

Pacific Heads of Health

Réunion des directeurs de la santé du Pacifique

Pacific Public Health Surveillance Network (PPHSN)

Updates from the Regional PPHSN and the LabNet Meetings 2022

At a glance

- PPHSN in its more than 25 years of existence has brought together health professionals of the 22 Pacific Island countries and territories (PICTs) to address the common infectious disease challenges of the region. Surveillance systems are strengthened through its six service networks: PacNet, EpiNet, LabNet, PICNet Strengthening Health Interventions in the Pacific/Data for decision making (SHIP/DDM) and Pacific Syndromic Surveillance System (PSSS).
- The lessons of the COVID-19 pandemic have highlighted the critical role that PPHSN has played in supporting regional health security. Strengthening PPHSN is necessary to meet future health challenges, the changing priorities of PICTs and contributing towards the Healthy Islands Vision, the 2050 Strategy for the Blue Pacific Continent and the Sustainable Development Goals (SDGs) for the next 25+ years.
- The priority areas of focus in the next 5 years emanating from the recent Regional PPHSN and the LabNet Meetings in 2022 are:
 1. Launching the Pacific Vector Network as a new initiative;
 2. Supporting the coordination and collaboration of other sectors in planning and budgeting for public health risks emerging from the human-animal-environment interface;
 3. Harnessing the gains made in strengthening reverse transcription polymerase chain reaction (RT-PCR) laboratory capacities for SARS-CoV2 testing to include other priority diseases and improve quality management systems; and
 4. Continuing capacity building for epidemiology, laboratory, infection prevention and control (IPC), risk communication and community engagement (RCCE) and vector control.
- Pacific Heads of Health are invited to:
 - 1) **Note the annexed recommendations** from the 2022 Regional PPHSN (see Annex A) and LabNet meetings (see Annex B);
 - 2) Direct ministry staff to share information and alerts on outbreaks or new risks on PacNet that can lead to better preparedness and responses by other countries;
 - 3) **Support the coordination and collaboration of other sectors** in planning and budgeting for public health risks emerging from the human-animal-environment interface; and 4) **Sustain the progress made available during the COVID-19 pandemic** to strengthen laboratory, IPC and RCCE capacity to ensure that health systems are not only better prepared to respond to the threat of COVID-19 but also to other priority and emerging diseases.

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Current situation

Since its inception in 1996, the PPHSN has been dedicated to strengthening public health surveillance towards priority health challenges at national and regional level in a sustainable way.

Following the launch of PacNet in 1997, its first service network for alert and communication, a total of six service networks have been established in response to needs identified by PICTs over the years. The other five services include LabNet (2000) for verification and identification, EpiNet (2001) for preparedness and response, PICNet (2006) for IPC, the PSSS (2010) for outbreak detection and the SHIP/DDM (2014) capacity building program.

The COVID-19 pandemic has highlighted the importance and the role of such a regional network that is geared to supporting regional health security and the attainment of the IHR core capacities through APSED III implementation. Additionally, the pandemic has brought forth considerable resources into the region for strengthening laboratory capacities, IPC, RCCE, digitalisation of services and supporting public health surveillance in general.

After the peak of the pandemic in the region, the staging of the 2022 Regional PPHSN meeting (25-27 October 2022) co-hosted by the Pacific Community (SPC) and the Fiji National University (FNU), and the 2022 LabNet meeting (7-9 November 2022) co-hosted by SPC and the World Health Organization (WHO), were important to take stock of the national and regional responses to the COVID-19 pandemic, the lessons learnt and to craft the way forward for the next 3-5 years. The meetings enabled identification of country-level priorities and opportunities that technical partners can leverage on for a coordinated and collaborative approach to human, animal, and environmental health.

Future vision

PPHSN will embrace the Pacific Island countries and territories vision for a resilient Pacific region towards health security, ensuring that Pacific peoples lead healthy and productive lives as embodied in the Healthy Island vision, the 2050 Strategy for a Blue Pacific Continent and achieving SDG 3.

