Ministry of Health COVID-19 Preparedness and Response Plan 2020 (TONGA)

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1 Acronyms

	Acronym	Definition
1	CDU	Communicable Disease Unit
2	CEO	Chief Executive Officer
3	Comm	Community Health
4	COVID-19	Novel Coronavirus
5	EH	Environmental Health
6	HPU	Health Promotion Unit
7	MOH	Ministry of Health
8	NEMC	National Emergency Management Committee
9	PoE	Point of Entry
10	WHO	World Health Organization

2 FOREWORD FROM THE MINISTER OF HEALTH

FAKAFETA'I ki he 'EIKI,

We give utmost praise to God Our Creator and Refuge.

We humbly salute Their Majesties King Tupou VI and Queen Nanasipau'u.

We pay due respects to HRH Crown Prince Tupouto'a 'Ulukalala and members of the Royal Family;

Hon. Prime Minister and Cabinet Ministers;

Hon. Speaker of Parliament and Hon. Members of the Legislative

Assembly; Church leaders and the clergy and;

All Tongans

We give praise to God for his love and protection for Tonga during this global pandemic that is COVID-19. To date, Tonga is COVID-19 free and I want to express my sincere gratitude to each and every person and to relevant stakeholders and partners for your cooperation, support and assistance given during these unprecedented times.

May this be an opportunity to ***Tākanga 'etau Fohe´*** collaboratively continue working together in solidarity, to better care for our vulnerable population and the Kingdom as we encounter historic cross road: - of covid-19 and non-communicable diseases (NCDs). Our strong partnership as a whole of society is the epitome of our commitment to Universal Health Coverage (UHC) and the Sustainable Development Goals (SDG) while we meticulously navigate the challenging waters of the current pandemic, with the promise of **Leaving No One Behind**.

KO SIHOVA KO HOKU TALITAU'ANGA,

Respectfully,

Honorable Associate Professor 'Amelia Afuha'amango Tu'ipulotu
Minister for Health

3 MESSAGE FROM THE CHIEF EXECUTIVE OFFICER

We give thanks for all the Blessings God has bestowed upon us and the plans undertaken by Government as well as the Ministry of Health and relevant stakeholders and partners to protect Tonga from this Global Pandemic – COVID-19.

One of the most vital components of the Nation's Preparedness and Response as documented in the National Action Plan is Risk Communication. It is extremely important that correct information about COVID-19 is shared and that it is contextualized and clear for the public. With the objective of developing the Public's knowledge base and understanding, advice is shared to help them make informed decisions on how to protect themselves during this pandemic.

If we do not address this component well and there is misinformation from other sources that are unreliable and irresponsible, this can create unnecessary panic and stress to the Public, ultimately impeding progress and hinders efforts to work together.

The Ministry of Health cannot do this work alone and sincerely asks for your trust and cooperation, because a united stand builds the strength we need, as a country, to be able to better prepare and respond effectively to the threat of Covid19.

Best Regards,

Dr. Siale 'Akau'ola
CEO for Health

4 Authority for Planning

The Ministry of Health COVID-19 Preparedness & Response Plan 2020 (TONGA) is a more comprehensive plan which has further been developed and initiated following the declaration of the State of Emergency in the Kingdom of Tonga on the 20th of March 2020. Its aim is to strengthen preparedness and response to COVID-19 Pandemic. This plan aligns very well with an earlier Public Health Covid19 Plan and the later National Action Plan on preparedness and response to COVID-19 which was endorsed by the NEMC and later approved by Cabinet.

5 Acknowledgements / Consultations

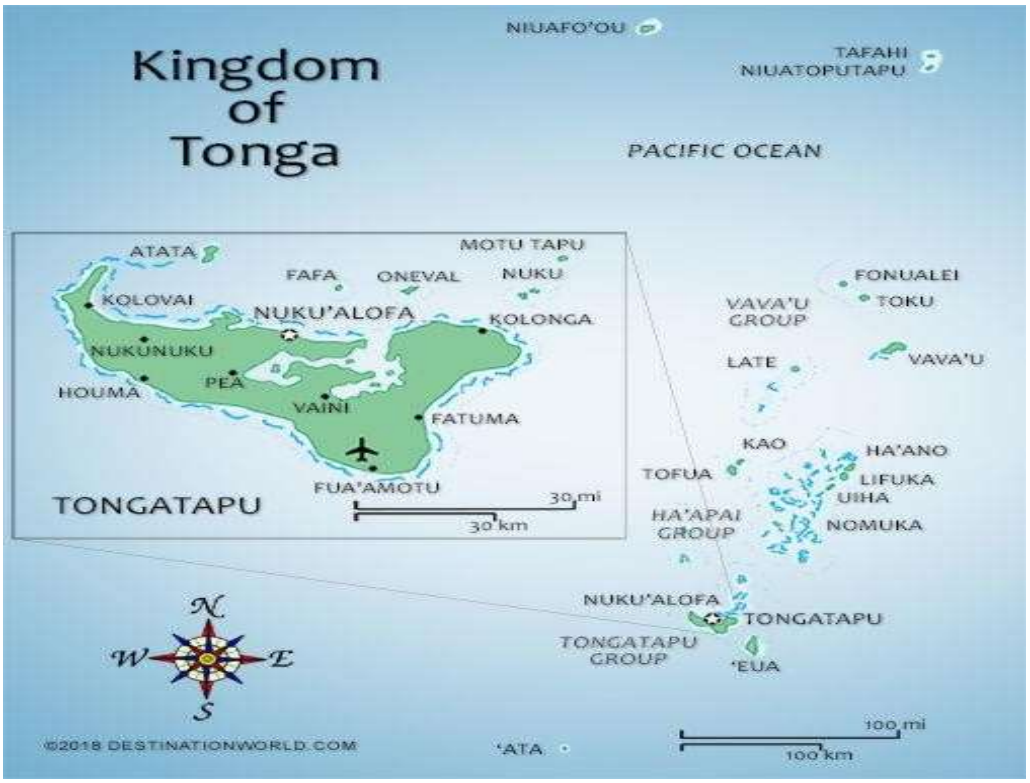
This Ministry of Health COVID-19 Preparedness & Response Plan 2020 (TONGA) was prepared with the assistance of many organizations, development partners, and individuals. They were consulted and submitted their individual plans which were assimilated and used to compile this plan. We would like to acknowledge their kind support and contribution.

For the development of document, we would like to thank the Prime Minister's Office and Mr. Edgar Cocker and his team for also providing writing assistance. Without their support this document would not be completed. The document was drafted and the consultations conducted by the Director of Corporate Services: Mr. Semisi Fukofuka and Principal Health Planning Officer: Mr. Sioape Kupu.

6 Country profile

6.1 Geographic location

The Kingdom of Tonga is located in the South Pacific Ocean, between latitudes 15 S and 23.5 S; longitude 173 W and177 W, south of Samoa and southeast of Fiji. The total land areas is 747.34 sq. km spread over 700,000 sq. km. of Territories Sea. Tonga consists of 171 islands, 36 of which are inhabited. The capital Nuku"alofa is located at the main island of Tongatapu.



6.2 Population

The population of approximately 101,134 (2006 census) is distributed throughout the islands of Tonga with rural and urban disbursement. The islands are in four six groups of Tongatapu, Vava"u, Ha"apai, Niuatoputapu, Niuafo"ou and „Eua. The main island of group is Tongatapu at a 71,260 population.

6.3 Government

Government consists of three main bodies; the Executive, Parliament and the Judiciary.

6.3.1 The Executive

The King in Privy Council and the Cabinet, serve as the Executive. The Monarch appoints the Cabinet as well as the Governors of Ha'apai and Vava'u. The administration of the public sector of which Government Ministries and quasi-government bodies exist, come under the jurisdiction of the Prime Minister. Cabinet becomes the Privy Council when presided over by the Monarch. It is highest authority in the country.

6.3.2 The Parliament

The Parliament is unicameral and is composed of an appointed Speaker by the Monarch, the Cabinet, nine Nobles elected by 33 hereditary Nobles and seventeen Representatives elected by the people. General Elections are held every three years.

6.3.3 Judiciary

The Privy Council, with the addition of the Chief Justice becomes the Court of Appeal. Below this, are the Supreme Court, the Land Court and the Magistrates Court.

6.4 Emergency Services

- Health: Hospitals are located in Tongatapu (Tofoa), Vava'u (Neiafu), Ha'apai (Pangai), 'Eua (Angaha), Niuatoputapu and health centre at Niuafo'ou.
- Police: All island groups have a Police station at each individual group.
- Fire Services: All island groups have a Fire and Emergency services except for Niuafo'ou and Niuatoputapu Islands.
- His Majesty's Armed Forces (HMAF): Only Tongatapu and Vava'u island groups have permanently based HMAF services.
- National Emergency Management Office (NEMO): All island groups have NEMO services.

7 Ministry of Health Sector Plan linkages

7.1 Acts

The Ministry of Health Covid19 Plan 2020 is shaped by the Tonga Strategic Development Framework II 2015-2025, National Health Strategic Plan 2015-2020 and governed by the following Acts:

- Emergency Management Act 2007
- Therapeutics Goods Act 2001(Amendment Act 2004)
- Pharmacy Act 2001(Amendment Act 2004)
- Nurses Act 2001(Amendment Act 2004, 2014)
- Medical and Dental Practice Act 2001(Amendment Act 2004)
- Health Practitioners Review Act 2001(Amendment Act 2004)
- Drugs and Poisons Act 1930 (Amendment Act 2001)
- Public Health Act 2008 (Amendment Act 2012)
- Health Services Act 1991 (Amendment Act 2010)
- Health Promotion Act 2007(Amendment Act 2010)

7.2 Tonga Strategic Development Framework (TSDF) II, 2015-2025

The Ministry of Health Covid19 Plan 2020 is well aligned with Tonga's Strategic Development Framework II 2015-2025 in understanding of future uncertainties and risks. The TSDF II 2015-2025 reflects the importance of supporting all and leaving no one behind, underlined within the national impact: "A more progressive Tonga supporting higher quality for all" and supported by the seven National Outcomes and its twenty-nine Organizational Outcomes under five pillars.

