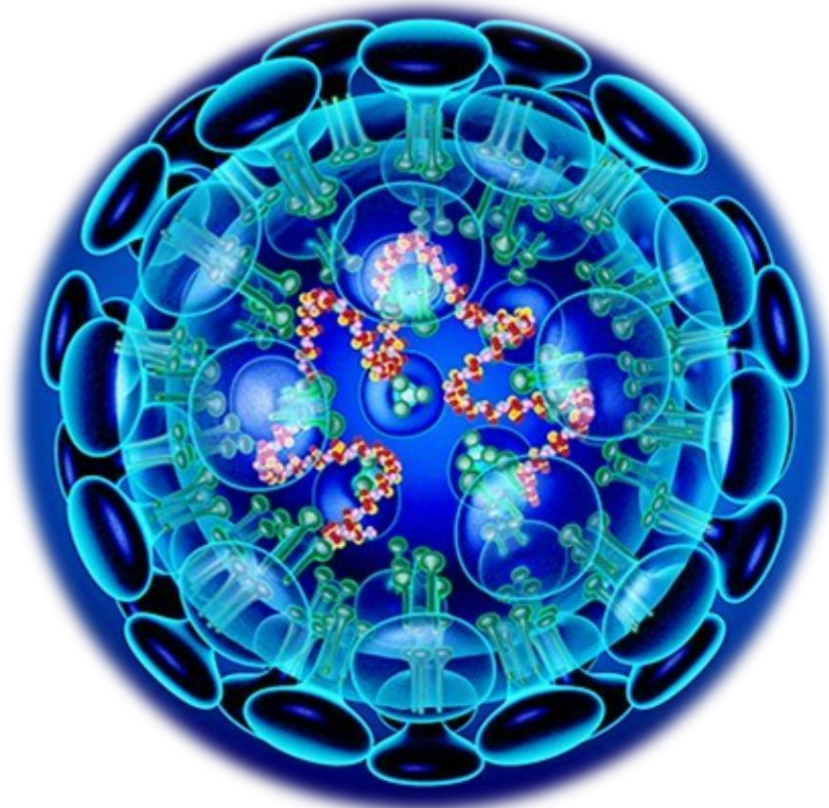




GOVERNMENT OF SAMOA

2019 NOVEL CORONAVIRUS (COVID-19) NATIONAL PREPAREDNESS AND RESPONSE PLAN



MINISTRY OF HEALTH
February 2020

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FOREWORD



Leausa Samau T. Dr. Take Naseri

It is both with pride and great urgency that the Ministry of Health presents this plan for the country's health sector in preparation and rapid response to the Novel Coronavirus (COVID-19). Originating in China with the outbreak declared in 31 Dec. 2019, with a global public health emergency being declared on the 31 Jan. 2020, this pandemic has alarmed health systems globally. Samoa has joined a global call to arms to this emergent public health threat. The 2019 Measles Epidemic has left the country and the health system in a vulnerable state of recovery. The implications of a possible outbreak of COVID-19 in Samoa would be devastating.

The Ministry of Health has launched an aggressive and comprehensive effort to prevent the transmission of the virus through the ports of entry, as well as to prepare the health sector to deploy immediately in the instance that the virus is detected in Samoa. These efforts are detailed within this document. We would like to thank the numerous local and international health experts who shared their advice and input into developing this plan and for their ongoing work.

The Ministry would like to reassure the public with the launch of this plan that the health sector stands ready and ever vigilant to protect the health of our people, especially after a period of great suffering and loss. The love, perseverance and commitment of our health workforce has not diminished and we stand with you, ready to serve and protect.

Ma le faaaloalo tele,



Leausa Samau T. Dr. Take Naseri
CEO / Director General of Health

KEY TERMINOLOGY

- COVID-19- novel coronavirus identified in 2019
- CEO/DG- Chief Executive Officer, Director General of Health
- DAC- Disaster Advisory Committee
- Disaster- means a situation – (a) that arises from any happening, whether natural or otherwise, including – (i) any naturally occurring event affecting the whole or any part of Samoa; (ii) any fire caused by any means; (iii) any aspect of the safety of a ship or aircraft in Samoa's territory; (iv) any outbreak or spread of disease affecting humans, plants or animals; (v) the supply of water or the quality of water resources in Samoa; (vi) the breakdown of telecommunications in Samoa or between Samoa and other countries; and (vii) any other emergency event resulting from systems failure, infrastructure failure or human error; and (b) which involves threat or danger to human life or health, or to the environment; and (c) which might require response agencies to respond under this Act.
- DMO- Disaster Management Office
- Emergency- means a situation in any part of Samoa; (a) which is more serious than a disaster; (b) which could result or has resulted in causing widespread human, property or environmental losses throughout Samoa or in any part of Samoa; and (c) which does require a substantial mobilisation and utilisation of Samoa's resources or exceed the ability of Samoa to cope using its own resources.
- Epidemic- refers to an unusual occurrence of cases of illness in a community or region which is in excess to the number of cases that would have expected/seen in the area at that time. Seasonal influenza or as otherwise refers to as Flu, is an example of such an illness.
- Hazard- means something that may cause, or contribute substantially to the cause of, a disaster or emergency.
- HEOC- Health Emergency Operations Centre
- Isolation- refers to the separation of ill person or group of persons infected or believed to be infected with contagious diseases, from other people to prevent the spread of infection – this is often in a hospital setting but could be at home or in a community facility.
- MAF- Ministry of Agriculture and Fisheries
- MNRE- Ministry of Natural Resources and Environment
- MOF- Ministry of Finance
- MOH- Ministry of Health, Samoa
- MWCSO- Ministry of Women, Community and Social Development
- NCT- Novel Coronavirus Taskforce
- NEOC- National Emergency Operations Centre
- Pandemic- refers to a global epidemic, that is, an epidemic that affects many regions, countries, areas, even hemispheres that can cause high morbidity and mortality in an unusual short duration of time. The 3 Pandemic influenza of the twentieth century, namely the Spanish Flu (1918), Asian Flu (1957) and Hong Kong Flu (1968) are examples
- PPE- personal protective equipment
- Quarantine- This refers to voluntary or involuntary restriction of activities or limitation of freedom of movement of those individuals or population who are not ill but presumed exposed to a communicable disease, to prevent contact with people not exposed. This is usually conducted in the homes or a designated facility.
- SARI- severe acute respiratory illness
- SARS- severe acute respiratory syndrome
- SNCVPP- Samoa Novel Coronavirus Preparedness Plan
- Social distancing- refers to avoidance of usual events that draws people to congregate in an area(s) in which spread of respiratory pathogens is encouraged to spread of infectious

disease from one person to another. This could include measures such as school closures, banning of mass gatherings, staying at home when sick.

- SPT- Samoa Pandemic Taskforce
- WHO- World Health Organization

BACKGROUND

On 31 December 2019, the WHO China Country Office was informed of cases of pneumonia of unknown etiology (unknown cause) detected in Wuhan City, Hubei Province of China. A novel coronavirus (COVID-19) was identified as the causative virus by Chinese authorities on 7 January 2020.

Coronaviruses are a large group of viruses that cause diseases in animals and humans. They often circulate among camels, cats, and bats, and can sometimes evolve and infect people. COVID-19 is a betacoronavirus, like the Middle East respiratory syndrome coronavirus (MERS-CoV) (case fatality rate 30-40%) and severe acute respiratory syndrome (SARS)-CoV (SARs) (case fatality rate 10%), all of which have their origins in bats. The sequences from U.S. patients are similar to the one that China initially posted, suggesting a likely single, recent emergence of COVID-19 from an animal reservoir.

Patients initially reported in this outbreak were reported to have had fever, shortness of breath, and bilateral lung infiltrates on chest X-ray. Broader surveillance and testing has also identified more cases including patients with mild symptoms.

Early on, many of the patients in the outbreak of respiratory illness caused by COVID-19 in Wuhan, China had some link to a large seafood and live animal market, suggesting animal-to-human (zoonotic) spread. Chinese health officials have now reported tens of thousands of infections with COVID-19 in China, with the virus reportedly also spreading from human-to-human in parts of that country. Infections with COVID-19, most of them associated with travel from Wuhan, also are being reported in a growing number of countries. Some human-to-human spread of this virus outside China has been detected.

Human-to-human spread is thought to occur mainly via respiratory droplets produced when an infected person coughs or sneezes, similar to how influenza and other respiratory pathogens spread. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. It's now recognized that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes.

On January 30, 2020, the International Health Regulations Emergency Committee of the World Health Organization declared the outbreak a "public health emergency of international concern external icon" (PHEIC).

As of 5 February 2020, the WHO reported (in Sitrep 16) there were 24363 confirmed cases of COVID-19 in China of whom 491 (2.0%) had died, and 191 confirmed cases in 24 other countries of whom 1 (0.5%) had died. Of these 191 confirmed cases detected outside of China, 142 (74%) had a history of travel to China and 49 (26%) had a possible or confirmed exposure outside of China.

There is currently no history of the novel coronavirus in Samoa, nor outbreaks of other coronaviruses.

The source or reservoir of COVID-19, its modes of transmission, period of infectivity, clinical spectrum and other features are to yet be determined. Until then, national preparedness, response, prevention, control and management of COVID-19 will be modelled on that for SARS-CoV and MERS-

CoV and draw from updates of the WHO, the CDC and other reputable sources. The situation continues to rapidly evolve. National documents regarding COVID-19 will be updated as further information becomes available. See <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance> for technical guidance updates.

There is no cure for novel coronavirus, and treatment is mainly aimed at managing symptoms and complications. There is also no vaccine developed to prevent infection. This means that there are no pharmaceutical interventions for the virus and limited prevention interventions that can be deployed nationally in Samoa.

As of 23/01/2020, the Government of Samoa has recommended the following preventive measures for COVID-19. At all times;

- Avoid close contact with people suffering from acute respiratory infections
- People with symptoms of acute respiratory infection should practice cough etiquette (maintain distance, cover coughs and sneezes with disposable tissues or clothing, and wash hands)
- Avoid animals (alive or dead), animal markets, and products that come from animals (such as uncooked meat).
- Wash hands often with soap and clean water for at least 20 seconds. If hands are not visibly soiled an alcohol-based hand sanitizer can be used.
- Older travellers and those with underlying health issues may be at risk for more severe disease and should discuss travel to China with their healthcare provider.
- In order to minimize the risk of transmission, people travelling to the affected area should maintain good hand and personal hygiene.
- Travellers should seek medical attention if they develop respiratory symptoms within 14 days of visiting China or any other affected countries, informing their health service prior to their attendance about their recent travel to the affected country.
- Self-Quarantine at home to minimize spread of infection.

