bldg, Hagatna, GU 96910  
Telephone: (671) 735-3337  
Mobile: (671) 488-8234  
E-mail: [vasitiu@pihoa.org](mailto:vasitiu@pihoa.org)

**Pacific Pathology Training Centre**

Mr. Russell Cole  
Quality manager & Consultant  
WHO Collaborating Centre for External Quality  
Assessment in Health Laboratory Services  
P.O. Box 7013  
Wellington 6242  
New Zealand  
Telephone: (64(4) 389-6294  
Facsimile: (64(4) 389- 6295  
E-mail: [russellc@pptc.org.nz](mailto:russellc@pptc.org.nz)

Mrs. Telesia Apikotoa  
Quality Manager & Consultant  
Pacific Pathologist Training Centre  
WHO Collaborating Centre for External Quality  
New Zealand  
Telephone: (64(4) 389-6294  
E-mail: [t.apikotoa@pptc.org.nz](mailto:t.apikotoa@pptc.org.nz)

**Pacific Region Infectious  
Disease Association**

Mrs Alyssa Kwam  
PRIDA representative  
Medical Laboratory Scientist  
Angau Memorial Provincial Hospital  
Mobile: +675 70050594  
Email: [aeuloulo12@gmail.com](mailto:aeuloulo12@gmail.com)

**National Reference Laboratory**

Mr. Wayne Dimech  
Executive manager-Scientific & Business Relations  
4<sup>th</sup> Floor Healy Building  
41 Victoria Parade, Fitzroy, Victoria 3065  
Australia  
Telephone: (61) 3 94181132  
Facsimile: (61) 394181155  
E-mail: [wayne@nrlquality.org.au](mailto:wayne@nrlquality.org.au)

**The Peter Doherty Institute**

**for Infection and Immunity**

Mr Navin Karan  
Training and Capacity Manager  
Victorian Infectious Diseases Reference Laboratory  
Level 2 - The Doherty Institute  
792 Elizabeth Street  
Victoria, Australia 3000  
Telephone.: (61) 3 9342 9393/ (61) 433 525 273  
E-mail: [navin.karan@mh.org.au](mailto:navin.karan@mh.org.au)

Ms Kylie Hui  
Scientist (AMR Trainer)  
Microbiological Diagnostic Unit Public Health  
Laboratory (MDU PHL)  
WHO Collaborating Centre for Antimicrobial  
Resistance (WHO CC for AMR)  
Level 1 - The Doherty Institute  
792 Elizabeth Street  
Victoria, Australia 3000  
Telephone.: (+61) 401 153 988  
E-mail: [hui.k@unimelb.edu.au](mailto:hui.k@unimelb.edu.au)

**SECRETARIAT**

**Pacific Community**

Dr. Eka Buadromo  
Team leader  
Laboratory Strengthening Program  
Public Health Division  
SPC Suva Regional Office  
Private Mail Bag  
Suva, Fiji  
Telephone: (679) 337 0733 EXT 35377  
Facsimile: (679) 337 0021  
E-mail: [ekab@spc.int](mailto:ekab@spc.int)

Dr. Lamour Hansell  
Clinical Adviser and Programme Coordinator  
Clinical Service Program  
Public Health Division  
SPC Suva Regional Office  
Private Mail Bag  
Suva, Fiji  
Telephone: (679) 337 0733 EXT 35548  
Facsimile: (679) 337 0021  
E-mail: [lamourh@spc.int](mailto:lamourh@spc.int)

Ms. Evlyn Mani  
Information and Communication Officer  
SPC Suva Regional Office  
Private Mail Bag  
Suva, Fiji  
Telephone: (679) 337 0733 EXT 3622  
Facsimile: (679) 337 0021  
E-mail: [evlynm@spc.int](mailto:evlynm@spc.int)

Mr. Simione Turaganiwai  
Quality and Operation Standards Lab Officer  
Public Health Division  
SPC Suva Regional Office  
Private Mail Bag  
Suva, Fiji  
Telephone: (679) 337 0733 EXT 35499  
Facsimile: (679) 337 0021  
E-mail: [simionetu@spc.int](mailto:simionetu@spc.int)