The Ministry of Health COVID-19 Plan 2020 contributes directly to TSDF II 2015-2025 national outcome "C: a more inclusive, sustainable and empowering human development with gender equality". Through the lens of this national outcome it is supported by the pillar "Institutional pillar 3: Social Institution". The Social Institution cascades directly to the organizational outcomes (OO) and its strategic concepts (SC):

- OO 2.5: Improved, country0wide, health care systems which better address the medical conditions becoming more prevalent in Tonga so hastening and limiting pain and suffering
    - SC "a": continue to work to provide affordable Universal Health Coverage with expanded coverage taking particular account of the specific needs of different groups, including women, men, children and disabled
    - SC "b": improved delivery of appropriate services based on sound leadership, skilled workforce, information and research informed policy and planning
    - SC "c": strengthened national capacity to deliver high quality health services including family planning and services to prevent HIV and STIs, for young people, sensitive to the different needs of women and men
    - SC "d": maintaining and improving the network of health services delivered through the national referral hospital at Vaiola, supported by a network of regional hospitals and community clinics, to deliver effective health care
    - SC "e": seeking new and innovative options, including ICT, for cost effective service delivery
- OO 2.6: A stronger and more integrated approach by all parts of society, to address communicable and non-communicable disease, significantly cutting the rate of these diseases and the burden they place upon communities and economy.
    - SC "a": strengthening the collaboration between Tonga Health systems and partners to promote and strengthened primary and secondary preventions of NCD risk factors and NCD-related disease through whole of government and whole of society approaches building awareness and understanding of the courses and options for mitigating NCDs
    - SC "b": improving efficiency and effectiveness of preventative health care programmes that encourage healthy life styles, including consumption of appropriate foods and increased exercise, so as to decrease the incidence of NCDs
    - SC "c": improve treatment of conditions arising from the complications associated with NCDs
    - SC "d": work with others to improve waste management and limit conditions which facilitate communicable diseases
- OO 2.7: Better care and support for vulnerable people that ensure the elderly, the young, disables and other with particular needs continue to be supported and protected despite shrinking extended families and other changing social institutions.
    - SC "a": increasing institutional care and support services for the elderly, disables and other vulnerable groups, including investigation o the potential private sector role, which complements and supports traditional support structures rather than undermining them
    - SC "b": ensure effective implementation of related policies for vulnerable groups
    - SC "c": strengthen social protection, disaster management and poverty alleviation programs for communities

- SC "d": work in close collaboration with CSOs and others in delivery of these services

The TSDF II 2015-2025 is structured to strengthen the role of the TSDF as the top-level document in the integrated planning and budgeting system of the Government of Tonga. The TSDF II 2015-2025 provides better high-level guidance for all plans and budgets at the sector, district and corporate plans including the Ministry of Health Sector Plan 2020.

7.3 Sustainable Development Goals

In order to implement the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs) 2015-2030, the TSDF II 2015-2025 is Tonga's roadmap to achieving the Sustainable Development Goals (SDGs). The TSDF II 2015-2025 national outcome "C: More inclusive, sustainable and empowering human development with gender equality" is well aligned with the SDG "Goal: Ensure healthy lives and promote well-being for all at all ages".

Universal Health Coverage is the significant contributor to the 2030 Agenda for Sustainable Development and its Goal 3 which well aligned with the TSDF II 2015-2025 social institution pillar and its organizational outcomes (OO) and strategic concepts mentioned above.

The Ministry of Health Sector Plan 2020 directly supports 13 targets and 22 indicators through the Sustainable Development Goals (SDGs) 2015-2030 and the TSDF II 2015-2025 consolidated indicators.

8 Ministry of Health COVID-19 Preparedness & Response Plan 2020 (TONGA)

This plan provides an overview of how the divisions in the MOH will work as a consolidated team to prepare and respond to this Global Pandemic. It supports the Vision in the Tongan Governments COVID 19 National Action Plan which is one of

- A comprehensive 'whole of government' approach to keeping Tonga COVID-19 free for as long as possible.
- Then should a case enter Tonga, to minimize the number of people who will get illness and death from COVID-19, thereby decreasing the burden of disease on the country.

The Ministry of Health recognizes its role as a significant partner in the Governments response to COVID-19. It is committed to carrying out its roles of keeping the public informed, minimizing transmission, providing testing, gathering data, monitoring the progression of the outbreak and providing a continuity of care for the people living in the Kingdom of Tonga during this global pandemic.

Like the Tongan Governments COVID 19 National Action Plan, the Ministry of Health COVID-19 preparedness and response plan focuses on five stages of response which are underpinned by WHO COVID-19 priority steps[1] and actions (or pillars) identified in the WHO operational planning Guidelines to support country preparedness and response[2]

[1] Further details can be found in Annex 1

[2] https://www.who.int/docs/default-source/coronaviruse/covid-19-sprp-unct-guidelines.pdf

9 COVID-19: The Novel Coronavirus

Coronaviruses are a family of viruses that cause illnesses ranging from the common cold to more severe diseases such as Severe Acute Respiratory Syndrome (SARS) and Middle East respiratory syndrome (MERS). The Coronavirus disease 2019 (COVID-19) is a disease which has caused an outbreak of respiratory illness first detected in Wuhan, China. The symptoms reported for COVID-19 include fever, cough, shortness of breath and difficulty in breathing. In more severe cases, it can lead to pneumonia, kidney failure and even death.

On 30th January 2020, COVID-19 was declared by the Director General of the World Health Organization (WHO) as a Public Health Emergency of International Concern (PHEIC) under the International Health Regulations 2005. Due to the alarming levels of spread and severity of COVID-19 globally, WHO has declared COVID-19 as a global pandemic on the 11th March 2020.

Tonga is highly vulnerable to the importation of COVID-19 which can significantly cause serious adverse impacts to the health of people. It is critical that preventative measures are implemented to plan, prepare and respond effectively due to the risk of importation of COVID-19, protecting the health and welfare of Tongan residents.

This preparedness and response plan is based on the current limited information available about COVID-19 related to disease severity and transmission efficiency. It was developed in consultation with key focal people from Ministry of Health in Tonga. This is an evolving document that will be reviewed and updated on a regular basis as more is known about the disease and to maintain its contextual applicability.

10 Health Sector Strategic Directions

- Commitment to deliver the best quality of health care services with the most cost-effective and sustainable COVID 19 **Preparedness, Response and Containment Plan 2020** for Tonga
- Health Workforce is fit to practice and fit to respond effectively to COVID 19 health care need
- Robust sharing of health information with relevant stakeholders to produce timely, prompt and well informed decision making
- COVID 19 **Preparedness, Response and Containment Plan 2020's** work processes and guidelines are contextualized within Tongan society and cultures hence enhancing public compliance to health sector needs and wants
- Upgrade medical equipment"s, facilities, Information Technologies and relevant resources required by the **Preparedness, Response and Containment Plan 2020**
- Tactful enough in aligning COVID 19 **Preparedness, Response and Containment Plan 2020** to Health Sector Acts; Treasury Instructions, Procurement Plan and Public Service Commission"s Policy Manual of the Government of Tonga.
- The population of Tonga is resilience to COVID 19 pandemic and any upcoming emerge of New Diseases in the future

11 Strategic Outcomes

11.1 Outcome 1: Community Engagement and Mobilization

2.1. Empower, educate and mobilize the Tongan community to support all government endeavours for COVID-19 and to embody the values of the Tongan culture. *For Tongan values to be reflected within Government efforts to support garnering of community's cooperation.*

2.2. For government to support the Tongan community in their efforts to support the COVID-19 containment activities. *Communities are confident of the Government's support during their undertakings for containing COVID-19.*

11.2 Outcome 2: Establish adequate Quarantine Facilities

- At least 1 - 2 quarantine facilities for healthcare workers and support staff.
    - At least 2 or more quarantine facilities in Tongatapu
    - 1 quarantine for non-symptomatic and high risk
    - A facility for the elderly/vulnerable groups
- For phase 1, the initial capacity for the overall quarantine facility should be roughly around 50 - 100 individuals or in accordance to the total number of passengers per flight and the overall 14 day period. Once established, to prepare for the ongoing phases, the number of quarantine facilities should increase steadily to meet the health system capacity.
- All quarantine facilities will need to meet the minimum requirement of a **quarantine facility**: resources, human resources, standard operating procedures (case management), PPE, daily resources/supplies, sanitation, communication/spiritual/public health/social packages. *The minimum requirement will be met by all quarantine facilities. This entails: Resources, Human Resources, Standard operating procedures (case management), PPE, Daily Resources/Supplies, Sanitation, and Communication/Spiritual/Public Health/Social Packages.*

