

# **PACIFIC JOURNAL OF MEDICAL SCIENCES**

**{Formerly: Medical Sciences Bulletin}**

**ISSN: 2072 – 1625**



Pac. J. Med. Sci. (PJMS)

[www.pacjmedsci.com](http://www.pacjmedsci.com). Email: [pacjmedsci@gmail.com](mailto:pacjmedsci@gmail.com).

---

## **A SHORT REPORT ON THE COVID-19 RESPONSE AND PREPAREDNESS ACTIVITIES IN POHNPEI, FEDERATED STATES OF MICRONESIA**

**\*RODNEY ITAKI, HINDEN ALEXANDER, PERTINA ALBERT, PADWICK GALLEN,  
MARCELLE GALLEN and PAYNE PERMAN**

**Pohnpei State Hospital, Pohnpei Department of Health and Social Services,  
Federated States of Micronesia**

\*Corresponding author: [ritaki@fsmhealth.fm](mailto:ritaki@fsmhealth.fm)

*Submitted: March 2020; Accepted: April 2020*

## A SHORT REPORT ON THE COVID-19 RESPONSE AND PREPAREDNESS ACTIVITIES IN POHNPEI, FEDERATED STATES OF MICRONESIA

\*RODNEY ITAKI, HINDEN ALEXANDER, PERTINA ALBERT, PADWICK GALLEN,  
MARCELLE GALLEN and PAYNE PERMAN

Pohnpei State Hospital, Pohnpei Department of Health and Social Services,  
Federated States of Micronesia

\*Corresponding author: [ritaki@fsmhealth.fm](mailto:ritaki@fsmhealth.fm)

Submitted: March 2020; Accepted: April 2020

### ABSTRACT:

On January 31st 2020 the President of the Federate States of Micronesia declared a public health emergency due to the global outbreak of Corona Virus Disease 2019 (COVID-19). This short report presents an overview of the COVID-19 response and preparedness activities in the state of Pohnpei following this declaration.

**Keywords:** Pohnpei, SARS-CoV-2, COVID-19, corona virus disease 2019, Federated States of Micronesia

### INTRODUCTION:

Corona virus disease 2019 (COVID-19) is caused by severe acute respiratory syndrome corona virus-2 or SARS-CoV-2 [1]. COVID-19 has spread to all continents and the World Health Organization (WHO) predicts that the disease will reach every country in the world by the end of 2020. The COVID-19 outbreak once again highlights the importance of outbreak preparedness [2]. Small Pacific Island Countries (PICs) have very limited resources compared to other countries in the pacific and are more vulnerable to disease outbreaks because of fragile health systems. Early implementation of public health measures is a

key strategy for the PICs so that their health system can manage and contain the disease to prevent their health system being overwhelmed. The Federated States of Micronesia (FSM) is an island nation consisting of a total of 607 high and low islands in the Northwestern Pacific Ocean. The four states that make up the FSM are Pohnpei, Chuuk, Kosrae and Yap. This short report presents an overview of COVID-19 preparedness and response activities that occurred in Pohnpei between February and March 2020.

**Establishment of response and preparedness management structure:**

Following the issue of the public health emergency declaration by the President of FSM on January 31st 2020 an executive directive order was issued by the Governor of Pohnpei on the 1st of February 2020 enabling the creation and establishment of the Pohnpei Corona Virus Task Force. The key function of the task force was to submit an action plan to guide and coordinate the response and preparedness activities in the State of Pohnpei. The directors of the following departments made up the Corona Virus Task Force committee: Health and Social Services, Education, Treasury and Administration, Environment Protection Agency (EPA) and Public Safety. Government officials from Transportation and Infrastructure, Attorney General, Budget office, Public Affairs office, Pohnpei Broadcasting Corporation and Pohnpei Port Authority (PPA) were also invited to be part of the task force. Representatives from the WHO, UNICEF, International Organization for Migration (IOM), Red Cross, and Pohnpei Chamber of Commerce also participated in meetings and provided technical advice. The Corona Virus Task Force managed

the budget for the preparedness activities and reported directly to the governor of Pohnpei.