Best clinical practices for case management are still emerging and being updated (WHO 2020).

Given the imminent threat of the virus to spread to Samoa, as well as the vulnerability of the country following the 2019-2020 measles epidemic, this national COVID-19 **Preparedness and Response Plan** was developed with the purpose of ensuring prevention of and preparation for a coordinated and timely response to the potential arrival of COVID-19 in Samoa.

This plan outlines specific measures, operational arrangements, and actions to be taken by the health sector, partners, and stakeholders across all sectors. The plan does not provide for prescriptive responses to the numerous scenarios that may arise, but rather a preliminary operational guideline for the coordination of the national response. This document will be reviewed and revised as the epidemiological status of COVID-19 evolves. Please also refer to the Samoa COVID-19 interim Control Guidelines and other national tools.

OBJECTIVE

The purpose of the COVID-19 National Preparedness and Response Plan of the Samoa Ministry of Health is to provide guidance and tools for all response agencies involved in efforts to reduce the morbidity, mortality and social disruption that would result from an outbreak of COVID-19 in Samoa.

This document supplements policy and procedures contained in the International Health Regulations 2005, Health Ordinance 1959, National Health Sector Disaster Risk Management Plan 2017 and is consistent with Samoa's National Disaster Risk Management Plan 2017-2020.

SCOPE

This plan is primarily concerned with assisting Samoa's health sector with enhancing their preparedness and response to the public health threat posed by the COVID-19. Regarding COVID-19 it considers essential aspects of:

DETECTION: surveillance and risk assessment, national laboratory system and rapid response team
RESPONSE: command and coordination; risk communication and health promotion; case management; contact management; infection prevention and control; public health law; points of entry; human resources mobilization and allocation; healthcare and other essential services; legal and ethical issues; procurement and finance; and logistics and supply management.

This COVID-19 National Preparedness and Response Plan is limited to describing operational intent when responding to persons under investigation as well as suspected or confirmed cases of COVID-19 cases in Samoa. The plan includes considerations for public health agencies, emergency services and health care systems.

SITUATIONAL ANALYSIS

The COVID-19 National Preparedness and Response plan has been developed due to the possibility of COVID-19 importation to Samoa. COVID-19 poses a serious threat and calls for enhanced understanding and improved coordination between all public and private sectors and at different levels of the public health and healthcare system.

Currently Samoa's health system is in a state of recovery following the 2019-2020 Measles Epidemic in which to date 5,707 people were notified with measles infection, 83 of whom died, between 6th September 2019 and 14th January 2020. The proclamation of emergency was declared 15 November 2019 and lifted 29th December 2019. Though the outbreak is in its final stages of decline, significant work remains to be done in the recovery phase for the health system.

The evaluation of the current status of the health system has distilled the following risk considerations in relation to a possible COVID-19 outbreak:

- The very recent 2019-2020 Measles Epidemic has created a population-level situation of immunosuppression especially in those previously sick with measles, which is a vulnerability to COVID-19 transmission.
- The healthcare workforce is still recovering, with many still not taken leave and former operations not fully restored.
- With the national surveillance system focused on the detection and reporting of cases of acute fever and rash and suspected and confirmed measles cases since September 2019, surveillance of other notifiable conditions has weakened considerably.
- There are no vaccines developed for coronaviruses, therefore the entire population is at risk of infection.
- While the mechanism of human-to human transmission is to be determined, it is likely to be via droplet nuclei of infectious individuals. Living conditions for many people in Samoa, and limited access to good health information, pose challenges to achieving and maintaining levels of sanitation and hygiene required to prevent and control droplet nuclei spread.

- As environmental sources of infection are also implicated in current investigations, open air markets, food vendors, and proximity to livestock pose significant challenges to controlling a currently unknown risk of transmission.
- The National Laboratory does not have the capacity to test for novel coronavirus. Samples need to be sent to overseas reference labs and the process takes weeks to receive results. There are test kits available in-country for influenza, which can be used to rule out influenza infection from a case diagnosis. These reagents are limited in current supply.
- As this is a new virus, clinicians are not well trained and are inexperienced in clinically diagnosing this condition as distinct from other respiratory diseases, which has implications for surveillance and response.
- In addition to a recovering health system, both communities and the local economy are also in a state of recovery which will affect community mobilization.
- As the new school term approaches, mass gatherings and international travel will increase, hence increasing the risk of transmission.

DETECTION OF COVID-19 IN SAMOA

1. Criteria Used to Determine COVID-19 Risk Levels

Risk levels for foreign countries including Samoa is based on the United States Communicable Disease Control (USA-CDC) guide¹ which uses two sets of data (primary and secondary criteria)

- Virus transmission rates at the destination (primary criteria) AND
- Healthcare capacity and public health infrastructure (secondary criteria)

Primary Criteria: Virus Transmission Rates

HEOC uses the [World Health Organization COVID-19 surveillance data](#)^{external icon} to measure virus transmission rates and monitor this information every day based on population size.

Based on the USA-CDC assessment for foreign countries with more than 300,000 people, there are three primary criteria

- New COVID-19 case counts
- Incidence rate (new cases per 100,000 people), and
- New case trajectory (whether the number of new cases is going up, going down, or staying the same over time)

For foreign countries with 300,000 people or less, there are two primary criteria

- New COVID-19 case counts, and
- New case trajectory

Primary Criteria for COVID-19 Levels with more than 300,000 People

	LEVEL 3 HIGH RISK	LEVEL 2 MODERATE RISK	LEVEL 1 LOW RISK
Number of new cases	More than 500	251-500	50-250
Incidence Rate (per 100,000 people)	More than 3	1.5-3	Less than 1.5
New Case Trajectory	Accelerating or growing	Decelerating, slowing, OR stable	

¹ <https://www.cdc.gov/coronavirus/2019-ncov/travelers/how-level-is-determined.html>

Primary Criteria for COVID-19 Levels with 300,000 People or Less			
	LEVEL 3 HIGH RISK	LEVEL 2 MODERATE RISK	LEVEL 1 LOW RISK
Number of new cases	More than 10	7-10	1-6
New Case Trajectory	Accelerating or growing	Decelerating, slowing, OR stable	

Secondary Criteria: Healthcare Capacity and Public Health Infrastructure

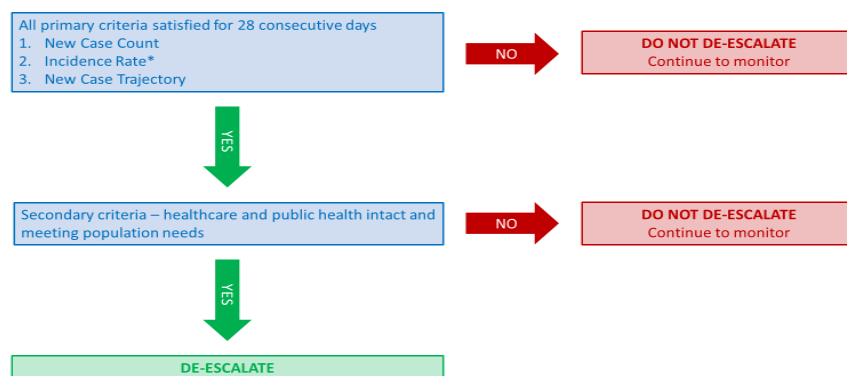
This criteria is used to measure the impact of COVID-19 on essential health services (healthcare and public health). Secondary criteria are mostly qualitative data that come from official surveillance sentinel sites. Using the USA-CDC for secondary criteria for destinations with more than 300,000 people as for those with 300,000 people or less based on:

- Healthcare capacity, such as available hospital beds and ventilators
- Public health infrastructure, such as testing and contact tracing capacity
- Any documented cases (imported or community acquired)

Secondary Criteria for COVID-19	
ESSENTIAL HEALTH SERVICES CAPACITY	SCORE
Both healthcare and public health systems are intact and meeting the needs of the population	1
Healthcare and/or public health systems have been exceeded or compromised	2
Information is unavailable or inconsistent	3

Changing COVID-19 Levels

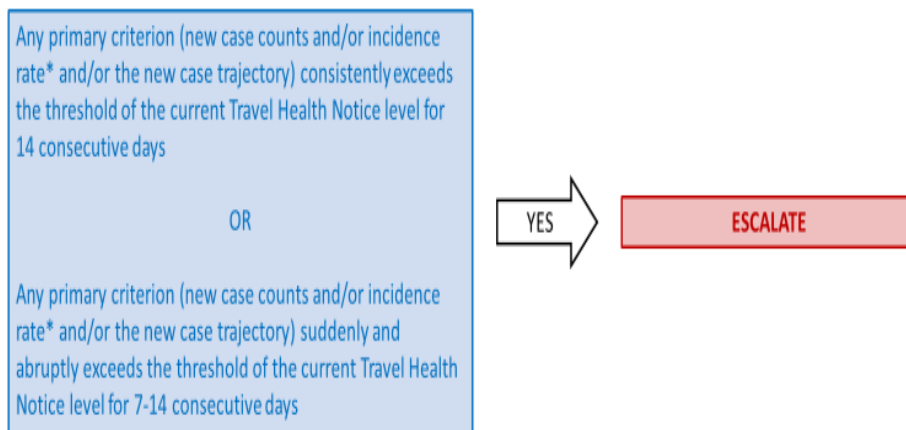
De-escalating a Level



*Incidence rate not assessed for destinations with populations of 300,000 or less

- HEOC monitors primary criteria for all foreign countries daily in particular our pacific neighbors.
- A foreign country is eligible to de-escalate from a higher level to a lower THN level when all primary criteria remain below Level 3 (or Level 2 or Level 1) thresholds for 28 consecutive days, 2 incubation periods for COVID-19. The incubation period is the time it takes for a person exposed to the virus to develop infection, usually 2 to 14 days for COVID-19.

Escalating a Level



*Incidence rate not assessed for destinations with populations of 300,000 or less

- A destination can be escalated to a higher level when its primary criteria demonstrate new case counts and/or incidence rates and/or a new case trajectory that exceed the thresholds of its current level (Level 2 or 1).

2. Health Worker Exposure Risk Assessment

Worker risk of occupational exposure to SARS-CoV-2, the virus that causes COVID-19, during an outbreak depend on the need for contact within 2 meters of people suspected of, or known to have, COVID-19.