11.3 Outcome 3: Strengthened Health System Capacity

- **Testing Diagnostic Capability**
    1. Laboratory and Radiology Testing Capacity
    2. Tonga"s Health System will need to have the capability and capacity to test for COVID-19.
- **Personal Protective Equipment**
    1. **In-country inventory of PPE** and essential medication and equipment: The Health System will have an in-country stock-take of its existing inventory, including PE, essential medication, equipment and human resources to assess surge capacity and limitations of the Health System to cater for potential COVID-19 patients.
    2. **Adequate Supply of PPE**: An adequate supply of PPE and equipment must be available for the Healthcare workers and support staff handling travellers and patients.
    3. **Local Market Supply of PPE**: In anticipation for the high demand of PPE and equipment, Tonga will need to assess either local suppliers or innovative alternatives should the need arise. Through the inventory, the Health System can make projections and thresholds on what is an acceptable amount of PPE.
- **Human Resources: Healthcare worker capacity**

    1. To assess the **surge capacity** for the case of a possible COVID-19 patient. Designated teams for COVID-19 including doctors, nurses, laboratory staff, drivers etc. will need to be pre-determined. Once the core team has been assigned, supporting staff and reserves for healthcare workers will need to be adjusted accordingly towards the rotation of staff and staff whom are quarantined.
- **Triage and Screening for all Healthcare Facilities**
    1. **All Health facilities**, especially the main hospital (Vaiola) will be equipped with adequate triage facilities, isolation facilities and equipment to efficiently and effectively ensure the safety of patients and healthcare workers.
    2. **Health Centres as Fever Clinics**

        All Health Centres will become Fever Clinics equipped with a temporary isolation facility and will need to meet the minimum requirement of a health centre facility. *A*

temporary isolation facility will be part of all Health Centres and meet the minimum requirement of Health Centre Facilities.

3. **All Point of Entry** will need to have an adequate rapid health assessment / isolation facility with all PPE / resource requirements and processes outlined in Pillar 4: Point of Entry. *Adequate Rapid Health Assessments/ Isolation Facilities with all PPE/ Resource requirements and processes as outlined in Pillar 4: Point of Entry will be observed at all Points of Entry.*

12 Objective(s)

The objectives of the Ministry of Health COVID-19 Preparedness and Response Plan 2020 (TONGA) and in particular the TSDF II emphasise on improved health care system and coverage, stronger approach addressing communicable and non-communicable disease and better care for vulnerable groups.

12.1 Strategic Objectives

The strategic objectives of this plan are to:

1. Reduce the risk of COVID-19 from entering the Kingdom of Tonga
2. Reduce the morbidity and mortality associated with COVID-19 in the community and for front line workers
3. Slow the spread of COVID-19 in Tonga through rapid identification, isolation and clinical management of cases, and undertaking contact tracing.
4. Empower Tonga's health professionals and the community to ensure a proportionate and equitable response.
5. Support containment strategies through accurate, timely and coordinated communication and community support.
6. Mitigate and minimise impacts of the pandemic on the health system and the broader community

12.2 Operational Objectives

(i) Establish strict and efficient containment processes to prevent the spread of COVID-19 to the Tongan Community.
   a. Establish rigorous clinical pathways, screening, triage, referrals and management processes to reduce the morbidity, mortality and subsequent spread of the COVID-19 to the Tongan community (taking into account vulnerable groups such as elderly, disability, pregnant women, children, infants etc.)
   b. Establish robust surveillance systems for rapid identification and response teams to identify and report on suspected and confirmed COVID-19 cases.
   c. Establish testing capabilities for Tonga.
   d. Ensure adequate PPE is available for the Healthcare Workers and Allied teams.
   e. Train staff to be holistically prepared for COVID-19 through adequate training on PPE, pathways, processes and standards.

(ii) To ensure that the Tongan general population and communities remain safe and continue daily life free of COVID-19.

(iii) Empower, support and mobilize the community through community engagement and risk communication to assist the Ministry of Health and whole of government efforts in containing and preventing the transmission of COVID-19 to the general population.

(iv) Ensure that the essential and minimum health services are operational if the COVID-19 spreads to the Community.

a. Maintain minimum health services and packages are available and provided to vulnerable populations such as NCD patients, pregnant women, the elderly and individuals with disability.

(v) Mitigate negative impacts of the COVID-19 pandemic on the health system and healthcare workers.

13 Opportunities and Challenges

The growing risk of an outbreak in Tonga has seen the Ministry of Health proactively engage accelerating preparedness and planning. While the health system has successfully dealt with disease outbreaks before COVID-19 will place an unprecedented strain on the country's health care systems. Current strengths and challenges that the Ministry must address in preparing for this pandemic Include:

- **Strengthening our Health System.** The Health system in Tonga can only be described as weak compared to the first world health systems. With the help of generous Developing Partners, Tonga has been working on strengthening its health system. Experiences of bigger, wealthier countries combating COVID-19 to date demonstrated that a health system like ours can be easily overwhelmed if COVID-19 gets into the community. The Ministry earlier on in responding to a few suspected cases (8 suspected cases) demonstrated how quickly and easily our health system could come under extreme pressure. The Ministry plan focuses on working with our partners to strengthening our Public Health and Quarantine option for mild cases, IC for severe cases, laboratory services, while resourcing our health care facilities and equipping our staff to, maintains their safety and better respond to COVID19 and **potential future pandemics** that reach our shores.

  The Ministry seeks to, as much as it is practical and possible, to strengthen the whole of the Health System. COVID-19 will impact the whole of the Health System and not just a COVID specific component and hence the need to strengthen the whole Health System. The Ministry plans to invest along the full continuum of health care from:

  - Community Health Centres
  - Public Health sections such Health Promotion, Environmental Health, Communicable Disease
  - Support functions such as Transportation, Hospital Food Services, Mortuary
  - New equipment for hospital wards
  - And outer islands.

  In addition to COVID preparedness the Ministry recognises this as a significant investment in the Health System for the future.
- **Preparing quarantine facilities** -The temporary quarantine facility currently has space for eight people and is therefore too small to deal with any larger number of people returning to Tonga in the near future. Quarantining travellers or people exposed to confirmed cases may reduce or prevent high proportions of wide-spread infections and mortality in comparison to having no measures. As an early response to the threat of COVID-19 enhanced screening at the borders occurred and a quarantine and observation facilities at Taliai Camp, HMAF centre, Nukualofa airport to facilitate quarantining was established.

Taliai has very limited capacity so in conjunction with the Shelter Cluster additional quarantine facilities are being sought to cater for incoming passengers when the border is re-opened.

As international experience and knowledge of the Virus and has grown and our understanding of effective response measures has advanced , the Ministry, like health services in other countries as modified it approach accordingly. The current focus is modifying health facilities and seeking existing additional facilities for this purpose such as hotel rooms, with security and health care personnel in attendance to provide support to persons in quarantine.

- **Isolation beds** – The isolation ward at Vaiola Hospital only has capacity for three patients and is therefore too small to deal with even small numbers of COVID-19 cases. To address the limited number of isolation beds at Vaiola which currently has four beds at the Isolation Ward, the Mu"a Community Health Centre is now being converted to a 16-bed community hospital. Mu"a will be used as first isolation sites for confirmed COVID-19 cases.

  This approach will keep COVID-19 cases away from Vaiola Hospital except for high dependency COVID-19 patients. The following wards/department are also preparing COVID-19 specific spaces:

  - Maternity
  - Paediatric
  - Medical
  - Surgery
  - Isolation Ward

  Furthermore a number of aged equipment from Operation Theatre and ICU will be upgraded and replaced with new equipment.
- **Strengthening Laboratory Facilities** – The National Laboratory does not have the capability to carry out COVID-19 test in-country (although a new testing machine, purchased with support from New Zealand, arrived in Tonga the week of 27th April). Samples so far have been sent to New Zealand or Australia, and it takes a few days for the results to be available. The Laboratory Services is being strengthened through:
  - Replacement of aged equipment
  - Addition of a PCR lab

  The addition of the PCR lab is to expand the capability of the lab to carry out COVID-19 tests in country. It has been demonstrated throughout the worlds that the capacity to carry out mass testing quickly is a key to controlling the spread of COVID-19.

  Additionally, in-country testing will be a key tool in screening incoming passengers to Tonga when the border is opened again. Passengers in quarantine will be tested at the end of the quarantine period and will only be released if result is negative.

  The lab is expected to continue to provide normal services for non-COVID-19 patients and at the same time expected to increase volume of testing in the event of a COVID-19 outbreak which necessitates the strengthening of the whole lab.
- **Adequate Personnel Protective Equipment** (PPEs) for health workers or patients. With limited resources and facilities, Tonga will need to be resource efficient and minimize the risk of local transmission to a bare minimum once the borders are open. Only teams allocated for the COVID-19 containment plan will utilize the necessary equipment such as PPE etc. Procurement of adequate PPE equipment and supplies is essential to prevent transmission

within our health care facilities and staff. We can"t stop COVID-19 without protecting health workers first," said WHO Director-General Dr Tedros Adhanom Ghebreyesus.

Infectious disease epidemiologist Maria Van Kerkhove said globally, "there are an alarming number of health care worker infections. In some countries, upwards of 10% of the reported cases are among health care workers, Those who are getting infected inside the facility often come in contact with a patients in a ward that is not equipped to handle Covid-19 patients. Others are infected after spending extended periods of time in wards with active Covid-19 cases, inadequate personal protection equipment and sub-optimal hand hygiene."[3]

To protect our patients and staff with the support of development partners the MOH are ordering PPE, equipment and supplies based on the WHO guidelines.