### **Pohnpei State Response and Preparedness:**

A COVID-19 response and preparedness action plan was developed by the task force and was managed under the following general areas: Risk communication, Enhanced screening and Surveillance at all port of entries, Infection control and prevention, Clinical case management, Quarantine and Laboratory testing. The Pohnpei department of health and social services (PDHSS) was the lead department supported by the other agencies as per the executive directive from the governor of Pohnpei. Using the action plan, PDHSS in partnership with WHO developed a COVID-19 contingency plan. The contingency plan was designed to scale up or scale down activities using number of projected COVID-19 cases as triggers to commence or stop activities (Table 1). The plan was submitted to the task force where it was approved for use by the state agencies.

Table 1: Summary of Pohnpei State COVID-19 contingency plan

#### **Condition 5: All clear**

#### **Condition 4a: Zero cases but COVID-19 threat exists**

- Establish incident command health structure and link with Disaster Taskforce.
- Open COVID-19 Command Centre. Daily meetings. Weekly situation report (sitrep).
- Set up a triage screening station, included signs at Emergency Room and outpatients.
- Identify alternative locations for routine outpatient care. Establish 1<sup>st</sup> wave medical care team for COVID-19 patients. Consider how to surge hospital staff.

- Ensure adequate resources and training.
- Implement risk communication, focusing on awareness and prevention.
- Continue routine surveillance.
- Identify and establish isolation and quarantine facilities, and plan how to manage these.
- Support port of entry activities around travel restrictions.

**Condition 4b: Zero cases in Pohnpei but confirmed COVID-19 case in Guam, Republic of Marshal Islands, Palau, Commonwealth of Northern Mariana Islands, Hawaii, Chuuk, Yap, Kosrae.**

- Declare state of public health emergency.
- Fast track completion of all condition 4 activities.
- Commence condition 3 activities as required.

**Condition 3: 1-10 cases (FIRST CASES)**

- Daily sitrep to stakeholders.
- Ensure separate triage area at hospital or open COVID-19 clinic. Activate 1<sup>st</sup> wave of healthcare workers.
- IMMEDIATELY start contact tracing (Day 1, first suspected case) – close and casual contacts.
- Quarantine or self-isolation of contacts of suspected cases.
- Strengthen risk communication activities, focusing on social distancing, hand and respiratory hygiene, addressing rumors and misinformation, partnership with all sectors.
- Continue surveillance activities.
- Mitigate transmission through social distancing measures – consider telemedicine, school closures, and reduced social activities, limit sporting events, limit church gatherings.
- Build more hand-washing stations at hospital, clinics, schools, main town and villages.
- Consider limiting travel to outer islands.

**Condition 2: >10-100 cases**

- Daily situation report to stakeholders.
- Cease contact tracing if more than 10 cases or 100 close contacts.
- Consider ceasing mandated quarantine and encourage self-isolation/home quarantine.
- Cease port of entry screening.
- Strengthen social distancing measures. Sick people should not go to work.
- Risk communication and outreach - focus on what we know/don't know/what we're doing/what you can do, social distancing, home quarantine, hand and respiratory hygiene.
- Open overflow areas/tents in hospital for ill cases. Activate 2<sup>nd</sup> wave of healthcare workers. Employ student nurses for surge. Use alternative venues for routine outpatient care. Implement telemedicine.
- Mildly sick people should not be hospitalised. Consider cohorting mildly sick people in external venue or home-based care.
- Surveillance continues.
- Repurpose staff from other government departments to help with response.

**Condition 1: >100 cases**

- Daily then weekly sitreps if outbreak continues >2 months.
- Continue social distancing strategies.
- Cease quarantine.
- Encourage self-isolation/home-care of mildly sick patients.
- Focus risk communication on reassurance, self-help measures, social distancing.
- Review hospital capacity. Consider opening additional overflow areas/tents in hospital. Use alternative venues for routine outpatient care and medication resupplies.
- Surveillance to continue and commence sentinel testing.
- Plan for return to business-as-usual.