Ms Talica Cabemaiwai  
Monitoring & Evaluation Laboratory Officer  
Public Health Division  
SPC Suva Regional Office  
Private Mail Bag  
Suva, Fiji  
Telephone: (679) 337 0733 EXT 35217  
Facsimile: (679) 337 0021  
Email: [talicac@spc.int](mailto:talicac@spc.int)

Mr Tebuka Toatu  
PPHSN LabNet Coordinator  
Public Health Division  
SPC Suva Regional Office  
Private Mail Bag

Suva, Fiji  
Telephone: (679) 337 0733 EXT 35331  
Facsimile: (679) 337 0021  
E-mail: [tebukat@spc.int](mailto:tebukat@spc.int)

Ms Timaleti Rokotavaga  
Finance and Administration Assistant  
Public Health Division  
SPC Suva Regional Office  
Private Mail Bag  
Suva, Fiji  
Telephone: (679) 337 0733 EXT 35309  
Facsimile: (679) 337 0021  
Email: [timaletir@spc.int](mailto:timaletir@spc.int)

## **World Health Organization**

Dr Nuha Mahmoud  
Team Coordinator  
Pacific Health Security & Communicable Diseases  
World Health Organization  
Division of Pacific Technical Support  
Suva, Fiji  
Telephone: (679) 7779729  
E-mail : [hamidn@who.int](mailto:hamidn@who.int)

Dr Darwin J. Operario  
Laboratory Testing Officer Consultant  
World Health Organization  
Division of Pacific Technical Support  
Suva, Fiji  
Mobile : (679) 7779729  
E-mail : [operariod@who.int](mailto:operariod@who.int)

Ms. Sara Demas  
Consultant Epi/Surveillance  
E-mail : [demass@who.int](mailto:demass@who.int)

Ms Sandra Semi  
Short Term Consultant  
Pacific Health Security & Communicable Diseases  
World Health Organization  
Division of Pacific Technical Support  
Suva, Fiji

**ANNEX 2: 8<sup>th</sup> PPHSN LABNET MEETING PROGRAM -3<sup>rd</sup> TO 4<sup>TH</sup> October, Tanoa Hotel, Nadi, Fiji.**

<b>Day 1 - 3<sup>RD</sup> OCTOBER 2024</b>		<b>MODERATORS</b>	<b>SPEAKERS</b>	<b>RAPPORTEUR</b>
8.15 – 8.45 am	REGISTRATION	Current LabNet Chair		
8.45 - 9.00 am	Welcome Devotion			
9.00 – 9.15 am	Keynote address <b>(WHO)</b>			
9.15- 9.30am	Opening Remarks <b>(SPC)</b>			
9.30 - 9.45 am	Recommendation from LabNet 2022, update <b>(Chair of LabNet)</b>		Dr Litia	
9.45 - 10.00 am	2022 LabNet recommendations discussion and changeover of LabNet Chair <b>(SPC)</b>	<b>( Labnet Secretariate, SPC)</b>	Dr Eka	

<b>10.00 – 10.30 am</b>	<b>Morning Tea and official photos</b>			
10.30 - 10:45 am	IHR and Laboratory Core capacities <b>(WHO)</b>	New LabNet chair (2024-2026)	Dr Nuha Mahmoud	
10:45 - 11:15 am	JEE and country experiences <b>(TO, SI, WS) 10 minutes each</b>		Ms Hinauri Leaupepe Ms Senisaleti Pasikala Mr Alfred Dofai	
11.15 – 11.30 am	Discrepancy in Dengue NS1 & PCR test results <b>(FCDC/SI PH Lab)</b>		<b>Shalini Singh/Andrew Darcy</b>	
11.30 – 11:45pm	PPHSN LabNet sample referral review report <b>(WHO Consultant)</b>		Ms Sandra Semi	
11:45 - 12:00 pm	MPOX testing and sample referral <b>(WHO/JIMT)</b>		Dr Nuha Mahmoud	
12.00 pm- 12:15 pm	Q&A session			