This plan has divided job tasks into four risk exposure levels, as shown below. Most health care workers will likely fall in the very high and high exposure risk levels as compared to the rest of the population.

VERY HIGH EXPOSURE RISK

Jobs with a high potential for exposure to known or suspected sources of COVID-19 during specific medical, post-mortem, or laboratory procedures.

HIGH EXPOSURE RISK

Jobs with a high potential for exposure to known or suspected sources of COVID-19.

MEDIUM EXPOSURE RISK

Jobs that require frequent/close contact with people who may be infected, but who are not known or suspected patients.

LOWER EXPOSURE RISK (CAUTION)

Jobs that do not require contact with people known to be, or suspected of being, infected

Risk Level by Categories of Health Profession and exposure to Infectious Diseases (COVID19).

Category/Area	Health Professional	Risk Level
Front liners (boarders, quarantine facilities , Isolation facilities, Out patients and Emergency, Infection Prevention and Control (IPC) and Rural Health Facilities)	Doctors, Nurses, Port Health officers, Environment Health Officers, Sanitation Officers, Health Care Waste Collectors, Disease Surveillance Officers, Serologist,	Very High
	Porters, Medical Records, Janitors, Pharmacy Dispensary, Phlebotomists, Radiographers, Social worker, Drivers, Security, Morgue, Laundromat, Microbiologist,	High
Support	Maintenance, Plummer's, Electrician, Physiotherapist, Cashier, Logistics, Kitchen, Nutrition, Health Promotion	Medium
Other	Grounds men, finance and procurement, HR officers and other support Areas, Policy, Health information, ICT	Low

3. Surveillance and Risk Assessment

Surveillance is critical from the very early stages of a pandemic, through to the detection, emergence and resolution of a national outbreak. Monitoring the health status of the population in advance establishes a baseline for the response, and rapid detection and notification can trigger a timely response to contain transmission. As part of this, laboratory services are also essential to confirm the presence of a pathogen and provide a diagnosis for care and case management. Both play a major role in informing the national response to pandemics.

COVID-19 has been added to the recently updated National Notifiable Diseases List, and is listed as immediately notifiable by clinical and Port Health staff and the Samoa National Laboratory (SNL), to the MOH Surveillance team. The MOH Surveillance team is contactable on [insert numbers and emails].

As the COVID-19 is a new infection not previously detected in humans, the behaviour of the disease in populations and transmission is largely unknown. No laboratory reagents are available in country to detect and confirm COVID-19, which makes clinical surveillance the crucial method to monitor the disease.

The national surveillance for COVID-19 will use 3 central methods to detect (and then notify) suspected or confirmed cases of COVID-19 in Samoa:

- **Clinical surveillance**- people presenting to services who meet the definition of a suspected case of COVID-19 (symptoms AND exposure) will be immediately notified to the MOH Surveillance team using the forms, templates, and reporting procedures detailed in the Surveillance Package developed by MOH. All health professionals in both the public and private sectors are required by law to notify.
- **Laboratory surveillance**- The Samoa National Laboratory (SNL) will send approved clinical specimens from suspect cases of COVID-19 to an overseas reference laboratory for analysis. The SNL can test for some common respiratory pathogens such as influenza.

- **Active case finding through screening inbound passenger at ports of entry-** Port health will health screen all inbound passengers to determine if they are suspected cases and use the powers stipulated under the national Health Ordinance and International Health Regulations to mobilize appropriate action.

Interim COVID-19 case definitions in Samoa

As the nature of the virus is highly contagious and the country is currently in a vulnerable state of recovery, sensitive case definitions will be used to determine the operational response. For the purposes of public health preparation and response to COVID-19 in Samoa, there are four operational case definitions (adapted from WHO 2019 case definitions) for identifying the virus in the population;

Due to the highly contagious nature of the virus, the lack of laboratory testing technology for the virus in-country, and long processing times of sending samples overseas, lab testing for novel coronavirus will occur on an algorithm that is constantly updated as reagents become available in-country. Laboratory investigations to rule out influenza infection (available in country) can be used to assist in diagnosis for clinical operational purposes.

Broad case definitions are needed for time-sensitive public health and port health operations and planning. Any individual can have their case definition upgraded at any time as more case information becomes available and laboratory testing is completed

Suspect Case

Suspect Cases are to be immediately notified by all health facilities and ports of entry and case finding sites to the National Disease Surveillance. A suspect case is defined as;

Any individual with Influenza-like Illness (ILI): An acute respiratory infection with: measured fever of $\geq 38^{\circ}\text{C}$ and cough; with onset within the last 10 days

OR

Severe acute respiratory illness (SARI): an ILI and requiring hospitalization

AND:

In the 14 days prior to onset of symptoms, met at least one of the following exposure criteria:

1. Were in close contact with a confirmed or probable case of COVID-19 infection
2. Had a history of travel to areas with presumed ongoing community transmission of COVID-19; the list of these countries is updated and can be found at <https://www.ecdc.europa.eu/en/areas-presumed-ongoing-community-transmission-2019-ncov> Worked in or attended a health care facility where patients with COVID-19 were being treated

Any person presenting to health services or Port Health screening with symptoms consistent with infection are mandatory reporting to the National Disease Surveillance Division from all authorities nationally for collation into the National COVID-19 Outbreak Database.

Confirmed Case

Confirmed Cases will be identified by the National Laboratory from requisitions of suspect or clinical cases, and recorded/updated by National Disease Surveillance in the COVID-19 database. A confirmed Case is;

Any clinical or suspect case with a positive result for COVID-19 pathogens regardless of initial clinical presentation. (NOTE: International reference labs often require patient to meet WHO case definition to authorize processing the sample due to high costs of PCR analysis).

Investigation to confirm a suspect or clinical case should be conducted on a case by case basis, in the situation where lab confirmation is needed to make a clinical decision for care or for port health clearance. Novel coronavirus specific tests are available overseas. This is not recommended for all cases due to processing time. If gene sequencing and procurement make new assays available locally, lab confirmation in-country will be able to confirm COVID-19 infection in a timely manner.

Confirmed cases are also recorded in the National COVID-19 Outbreak Database by National Disease Surveillance, with a patient case classification upgraded from clinical to confirmed, specifying the assay and result. The National Laboratory will report all confirmed cases to the surveillance team via immediate notifiable disease phone procedures.

Confirmed Fatality

Any case with a positive post-mortem investigation for COVID-19 (regardless of clinical presentation), confirmed by an international (or national when available) reference laboratory.

Schedule for COVID-19 surveillance activities

1. Immediate preparations: 22/1/2020 - 31/04/2020

- Active case finding in ports of entry.
- Implement COVID-19 Surveillance Package: case definitions, control guideline, and flow chart for identifying, assessing and notifying suspected cases of COVID-19, forms, information sheets for cases and contacts.
- Consultation with and briefing of health staff in the public and private health sectors on the above and requirements of health professionals to notify cases.
- COVID-19 Complication Surveillance- pneumonia, bronchitis, acute respiratory syndrome, kidney failure, dehydration
- Planning and preparation with the SNL for confirming suspected cases.
- Planning and preparation with animal and fishery health counterparts for joint case and/or outbreak investigations.
- Review of the outbreak guide in the National Communicable Diseases Surveillance and Control Guidelines.

2. Response Phase: 1st suspected case- Onwards

- Case and Outbreak investigations - full documentation and use of Health Ordinance to enforce quarantine
- Reinforce implementation of the COVID-19 Surveillance Package
- Daily following up of all health facilities for cases
- Contact tracing for all cases meeting the case definition
- Daily data analysis and reporting on time, place, person characteristics of cases, the epidemic curve, and key case investigation findings

- Situation reports
- Clinical and Mortality Audits
- Mobilize Environmental Health investigations

3. Recovery Operations: End of Outbreak Declared

- Revert all surveillance to Epi Week reporting
- Continue Clinical Novel Coronavirus Surveillance for 2 incubation periods past last detected case

4. National Laboratory System

The Samoa National Laboratory (SNL) will facilitate transport send approved clinical specimens from suspect cases of COVID-19 to an overseas reference laboratory for analysis. At this point in time it will likely be to VIDRL Melbourne Australia.

The SNL can and will continue to test for some common respiratory pathogens such as influenza A and B. The SNL will:

- Continue to support ongoing routine and enhanced disease surveillance
- Continue to provide rapid diagnostic testing for Influenza A and B
- The laboratory will facilitate transport of clinical specimens from suspected cases of COVID-19 to the appropriate regional reference laboratory
- Utilize and follow technical updates from the WHO regarding laboratory testing, such as those at:
- <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>.
- <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance>

The WHO recommended minimum specimen types to collect from suspected cases are:

- Respiratory material*: nasopharyngeal and oropharyngeal swab in ambulatory patients; sputum (if patient has a productive cough); in patients who are intubated/ventilated, endotracheal aspirate for bronchoalveolar lavage).
- Serum for serological testing, acute and a convalescent sample (support the identification of true agent, once serologic assay is available).

The WHO advises that transmission-based contact and airborne precautions must be used in addition to standard precautions when collecting respiratory specimens. The SNL will have its own stockpile of PPE for processing specimens

Laboratory recommendations:

1. That clinical specimen collection for COVID-19 testing and point of care influenza testing on suspected cases of COVID-19 are performed as per WHO guidance at the bedside in the isolation setting, using the recommended PPE, to avoid potential transmission of infection to clinical and laboratory staff.
2. Clear communication to the laboratory of suspected cases for surveillance or diagnostic work up to allow appropriate handling and triage of specimens in the laboratory.
3. Specimen collection and testing guides (as seen in the interim COVID-19 Control Guideline) are issued to and followed by clinicians to ensure appropriate use of diagnostic testing resources and IPC.
4. Laboratory results are to be reported immediately to the requesting doctor and the MoH Surveillance team.

Laboratory resources available:

1. 64 rapid influenza A and B testing kits, expiring November 2020

Laboratory needs:

1. Responsive and timely procurement of further influenza testing kits tied to clinical need
2. Confidence in supply of PPE for frontline testing staff, including coveralls, fog-free eye protection, (P2 / N95) masks and gloves (latex non-powdered)
3. Replacement of UV bulb in the biohazard cabinet to enable proper functionality of this unit
4. Budgetary support for potential freight charges for sending specimens overseas
5. Shortage of staff addressed by timely recruitment for the current multiple vacancies present

RESPONSE TO DETECTION OF COVID-19 IN SAMOA

Reporting requirements under the International Health Regulations (2005)

Under the International Health Regulations (IHR 2005), any suspected disease outbreak or other public health event that is considered to be of potential public health emergency of international concern (PHEIC) is required to be reported as soon as possible to the World Health Organization (WHO).