- **Inadequate hospital equipment and supplies for providing acute clinical services,** including no intensive care unit (ICU) facility and ventilators.
- The **Ministry has a heavy reliance on imports for basic supplies and is, therefore, anticipating significant challenges in procuring necessary items due to travel restrictions** affecting both supplies for COVID-19 and preparedness and to provide ongoing healthcare to the general population
- A **high number of Tongans are considered to be in the most vulnerable groups due** to the high rates of non-communicable disease among its population. There"s a lot we still don"t know about COVID-19, and the situation is constantly changing.

  However, we do know that people of all ages can be infected. People with pre-existing medical conditions (such as diabetes, heart disease, lung disease kidney disease obesity and asthma) and older people are more vulnerable to becoming severely ill with the virus. Objective 1 and 3 of the NAP seek to prevent the virus from entering Tonga for as long as we can and to slow down it"s spread if it get here. To that end, the MOH is committing significant resources to:

  - Point of entry screening
  - Resourcing to undertake comprehensive testing and contact tracing
  - Communication of key prevention messages through multiple channels to ensure the community understand how they can protect themselves and others

  Lifestyle and housing make quarantine and isolation at home unrealistic.

  Current best practice in reducing the spread of COVID-19 recommends suspected cases self-isolate at home and confirmed cases with mild symptoms self-quarantine. The guidelines to do this are

  - remain separated from others
  - wear a surgical mask when you are in the same room as another person
  - use a separate bathroom, if available
  - avoid shared or communal areas and wear a surgical mask when moving through these areas
  - not to share a room with people who are at risk of severe disease, such as elderly people and those who have heart, lung or kidney conditions, and diabetes.

[3] https://edition.cnn.com/world/live-news/coronavirus-pandemic-05-11-20-intl/h_43acd8fe31469c60bd068c510a08d0fe

This is not possible in the many Tongan family homes and we therefore we must prepare alternative accommodations for suspected and confirmed cases and to isolate Tongans being repatriated once the border restrictions are relaxed

- **Lifestyle and housing make social distancing, quarantine, and isolation at home unrealistic in the Tongan context.**
- The geographical spread of the community – **preparedness and response for people living in remote locations.** The outer islands are isolated and therefore offer natural barrier to the spread of the virus from Tongatapu where 70% of the population live. Restricting all mode to travel to the outer islands from Tongatapu will limit the spread of virus from Tongatapu to the outer islands. However, the geographical spread of the many small islands that make up the northern groups of islands put them at risk for unauthorised sea landing by foreign vessels.
- **COVID-19 is a new threat –** The world has not faced a threat like this for many generations. The unique nature and speed of this pandemic is unprecedented in modern times.
- Tonga is COVID-19 free, however Tonga cannot be complacent.
- No traveller coming into the country will have limited to no contact with family, friends or fellow quarantine individuals. Minimal contact will be key to containing the potential spread of COVID-19.
- The only means of preventing COVID-19 from entering Tonga is closing the borders.
- The COVID-19 pandemic will last for a while over 6-8 months or over (unless treatment/vaccine is developed).
- Currently, there are no effective medicines or vaccines to treat or prevent COVID-19.
- Public Health Measures such as isolation, quarantine, social distancing have been used in numerous countries to reduce transmission of the COVID-19 virus.

14 PHASED APPROACH to COVID-19

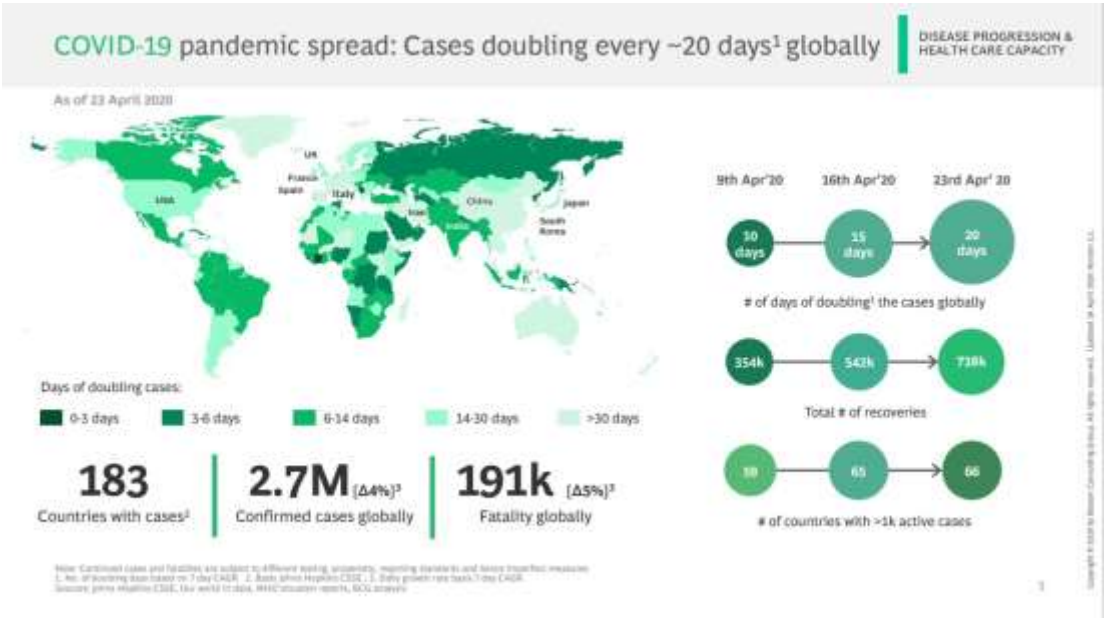
Like the National Government the Ministry of Health is taking a staged approach in its response to COVID-19. However in this plan phase 2 and 3 in the table below are combined.

Phase	Definition	Triggers for the next phase
Phase 1: **Preparedness and prevention** The disease is not in the country	• No confirmed cases • No Local Transmission • No recurrence of cases	• Confirmed cases in Fiji, Samoa, Australia and NZ • >100 people in quarantine /mandatory self-isolation • > 10 suspected cases, no local transmission • 1 confirmed imported case and local isolation, no local transmission
Phase 2: **Virus Detected - early response** Disease in the country but no local transmission	• 1 – 5 confirmed imported cases • No local transmission • No recurrence of cases	• > 100 suspected cases, no local transmission • > 5 confirmed imported cases • no local transmission
Phase 3: **Containment** Local transmission but limited to small clusters (localized transmission)	• > 5 confirmed new imported cases • < 3 confirmed local transmission • < 2 recurrence of cases	• > 5 confirmed imported cases • Local /community transmission

Phase 4: **Crisis /Pandemic** Increased and sustained transmission in the community	• >10 confirmed cases • > 3 local transmission • > 2 recurrences of cases	• No more suspected or confirmed cases • No recurrence of cases
Phase 5: **Stand down - Post Outbreak**	• No more suspected or confirmed cases • Pandemic Status in decline (or over) • No recurrence case	

Source: Tonga National Action Plan COVID-19 April 2020

In taking a staged approach to its COVID-19 response, the Ministry of Health recognises that the Kingdom of Tonga is one of the few countries in the world with no recorded cases of COVID-19, but we cannot be complacent. While all efforts will be made to maintain this situation the Ministry recognises that there is a significant risk that the COVID-19 will be imported into the country in the coming months and therefore the Ministry is hoping for the best but planning for the worst.



As currently, there are no effective medicines or vaccines available to treat or prevent COVID-19. For this reason, restrictive public health measures such as isolation, physical distancing, and quarantine have been used in a number of countries to reduce transmission of the virus. A recent review of the effectiveness of these approached indicated that:

- More comprehensive and early implementation of prevention and control measures may be more effective in containing the COVID-19 outbreak.
- Quarantine of people in close contact with confirmed cases may avert high proportions of infections and deaths compared to no measures.
- In general, the combination of quarantine with other prevention and control measures, such as school closures, travel restrictions, and physical distancing, had a greater effect on the

reduction of transmissions, cases which required critical care beds, and deaths compared with quarantine alone. [4]

14.1 Phase 1: Preparedness and Prevention

It has been reported that fragile health systems in developing countries are poorly funded and poorly equipped to deal with a coronavirus outbreak given the low staff morale, perennial drug shortages, antiquated and obsolete equipment. [5]

The previous section outlines the Ministry strategy for addressing the identified challenges in its COVID-19 preparedness and response planning. Those strategy outlined in the previous section will guide the Ministry in its preparation, planning and budgeting.

During this stage, 80% of the work is about planning and preparedness.