A comprehensive surveillance and response system for the Pacific will be inclusive of access to timely information for action that is generated from multi-source data (for example syndromic, laboratory, hospital based, vector surveillance, climate data, animal health etc.), PICTs having qualified multidisciplinary health professionals, access to the latest tools and technologies, such as molecular testing capabilities, and strong infection prevention and control programmes. Furthermore, the capabilities of health systems to address current and future threats such as antimicrobial resistance, zoonotic diseases and disease X.

Putting this vision into action will mean that PPHSN must ensure that the Pacific health systems are not only supported to strengthen surveillance and response to emerging and re-

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emerging public health risks but also ensure that there is coordination of multi-stakeholder and multi-sectoral responses in addressing these risks, alignment of resources, amplified targeted risk communication and community engagement, providing policy and programme guidance, continuing to enhance capacity and fostering cross-country learning on public health issues that are common to all.

Examples of recent progress

Since the last in person Heads of Health meeting in Nadi, Fiji in 2019, progress has been made through the PPHSN in addressing regional health security as highlighted in the reports for the Regional PPHSN¹ and LabNet meetings² in late 2022.

Efforts to bring in Directors of Public Health (DoPH) to the 2022 PPHSN regional meeting were made, as per the recommendation from the 7th PHOH meeting. Full transition to a DoPH meeting is expected, with plans for the inaugural meeting to occur in 2024. PPHSN matters will become agenda items of the wider DoPH meeting.

Enhanced laboratory capacity

The considerable investments that were triggered by the COVID-19 pandemic has enabled the expansion of high precision molecular testing capabilities in the region; all PICTs now have automated polymerase chain reaction (PCR) technology while 11 countries have manual RT-PCR laboratories that will enable earlier detection of novel pathogens. Whole genome sequencing capacity is being established in Fiji and Guam. Training in antimicrobial resistance (AMR) has resulted in the improvement in laboratory detection of multi-resistant organisms and antimicrobial stewardship in some countries. An excel-based antibiogram program is being developed, in lieu of WHONet, and will be trialled in Cook Islands, Kiribati and Vanuatu in 2023.

The progression of capacity building through SHIP/DDM

The Postgraduate Certificate in Field Epidemiology (PGCFE) delivery mode was updated by SPC and PIHOA to include online or hybrid delivery in addition to face-to-face training. Another 51 additional PGCFE participants are anticipated to graduate in 2023, from national cohorts in Fiji, Guam, Kiribati and the Republic of the Marshall Islands (RMI); joining the 116 graduates to date.

Delivery of the Postgraduate Diploma in Applied Epidemiology (PGDAE) has begun for graduates of PGCFE from Fiji, RMI, Tonga and Vanuatu with completion expected in 2024.

Revitalization of PICNet

¹ [Final Report 2022 PPHSN Meeting](#)

² [2022 LabNet Meeting Report](#)

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The COVID-19 pandemic has once again highlighted the need to strengthen infection prevention and control in health facilities, communities and at ports of entry. Strengthening the PICNet service network is important for coordination and collaboration of the various stakeholders involved in advancing IPC at national level. The first PICNet meeting is planned for May 2023. The regional IPC manual was updated in 2021 and Fiji, Tonga, Solomon Islands, Tuvalu, and Vanuatu have updated their national IPC guidelines and are developing IPC plans.

New initiatives for surveillance of healthcare associated infections and hand hygiene have been launched, with hand hygiene auditing and surgical site infection (SSI) surveillance underway in Fiji, the Federated States of Micronesia, RMI, Kiribati, Solomon Islands, Tonga, Palau, and Vanuatu.

The Pacific Vector Network

PICTs have supported establishing a Pacific Vector Network³ as a new initiative of PPHSN, with a launch scheduled for June 2023 co-hosted by PIHOA, SPC and WHO. This new initiative is an example of multisectoral coordination and collaboration to strengthen vector surveillance and control involving the human, animal, and environmental sectors.

A review of PPHSN

A review of PPHSN is to be conducted in 2023 and will inform the update of the PPHSN Strategic Framework. A One Health approach is recommended to be included in the strategic framework.