On January 30, 2020, the International Health Regulations Emergency Committee of the World Health Organization declared the COVID-19 outbreak a PHEIC. The Samoa National IHR focal point (Director General of Health or delegate) will notify the WHO immediately of any suspected or confirmed case of COVID-19 in Samoa.

Declaring an outbreak and state of emergency

As COVID-19 does not have any historical presence in Samoa, every suspected case detected should be investigated and contacts at risk identified for follow up. The declaration of an outbreak, which launches a full outbreak investigation from the Ministry of Health, should be declared after the confirmation of single cases of COVID-19 in Samoa. Containment at the source with either total or partial lockdown of all non-essential services. Complete border closure to all incoming passengers and restrictions to internal movement of people.

This activates the Health Emergency Operation Centre (HEOC) and involvement of other Ministries (such as the Ministry of Agriculture and Fishing) and relevant partners (such as the WHO).

The declaration of emergency (which lasts 48 hours) should also be declared the same time that an outbreak is declared, due to the as yet undetermined contagious nature of the virus and the mentioned vulnerabilities of the population and health system.

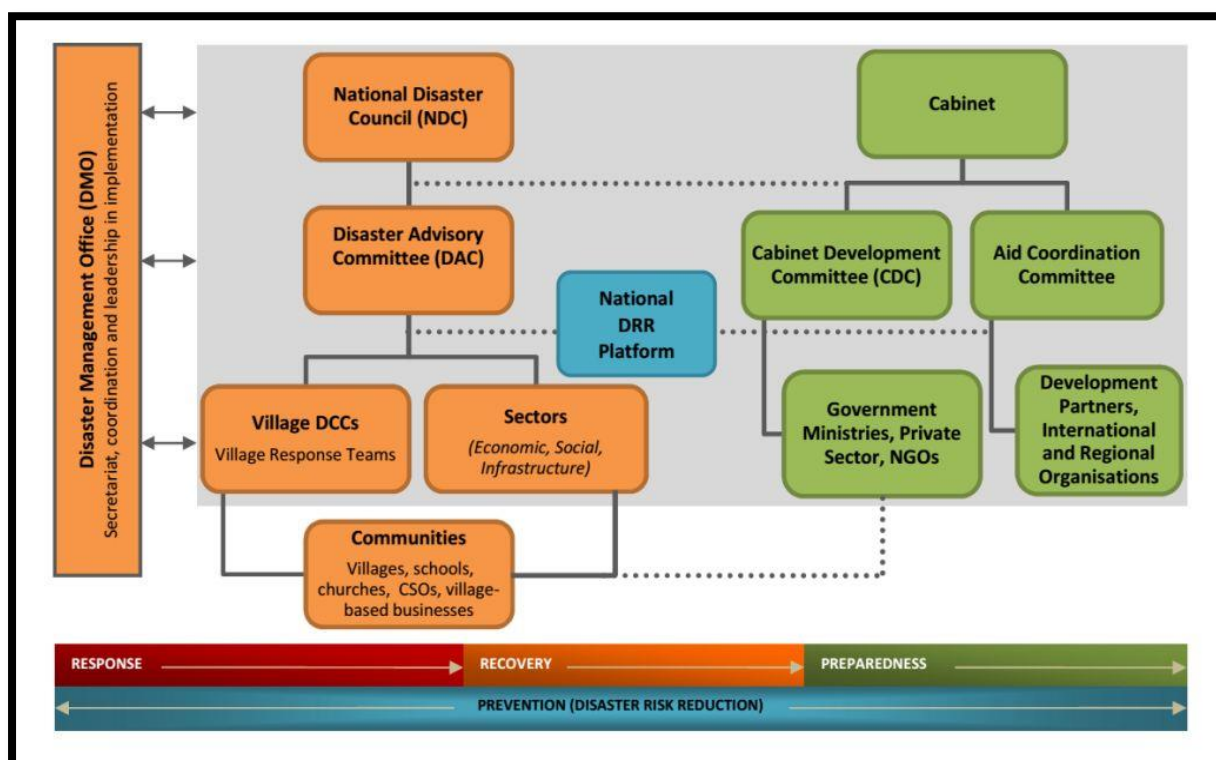
The proclamation of emergency (which last 30 days) should be declared upon review of the outbreak investigation into the first two confirmed cases of COVID-19-, or if more than two additional epidemiologically-linked suspected cases are reported within 14 days (1 incubation period of the virus) of the first two confirmed cases.

Both the declaration and proclamation will activate the National Emergency Operation Centre (NEOC).

Command and Coordination

The Ministry of Health is tasked with the role of coordination in the event of a pandemic and possible eventual local epidemic of COVID-19. This requires close collaboration with all necessary health partners and relevant response agencies under the Disaster Management Act 2006 and the National Disaster Management Plan 2017-2020. A taskforce specific to the novel coronavirus was formed for the purposes of collating this national document to coordinate the response as the pandemic situation evolves. This group is known as the Novel Coronavirus Taskforce (NCT).

At the Cabinet level, there is an established chain of command and flow of communication and coordination regarding pandemic events. The flowchart below depicts the government structures pertaining to the National Institutional Framework for Disaster Risk Management (DRM) in Samoa. The four phases of Disaster Risk Management are risk reduction (prevention), preparedness, response and recovery. The response agencies and Sectors form the focal point for coordination and implementation across all these four phases. The Public Health Services Division of the Ministry of Health will provide advice to the Director General on a suspected case of coronavirus in preparation for the declaration of an outbreak. Director General of Health to inform Chairman of the Disaster Advisory Committee (DAC).



Roles in the National DRM Structure

1. National Disaster Council (NDC)

The role of the National Disaster Council (NDC) during disaster response is to provide strategic direction and decision-making as required. The Prime Minister, as Chairperson of the NDC, is in overall control of the disaster situation.

2. Disaster Advisory Committee (DAC)

The DAC is responsible for developing policies and plans, including the NDMP, the DRM NAP, monitoring and for approval of the National Disaster Council and Cabinet. In addition, DAC

member agencies are responsible for execution of their roles and responsibilities under the national DRM framework including provision of resources to support the implementation of the NDMP.

3. Disaster Management Office (DMO)

The DMO is responsible for ensuring the ongoing coordination, development and implementation of DRM programs and activities. The DMO is responsible for administrative, secretarial and other arrangements for the efficient functioning of the NDC and DAC. The Assistant CEO responsible for the DMO is the Secretary of the DAC and NDC, and is responsible for overseeing all administration and activities of the DAC and the NDC.

4. Communities

The Village Council and village organisations; or the **Village Disaster and Climate Committees (DCC)**², are responsible for co-ordinating disaster mitigation and preparedness programmes and activities at the community level, and for co-ordinating the various village response teams for specific threats. It is the role of the Ministry of Women, Community & Social Development to support, monitor and liaise with Village Councils and organisations through the “*Sui o le Nu*” and “*Sui Tamaitai o le Nu*” as they implement DRM activities, and to keep the DAC informed of the level of village preparedness.

5. Sectors

Under the revised NDMP (2017-2020), a holistic approach to DRM is now being promoted - aimed at reducing the impacts of and increasing Samoa’s resilience to natural and human-induced hazards. The new approach promotes the concept of “shared responsibility” and “wider ownership”; is aligned to the SFDRR; makes provisions for a multi-sectoral approach to DRM; provides sectors with a framework for DRM planning, and firmly places sectors in the “driver’s seat” to mainstream DRM.

Each of the 14 sectors³ has a clearly designated sector lead and responsibilities that have been agreed on. Annex 4 shows the generic terms of reference for the sector leads. All sectors are guided by sector objectives and a set of responsibilities in the four DRM phases. The sectors also serve as channels of communication and information.