ACTIONS[6]

a) **Develop preparedness and response plans with and evaluation frameworks at the National and Ministry level. (P1)**

b) **Engage with local donors and existing programmes to secure mobilise/allocate resources. (P1)**

c) **Review regulatory requirements and legal basis of all potential public health measures. (P1)**

d) **Disseminate case definition and investigation protocols to all healthcare workers. (P3)**

e) **Develop and implement a Tonga' Points of Entry' response plan (P4), which covers protocols for**

1. Screening
2. Temporary closure of borders
3. Restricted entry, testing, quarantining
4. The phased reopening of borders

f) **Establish a relationship with international testing facilities for analysis of suspected cases while assessing and upgrading Vaiola Hospital laboratory facilities and equipment. (P5)**

g) **Establish community testing & case detection protocols. (P3)**

h) **Enhance the existing surveillance system of COVID 19 transmission. (P3)**

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[4] https://www.cochrane.org/news/how-effective-quarantine-alone-or-combination-other-public-health-measures-control-coronavirus

[5] https://www.undp.org/content/brussels/en/home/presscenter/pressreleases/covid-19--looming-crisis-in-developing-countries-threatens-to-de.html

[6] See annex 2 for monitoring and reporting template

i) Adapt tools and protocols for contact tracing and monitoring to COVID 19. (P3)

j) Prepare the Health Facilities to manage COVID19 patients. (P5 P7 and P8)

1. Review MOH protocols on; outbreak management, identifying and isolating COVID-19 cases, PPE for aerosol-generating procedures, infection prevention and control (IPC), contact
2. Review processes for infection risk assessment on admission or presentation number of isolation beds/rooms and explore cohorting possibilities for confirmed cases.
3. Establish COVID-19 triage first point of contact protocols.
4. Calculate maximal capacity required for patient admission and care based not only on the total number of beds required but also on the availability of human and essential resources and the adaptability of facility space for critical care.
5. Modify facilities to reflect the potential need to treat an influx of COVID 19 cases
6. Strengthen laboratory service to provide in-country testing for COVID19 including the renovation of the facility to facilitate PCR testing machine, identifying hazards and performing biosafety risk assessment, and updating and disseminate SOPs for collection, management, and transport of COVID‑19 diagnostic specimens
7. Identify resource gaps & develop a comprehensive procurement plan in line with appropriate Government[7] and donor guidelines.
8. Update service delivery operating procedures and guidelines to ensure safety during COVID 19 outbreak.
9. Verify the availability of vehicles and resources required for patient transportation.
10. Establish a contingency plan for the provision of food, water and living space for hospital personnel who are unable to travel home. (P8)
11. Establish and implement proper waste disposal and management processes (clinical and general) for suspected and confirmed cases at healthcare facilities/isolation areas (P6)
12. Develop a plan for handling and managing deceased cases that were confirmed COVID-19 positive. (P6)
13. Manage PPE supply (stockpile, distribution) to identify IPC surge capacity (numbers and competence) through a systematic process or plan (P8)

k) Provide training for COVID 19 Front line response team, general health workforce and support staff (as appropriate) Initially focusing on Tongatapu as travel restrictions are in place to prevent the spread of COVID 19 to the outer islands (p7)

1. Hand and respiratory hygiene

[7] See Annex 1

2. Who should use PPE: why, when and how
3. Data protection
4. Triage procedures for COVID 19 outbreak
5. Case definitions
6. Contact tracing
7. Notification of cases
8. Placement and movement of patients in isolation and visitors' access
9. Sick-leave policy and what to do if staff members show symptoms
10. Security plans
11. Communication plans.

L) Establish and implement risk communication and community engagement processes (P2)

2. Work collaboratively to develop and Implement national risk-communication and community engagement plan [8] and revise this plan according to the situation evolution
3. Ensure that all healthcare providers know key messages on risks and characteristics of COVID-19, the focus of testing and approaches to contact tracing and case management.
4. Proactively communicate and promote a two-way dialogue with communities, the public and other stakeholders in order to understand risk perceptions, behaviours and existing barriers, specific needs, knowledge gaps and provide the identified communities/groups with accurate information tailored to their circumstances.
5. Engage community networks to help disseminate important or urgent messages minimise disease transmission
6. Ensure there is a balance between providing general information about the disease trajectory while ensuring accuracy, privacy to individual patients and the minimisation of public fears.
7. Ensure that all people at risk of acquiring COVID-19 are identified, reached, and involved

M) Work with NHWASH – shelter cluster to identify and prepare appropriate quarantine facilities (P8)

1. Ensure facilities are fit for purpose
2. Ensure all none health care staff working in the facilities are adequately trained

[8] https://www.who.int/publications-detail/risk-communication-and-community-engagement-(rcce)-action-plan-guidance

3. Provide all people in quarantine with COVID 19 fact sheet

14.2 Phase 2: Virus detected - early response & Phase 3: Containment.

This phase of the Ministry's response will be activated when a person/s test positive for COVID 19.

The Director-General of the WHO has stressed that while social distancing is important in stopping the spread of COVID 19, however testing, contract tracing and isolation are also crucial components of any countries response [9]. These components along with treatment and care of people who have contracted COID 19 are the key component of Phase 2 and 3.

During phase 2 and 3, the Ministry's priority will be to

a) Ensure ongoing community engagement and communication.

b) Review and if necessary, modify the communication

c) Activate appropriate level of Tongan Government lockdown protocols

d) Maximise case detection (P3)

1. Actively identify all cases of infection and contain them to prevent broader outbreaks.
2. Carry out testing focused on individuals with symptoms compatible with COVID-19 , with a focus on international travellers presenting with illness within 14 days of travel.
3. Identify and manage contacts of the confirmed case
4. Health facilities will
    - Triage presenting patients across its services
    - Identify patients who are presenting for unrelated clinical problems which may be from high-risk area or close contacts of confirmed cases
    - Isolate and assess potential cases
    - Expand testing and provide results
    - Comply with notification requirements
    - Ensure referral procedures and pathways are followed
    - Support contact identification and management processes.

e) Minimise transmission (P3)

1. Ensure all front-line workers have appropriate PPE and that accommodation is provided to front line health workers who cannot return home due to risk of transmission.
2. Advocate for and support social distancing measures.

[9] https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19--13-april-2020

3. Engage in more direct community education.
4. Define and communicate quarantine protocols for
5. People deemed to be at risk (including front line staff)
6. Suspected cases
7. Confirmed cases
8. Ensure enhanced environmental cleaning occurs in all facilities and ensure that all cleaning staff provided with appropriate PPE.
9. Limited visitor access to all health facilities.

f) Manage cases to reduce the impact on individuals families and communities (P4)

1. Actively manage and treat all identified cases
2. Record, report, and investigate all cases of healthcare-associated infections

g) Monitor and manage demand for acute, critical care services for non-COVID 19 related cases

14.3 Phase 4: Outbreak /Pandemic

The scale and severity of COVID-19 may worsen, and while it is not inevitable, it's a possibility we must prepare for. If COVID-19 escalates in scale and severity, the priorities of the MOH must move to a different stage of response. In addition to the responses in the earlier stage, the imperatives during this outbreak phase are to:

a) Slow the spread of the disease increased through extensive testing and tracing and social distancing and lockdown measures.

b) Activate surge capacity plans and adopt sustainable models of care to manage impacts and protect the capacity of health care services (P7) Examples include

a. Move resources (staff and equipment) within hospitals to priority areas
b. Adapt hospital resources (rooms, protocols/guidelines, equipment) for use in priority areas, such as ICU
c. Cancelling elective surgeries to free up capacity in public hospitals
d. Appropriate management of workforce and essential supplies
e. Support and maintain quality health care for those most in need

c) **Manage triage and care to minimise morbidity and mortality (P8)**

d) **Ensure appropriate handling and management of the deceased (P8)**

e) **Ensure ongoing community engagement and communication with messages reflecting the phase for of the outbreaks and response**

14.4 Phase 5: Post outbreak stand down and recovery

a) **Ceasing COVID 19 response activities that are no longer needed (P7)**

b) **Undertaking monitoring and surveillance for a possible further outbreak (P3)**

c) **Transitioning the health system back to 'business as normal." (P7)**

d) **Undertaking an evaluation and revision of plans for the pandemic. (P1)**

e) **Organise debriefing for staff to assist with coping and recovery, provide access to mental health resources and improve work performance.**

15 WHO Preparedness and Response Pillars

In developing the specific measures included in this plan, we have been guided by WHO's COVID-19 Strategic Preparedness and Response Plan - Operational planning guidelines to support preparedness and response (2020) [14] which identified priority steps and actions to be included in country preparedness and response plans.[10]

	WHO Pillars	Responsible bodies and guiding protocols

[10] Cited Tonga National Action Plan COVID 19

1	Country-level coordination, planning, and monitoring • Tongan national public health emergency management mechanisms to be activated with engagement of relevant ministries, to provide coordinated management of COVID-19 preparedness and response.	Cabinet, Government of Tonga – National Emergency Management Committee, National Emergency Operations Committee National Emergency Recovery Committee
2	Risk communication and community engagement • It is critical to communicate to the public what is known about COVID-19, what is unknown, what is being done, and actions to be taken regularly. • Preparedness and response activities to be carried out in a participatory, community-based way to provide information, receive feedback to concerns, address rumours and misinformation. • Changes in preparedness and response interventions will be announced and explained ahead of time.	Health, Nutrition and Water, Sanitation and Hygiene (HNWASH) cluster
3	Surveillance, rapid-response teams and case investigation • The focus will be on rapid detection of imported cases, comprehensive and rapid contact tracing and case identification.	Health, Nutrition and Water, Sanitation and Hygiene (HNWASH) cluster
4	Points of entry • Focus will be on supporting surveillance and risk communication activities.	Ministry of Foreign Affairs Safety and Protection Cluster Health, Nutrition and Water, Sanitation and Hygiene (HNWASH) cluster
5	National laboratories • Focus will be on strengthening capacity to COVID-19 domestically	Health, Nutrition and Water, Sanitation and Hygiene (HNWASH) cluster
6	Infection prevention and control • Infection prevention and control measures will be reviewed to ensure healthcare workers and patients are protected from infection associated with COVD-19 and amplification use of healthcare facilities	Health, Nutrition and Water, Sanitation, and Hygiene (HNWASH) cluster
7	Case management • Prepare for large increases in the number of suspected cases • Training staff to ensure they are familiar with the suspected COVID-19 case definition and can deliver the appropriate care/response • Patients with, or at risk of, severe illness will be given priority	Ministry of Health - Health, Nutrition and Water, Sanitation and Hygiene (HNWASH) cluster
8	Operational support and logistics • Logistical arrangements to support incident management and operations should be reviewed. • Expedited procedures may be required in key areas (e.g surge staff deployments, procurement).	Ministry of Health - Health, Nutrition and Water, Sanitation and Hygiene (HNWASH) cluster

9	Maintaining essential health services and systems • Reorganize and safely maintain access to high-quality, essential health services in the pandemic context. • Monitors essential health services, and describes considerations on when to stop and restart services as COVID-19 transmission recedes and surges.	

