

Directors of Clinical Services Meeting

Réunion des directeurs des services cliniques

CLINICAL MANAGEMENT TECHNICAL WORKING GROUP UPDATES

The Pacific COVID-19 Clinical Management Technical Working Group (CMTWG) was established in May 2022 to coordinate support to Pacific Member State Ministries of Health in COVID-19 clinical management planning and implementation. The group, which consists of partner organizations meet fortnightly. The main focus of the CMTWG over the last few months has been to strengthen biomedical support in the Pacific Island Countries (PICs) as it is a vital component of clinical management that has been overlooked throughout the COVID-19 pandemic.

The CMTWG endeavoured to describe the existing biomedical workforce in the PICs and understand the work experience, training and perceived challenges and support needed by the biomedical workforce. In July and August 2022, the CMTWG conducted a survey of biomedical staff in the PICs. Key findings from the survey suggests limited access to training opportunities, identify gaps in training, work challenges and suggestions to strengthen the biomedical workforce. The CMTWG plans to use the findings of this survey to inform further work aimed at strengthening the biomedical workforce.

In addition, partners involved in the CMTWG provide a variety of clinical support to the PICs such as provision of equipment and supplies, training of health workers, technical advice, and deployment of human resources to countries with outbreaks. The CMTWG network has provided a forum for Partners to disseminate new information and guidelines regarding clinical management of both COVID-19 and Monkey Pox to various levels of the health workforce. The CMTWG network is also an effective way to promote events, such as the recent webinar series on COVID-19 therapeutics hosted by the World Health Organization (WHO) and capture information from the countries regarding clinical capacity.

1. BACKGROUND

The Pacific COVID-19 Clinical Management Technical Working Group (CMTWG) brings together key stakeholders working on clinical management across Pacific Island Countries (PICs). The group (previously known as the Case Management Cell) was formed under the Joint Incident Management Team (JIMT) in 2020 in response to the COVID-19 Pandemic. At the request of the JIMT, the group was re-established in May 2022 and renamed CMTWG to reflect a shift from emergency response to sustained management of COVID-19. The CMTWG is co-chaired by the World Health Organization (WHO) and Pacific Community (SPC), and membership includes clinical representatives from partner organisations such as the Australian Department of Foreign Affairs and Trade (DFAT), European Union (EU), International Federation for the Red Cross (IFRC) and the United Nations Population Fund (UNFPA).

The primary objective of the CMTWG is to coordinate support to Pacific Member State Ministries of Health in COVID-19 clinical management planning and implementation. Other objectives of the CMTWG include; coordinate partners in support of training on clinical management, develop/adapt advice/guidance/technical resources/tools and facilitate sharing of relevant country level experiences and good practice.

In addition, partners involved in the CMTWG provide a variety of clinical support to the PICs such as provision of equipment and supplies, training of health workers, technical advice, and deployment of human resources to countries with outbreaks. The CMTWG network has provided a forum for Partners to disseminate new information and guidelines regarding clinical management of both COVID-19 and Monkey Pox to various levels of the health workforce. The CMTWG network is also an effective way to promote events, such as the recent webinar series on COVID-19 therapeutics hosted by the WHO and capture information from the countries regarding clinical capacity.

Since 2020 there has been an exponential increase in donations of biomedical equipment to PICs to support the COVID-19 clinical response. Biomedical equipment is used in the diagnosis of many illnesses including COVID-19. Health workers use biomedical equipment on a daily basis to test, diagnose, assess, and manage patients. It is essential that biomedical equipment is functional and well-integrated so that health staff know how to use, and trouble shoot machines to complement their clinical knowledge. Much of this equipment requires installation support, ongoing preventive and corrective maintenance and user training. However, a consistent feature of the COVID-19 response in the PICs has been limitations in biomedical support leading to failure to install, set up or repair donated equipment thus rendering it useless or dangerous to patients. The importance of biomedicine as a vital component of effective clinical management is often undervalued.

2. PROGRESS AND ACHIEVEMENTS

2.1 Biomedical Health workforce

From July to August 2022 to CMTWG undertook a survey of the biomedical workforce in the PICs. The objectives of the survey were to characterise the current biomedical workforce and to describe perceived barriers and challenges of the biomedical workforce. The CMTWG also anticipated using the findings of the survey to inform a larger body of future work to strengthen biomedical support in the PICs. A survey was developed by the CMTWG and sent out to biomedical networks. Data was collected via a Google Form. Data was analysed by the CMTWG using simple descriptive analysis.

2.2 Biomedical Health workforce findings - demographic

A total of 31 responses have been received to date. Fourteen ($n=14$) countries are represented and include; Cook Islands ($n=2$), Federated States of Micronesia (FSM) ($n=3$), Fiji ($n=5$), Kiribati ($n=3$), Marshall Islands ($n=1$), Republic of Nauru ($n=3$), Niue ($n=1$), Republic of Palau ($n=1$), Samoa ($n=6$), Solomon Islands ($n=1$), Tonga ($n=1$), Tuvalu ($n=2$) and Vanuatu ($n=2$). Respondents range in age from 23 to 64 years old with an average age of 38 years. The majority of respondents are male ($n=22$).