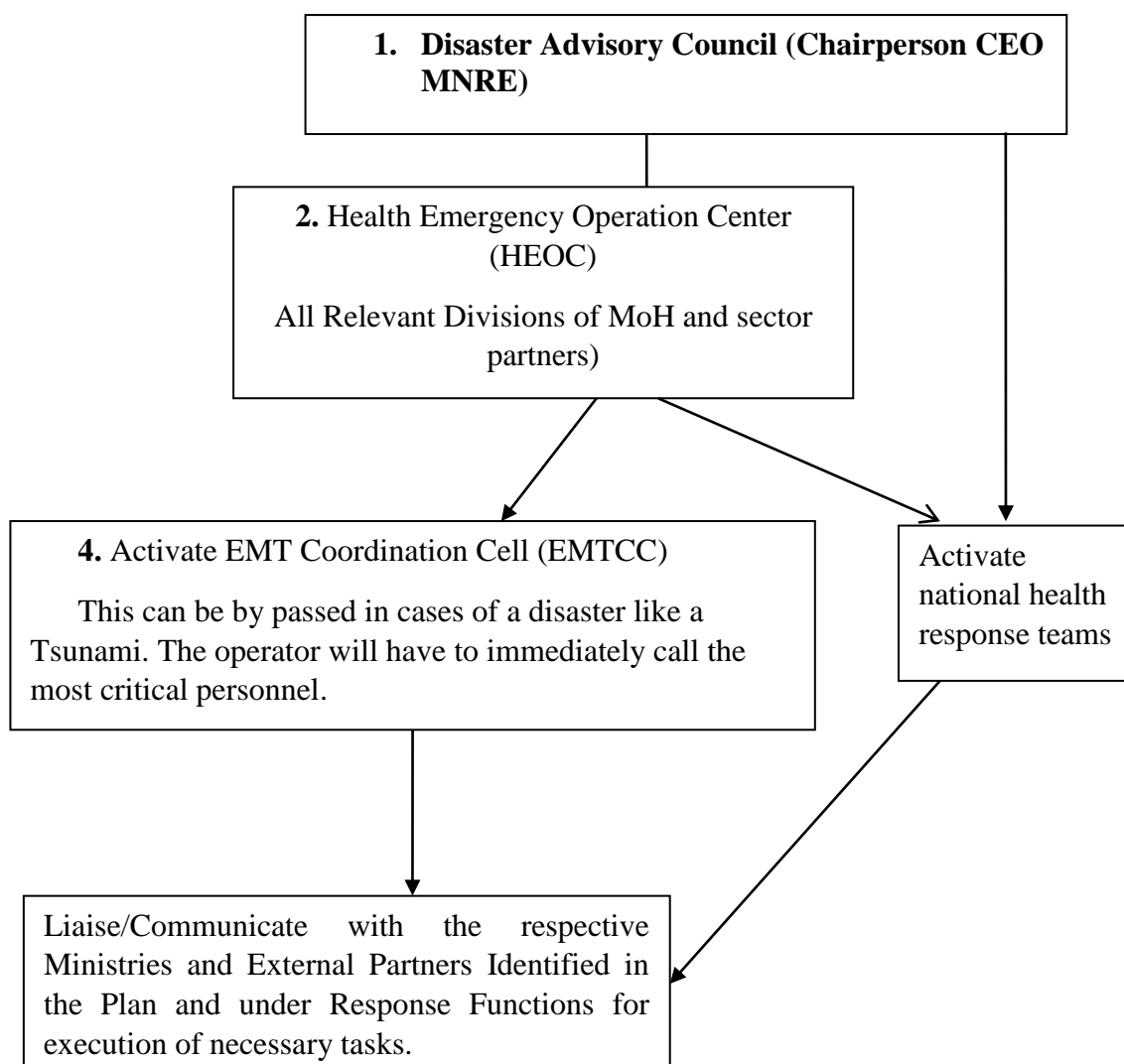
National DRM Platform

Provides the vehicle for a coordinated approach for the implementation of the NDMP, it also promotes considerations for disaster and climate resilience in any development initiative. The Platform establishes a structure of shared responsibility and decision-making on DRM issues, one that allows for sustained and effective coordination and consensus building between ministries and other stakeholders, and between sectors.

² Villages DCCs are established in villages that have participated in the Community Disaster & Climate Risk Management (CDCRM) Programme.

³ Under the NDMP, the 14 sectors include: Agriculture and Fisheries; Communication and Information Technology; Community Development; Education; Energy; Environment; Finance; Health; Law and Justice; Public Administration; Tourism; Trade, Commerce and Manufacturing; Water and Sanitation; Works, Transport and Infrastructure.

NATIONAL DISASTER MANAGEMENT RESPONSE DIAGRAM



Disaster Declaration and Emergency Powers

1. Declaration of disaster under the National Disaster and Emergency Act 2007 states

“The Chairperson of the NDC may issue a declaration of disaster. A declaration can be only be made if in the Chairperson’s opinion:

- it is not possible to make a Proclamation of emergency due to the absence of the Head of State; or
- if the circumstances do not warrant the formal Proclamation of an emergency due to the limited extent of their impacts or likely impacts; and
- if the matters that need to be implemented to address the threats can be implemented within a 48-hour period. “

A declaration of disaster lasts for 48 hours unless a Proclamation of emergency is made or the National Disaster Council extends the declaration for another 48 hours because the disaster has not ceased.

2. Proclamation of an emergency by the Head of State.

The Constitution provides for the proclamation of an emergency to be made by the Head of State acting in their discretion. The Prime Minister may provide advice to the Head of State of the merits of a proclamation of a state of emergency.

The proclamation empowers the Head of State to make orders, as appear to him to be necessary or expedient, to secure the public safety and essential supplies and services, and generally to safeguard the interests and maintain the welfare of the community and country.

Proclamation of an emergency may remain in force for a period of up to thirty (30) days.

3. Emergency Powers

In the event that a disaster or emergency is declared powers are conferred on agencies under the NDMP and their respective response Agency Plan. The powers conferred are exercisable for the period of the emergency unless they are rescinded or altered by an order made by the Head of State.

During any declaration of disaster, the National Disaster Council may determine that only some of the powers conferred on any of the agencies, organisations or persons under the NDMP may be exercised as the situation requires.

Notably, the Act allows the Commissioner of Police to direct officers to exercise specific powers including:

- a) direct people at risk or putting others at risk;
- b) Take steps to ensure compliance with directions;
- c) Use reasonable force to remove a person to safety;
- d) take steps to protect property; and
- e) require people to leave, or refrain from entering an area where there is a risk to human life or health.

4. The Novel Coronavirus Taskforce (NCT)

The NCT was established to coordinate the preparations within the Ministry of Health in light of the recent notification of the COVID-19 pandemic. Its functions therefore coordinate all of the pre-pandemic or epidemic preparations related to the novel coronavirus. However, once an outbreak is declared, its functions and membership transfer to HEOC. The response coordination continues under the existing chain of command in the case of a declaration or proclamation.

The NCT membership consists of all relevant clinical and public health officers from all divisions of the MOH. As the situation evolves, so too will membership in order to coordinate necessary actions for the national response.

6. Other Ministries to be involved in preparedness and response to COVID-19 detection in Samoa

The COVID-19 is reported to have a zoonotic origin. The animal species that could become infected with COVID-19 and potentially spread the infection to humans is unknown. The Ministry of Health will collaborate with the Ministry of Agriculture and Fisheries (MAF) on investigations and monitor the situation in order to detect the virus in an animal source. Other key Ministries to be engaged in the response to the introduction of COVID-19 into Samoa include; the Ministry of Women, Community and Social Development (MWCSO), Ministry of Foreign Affairs and Trade (MFAT), Ministry of Commerce, Industry and Labour (MCIL), Ministry of Natural Resources and Environment (MNRE), and the Ministry of Communication and Information Technology (MCIT).

7. Partners to be involved in preparedness and response to COVID-19 detection in Samoa

Partners involved in the preparedness and response to COVID-19 detection in Samoa include: the WHO, the UN, UNICEF, EMT's, and other established health sector partners.

Risk Communication and Health Promotion

Risk communication and health promotion are essential at all stages of an epidemic and pandemic. This is both for delivering personal health information to the public but also delivering institutional policies and measures for public awareness and compliance.

The risk communication team already established for the Measles Epidemic will serve as the working group for novel coronavirus preparations.

Team Objective: Build healthcare worker, immigration officer, port health officer, and the public's awareness of the novel coronavirus, prevention methods, and risk categories

Products:

1. Public notices
2. Notification to health workers on signs and symptoms
3. Posters and video clips for points of entry
4. Develop key messages and air on multimedia outlets incl. Facebook and the MOH website

Message Grid:

Key Message	1. Recently, a new flu-like illness has been identified in China, and has spread to a number of other countries.	2. This virus can spread from person to person.	3. To protect yourself, any flu-like illness you and your family, especially if travelling abroad, should practice good hand hygiene.
Supplementary messages	This is a new strain of virus that has not been previously identified in humans.	Common signs include respiratory symptoms, fever, cough, shortness of breath, and breathing difficulties.	The virus can be spread from person to person, usually after close contact with an infected patient, for example, in a household, workplace or healthcare centre

	Currently, there have been no cases in Samoa. However, it is important that individuals, especially international travellers remain on alert for signs and symptoms and practice good hygiene to reduce the risk of getting sick.	In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure, and even death.	Whilst the virus has not been identified in Samoa, a person can reduce the risk of getting sick by practicing basic hand hygiene, safe food practices, and avoiding close contact when possible with anyone showing symptoms of respiratory illness such as coughing and sneezing.
	The Ministry of Health and other Government Ministries remain alert and will be implementing additional measures to identify and rapidly respond if the virus is detected in Samoa.	If a person experiences these symptoms, especially if they have travelled internationally, they should immediately contact 911 and isolate yourself to limit potential spread.	

Case management

Clinical management of 2019n-CoV is supportive therapy only. Majority (>30%) of critically ill cases and deaths reported in China affected the elderly (>50years) and those with co-morbidities (Hypertension, Diabetes and other NCD's). The clinical spectrum resulting from infection with COVID-19 is still under investigation. In the interim, Samoa will follow the WHO's technical guidance regarding patient management of suspected and confirmed cases of Novel Coronavirus (COVID-19). These technical guidelines are updated as new information becomes available and are posted at: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/patient-management>.

Contact management

Samoa will use the definitions of contacts of cases of COVID-19 infection and the contact follow up guidance recommended by the WHO. Contact management is detailed in the interim Samoa National COVID-19 Control Guidelines.

Infection Prevention and Control

Infection Prevention and Control will follow Standard and Droplet Precautions for all patients with suspected or confirmed COVID-19 infection. Airborne precautions will be followed for patients with suspected or confirmed COVID-19 infection who require aerosol-generating procedures. Samoa will follow its existing national IPC guideline and the WHO's technical guidance regarding infection prevention and control during health care when a novel coronavirus (nCoV) infection is suspected. These technical guidelines are updated as new information becomes available and are posted at:

[https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125)

Human Resource Mobilization and Allocation

The success or failure of Samoa's response to the Novel Coronavirus depends on the calibre, level of skill and experience of the people in the command and control structures. Hence, it is important to ensure that the personnel who will be involved are well suited for their assigned roles and responsibilities and invest in up-skilling and training to keep them ready to perform at their best.

As the healthcare and essential service workforce is not fully recovered from the 24/7 operations of the 2019-2020 Measles Epidemic, planning the proper allocation and rotation of essential staff to protect healthcare services in the event of an outbreak is required. There is the additional risk with the novel coronavirus that staff will become infected themselves, with no vaccine available the only protection is strict adherence to infection prevention and control protocols including the proper use of PPE. There has to be a staffing strategy to keep essential service workers refreshed, safe, healthy, and properly allocated.

Healthcare and Other Essential Services

Healthcare and essential services must be maintained at a minimal functional level even during the time of a natural disaster or a pandemic. It is required that respective essential services should develop their respective emergency response plans (ERP) where detailed activities, who is responsible for what, inventory of various resources needed with potential sources identified, and what technical assistance that maybe needed for each of the activities/phases is clearly defined. It is the task of the Disaster Management Office to ensure that respective essential service providers complete a detailed emergency response plan (ERP) including relevant inventories.

Maintaining healthcare and essential services requires facility level plans (aligned with the MoH Health Facility Assessment Plan 2018) for:

- Staffing and rotations
- Capacity and infrastructure
- Supplies of consumables (medical supplies, electricity, food and water)

For all national healthcare facilities and clinical units at TTM Hospital, Apia, the Clinical Services branch has drafted the following arrangements for COVID-19, following detection of clinical cases.