16 Case Definition

The case definitions as of 14th March 2020 for COVID-19 provided by WHO are included below for ease of reference:

(a) A suspected case of COVID-19 shall be a person:

(i) with acute respiratory illness with fever and at least one sign or symptom of respiratory disease (e.g. cough, shortness of breath) AND with no other aetiology that fully explains the clinical presentation AND a history of travel to or residence in a country, area or territory reporting local transmission of COVID-19 disease during the 14 days prior to onset of symptoms;

(ii) With acute respiratory illness AND having been in contact with a confirmed or probable COVID-19 (see definition of contact) in the last 14 days prior to onset of symptoms; and/or

(iii) With severe acute respiratory infection with fever and at least one sign or symptom of respiratory disease (e.g. Cough, shortness of breath) AND requiring hospitalisation AND no other aetiology that fully explains the clinical presentation.

(b) A probable case of COVID-19 is a person who:

(i) Is a suspect case;
(ii) Whose blood samples had been sent for Covid-19 testing in a WHO endorsed laboratory; **AND**
(iii) The WHO endorsed laboratory has reported the tests as inconclusive.

(c) A confirmed case of COVID-19 is a person whose blood sample is confirmed by a WHO endorsed laboratory of COVID-19 infection, irrespective of clinical signs and symptoms.

(d) **A contact case is a person that is involved in the following**:

(i) Providing direct care without proper personal protective equipment (PPE) for suspect, probable, or confirmed COVID-19 patient(s);
(ii) Staying in the same close environment of a suspect, probable or confirmed COVID-19 case (including a workplace, classroom, household and any other gatherings); and
(iii) Traveling together in close proximity (1 meters) with a suspect, probable or confirmed COVID-19 case in any kind of conveyance within a 14-day period after the onset of symptoms in the case under consideration.

17 Governance Structure

Please refer to section 15 - Preparedness and Response Pillar number one (1) on “Country level coordination, Planning and Monitoring”.

18 Governing Principles

18.1 Whole of Society Approach

18.1.1 Community Engagement, Empowerment, Participation and Mobilization

The Ministry of Internal Affairs Community Development and Local Government is the holding authority for Community engagement, empowerment, participation and mobilization.

The Community Development and Local Government Division contribute to cross cutting national outcomes under the five pillars of the TSDF II 2015-2025. The significant national outcomes under the social institution pillar identify well alignment between the community development and local government division target outputs and the TSDF 2015-2020. These outputs aim to enable environment for community development, improve standard of living and quality of life especially within rural and remote areas of Tonga.

18.2 Whole of Government Approach

18.2.1 High level approaches

The On 30th January 2020, COVID-19 was declared by the Director General of the World Health Organization (WHO) as a Public Health Emergency of International Concern (PHEIC) under the International Health Regulations 2005. Due to the alarming levels of spread and severity of COVID-19 globally, WHO has declared COVID-19 as a global pandemic on the 11th March 2020.

On Friday 20th March 2020, the Prime Minister of Tonga Honourable Dr. Pohiva Tu‟i‟onetoa declared the COVID-19 State of Emergency in the Kingdom of Tonga.

On Wednesday 25th March 2020, His Majesty"s Cabinet approved the COVID-19 National Action Plan and to be followed by the Ministry of Health Sector Plan 2020.

On Thursday 26th March 2020, His Majesty King Tupou VI messages were delivered by Lord Lasike and Nobles of the Realm Lord Tuita and Lord Luani at the Parliament soft closing ceremony. The message from His Majesty King Tupou VI asserted that the Government prioritise health issue of concern for its citizen and emphasized that it is crucial for the people of Tonga to follow and comply with advisory from the World Health Organisation (WHO) and Ministry of Health.

18.2.2 National Emergency Management

The National Emergency Management Council (NEMC) is the holding authority for all emergency issues in the country. This council is chaired by the Minister of Meteorology, Energy, Information, Disaster, Environment, Climate Change and consists of high level representatives from the Cabinet, concerned Ministries Minister of Health; Finance; Agriculture, Forestry, Fisheries and Food; Infrastructure; Lands, Survey, Natural Resources and Environment; Education) and includes the Commander of Police and Commander of the Tongan Defence Services and Chief Secretary and Secretary for Cabinet. The Director of the National Emergency Management Office (NEMO) serves as the Secretary and the national focal point for emergency/ disaster management.

Briefly, the functions of the NEMC are to formulate policy decisions of national significance and to coordinate the development and implementation of emergency management, to ensure arrangements with other nations and organizations are in place to provide support during major emergencies. In addition, it provides guidance and support to the District Emergency Management Committees and coordinates effective emergency management and response in communities and 8 Clusters before, during and after the impact of an event.

The NEMC is acting accordingly whenever an emergency occurs such as COVID-19 a tragedy that currently affecting the world. Although there is no confirmed case in Tonga as of today but the Government and the relevant stakeholders are hands together in formulating the Plan to contain the point of entry of COVID-19 such as borders (air & sea).

18.2.3 Inter-agency coordination or Clusters

The cluster system was adopted by the Government of Tonga as their way of coordinating the emergency responses. There are 8 clusters activated and manage by the National Emergency Management Committee. All coordination activities are led by a government ministry and co-led by a humanitarian agency. Several joint sectorial meetings were being held; bringing together the clusters in Health & WASH, Shelter, Food Security, Essential Services, Safety & Protection, Economic & Social Recovery, Education and Coordination & Logistics. These clusters have their own implementation plan to contain COVID-19 and this is based on the National Implementation Plan for COVID-19. These clusters are assisting the Ministry of Health with all the preparedness, response and recovery processes to contain COVID-19 from affecting the people of Tonga.

18.2.4 Initiatives that are embedded in the Tongan Cultural Context

The overall vision of the TSDF II 2015-2025 captures the Kingdom of Tonga"s Motto, Culture and Results Framework. The framework is embedded within the foundations of our National Motto "God and Tonga are My Inheritance" and understanding of our culture.

Our Motto was established by King Tupou 1, who entrusted the people of Tonga and our land to the protection of God for all time to bless, guide us and bring to fruition the vision and development

initiatives for Tonga. Our Motto provides an overarching framework for the long-term development direction for Tonga. Our Culture is influenced by competing systems, some supporting progress which provides the foundation upon which the results framework is set. Tonga is our inheritance and our wealth in the form of our people, our land, and our strong Christian and traditional values that underpin our culture.

Effective and ongoing partnership at all levels supports our national framework TSDF II 2015-2025 including enriching our culture.

Strengthened Health System processes, networks and mechanisms for effective and efficient containment of COVID-19

19 Coordinating Mechanism

For the coordinating mechanisms, the Epidemic / Pandemic Taskforce is the coordinating body for the Ministry of Health when a Pandemic or Epidemic reaches the Pacific or Tonga. The Epidemic Taskforce comprises of both the Clinical and Public Health Division, of which the Medical Superintendent and the Chief Medical Officer of Public Health chair intermittently. The members comprise of the Head of Sections of the Public Health Division as outlined below and some of the relevant Head of Sections at the Clinical Division.

19.1 Approval Process for COVID-19 requests

The process outlined below is to ensure financial management and cost controls are in place to allow adequate coordination and alignment of COVID-19 activities. Due to the fact that there is abundance of donor assistance in addition to government contributions, it is essential that processes be mainstreamed to reduce duplication and misuse of financial assistance

Figure 1: Approval Process of the COVID-19 requests

20 References

Tonga Strategic Development Framework 2015 – 2025

Ministry of Health Corporate Plan

World Health Organization (2020): Investing in Sustainable Capacities for Health Security Preparedness in the Context of COVID-19, 22nd

Annexes

21 Annex:

21.1 Annex A: Stage 1 Preparedness Checklist

	Not actioned		Proceeding as planned		Minor delays		Significant issues/risks		Preparation completed

ACTIONS	Responsible	Status	Comment /Progress
a) Develop preparedness and response implementation plans with and evaluation frameworks at National and Ministry level. (P1)			•National Taskforce joint with NEMC set up with strong oversight provided by PM and Cabinet •NAP with stimulus package approved.
b) Engage with local and international partners to secure mobilise/allocate resources. (P1 & P8)			$60 million to fund the National Action Plan and Stimulus Package has been identified by MoF in collaboration with Development Partners such as WB, ADB, DFAT, MFAT, PRC and others. WB USD$2.9 million dollars assistance is now available for procurement of priority essential medical equipment to strengthen preparedness and response to Covid 19. Governments of Japan and India have indicated their plan to provide support in near future to strengthen Covid19 preparedness and response capabilities of MOH and relevant stakeholders. The activation of the Cluster Systems under NEMC direction has been effective in providing essential logistical supports needed. Collaboration with development partners and foreign countries have been strengthened through effective guidance by Ministry of Foreign Affairs and PM"s Office.
c) Review regulatory requirements and legal basis of all potential public health measures. (P1)			
d) Disseminate case definition and investigation protocols to all healthcare workers. (P3)			