Why urgent action is needed now

The COVID-19 pandemic has proven that investment in preparedness is more cost efficient than response, as well as showing the usefulness and importance of a regional service network like PPHSN that supports health security in the Pacific.

The response to the pandemic in the Pacific was bolstered by the existing alert and communication platform PacNet. PacNet links all countries, facilitating timely surveillance and alert information to be shared, enabling countries to have a panoramic view of the pandemic spread within the region. Additionally, the existing LabNet provided the platform to build better testing capabilities of countries through enhancements of PCR capabilities and having access for referral of samples for whole genomic sequencing. To ensure sustainability, ongoing investment into the latest technology will be required, both financially and for human capacity building. EpiNet team structures were available in every PICT, strengthened by graduates and ongoing students of the SHIP/DDM programme for surveillance and response.

³ [Technical Paper on the Pacific Network for Vector Control Response](#)

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IPC procedures for isolation and quarantine facilities as well as personal protective equipment for frontline staff have expanded.

It is crucial to maintain and sustain the momentum and investment for enhanced support for human resource capacity building, infrastructure development, equipment and supplies which have strengthened the ability of the six service networks for better preparedness and response. Ongoing training in all technical areas is needed to address the persistent brain drain in the region. Furthermore, in the face of climate change, increases in vector-, food- and water-borne diseases and zoonotic disease outbreaks are expected, including those arising from the interface between humans, animals, and the environment. A multi-sectoral and multidisciplinary approach is key to addressing many of these issues.

The Pacific region is at the forefront of this climate-change induced threat. Failure to act will leave the Pacific more vulnerable to the impacts of these emerging and re-emerging health threats.

Recommendations to be considered by the Heads of Health

Recommendations for governments

In strengthening health security and regional networking, the Pacific Heads of Health are invited to:

1. Note the annexed recommendations from the 2022 Regional PPHSN (see Annex A and LabNet meetings (see Annex B));
2. Direct ministry staff to share information and alerts on outbreaks or new risks on PacNet leading to better preparedness and responses by other countries;
3. Support the coordination and collaboration of other sectors in planning and budgeting for public health risks emerging from the human-animal-environment interface; and
4. Sustain the progress made available during the COVID-19 pandemic to strengthen laboratory, IPC and RCCE capacity to ensure that health systems are not only better prepared to respond to the threat of COVID-19, emerging diseases and re-emerging health threats and addressing climate change disease patterns impacting health.

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Recommendations for development partners

Development partners are invited to:

1. Support the need to review the PPHSN, updating of the Strategic Framework and strengthening of the 6 service networks of PPHSN so that they are fit for purpose;
2. Enhance laboratory capacity for AMR testing, molecular capabilities and laboratory quality management system;
3. Support the establishment of the Pacific Vector Network as a new initiative; and
4. Facilitate and support human resource capacity building as well as cross-country sharing of best practices and lessons learnt in addressing disease outbreaks.

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Annex A: Recommendations of the Pacific Public Health Surveillance Network – Regional Meeting, 25–27 October 2022, Nadi, Fiji

PPHSN members agreed to:

Strengthening Health Interventions in the Pacific (SHIP)/Data for Decision-Making (DDM)

1. Continue supporting the delivery of SHIP/DDM, and take steps to benefit from the capacity provided by SHIP/DDM graduates in-country by providing career development opportunities
2. Partners to consider establishing an alumni network to link in-country SHIP/DDM facilitators and SHIP/DDM alumni to facilitate communication between them and with them
3. Further explore opportunities to provide flexible SHIP/DDM courses that can be taken at alternative times to increase access for those who wish to study
4. Recognise that within 8 to 10 years, there will be sufficient SHIP/DDM graduates to assist in the delivery of training in their own countries, and ensure they have the support needed to continue the evolution and sustainability of the capacity building programs.
5. Acknowledge with appreciation the valued contribution of Fiji National University (FNU), CDC, PIHOA, SPC and WHO to developing and delivering SHIP/DDM