FACILITY / UNIT	CURRENT SITUATION	PROPOSED PLAN FOR COVID-19	RESPONSIBLE	COMMENTS/NEEDS
FALEOLO HEALTH CENTRE	4 bed facility without any isolation area Utilised as a quarantine area for suspected or probable cases for 10-14 days	Normal GOPD services and patients to be referred at Leulumoega DH If suspected number of cases exceed the capacity (4) patients may be transferred to isolation ward at TTMH If number exceeds >50/100 – alternatives Faleolo Secondary School building or reopen isolation 2 ward	DG/DDG	Public announcement of changes of clinical services Setup isolation ward 1 Standby isolation ward 2 if number exceeds 50 Need PPE at Faleolo - hazmat suits, N94 masks, goggles, etc (minimum 100) Air-conditioned rooms and essential equipment and leisure facilities One room for staff quarantine
ISOLATION WARD 1	33 bed spaces in ward 4 HDU bed spaces	Admissions for non critical cases Potentially may step up to a makeshift ICU ward (max 4 bed spaces) Assign NM to isolation ward 1 Medical and paedts to be primary teams for non critical patients Restocking of ward – drugs, consumables, emergency trolleys, etc	DDG PN Katenari HOD medical HOD paedts	Need 2 monitors for monitoring of vital signs for non critical patients (non HDU pts) Nursing staff: Katenari 1-5 patients: ?# of staff 6-11 patients: ? # of staff 12-21 patients: ? 22-33 patients: ? URGENT! Need air-conditioning units for HDU and wards Alternatively use isolation ward 2

FACILITY / UNIT	CURRENT SITUATION	PROPOSED PLAN FOR COVID-19	RESPONSIBLE	COMMENTS/NEEDS
HDU	Critical patients (adults and paediatrics) are currently admitted in the open ICU ward for closer monitoring and multidisciplinary care	Isolation ward 1 to be used for any suspected or confirmed critical case HDU ward (4 bed spaces) to be utilised as makeshift ICU and capacity for ventilation	DDG PN (staff) Sunema (equip) Leilua (O2)	<p>Need 4 patient monitors (1 per patient) Parameters: ECG, NIBP&IBP, SPO2, +/- ETCO2 4 G size (L) oxygen cylinders – connections for ventilators 4 Hamilton ventilators (standby)</p> <p>Hypothetical Scenarios: 1 critical/ventilated patient - Need 4 ICU nursing staff (for two 12 hour shifts, and 1 anaesthetists 2 critical/ventilated patient - Need 8 ICU nursing staff + 1 anaesth 3 critical/ventilated patient - Need 12 ICU nursing staff + 2 anaesth 4 critical/ventilated patient - Need 16 ICU nursing staff + 2 anaesth</p> <p>*We will be able to provide for the 2019 n-CoV ICU/HDU isolation ward for 2-4 weeks as well as the ICU ward if both are utilised to the maximum (6 nurses per ICU ward of 4 patients + 2 anaesthetists each</p>

FACILITY / UNIT	CURRENT SITUATION	PROPOSED PLAN FOR COVID-19	RESPONSIBLE	COMMENTS/NEEDS
ICU	<p>Step up ward for critically ill patients requiring organ support (ventilation, dialysis)</p> <p>Primary teams admit and take charge of patient treatment but work collaboratively with other specialties to assist with co-managing their care</p> <p>Bed capacity 6 + 1 isolation ward</p> <p>Nursing staff: 20</p> <p>ICU/anaesthesia staff: 5</p>	<p>Develop makeshift ICU in isolation HDU area</p> <p>Medical, Paediatrics and Anaesthesia team to provide medical care for critically ill patients</p> <p>Non critical patients to be cared for by medical of paediatrics team</p>	<p>DDG</p> <p>PN-Katenari</p> <p>NM ICU-Makalita</p> <p>HOD Medical</p> <p>HOD Paeds</p> <p>HOD Anaesth</p>	
MEDICAL STAFF			<p>PN Katenari</p> <p>NM Makalita & Matilda</p> <p>Joyce (QA)</p>	<p>Training for PPE (Hazmat suits) incl drivers, Faleolo staff, TTMH (ED, ICU) staff</p> <p>Quarantine of staff?</p> <p>Need guideline for protection of staff</p>
MEDICATIONS & CONSUMABLES	<p>Hazmat suits: 100+</p> <p>N95: ?</p> <p>Goggles: ?</p> <p>Disposable gowns: adequate</p> <p>Hand sanitisers</p>		<p>Lilomaiaava</p> <p>Aharoni</p>	<p>PPE: Hazmat suits, N95 masks, goggles, etc</p> <p>Need: 200+ for Faleolo HC</p> <p>Need: 1,000+ for Isolation ward (2-3months supply)</p> <p>Need 2,000+ hand sanitisers: all hospitals and health centres</p>

FACILITY / UNIT	CURRENT SITUATION	PROPOSED PLAN FOR COVID-19	RESPONSIBLE	COMMENTS/NEEDS
MEDICAL EQUIPMENT	1 defibrillator No patient monitors, ventilators,		Sunema Leilua Olataga PN Katenari	Isolation ward: <ul style="list-style-type: none"> - 2 patient monitors for ward - 4 patient monitors for HDU/ICU - 4 ventilators - 4 G size oxygen cylinders - 2 portable oxygen cylinders -
LABORATORY	No tests available in Samoa RT-PCR diagnostic test in Australia		Dr. R. Miller	Pathway and process for diagnostic tests
LOGISTICS	Isolation ward 1 below dental unit Ward entrance in front of ambulance car park area	Clear ambulance area for transportation and transfer of patients into iso ward 1 Cordoned off dental stairs, common room and APCC road (next to Chapel) and ambulance area	DDG Head Security Faafo Solofua HOD ED NH Iso Ward PN	Simulation of patient transfer from Faleolo DHC Contact personnel when a case is identified <ul style="list-style-type: none"> - DDG Public Health: Dr. Robert Thomsen - DDG Clinical: Famausili Dr. Ponifasio - PN Katenari
HEALTH CARE WASTE			QA/Public Health	Need guideline for HCW management of 2019-n-CoV disposables and staff protection

FACILITY / UNIT	CURRENT SITUATION	PROPOSED PLAN FOR COVID-19	RESPONSIBLE	COMMENTS/NEEDS
INFECTION CONTROL AND PREVENTION			QA- Joyce	Need education and emphasis on IPC measures for COVID-19 Guidelines from WHO: WHO/COVID-19/IPC/v2020.2 "Infection and Prevention and Control during health care when novel coronavirus (nCoV) infection is suspected"

*CLINICAL MANAGEMENT: Use interim WHO clinical care guidelines - "Clinical management of Severe Acute Respiratory Infection when Novel Coronavirus (COVID-19) Infection is Suspected"

ICU/ANAESTHESIA MEDICAL NEEDS:

	ITEM	QUANTITY	COMMENTS
1.	GUEDEL'S AIRWAY (OROPHARYNGEAL AIRWAY): Paediatric sizes - 000 (pink), 00 (blue), 0 (grey), 1 (white), 2 (black) Adult sizes: - 2 (green), 3 (orange), 4 (red)	100 each 100 each	Need to restock all emergency trolleys in communities as well as in all hospitals Currently we are not ordering Guedel airways Current consumables are reused and are supplies from visiting teams OPAs should be single use to reduce infection risk and transmission
2.	LARYNGOSCOPES Adult: - Mackintosh blades size 3 - Mackintosh blades size 3 Paediatric - Miller's blades sizes 0 - Miller's blades sizes 1 - Mackintosh blades size 2 (need adult and paediatric handles with blades)	20 20 20 20 20	Need to stock district health centres and all hospital emergency trolleys, including isolation wards

	ITEM	QUANTITY	COMMENTS
3.	PORTABLE ULTRASOUND SCANNER (USS) <ul style="list-style-type: none"> - Abdominal probe (curve): 8-3MHz - Low frequency (linear probe): 13-6MHz - Cardiac probe (echo) : 5-1MHz 	1	Built-in batteries for our ultrasound portable scanners in ICU and the operating theatre are obsolete Need USS for Central Venous Lines (CVL) and vascular catheters for haemodialysis Current equipment is used by all incl surgeons, ED and other wards as needed
4.	CARBON DIOXIDE DETECTOR <ul style="list-style-type: none"> - Disposable and colorimetric 	100	CO2 detector is gold standard to confirm intubation Not available outside of the operating theatre (eg. ED or other wards and district hospitals, etc)

PUBLIC HEALTH

Quarantine and Isolation by Healthcare Facilities

Quarantine health services are a part of a comprehensive system that serves to limit the potential introduction and spread of contagious diseases in Samoa. Quarantine health services at Faleolo International Airport and wharves are provided in collaboration between the Ministry of Health, Airport Authority, Ministry of the Prime Minister and Cabinet Samoa Port Authority and Ministry of Police Services. During routine operations, port health staff evaluate international travellers entering Samoa and determine what measures should be taken to minimize the spread of infectious diseases.

During heightened COVID-19 response, the port health staff with the assistance of clinical staff will actively screen all inbound passengers arriving in Samoa from affected areas for symptoms AND exposures consistent with COVID-19 as well as providing health education or other resources. They also have the powers to quarantine asymptomatic inbound passengers who have spent time in the 14 days prior to arrival in a country with active transmission of COVID-19, such as in China (persons under investigation-not cases).

The Ministry of Health through the work of its port health staff have the legal authority under the Health Ordinance 1959 and International Health Regulations 2005 to detain any person who may have suspected or confirmed infection with the COVID-19.

In the event of an outbreak of cases, Faleolo District Health Centre will be converted into a 24/7 quarantine facility for persons under investigation and suspected and confirmed cases of COVID-19 due to its proximity to the main port of entry (Faleolo International Airport). Facility managers will make plans to annex the adjacent primary school in the event of overflow of cases beyond the bed capacity. The school will be refurbished to accommodate 100 patients in this case. Faleolo will be the main site to handle cases detected at the port of entry.

For all other healthcare facilities, cases presenting must be allocated to isolation wards or ICU's (if warranted) within each facility with a transfer plan to the Main Hospitals (TTM and MT2) based on

the facility capacity and level of care needed for cases. Isolation and care at home for patients should be determined by medical providers on a case by case basis and considering the facility capacity or need to transfer. Smaller capacity quarantine units will be established at all ports of entry to assist with triage and transfer. In terms of prevention and preparation, this now warrants the urgent establishment of negative pressure isolation units as proposed under the Measles Recovery Plan 2020.