ACTIONS	Responsible	Status	Comment /Progress
e) Develop and implement a Tonga' Points of Entry' response plan (P4), which covers protocols for 1. Travel Advisories prepared and updated 2. Screening 3. Temporary closure of boarders 4. Restricted entry, testing, quarantining 5. Phased reopening of borders			• Health customs declaration form has been used since 27th of January 2020. • Travel advisories have been issued on a regular basis to restrict traveling into Tonga. • Diversion Orders have been issued to divert cruise ships, flights etc. • Taskforce committees have been set up at both marine and airport to oversee procedures to monitor incoming cargo flights and ships since restriction in incoming passengers have been declared. Surveillance activities such as laboratory testing of high risk staff will include routine testing of all staff that will work at port of entry, when the border opens up again.
f) Establish a relationship with international testing facilities for analysis of suspected cases while assessing and upgrading Vaiola Hospital laboratory facilities and equipment. (P5)			
g) Establish community testing & case detection protocols. (P3)			
h) Enhance the existing surveillance system of COVID 19 transmission. (P3)			
i) Adapt tools and protocols for contact tracing and monitoring to COVID 19. (P3)			
j) Prepare the Health Facilities to manage COVID19 patients. (P5 P7 and P8)			
1. Review MOH protocols on; outbreak management, identifying and isolating patients, aerosol-generating procedures, PPE, contact tracking			

ACTIONS	Responsible	Status	Comment /Progress
2. Review processes for infection risk assessment on admission or presentation, number of isolation beds/rooms and explore cohorting possibilities.			
3. Establish COVID19 triage first point of contact protocols.			
4. Calculate maximal capacity required for patient admission and care based not only on the total number of beds required but also on the availability of human and essential resources and the adaptability of facility space for critical care.			30 beds have arrived through donation from a Tongan family in NZ. 70 more beds are on their way. COVID 19 staff teams identified Hazard allowance to support front-liners developed by PSC and approved by Cabinet.
5. **Modify facilities** (CHC & Hospital) to reflect the potential need to treat an influx of COVID 19 cases			Development of the Mu"a Health centre in collaboration with HMAF and MOH"s clinical team were also part of this team"s responsibilities. Work on building refurbishment has been completed. There are remaining work to purchase and install oxygen generator and fume extraction cabinets with HEPA filter, to be completed through collaboration between MOH and MoF. After that, Mu"a Health Centre will be ready to treat a case of Covid 19.
6. Strengthen **laboratory service** to provide in-country testing for COVID19			Purchases of 2 PCR analysers and reagents have been done. Refurbishment and extension of existing laboratory facility at Vaiola Hospital to host this new service in Tonga will be completed soon. This will include installation of equipment that are required to upgrade the laboratory from its level one status to a level two status – a requirement to host PCR technology in Tonga. This work should be completed in next two weeks. Negotiation with WHO and SPC for the purchase of GeneXpert machine and reagents, funded by DFAT has been successful and completed. A new GeneXpert machine arrived in Tonga last week and will be installed together with the 2 PCR analysers at the newly refurbished lab room in next week or two. More PCR test reagents will be purchased (procured) to strengthen capacity of laboratory to be able to test every incoming passenger that comes to Tonga when our border opens again in future.
7. Identify resource gaps & develop a **comprehensive procurement** plan in line with appropriate Government and donor guidelines.			Procurement plan developed see annex 3
8. Procure **essential medical equipment and supplies** in a timely manner			• Portable Xray machines have been purchased and have been shipped to Tonga already.

ACTIONS	Responsible	Status	Comment /Progress
			• 30 beds have arrived through donation from a Tongan family in NZ. 70 more beds are on their way. • As noted above, PPEs and Laboratory equipment have been purchased and have arrived in Tonga already. • Autoclaves, Ventilators and anesthetic equipment are in the processes of being purchased and are almost ready to be shipped over. A lot of these procurement have been boosted by availability of USD$2.9 million donation from WB.
9. Update service delivery **operating procedures** and guidelines to ensure safety during COVID 19 outbreak.			
10. Verify the availability of **vehicles and resources** required for patient transportation.			
11. Establish a contingency plan for the **provision of food, water and living space for hospital personnel** who are unable to travel home. (P8)			
12. Establish and implement appropriate **waste disposal and management processes (clinical and general)** for suspected and confirmed cases at healthcare facilities/isolation areas (P6)			Clinical waste truck has been ordered as well as vehicles to help logistical support
13.Develop a plan for handling and managing deceased cases that were confirmed COVID-19 positive, and **modify morgue facilities** as required(P6)			
14.**Manage PPE supply** (stockpile, distribution) to identify IPC surge capacity (numbers and competence) through a systematic process or plan (P6 & P8)			• Purchasing of PPEs have been the focus of this pillar. So far, PPEs purchased by Government from Livingstone in Australia has arrived in Tonga. First part of donation from PRC have also arrived in Tonga too. • There have been PPEs donated by WHO and more are on the way. • Second part of PPEs donated by PRC will also arrive in Tonga in next few weeks. • Shipments of hand sanitizers have also been purchased and

ACTIONS	Responsible	Status	Comment /Progress
			some have arrived and some are still on their way. Including some donated by various partners and donors. However, there are gowns and overalls which are in short supply globally that still need to be purchased to increase capacity in this area. This is a priority item to be procured by our procurement team.
k) **Provide training for COVID 19 Front line response team, general health workforce and support staff (as appropriate) Initially focusing on Tongatapu** and then moving to outer island staff - as travel restrictions are in place to prevent spread of COVID 19 to the outer islands (p7) 1. Hand and respiratory hygiene 2. Who should use PPE: why, when, and how 3. Data protection 4. Triage procedures for COVID 19 outbreak 5. Case definitions 6. Contact tracing 7. Notification of cases 8. Placement and movement of patients in isolation and visitors' access 9. Sick-leave policy and what to do if staff members show symptoms 10. Security plans 11. Communication plans.			• First responders such as TRCS and NEMO Emergency Community based communities have been very helpful in disseminating information in this area. • MOH staff trained

ACTIONS	Responsible	Status	Comment /Progress
l) Establish and implement risk communication and community engagement processes (P2) 1. Work collaboratively to develop and Implement national risk-communication and community engagement plan and revise this plan according the situation evolution 2. Ensure that all healthcare providers know key messages on risks and characteristics of COVID-19, the focus of testing and approaches to contact tracing and case management. 3. Proactively communicate and promote a two-way dialogue with communities, the public and other stakeholders in order to understand risk perceptions, behaviours and existing barriers, specific needs, knowledge gaps and provide the identified communities/groups with accurate information tailored to their circumstances. 4. Engage community networks to help disseminate important or urgent messages minimise disease transmission 5. Ensure there is a balance between providing general information about the disease trajectory while ensuring accuracy, privacy to individual patients and the minimisation of public fears. 6. Ensure that all people at-risk of acquiring COVID-19 are identified, reached, and involved			Recruitment of a media person to assist with PR for Minister and to work with our media unit to provide more accurate and timely information for the public. • Regular press conferences with media with leadership provided by PM, Ministers and MOH senior leadership team themselves. • MOH media section has been strengthened with recruitment of a media person to assist with PR for Minister and to work with our media unit to provide more accurate and timely information for the public. Goal is to mitigate adverse impacts on public perception, from the proliferation of inaccurate information, in the social media. •
M)Work with NHWAH – shelter cluster to identify and prepare appropriate quarantine facilities (P8)			Establishment of the Taliai Camp at HMAF centre at airport was part of this team"s responsibility to facilitate quarantining process.

21.2 Annex B: Procurement Implementation Arrangements

Procurement Legislation and Policies

The current procurement legislative framework in the Kingdom of Tonga contains key provisions that define a good procurement system. All public procurement is regulated by the Public Procurement Regulations promulgated in 2010 and revised in 2015.

- All procurements above TOP $20,000 are coordinated by the Central Procurement Unit (CPU) in the Ministry of Finance.
- Procurements below TOP $20,000 are controlled by the heads of the contracting entities. A minimum of two quotes are required for all goods/services/works between TOP $12,000 and TOP $ 19,999 while for goods/services/works below TOP $12,00 discretionary shopping with an invoice or receipt is permitted.

Procurements under the COVID-19 preparedness will follow procurement procedures as stipulated in Procurement Guidelines for the Kingdom of Tonga.

Procurement Planning

Public Procurement Regulations 2015, the Ministry may plan procurement to:

- achieve maximum value for public expenditure.
- to submit an annual procurement plan at the beginning of the financial year to the Ministry of Finance.
- Consider aggregation of procurements into one procurement proceeding in order to benefit from economies of scale.

Special approval must be obtained for any procurement proceeding that was not in the approved annual procurement plan before implementation.

For purposes of achieving efficiency, effectiveness, and value for money in the procurement of COVID-19 related procurements, must update their existing procurement of develop a specific procurement plan for this purpose.

Procurement Methods

Public Procurement Regulations in the Kingdom recognise open competitive tendering as the default method of procurement. However, other methods of procurement are allowed as long as conditions for their use, have been met. These include the following methods:

1. Competitive bidding methods, both local and international competitive bidding
2. Two-stage Competitive Bidding Method
3. Selective Bidding Method

4. Restricted Bidding Method
5. Limited Bidding Method; and
6. Request for Quotation Method

Due to the COVID-19 pandemic, there is high demand for COVID-19 related procurements and, therefore, scarcity of supplies on the market. This situation has been worsened by international travel bans and lockdown measures imposed in many countries resulting into shutdown of manufacturing companies. Most suppliers and manufacturers may have taken advantage of the situation to inflate their prices, although some of the increased cost could be on account of increased demand in the face of a narrow supply base and increased transportation costs due to travel bans. Granted the ur gency for procurements required under COVID-19 preparedness, there shall be need to review allowable procurement methods so as to ensure timeliness with procurement processes. Less competitive methods may have to be considered and used more often to quickly source the required procurements.