The public health department developed a risk communication strategy with a focus on public awareness, community engagement and addressing any misinformation on social media. The activities were coordinated by a risk communication educator and worked in partnership with the state public information office. Multiple messages were developed and distributed using social media, the local newspaper and short messaging services in collaboration with FSM Telecom.

Screening and surveillance procedures were established and used to screen crews on fishing ships, cargo ships and airline passengers. At the health facilities the existing syndromic surveillance system (Influenza like illness) was enhanced by running refresher training for doctors. Doctors were also trained to be alert for any severe acute respiratory illness (SARI) with influenza symptoms requiring admission and to obtain travel history. Clinical management guidelines were accessed from the WHO website and distributed via email to all doctors working in the state [3]. The WHO guidelines were used to develop local treatment guidelines for doctors. Infection prevention and control (IPC) was identified as a key area of improvement so a training program was developed and conducted targeting all employees at the state hospital as well as key agencies such as EPA, public safety officers (first responders), police officers and PPA employees. A four bed isolation ward with

negative pressure system was renovated and refurbished to house suspected and confirmed COVID-19 cases. In addition a surge capacity plan was developed to cater for any rise in number of cases should the need arise. An abandoned beach resort was renovated and refurbished for quarantine purposes. Laboratory testing algorithm was developed and distributed to all doctors and nurses. Arrangements were established to send all samples for testing to the Centers for Disease Control and Prevention (CDC) laboratory in Guam or Hawaii.

The task force committee also established communication with business houses, the International Organization for Migration (IOM), churches and Red Cross to help disseminate public awareness messages and information. Technical advice and support was also provided to the task force by IOM (tents), WHO (PPEs) and UNICEF (established hand washing stations under the WASH program).

Three initial public health strategies that Pohnpei State instituted were (1) enhanced screening at all port of entries (PoEs), (2) travel restrictions and (3) quarantine measures for inbound passengers and fishing vessels. The WHO quarantine guidelines for COVID-19 [4] were used to develop local guidelines and procedures. All sea vessels were required to spend 14 days at sea before arrival in Pohnpei and inbound passengers were required to spend 14 days in a country, area or territory

with no confirmed case of COVID-19 before travelling to Pohnpei. If sea vessels were found to be at sea for less than 14 days then the ship was quarantined at the anchorage area to complete 14 days. Over 90% of inbound passengers came from the United States so passengers were advised to spend 14 days in Hawaii or Guam. However, when cases were confirmed in Hawaii and Guam, all inbound passengers were quarantined for 14 days at two hotels and monitored by the health team. Any person under quarantine that developed fever, cough or shortness of breath were taken to the isolation ward at the state hospital and managed by the hospital internist.

Nasopharyngeal samples from suspected cases were sent to Guam Public Health Laboratory for testing. As of March 23rd 2020 Pohnpei has had three suspected cases. All tests were negative for SARS-CoV-2. It is hoped that by the end of April 2020 Genexpert testing for SARS-CoV-2 will be fully operational at the hospital.

Using WHO surveillance case definitions for COVID-19 [5] a simple triage algorithm was developed and implemented at the hospital. The algorithm separated patients with respiratory symptoms from rest of the patients presenting to the emergency or outpatient departments (Figure 1).