2.3 Biomedical Health workforce findings –work experience

Respondent job titles include; biomedical technician ($n=17$), biomedical engineer ($n=7$), biomedical officer ($n=1$), National biomedical coordinator ($n=1$), mechanic ($n=1$), biomedical equipment specialist ($n=1$), hospital operations director ($n=1$), trade specialist ($n=1$), director health and chief medical officer ($n=1$). Respondents report having worked in their role from 1.3 to 41 years with a median duration of 10 years.

2.4 Biomedical Health workforce findings –biomedical qualifications and training

Most respondents (61%, $n=19$) have a biomedical qualification; Bachelor degree ($n=7$), Diploma ($n=2$) or certificate ($n=10$). Most respondents gained the qualifications in Australia (13%, $n=5$) or Fiji (12%, $n=4$). Other countries where biomedical degrees were gained include Philippines (9%, $n=3$), Japan (6%, $n=2$), China (3%, $n=1$), Netherlands (3%, $n=1$) and New Zealand (3%, $n=1$).

Areas and skills where respondents felt initial training was lacking the most include radiology or computerized tomography (CT) ($n=9$) and laboratory ($n=8$). Other areas cited less often included; electrical work, manufacturer/supplier training, repairs and troubleshooting, oxygen plant, management

skills, ICU machines, operating theatre, office management, dental, dialysis and training clinical staff. Just over one third of respondents (35%, $n=11$) have had informal training in the last 12 months and the majority of respondents have not had training for 12 months or more.

3. CHALLENGES

3.1 Biomedical Health workforce findings – work challenges

The most common challenges in their job cited by respondents were limited access to or delay in receiving spare parts ($n=8$) and lack of human resources ($n=7$). Other challenges include; lack of training, lack of biomedical testing/analysing equipment, lack of financial resources, lack of space/tools, general maintenance, lack of support from management, lack of support from manufacturers/suppliers, x-ray machines and process issues such as lack of automated inventory system and delayed notification when machines break.

3.2 Biomedical Health workforce findings – perceived support needs

The most common areas of support that participants cited as something that would make their jobs easier is in person training (74%, $n=283$), being part of a network (67%, $n=21$) and online training (64%, $n=20$). Other areas of support included; on the job mentoring ($n=11$), written guidance ($n=10$) and webinars ($n=10$). Note that respondents provided more than one response to this question. We asked a final question; ‘is there anything else you would like to tell us?’ and 12 (39%) of the respondents mentioned the need for better access to training and upskilling opportunities.

4. FUTURE DIRECTIONS

4.1 Overall findings

The key findings from the survey include:

1. Identified need to grow a skilled biomedical workforce through training leading to formal qualifications
2. Strong focus on need for informal professional development training
3. Support required for development of a biomedical network for the PICs, and strengthening processes around spare parts procurement and management
4. Need to improve support/understanding from management to reinforce biomedicine in regard to improved financial and human resources, improved working spaces, and strengthening existing processes.

4.2 Recommendations for governments:

1. Strengthen the existing biomedical workforce:
 - a. Through providing incentives to work in the biomedical field such as higher salary, retention pay
 - b. Through supporting access to informal biomedical training opportunities focusing on radiology, laboratory, office management, general repair and maintenance, manufacturer/supplier training, electrical work and equipment in specialty areas such as; operating theatres, intensive care unit, dialysis and dental
 - c. Through supporting the development of inter-country network for the biomedical health workforce.
2. Strengthen the biomedical support:
 - a. Through supporting access to biomedical training leading to formal qualifications
 - b. Through awarding tenders only to manufacturers that provide ongoing and timely support to PICs through provision of spare parts and technical advice
 - c. Through providing resources and/or consider policy reform to support biomedical initiatives such as strengthening spare parts procurement and management, access to biomedical testing and analysing equipment, upgrading working spaces.

4.3 Recommendations for development partners:

The CMTWG aims to conduct a further analysis of the current status of biomedical equipment in PICs to better inform future procurements to prevent wastage. A concept note with the findings of the workforce and equipment surveys will be shared with partners highlighting ways in which biomedical support in the PICs can be strengthened leading to better patient outcomes. However, findings from the biomedical workforce survey highlight:

1. The need to support governments to strengthen biomedical workforce through activities listed above
2. The need to provide technical support for the biomedical workforce through the development and provision of in-person and online training in local language and access to training opportunities leading to formal qualifications
3. The need to ensure that any biomedical equipment procured for donation meets country regulatory requirements and technical specifications, and includes provision for installation/training/maintenance, where appropriate.