Points of entry

Port Health in the context of a pandemic acts as the main arm of prevention for the country. The primary function of Port Health is to enforce the articles of the national Health Ordinance 1959 and the International Health Regulations 2005. With these powers, port health can deliver interventions of quarantine, port screening and border control. Additionally, Port Health teams (clinicians and public health) will be conducting thorough screenings of all vessels at all ports of entry.

It is highly advised that screenings of visitors need to be implemented at the airport, wharf or seaport. If anyone is suspected of having novel coronavirus infection depending on the circumstances some or all of the people on the vessel might need to be quarantined, possibly on a home basis or at a location that is set up by the Samoa authority in each island. It is understood that isolation and quarantine measures in general may only be most effective during the early phases of the pandemic when there are small clusters, and limited spread from region to another. However, during the pandemic period, the magnitude of those to be quarantined and isolated may involve a whole village or a large area. In Samoa Islands where the islands are separated, it may be feasible to have a total village isolation or quarantine.

Another possible (though extreme) public health intervention is closing the border, and particularly stopping people arriving by planes or boats/yachts. There is a need to consider these carefully in terms of when to execute such decision, and how long to close it for. In relation to this, there is the question of whether Samoa is prepared to be self-sufficient and for how long will that be sustained. If such decision is taken (and taken early enough) it does give Samoa the opportunity to stop a pandemic entering the country.

In order of decreasing effectiveness there are four air border management options:

- Full Closure of Air Border/Entry by Air
- Closure of Air Border/Entry by Air to passengers originating outside of Fiji, Tonga and New Zealand (i.e. restriction of transit passengers)
- On arrival flight screening and quarantine – note any symptomatic passenger would require the whole flight to be quarantined
- No action

Strict air border management is important due the quick travel time and the possibility of asymptomatic passengers. The sea border can be effectively managed via the application of Pratique. If a vessel declares sickness then passengers may remain in quarantine or isolation aboard that vessel. The much longer travel time means that ill passengers are likely to be symptomatic and identifiable. Where individuals are placed in quarantine they will need to be monitored on a daily basis and those displaying symptoms should be placed in a separate isolation facility.

Effectively immediately as of 18/02/2020, the following travel restrictions for Samoa have been authorized for all modes of travel and ports of entry.

ALL TRAVELLERS ENTERING SAMOA MUST NOTE THE FOLLOWING REQUIREMENTS:

1. A Special Health Declaration Form is required to be filled out by all travelling passengers inflight or on arrival in to Samoa.
2. Compulsory screening of all arriving passengers to Samoa is now in effect at all ports of entry.
3. All Travelers originating FROM or TRANSITING through identified high risk countries must spend at least 14 days self-quarantine at country of last port that is free of the 2019 Novel Coronavirus and must undergo medical clearance within (3) days prior to final route to Samoa. This must be their final stop before travelling to Samoa. In the event you arrive within the 14 day period as noted above, You will be Returned to the country of last Port before arrival in to Samoa.
4. ALL Travellers Originating From or Transiting Through identified moderate risk countries are required to undergo medical examination by a Registered Medical Practitioner within (3) days before ARRIVAL. This medical clearance is required for check-in prior to issuing of boarding passes.
5. Updated Travel Advice is made available every week on the Government of Samoa and Samoa Ministry of Health websites and depending on the latest information available.
6. All sea port entries will be screened at the quarantine buoy before the vessel docks at the wharf.

ALL TRAVELLERS OUT OF SAMOA:

1. It is strongly recommended that all persons intending to travel to China and any country affected by the 2019 Novel Coronavirus postpone their travel arrangements unless necessary.
2. Be aware of the signs and symptoms of 2019 Novel Coronavirus which include: fever, cough, shortness of breath and breathing difficulties
3. Preventive measures should be adhered to at all times in the event that travel cannot be postponed.

For more information contact Tagaloa Dr. Robert Thomsen on Phone: (685) 66503 / 7676015 or Email: robertt@health.gov.ws or Dr Sarah Brown email: sarahb@health.gov.ws

Legal and Ethical Issues

As with most times of crisis, decisions will have to be made to prioritize the public's highest benefit and wellbeing over individual liberties. These will be complex situation specific measures that draw their authority from the Disaster and Emergency Management Act 2006.

The preparedness and response agencies should take into account the implementation of the International Health Regulations 2005 requirements since the Novel Coronavirus is seemed gradually spread internationally. In addition, the Ministry of Health should activate its mandated public health responsibilities under the Health Ordinance 1959.

Procurement and Finance

Finance and procurement operations fall under the Finance and Procurement Division and Health Sector Coordination, Resourcing and Monitoring Division of the MOH with funds being governed by

the Ministry of Finance. In the current situation, these entities will be tasked with procurement of all items listed in the Urgent Needs List.

In the event a declaration or proclamation of emergency is issued, finance and procurement will fall under the standard operating procedures of the National Emergency Operation Centre (NEOC).

Additionally, while there are challenges, there are notable opportunities in finance and procurement with the post-measles state of operations and the potential finance and procurement overlap of the resources needed for COVID-19 and the needs detailed in the MoH Measles Recovery Plan 2020-2021. Some of the COVID-19 can be sourced from that plan and used to further both plans.

Destinities	Item	Function/ Description	Quantity	Responsible Source for Tech Specs	Status
Port Health	(i) Digital Ear Thermometers	Port Health Screenings	30	Biomedical	
	(ii) Infrared Body Thermometers	Port Health Screenings	20	Biomedical	
	(i) Pulse Oximeters	Port Health Screenings	50	Biomedical	
	(ii) Infrared Cameras	Port Health Screenings	10	Biomedical and Pharmaceutical	Personnel working on T/S and Supplier
Laboratory Surveillance	(i) Influenza Nasopharyngeal Swab Kits	Rule out Influenza	2000	Laboratory	
	(ii) UV Light / Lamp	Lab sanitation	1	Laboratory	
Information and Communication Technology	(i) Laptops	Surveillance data entry	6	ICT	A/ACEO ICT working on T/S
	(ii) Dongles	Port Health Screening and Advance Information	2	ICT	
	(iii) SIM cards – MOH network	Communication and Coordination	6	ICT	Completed. Provided for Port Health Officers, etc.
	(iv) Hard Drives (2GB)	To back up surveillance data and risk	2	ICT	
Emergency / Treatment	(i) IV Stands	For quarantine and admissions	10	Biomedical	Check measles supplies
	(ii) Negative Pressure Isolation Units	Quarantine and Admission	10	Hospital & Clinical Service/Maintenance	

Destinities	Item	Function/ Description	Quantity	Responsible Source for Tech Specs	Status
	(iii) Emergency / Treatment Trolleys	Faleolo CHC	10 of each	Finance and Procurement	
Infection Control Supplies and Securing Borders/Port of Entries	(i) Disinfectant Sprays (100% alcohol)	Infection Control and Protection of Population	5	Pharmaceutical	
	(ii) Hand Sanitizers	Infection Control and Protection of Population	Multiple Supplies	Pharmaceutical	Check measles supplies
	(iii) Full Body Disposable Suit	Infection Control and Protection of Population	5L = 20 10L = 10	Pharmaceutical	Very Urgent
	(iv) PPE (Examination Gloves, Size L, XL)	Infection Control and Protection of Population	100 boxes each	Pharmaceutical	Very Urgent
	(v) PPE (Ear Loop Surgical Masks)	Infection Control and Protection of Population	10,000	Finance and Procurement	Very Urgent
	(vi) PPE- masks (N95)	Infection Control and Protection of Population	500	Finance and Procurement	Very Urgent
	(vi) Spray Bottles (5/10 litres)	Infection Control and Protection of Population	5L = 20 10L = 10	Pharmaceutical	Very Urgent
	(vii) Port Health Declaration Cards	To assist screenings at port of entry	10,000	Finance and Procurement	Completed and Ongoing
Logistics / General Supplies	(i) Tables and chair	To assist screenings at port of entry (Airport and Wharf)	As Needed	Finance and Procurement	Completed and Ongoing
	(ii) Bed Sheets, Pillows, Pillow Cases, Towels	For Faleolo CHC	Sufficient	Assets & Maintenance/Laundromat	Check with Supplies provided for Measles
	(iii) Rubbish Bgs	Medical waste containment	1,000	Finance and Procurement	Very urgent
	(iv) Catering	Faleolo Personnel and Quarantined Persons (3 meals) and Port Health Officers (Night and Early Morning Shifts)	Depending on Shifts/Rosters	Finance and Procurement	Organised with Fong's Café at Faleolo since 26/01/20

Destinities	Item	Function/Description	Quantity	Responsible Source for Tech Specs	Status
	(v) Transport	For all response teams	3 committed vehicles and drivers	HR & Administration	
Security	(i) Police Security	Provide facility security at Faleolo CHC	2 officers	HR & Administration	Very Urgent
	(ii) General Security	Provide facility security at Faleolo CHC	At least 2	HR & Administration	Very Urgent

Summary of Key Actions

WHO has defined a series of pandemic phases per pandemic period in the progression of global pandemics, starting from the threat of an evolution of a pandemic strain, to the emergence of worldwide-spread outbreaks. The WHO pandemic phases refer to global status but situations in respective countries may differ, and thus the response will be tailored more according to in-country situations. The table below summarizes the progression of disease and recommended response, contextualized to novel coronavirus (2019).

Local plans and legislations play a major role in shaping how this framework will be delivered in the event that novel coronavirus is detected in Samoa. Additionally the emerging situations of the early epidemic will determine what strategies will have to be utilized in the local context. However the WHO model establishes a general flow of events for the Ministry of Health and multi-sectoral and international partners.