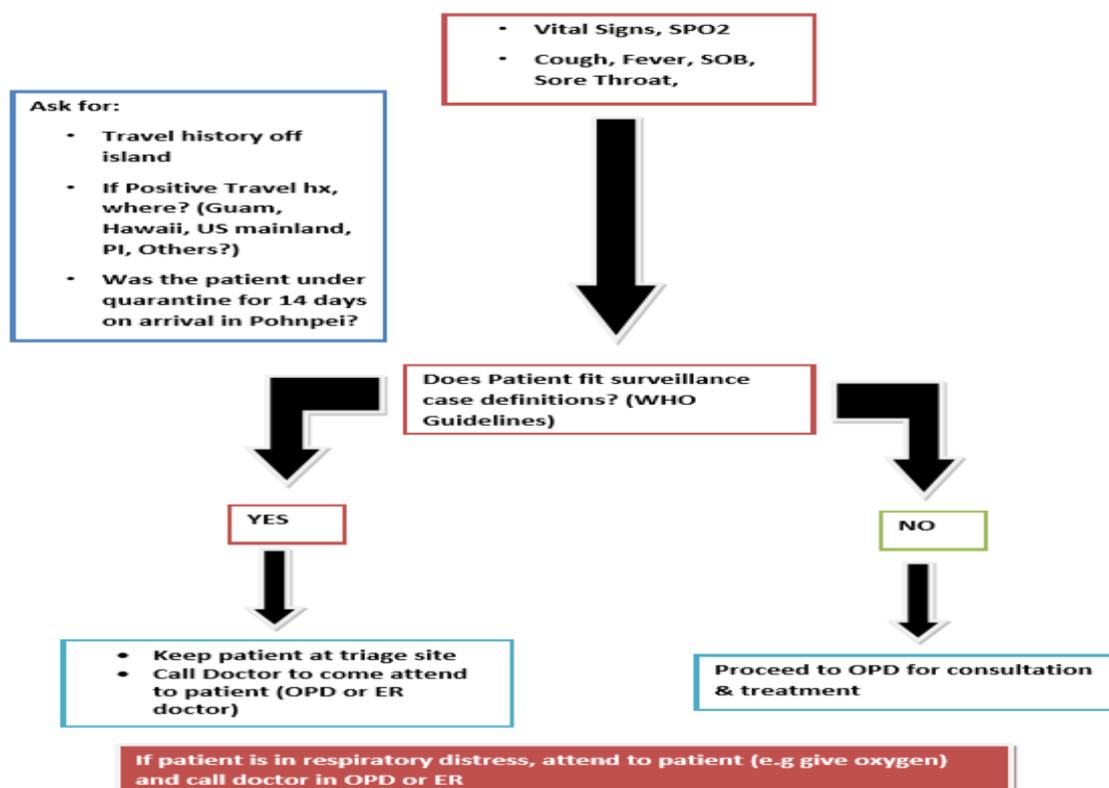


Figure 1: Triage algorithm for screening patients at Pohnpei State Hospital

**CONCLUSIONS:**

Small PICs are vulnerable to disease outbreaks. The COVID-19 outbreak has revealed how PICs with fragile health systems and limited resources can be overwhelmed by a global outbreak. Our experience in Pohnpei revealed that a key outbreak preparedness response strategy is establishing links with international organizations early in developing preparedness plan and response activities. Despite negative social and economic implications, travel restrictions and quarantine measures are important public health strategies available to small PICs in their effort in preventing COVID-19 entering their countries.

**REFERENCES:**

1. Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study. Xiaobo Yang\*, Yuan Yu\*, Jiqian Xu\*, Huaqing Shu\*, Jia'an Xia\*, Hong Liu\*, Yongran Wu, Lu Zhang, Zhui Yu, Minghao Fang, Ting Yu, Yaxin Wang, Shangwen Pan, Xiaojing Zou, Shiyang Yuan, You Shang.
2. Challenges of coronavirus disease 2019. Editorial. *Lancet*. *Lancet Infect Dis* 2020. February 17, 2020 [https://doi.org/10.1016/S1473-3099\(20\)30072-4](https://doi.org/10.1016/S1473-3099(20)30072-4).
3. Clinical management of severe acute respiratory infection when novel coronavirus (2019-nCoV) infection is suspected. Interim guidance 28 January 2020. (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/patient-management>). Last accessed 31/03/2020.
4. Considerations for quarantine of individuals in the context of containment for coronavirus disease (COVID-19). Interim guidance 29 February 2020. ([https://www.who.int/publications-detail/considerations-for-quarantine-of-individuals-in-the-context-of-containment-for-coronavirus-disease-\(covid-19\)](https://www.who.int/publications-detail/considerations-for-quarantine-of-individuals-in-the-context-of-containment-for-coronavirus-disease-(covid-19))). Last accessed 31/03/2020.
5. Global surveillance for COVID-19 caused by human infection with COVID-19 virus. Interim guidance 20 March 2020. (<https://apps.who.int/iris/handle/10665/331506>). Last accessed 31/03/2020.