

Directors of Clinical Services Meeting

Réunion des directeurs des services cliniques

STRENGTHENING HEALTH LABORATORY SERVICE IN PACIFIC ISLAND COUNTRIES & TERRITORIES

1. BACKGROUND

The Pacific Community (SPC) Public Health Division (PHD) is committed to strengthening laboratory service in the Pacific Island Countries and Territories (PICTs) by assisting countries to fulfil the Asia Pacific Strategy for Emerging diseases (APSED III) objectives i.e. countries to have efficient laboratory service that is capable of diagnosing emerging diseases of public health importance in a timely manner.

Despite the restriction imposed on countries in the current pandemic, SPC PHD laboratory team has continued to deliver most of the scheduled activities to PICTs in 2021 namely, Strengthening laboratory Quality Management system (LQMS), laboratory quality standard audit, International Air Travel Association (IATA) training of trainers for shipping of infectious substances, training of laboratory shippers of infectious substances, and strengthening antimicrobial resistance surveillance.

SPC PHD has also been instrumental in guiding and supporting PICTs in the provision of COVID-19 testing in 2020 and 2021. COVID-19 laboratory assistance include establishment of new, fully furnished RTPCR testing laboratories, supplies of RTPCR testing reagents and consumables, GeneXpert equipment and testing cartridges, and monitoring of quality of GeneXpert testing. The assistance was made possible through the support of partner organizations and the Joint Incident Management Team (JIMT).

2. PROGRESS AND ACHIEVEMENTS

2.1 Strengthening Laboratory Quality Management System (LQMS): Two LQMS trainings were delivered in 2020 (FijiCDC and Kiribati) before the borders lockdown. The trainings were meant to prepare the laboratories that were earmarked for LQMS audit using Stepwise Laboratory Improvement Towards Accreditation (SLIPTA) audit tool. 4 SLIPTA audits have been conducted this year; FijiCDC, Zens Clinic Laboratory, Fiji, Kiribati (Tungaru Central Hospital), and Cook Islands Rarotonga Hospital.

Results of SLIPTA audits are promising with FijiCDC, like Tonga (Vaiola Hospital Lab) reaching 5-star rating indicating readiness to progress to ISO15189 audit and accreditation. LQMS and ISO accreditation is vital to good progress and utility of highly specialised RTPCR laboratories therefore the LQMS groundwork that is progressing in the PICTs has provided a strong foundation for ISO accreditation of RTPCR laboratories in the Pacific.

2.2 Support for shipping of infectious substance and specimen referral to reference laboratories:

Specimen referral from Level 1 laboratories to reference labs was at all time low in 2020 and 2021 due to border restriction. SPC changed its support by procuring and distributing testing kits for infectious diseases of public health importance to Southern Pacific group of countries, enabling in-country testing. There is still the need to ship highly infectious specimens within countries by air and the SPC laboratory team co-facilitated trainings on shipping of infectious substance with country trainers in 2021. The IATA training of trainers of infectious substances has also been completed in September by which the trainers from the Southern Pacific Island countries received their training and will be re-certified as country trainers for the coming 2 years.

2.3 Strengthening Antimicrobial Resistance (AMR) laboratory surveillance

progressed to a lesser extent in 2020 and 2021. The training program was co-delivered online by FNU, SPC, WHO and PIHOA officials in Fiji, Tonga, Solomon Islands and Tuvalu. On-the-bench practical training, however, is still delayed for all countries apart from Fiji. Progress in AMR activities has been observed in Fiji i.e. implementation of AMR Action Plan, AMR awareness, improved AMR laboratory testing capacity and antibiotic stewardship program slowly taking shape.

2.4 COVID-19 testing:

SPC worked with development partners to assist PICT in SARS-coV-2 testing in 2020 and 2021. The program eventuated in the establishment of 3 RTPCR laboratories, Kiribati, Cook Islands and Vanuatu. Samoa and Labasa hospital RTPCR laboratory are also in the pipeline. In addition to RTPCR laboratories, SPC also provided 18 X 4 module GeneXpert equipment to PICTs. These equipment were distributed to Fiji, Kiribati, Tuvalu, Niue, Solomon islands, Vanuatu, republic Marshall islands, Nauru, Samoa and Tonga. SPC through the JIMT also contributed GeneXpert testing cartridges to countries and monitor supply status and quality of GeneXpert testing in PICTs.

3. CHALLENGES

3.1 Border closure and shortfall of virtual delivery of program:

Online trainings, meetings and audits is the only option for SPC laboratory team to deliver activities to countries outside of Fiji in this pandemic. These activities have seen shortfalls with online/virtual delivery due to various reasons. On the bench practical training is basically not possible, longer trainings have to be tapered into 2 hrs slot

as trainees are still actively working and need to get back to routine work activities. Internet connectivity in some countries remained problematic.

3.2 Delay in procurement of lab consumables and reagents that are needed for in-country training and testing due to border closure has contributed to delay in some of the countries' activities including COVID-19 RTPCR setup, training and testing.

3.3 Lack of follow-up of some country activities, e.g. LQMS training and Laboratory AMR surveillance that needed in-country visit and on-the bench assessments were not conducted due to COVID-19 pandemic border closures.

3.4 Reduced rate of execution of some Laboratory and surveillance activities due to commitments to COVID-19 activities e.g. scheduled Virtual PPHSN/Labnet meeting received very little interest for attendance in 2021. This is probably due to the fact that laboratory and surveillance personnel in all countries are too involved with COVID-19 testing and surveillance

4. FUTURE DIRECTIONS

4.1 Recommendations for governments:

Strengthening health laboratory services to ensure early detection of emerging and priority diseases that are of public health importance remains a high priority for Health Security in the region. SPC is committed to continue supporting current laboratory strengthening activities and also take on-board new activities that are of regional importance in future. SPC highly appreciates the participation and support offered by regional countries in implementing these laboratory activities to ensure health security in the region.

4.2 Recommendations for development partners:

SPC wishes to acknowledge the support and partnership that it has with development partners, without which most of the activities that are being delivered to countries would not have been possible.

The urgent assistance offered by partners that enable PICTs to conduct high precision molecular testing for COVID-19 has been unprecedented and SPC as the implementing partner in most of these activities would like to express sincere gratitude for all the assistance. We look forward to continue this

partnership and support investments that have been put into PICTs laboratories to ensure timely testing and confirmation of diseases of public health importance and health security in the region.