<div> <div>PANDEMIC STAGE</div> <div>INTER – PANDEMIC PERIOD</div> </div>	WHO GLOBAL PHASE	SAMOA SITUATION	ACTIONS REQUIRED	RESPONSIBILITY
	PHASE 1:			
	No novel COVID-19 virus subtypes have been detected in humans.	No human or animal cases of novel COVID-19 virus in Samoa	Planning: <ul style="list-style-type: none"> Review and submit updated members and Terms of Reference of the Samoa Multi-Sectoral Pandemic Taskforce [SPT] for endorsement by the Cabinet. The Ministry of Health [DG] and the Public Health Emergency Operations Committee takes pivotal role in the consultation and development of the 'draft' Samoa COVID-19 Preparedness & Response Plan. Address crucial issues of the draft plan eg: Co-ordination mechanisms; surveillance; communication; legal framework etc. 	Public Health Emergency Operations Committee [Chairperson and key stakeholder-members eg: DG-MOH, MAF, National Disaster Management Office [NDMO], MWCSO & others as decided by the HEOC]
	PHASE 2:			
	No novel COVID-19 virus subtypes have been detected in humans: however, a circulating animal novel corona virus subtype poses a substantial risk of human disease	No human or animal cases of novel COVID-19 virus in Samoa	<ul style="list-style-type: none"> Continue planning as in Phase 1 Ensure contingency plans, including Emergency Response Plans of each essential services are completed, and can be annexed to this Plan or as decided by the taskforce. 	All stakeholders – especially the Public Health Emergency Operations Committee, government response agencies, private

PANDEMIC STAGE	WHO GLOBAL PHASE	SAMOA SITUATION	ACTIONS REQUIRED	RESPONSIBILITY
			<ul style="list-style-type: none"> • Testing of the COVID-19 Plan or components of it. • Each agency prepares information and share with their respective staffs. • Intensify public awareness of elements of the COVID-19 Plan. 	sector, NGOs including faith based organizations
PANDEMIC ALERT PERIOD	PHASE 3:			
	Human infections with a novel subtype, but no human-to- human spread, or at most rare instances of spread to a close contact.	No human or animal cases of novel coronavirus virus in Samoa	<ul style="list-style-type: none"> • Intensify Planning and ensure strategies are ready for deployment within a short period of time. • Continue actions from Phases 1&2. • Promotion of preventive measures. • Train human resources to staff in preparation for COVID-19 	DG-MOH as directed, CEO-MAF & HEOC
	PHASE 4:			
	Small cluster(s) with limited human-to- human transmission, but spread is highly localized, suggesting that the virus is not well adapted to humans	No human or animal cases of novel coronavirus in Samoa	Strong focus on Border Control Measures Activate relevant component of Samoa Novel Coronavirus Pandemic Preparedness Plan	HEOC/ National Disaster Management Office [DMO] and other key stakeholders
		Human or animal cases occurring in Samoa.	Move to cluster monitoring and control (see below), Containment at the source with either total or partial lockdown of all non-essential services. Complete border closure to all incoming passengers .	

PANDEMIC STAGE	WHO GLOBAL PHASE	SAMOA SITUATION	ACTIONS REQUIRED	RESPONSIBILITY
PANDEMIC PERIOD	PHASE 5:			
	Larger cluster(s), but human to human spread still localized suggesting that the virus is becoming better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk)	No human or animal cases of novel coronavirus in Samoa	<ul style="list-style-type: none"> Maintain actions from Phases 1 – 4 Implement relevant public health measures & other pharmacological components. Implement alternative work arrangements Maintain border control measures 	DMO and SPT, Government Departments,
		Human or animal cases occurring in Samoa	<ul style="list-style-type: none"> Enhance Cluster Monitoring and Control 	Village Councils or Churches
	PHASE 6:			
	Pandemic. Increased and sustained transmission in general population.	No human or animal cases of novel coronavirus in Samoa	Maintain actions from 1-4	NEOC, HEOC, DMO, other Government response agencies
		Widespread cases occurring in Samoa	Pandemic Management <ul style="list-style-type: none"> Continue as in above Phases Provide vaccine if available (none currently for COVID-19) Maintain essential services 	HEOC, DMO and All stakeholders
POST-PANDEMIC PERIOD	Post-pandemic period	Reduced or no cases occurring in Samoa	Evaluate the situation (between waves or end of pandemic) and activate relevant components of the Recovery Plan.	As above

The current situation for Samoa is Phase 3-4 of the WHO Pandemic Model during the Pandemic Alert Period in which new coronavirus subtypes have been detected in humans, and small clusters of cases have been detected in other countries, but no cases have been reported in Samoa. In accordance with the current situation, the following actions and responsible parties detail the way forward.

With the global Pandemic Status being classified as Phase 3-4, there are immediate actions that the MoH and partners can take to prepare for and prevent COVID-19, even without the full details of the initial COVID-19 investigations.

Functions	Immediate Actions	Responsible
<i>Planning and Coordination</i>	Develop and finalize Samoa Novel Coronavirus Preparedness Plan 2020	MOH
	Train health sector and partners in COVID-19 detection, pre-epidemic mobilization, and response	MOH, Novel Coronavirus Taskforce, key partners and stakeholders, WHO
	Review multi-sectoral preparedness, take stock of key supplies, mobilize agricultural partners and food vendors to address environmental health risks	MOH, MAF, farmers/growers, food vendors, marketplaces , Food Safety Team
	Develop surge capacity plan	MOH- Clinical Services
	Begin testing components of the draft plan	Novel Coronavirus Taskforce
	Preparedness exercises for Port Health screening and quarantine	MoH- Port Health
	Identify sources of local health volunteers to support initial surge of an epidemic	MOH- HSCRM, Clinical Services, NGO's, Legal Advisor
	Procurement of Urgent Needs List Annex A.	MOH, CSD and HSCRM
<i>Risk Communication and Health Education</i>	Begin relaying key messages to the public regarding COVID-19	MOH-HPED
	Formalize roles of risk communication team	MOH- Risk Comm. Team
	Increase basic hygiene promotions and WASH	MOH- HPED, HSPQA, Water and Sanitation
	Establish a hotline phone number and prepare MOH Facebook to handle public queries on COVID-19	MOH- Risk Comm. Team
	Establish communications with full network of stakeholders and partners in preparation for an outbreak situation	ACEO-HSCRM
<i>Prevention and Containment</i>	Develop Port Health Human Resource Allocation Roster with Plan to have all ports of entry staffed with teams for every arriving vessel (all hours)	MoH- Port Health
	Install infrared cameras and begin testing passenger screening procedures at airport	MoH- Port Health
	Create an immigration/customs health card for COVID-19 passenger screenings	MOH – Port Health
	Begin screening suspect cases in-line with case definition	MOH – Port Health
	Draft public advisories	MOH- Public Health
<i>Surveillance</i>	Begin enhanced surveillance for COVID-19 – like syndromes and symptoms	MOH- Surveillance Team
	Conduct an Environmental Health Risk	MOH- Environmental

	Assessment	Health Team
	Develop novel coronavirus surveillance package- clinical forms, database, data collection tools	MOH- Surveillance Teams
	Create a laboratory surveillance Register	MOH-Laboratory Services TTM
	Train all healthcare workers on how to detect and manage COVID-19 in clinical settings in line with local case definitions and circulate protocols	MOH- DDG Public Health, HSPQA, Nursing and Midwifery, ACEO Health Programs, DDG Clinical Services
<i>Infection Control</i>	All health facilities conduct infection control preparations for COVID-19	MOH- Clinical Services
<i>Emergency Preparedness and Response</i>	Review national and facility emergency plans and contingencies plans to identify draft protocols in preparation for COVID-19	HEOC NDSIHRD SPPRD HSCRM
	Develop a support services strategy for a public dealing with anxiety, grief and distress from the previous Measles Epidemic	Mental Health, Psycho social Working Group, WHO, UNFPA
	Begin communication with international partners to discuss plans and strategies for coordinating foreign assistance in case of a state of emergency	MOH- HSCRM, O/CEO, DMO

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ANNEX A. HEALTH SECTOR FUNCTIONS – NATIONAL DISASTER RISK MANAGEMENT STRATEGY 2017

5.2.8 Health sector

Sector Objective:	To provide comprehensive emergency management, enabling the health sector to mitigate, prepare for, respond to, and recover from emergencies and disasters.
Sector Lead:	MoH
IASC/PHT Cluster:	Health & Nutrition (Cluster Lead – WHO/UNICEF), Sanitation, water and Hygiene (Cluster Lead – UNICEF), Emergency Shelter (Cluster Lead – IFRC/UNHCr/IOM)
Supporting members:	MNRE, MESC, MWCSd, National Kidney Foundation of Samoa, Samoa Family Planning, Doctors Association, Nurses Association, Private health service Providers, Women CBOs (Komiti Tumama), SUNGO, SBS

FUNCTIONS OF THE SECTOR

Prevention

- Strengthen disease surveillance and early warning system.
- Conduct vulnerability assessment and risk analysis of health related potential disasters, including identifying crucial needs for vulnerable groups (TB/HIV/Special Needs/Gender) during disaster occurrences.
- Promote hazard resilient construction of new health facilities – eg. Negative Pressure Isolation Units
- Implement disaster preparedness plans for health facilities.
- Promote hazard mitigating technologies and practices - EHealth
- Prevent and control communicable diseases
- Protect livelihoods from hazard risks.
- Promote an integrated, comprehensive, multi sectoral and multidisciplinary approach to reduce the impact of natural, technological or manmade hazards on public health
- Strengthen the institutional capacity of the health sector in preparedness and risk reduction.
- Strengthen national strategies and plans to address all forms of social disadvantage and vulnerability that have a negative impact on health.

Preparedness

- Identify health facilities that are located in hazard-prone areas, analyse their internal and external vulnerability during emergencies, and increase the hazard resilience of such facilities.
- Prepare and implement hospital disaster preparedness plan for such facilities to be able to deal with emergency situations.

- Prepare plans for tracking and evacuations of mass casualties as a result of a major disaster.
- Develop health care personnel proficient in disaster response including improved education of nurses, emergency medical technicians, and doctors to have improved knowledge and preparedness of disaster management; Increase knowledge of psychiatrics on rehabilitative dimensions of disasters along with the health care of internally displaced people and women and children issues.
- Improve capacity of the National Laboratory Service to conduct rapid testing when outbreaks occur.
- Establish a national vector/water control programme to address outbreaks.
- Raise awareness through education and forge links between health and climate change, DRM policies and strategies.
- Strengthen Emergency Medical Points to ensure better coordination in disaster situations.
- Ensure communication and coordination links between hospitals and the scene of disaster.
- Build acute health care system for post disaster response through strengthening the existing district development system.
- Establish a system of readiness and list of personnel to be mobilized when warning is received or impact of disaster reported.
- Ensure fast delivery and availability of adequate resources such as drugs, medical equipment and supplies of other logistic materials.
- Put in place practical strategies to address the long-standing issue of human resource, recruitment and retention.
- Conduct Epidemiological Surveillance.
- Pre-position of emergency medical and non-medical supplies.
- Establish epidemic thresholds at local, sector and national levels.
- Monitor and evaluate the sector's programmes.
- Conduct nutrition surveillance and management of moderate and severe malnutrition.
- Estimate cost of interventions above normal to mitigate related risks (costs for immunization, vector control, disease control, health promotion and costs for the health management of gender based violence and violence against women; where relevant.