PacNet and reports of epidemic and emerging disease alerts

6. Acknowledge the usefulness and practicality of the alert system
7. Continue to use PacNet and encourage PICTs to share information
8. Request PICTs to declare the end of outbreaks or public health threats
9. Address the increasing importance for countries of data sharing agreements

LabNet

10. Strengthen laboratory systems, including capacity, through twinning and attachments for laboratory staff, improving the laboratory quality management system (LQMS) and providing laboratory training
11. Support laboratory strengthening to take a One Health approach to capacity building

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12. Support laboratory quality assessment (SLIPTA, SLMTA)⁴ for all PICTs, and call for increased resourcing to address gaps identified in these assessments
13. Note plans to engage training institutes and reference laboratories in membership of the LabNet Technical Working Group (TWG) to ensure LQMS support is available equally to all PICTs
14. Recommend that the LabNet meeting discuss expanding the list of reference laboratories available to PICTs
15. Note that the terms of reference of the LabNet TWG need to be finalised and endorsed by LabNet, and support the proposal that the Chair of the LabNet TWG should be held by country representatives only, and should rotate every one to two years between the three Pacific subregions of Melanesia, Micronesia and Polynesia
16. Note the plan to organise one on-site visit per year to a selected laboratory by the Chair and a member of the TWG
17. Request PICTs to support AMR measures, including providing training and the supplies their laboratories need to test for and identify microorganisms.

EpiNet

18. Acknowledge the contribution of EpiNet teams during the COVID-19 pandemic
19. Acknowledge the capacity strengthening of EpiNet team members provided through SHIP/DDM, which contributed to an effective response to the COVID-19 pandemic and other emerging health risks
20. Advocate that EpiNet teams include a wide range of skills (e.g., One Health, animal health, vector control, post-disaster management, risk communication), with ad hoc members drafted as necessary to deal with specific situations
21. Support sharing of information and expertise between EpiNet teams, both internally and externally, noting the benefits of online meetings by USAPI EpiNet teams
22. Recommend a regional meeting of EpiNet teams

⁴ Stepwise Laboratory Quality Improvement Process Towards Accreditation (SLIPTA); Strengthening Laboratory Management Towards Accreditation (SLMTA).

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Pacific Syndromic Surveillance System (PSSS)

23. WHO, in consultation with PICTs and partners, to update the PSSS / EWARS (Early warning, alert and response system) guidelines and provide training on using PSSS/ EWARS
24. Create a technical working group to review case definitions for select syndromes, to improve the sensitivity of the system
25. Encourage other data sources (e.g., the livestock industry) to contribute to the system
26. Acknowledge the need to further improve data quality, in particular timeliness and completeness for the PSSS

Multi-source surveillance

27. Note the importance of multi-system surveillance at country and regional levels
28. Recognise that PICTs already use many different types of multi-source surveillance
29. WHO to develop a questionnaire for PICTs to collect information on the surveillance systems they each use
30. Investigate development of a framework to integrate existing surveillance systems, noting that at its 2019 regional meeting, PPHSN agreed to establish SurvNet

PICNet

31. Enhance IPC by providing targeted training, including addressing antimicrobial resistance (AMR)
32. To work with the clinical service network to address the practice of using antibiotic prophylaxis and its potential to contribute to AMR
33. Request PICTs to provide leadership support for improving hand hygiene in all aspects of health care, and to ensure equipment and supplies (such as water, wash basins and sanitiser) are available and accessible
34. Adopt hand hygiene compliance as an indicator for IPC programmes and patient safety, with appropriate training delivered for all health staff
35. Support a regional meeting of IPC focal points in 2023, with arrangements to be discussed

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36. Provide training and other support for PICTs to increase their capacity for SSI surveillance
37. Acknowledge the contribution of the Pacific Pathology Training Centre (PPTC) and the Doherty Institute to reducing SSI through training, laboratory services and research