12.15 – 1:00 pm	Penal Discussion (IHR and JEE. The challenges and how will IHR and JEE benefit my country??) Fiji, Samoa, SI, Kiribati, SPC, WHO		Ms Hinauri Laupepe Mr Alfred Dofai, Dr Zack, Dr Eka, Dr Nuha	
<b>1:00 – 2:00 pm</b>	<b>Lunch</b>			
2:00 – 2.45 pm	Pacific Island Laboratories EQA Reports <b>(NRL/ VIDRL/PPTC) 15 minutes each)</b>		Ms Sandy Walker Mr Navin Karan Mr Russell Cole	
2.45 - 3:15 pm	Review of EQA results and corrective measures <b>(TO/ FJ/ CNMI/Nauru)</b>		Ms Senisaleti Pasikala Ms Makarita Baleinadogo Mr Jason Pangelinan Ms Shanyko Benjamin	
<b>3:15 pm -3.30 pm</b>	<b>Afternoon tea break</b>			

3.30 - 3.45 pm	LQMS update and audit template <b>PPTC</b>		<b>Mr Russell Cole</b>	
3.45 – 4.00 pm	LQMS activity update – SPC		<b>Mr Simione Turaganiwai</b>	
4:00 - 4:15pm	Q&A session			
4.15 - 4.30 pm	LabNet recommendation Day 1 - Rapporteur & LabNet Chair		Rapporteur	
<b>4.30 pm</b>	<b>End of Day 1</b>			

**Day 2- 4<sup>th</sup> OCTOBER, 2024**

8.15 - 8.30 am	Welcome and devotion	LabNet chair		
8.30 – 9.00 am	Reflection of Day 1 <b>(KI/ SB/CI &amp; Rapporteurs)</b>			
9.00- 9.15	LQMS activity update – PIHOA		Dr Vasiti Uluiviti	
9.00 - 9.15 am	Doherty Institute COMBAT AMR update ( <b>WHO CC AMR; MDU, Doherty Institute</b> )		Ms Kylie Hui	

9.15 – 9:30am	AMR testing and Instrumentation ( <b>WHO CC AMR; MDU, Doherty Institute</b> )		Ms Kylie Hui	
9.30 – 10:30am	Country experience in AMR instrumentation (MALDITOF, VITEK, PHOENIX-) 15 minutes each) <b>PNG/ WS/FJ /IPNC</b>		Ms Hinauri Laupepe Ms Janlyn Kumbu Mr Ravendra Prasad	
10.30 - 10.45 am	<b>Q&amp; A session</b>			
<b>10.45 - 11.00 am</b>	<b>Morning tea</b>			
<b>11.00 - 11.15 am</b>	Antibiogram and regional data collection ( <b>SPC</b> )		<b>Mr Tebuka Toatu</b>	
11.15 - 12.00pm	Panel discussion: <i><b>Should the Pacific have a regional AMR data base ? If yes .... Who should keep PIC regional AMR Data?</b></i> PNG/ Samoa/Fiji/ CNMI/ VIDRL/SPC/WHO		Ms Shalini Dr Seventeen Toumoua Alyssa/Dr Chanoan, Jason	

			Pangelian, Dr Eka, Dr Nuha	
12.00 - 12.15 pm	Improving Blood donation in the Pacific: What can we do? ( <b>FIJI</b> )		<b>Dr Litia Tudravu</b>	
12.15 - 12.45pm	Blood donation country experience <b>CI and Tonga</b>		<b>Ms Theresa Tuatava Dr Ilasaane Fonohema</b>	
12.45 - 1.00 pm	Group discussion on Improving Blood donation in your countries ( <b>Micronesia/Melanesia/Polynesia</b> )			
<b>1.00 - 2.00 pm</b>	<b>Lunch</b>			
2.00 - 2.30 pm	<b>Group presentations x 3</b>			
2.30 - 3.00 pm	Clinical Service network and PISP ( <b>SPC PHD Clinical services program</b> )		Dr Lamor Hansell	
3.00 - 3.30 pm	Discussion How can PISP be more active ( <b>Micronesia, Melanesia, Polynesia</b> )	SPC	<b>Ms Talica Cabemaiwai</b>	

<b>3.30 pm -3:45 pm</b>	<b>AFTERNOON TEA</b>			
3:45 - 4:15pm	LabNet Meeting 2024 Recommendations	SPC Rapporteur	Chair of LabNet	
4:15 - 4:30pm	<b>CLOSING &amp;END OF LABNET 2024</b>			