Pandemic preparedness

38. Note the request from countries for more information on appropriate assessment tools for pandemic preparedness:
 - a. partners to outline the tools available
 - b. PICTs to decide which tools are best suited to their country's circumstances
39. Request PICTs to update their pandemic preparedness plans
40. Provide training in risk communication and community engagement, facilitate information sharing; collate and archive information materials produced during the COVID-19 pandemic; and note the effectiveness of tailor-made messaging for communities
41. Conduct qualitative studies around health-care workers' vaccine hesitancy

One Health

42. Recognise the critical need for a coordinated One Health approach to animal, environment and human health
43. Include One Health in the PPHSN Framework
44. Request partners to continue supporting PICTs and advocating for the adoption of the One Health approach
45. Recognise the importance of environmental health, and explore an appropriate forum for bringing PICT Environmental Health Officers together
46. Noted the shortage of veterinarians in most PICTs for inclusion in multi-sectoral teams

Proposed Pacific Network for Vector Control Response

47. Recommend accepting the Pacific Network for Vector Control Response as a new initiative under PPHSN

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PPHSN: transformation from health surveillance to health security

48. Note the suggestion at the 2019 PPHSN regional meeting to consider changing the name from Pacific Public Health Surveillance Network to the Pacific Public Health Security Network
49. Conclude that a name change was not necessary at this time

Agence française de développement – European Union PPHSN Joint Project Steering Committee

50. The Chair of the Joint Project Steering Committee requested countries to:
 - a. take note of the end date for projects so activities can be completed;
 - b. confirm dates for current SHIP/DDM training cohorts as early as possible;
 - c. make requests to partners for support, including for the SHIP/DDM capacity building programme, as early as possible

Acknowledgment

51. On the occasion of its 25th anniversary, PPHSN acknowledged with gratitude the foresight of its founders, the contribution of its members, and the generous support of all its development partners

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Annex B: 2022 PPHSN LABNET MEETING RECOMMENDATIONS

At the conclusion of 2022 PPHSN Labnet Meeting core members/country representatives and partners recommended the following:

1. **National Laboratory Policy:** National laboratory Policies and Plan for PICTs to be reviewed. The document was compiled by WHO and has been in the countries for more than 10 years. WHO is again requested to facilitate review of this document.
2. **Sustaining PICTs RTPCR testing:** PICTS RT-PCR testing facilities to be sustained and used for testing of PPHSN priority diseases and other diseases requiring molecular testing. This will ensure RT-PCR molecular testing is available and ready for use in the event that countries encounter novel diseases/pathogens that will only be diagnosable using RT-PCR. Having RT-PCR testing platforms is key to health security in the Pacific region.
3. **Laboratory Workforce:** Countries to strengthen laboratory workforce capacity building and LabNet Secretariat (SPC) to keep a database of potential technologists and scientists for recruitment during the surge in demands (eg. pandemic)
4. **Inclusion of private laboratories:** Private laboratories testing have also contributed to public health surveillance therefore they should be included in the PPHSN LabNet laboratory strengthening program.
5. **Laboratory Information system:** There is an urgent need for a robust Lab information system in all countries in the Pacific. Partners are urged to provide support/advice and work with countries to develop laboratory information system that will alleviate the manual laboratory processes workload.
6. **One Health:** Countries human health laboratory leaders are urged to develop partnership with animal and environmental health laboratories and open to assist in developing laboratory capabilities in these two areas.
7. **Laboratory Quality Management System:** LQMS strengthening and quality assessment to continue and countries are urged to use SLIPTA/LQMS audit findings as a tool to improve lab services and capacity building.
8. **LabNet Specimen Referrals:** Partners to work with PICTs to establish the most appropriate courier service and mechanisms to transfer infectious substances to reference laboratories.
9. **Blood donations:** PICT Laboratories to share information on ways to support voluntary blood donations

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10. **Pacific Island Society for Pathology (PISP)** to be strengthened. SPC will continue to serve as secretariat for PISP and countries are encouraged to use SPC support to disseminate information, communicate, capacity building and assist other laboratories who may need advisories through PISP and LabNet.