Structures and Authorities

The Procurement Regulations, 2015 has sufficient safeguards to ensure transparency, accountability, checks and balances and value for money in procurement. This is realised through such structures as the Government Procurement Committee (GPC), Procurement Units (PU) in each contracting entity, adhoc evaluation committees, Procurement Division, and the Central Procurement Unit (CPU) in the Ministry of Finance.

PROCUREMENT STRUCTURE	AUTHORITIES
Government Procurement Committee	Formulates and proposes policy, legislative and regulatory actions, revisions, or amendments to existing legislation for the better implementation of public procurement in the Kingdom Reviews the bidding process and issue a “Letter of No-objection” to the contracting entity for procurements in excess of TOP $ 100,000
Procurement Units	Responsible for the day to day procurement activities if each contracting entity
Adhoc Evaluation Committees	Responsible for the evaluation of tenders received in the case of all procurements above top $20,000. These members with skills, knowledge, and experience relevant to the procurement requirement
Procurement Division	Provides secretariat services administrative support to the Government Procurement Committee
Central Procurement Unit	Carries out the procurement on behalf of all contracting entities where the estimated value of the proposed procurement contract exceeds $ 20,000; Carries out centrally, the procurement of common use items for the benefit of all contracting entities

Controlling Officers/ CEOs of Ministries	Authority on all procurements below TOP $20,000
Requestioning/Technical/end user departments	• Identifies the need, Prepares Internal Purchase Requisition filled with clear: ➢ Specifications ➢ Terms of Reference ➢ Bill of Quantities or Schedule of Works • Evaluation of Bids • Respond to bidder clarifications • Contract Management ➢ Delivery ➢ Inspection ➢ Acceptance • Performance Rating

MOH Procurement Structure and Capacity Requirements.

MOH Headquarters has a procurement unit comprising nine (9) officers as per table below:

POSITION	**APPROVED ESTABLISHMENT**
Deputy Director	1
Procurement Officers	3
Brokers	3
Daily Paid procurement Assistants	2
TOTAL	**9**

A staff complement of nine (9) procurement officers is sufficient enough to manage the procurement function in the Ministry of Health including additional COVID-19 related procurements. The procurement unit will need to interface more often with the technical departments (requisitioning units) in order to ensure smooth implementation of COVID-19 procurement activities. Technical departments shall be responsible for provision of technical specifications, participate in the evaluation process, attend to queries from bidders during the bidding process and contract management while leaving all procurement matters in the hands of members of the procurement unit.

The Deputy Director Procurement shall be responsible for the implementation of all COVID-19 procurement activities while the Director Corporate Services shall be responsible for proper coordination of all COVID-19 procurement activities.

Data Requirements for Procurement

A lot of resources from both government and donors have been released to support COVID-19 preparedness and response. The majority of these resources will be spent through procurement process. It is therefore a must that the Procurement Unit puts in place a good Procurement management system that ensures accurate and timely information on all procurement activities system for transparency and proper decision making. Such data shall be filled appropriate for ease of reference both electronically and manually.

Transparency and Integrity

The Procurement Regulations have a provision to debrief bidders, which allows contracting entity, upon request, to communicate promptly to a bidder the reason for the rejection of its application to pre-qualify, or of its bid. The Regulations also provide for the prompt publication a notice of all procurement contract awards on the website of the Ministry of Finance and National Planning/Procurement Division by the Central Procurement Unit.

Right for Review

The procurement guidelines allow a potential or actual bidder, who claims to have suffered, or that is likely to suffer, loss or injury due to a breach of a duty imposed on a contracting entity by PUBLIC Procurement Regulations, to seek review at any stage of the procurement proceedings. COVID-19 procurement will not be exempt from such right for review.

Activities to be Implemented

Items to be procured under the COVID-19 preparedness action plan are included in master list developed by the Ministry of Health, which is in line with Tonga"s strategic preparedness and response plan (MOH, 2020

21.3 Annex C: COVID-19 BUDGET Costing by Pillars

Notes:

- *Estimated budget provided here is subject to changes since this document is a live document.*
- *Estimated budget allocated in Annex D onwards are operational budget only and does not reflect the overall preparedness and response plan.*

Table 1: Estimated Budget Overview

	Values		
Source of Funds	**Sum of USD**	**Sum of TOP**	**Comments**
ADB	424,562	1,028,119	PPE 99% used
Japan	1,069,082	2,400,391	Inkind equipment US$1.5 million
NEF	1,874,744	4,171,415	Committed or on orders or delivered
TBC	6,427,923	15,082,579	
WB	2,568,993	5,456,441	Procurement in progress
(blank)			Inkind - to add $ values
China Inkind			Inkind - to add $ values
Who Inkind			Inkind equipment only here but total support approx US$1 million
India	62,924	132,730	
Recurrent 20/21	3,478,685	8,416,203	Draft Costing per Public Health oprational plan which include activities such as renovation of QSSN&AH and new National Store warehouse.
China	27,863		

		62,925	
DFAT	735,028	1,636,224	
MFAT	789,614	1,742,416	
WHO	5,798	14,040	
Grand Total	**17,465,214**	**40,143,482**	
Note:			
Funds Received			
$ 25,060,903.59	Tables		
$ 22,020,698.00	MOF		
$ (3,040,205.59)	Variance (Exchange rate used)		
$ (18,122,784.17)	Financial Gap TBC (taking into account the MOF $22,020,698 fund received)		

Table 2: Total Estimated Budget According to WHO Pillars

	Values	
WHO Pillars	**Sum of USD**	**Sum of TOP**
Case Management	7,631,546	17,311,117
IPC	5,131,441	11,769,325
National laboratory system		

	851,692	1,910,275
(blank)		
POINT OF ENTRY	1,126,998	2,721,514
OPERATIONAL SUPPORT AND LOGISTICS	2,572,244	6,064,881
Country Level Cordination, Planning and Monitoring	61,666	149,330
RISK COMMUNICATION AND COMMUNITY ENGAGEMENT	64,156	155,360
SURVEILLANCE, RAPID RESPONSE TEAMS, AND CASE INVESTIGATION	25,471	61,680
Grand Total	**17,465,214**	**40,143,482**

Table 3: Total Estimated Budget in detail

Source of Funds	WHO Pillars	Equipment Name	Qtd	Sum of USD	Sum of TOP
NEF	Case Management	Ventilators and care workstations	4,3	322,401	709,077
		Anesthetic Machine	3	299,995	632,801
		Ventilator	5	184,136	404,982
		Medical Gas & Vacuum System	1	79,154	173,186
		Install partition and extra doors and windows	1	27,317	66,150
		Installing wash basic and extra toilets	1	20,648	50,000
	Case Management Total			933,651	2,036,196
	IPC	Steam Sterilizer - CSSD	2		

				108,192	237,953
		PPEs	various	23,269	56,348
		VTM swabs	(blank)	11,112	24,438
		Incinerator Spare parts,	(blank)	7,901	17,288
	IPC Total			150,473	336,026
	National laboratory system	Influenza swabs	15000	123,885	300,000
		Extraction kits	10000	87,723	192,935
		PCR analyser	2	87,723	192,935
		CFX96 ex test kits and extraction kits	4000	81,330	178,873
		Test kids	10000	65,000	137,109
		Construct PCR room	1	61,943	150,000
		Biochemistry Analyser	1	60,236	132,482
		Haematology Analyser	1	32,165	70,743
		Genexpert COVID-19 cartridges	1200	23,840	50,287
		Consumables	10000	20,648	50,000
		Genesig Real Time PCR reagents and extraction kits	2000	14,249	32,677
		VTM swabs	5000	12,389	30,000
		Lab supplies and reagents - IATA boxes, tubes	(blank)	8,772	19,293
		Lab supplies and reagents - biochemistry	(blank)	8,187	18,007
		Centrifuge-serum	1	7,310	

					16,078
		Electrolyte Analyser	3	5,848	12,862
		Micro Pipettes & tips	8	4,306	9,421
		PCR Workstation	1	2,684	6,500
		Multichannel Pipette	2	1,404	3,087
		Benchtop Autoclave	1	866	1,904
		Ultrasound machine	2		
		Portable x-ray	2		
	National laboratory system Total			710,507	1,605,193
	OPERATIONAL SUPPORT AND LOGISTICS	Shuttle	2	69,376	168,000
		SUV	1	10,737	26,000
	OPERATIONAL SUPPORT AND LOGISTICS Total			80,112	194,000
NEF Total				1,874,744	4,171,415
TBC	Case Management	Renovation of old Nursing Home	1	1,032,375	2,500,000
		Essential Medicine	(blank)	619,425	1,500,000
		Medical Air Complete System	1	79,375	167,431
		Defibrillation	10	62,763	132,389
		medical air cooler	2	50,000	105,469
		ECG machine	10	43,463	91,679

		Medical Gas & Vacuum System	1	43,002	99,821
		Ultrasonic Cleaner	5	37,500	79,101
		Nebulizer	50	35,000	73,828
		medical air filtration	1	30,000	63,281
		High speed handpiece	25	25,000	52,734
		Renovate staff quarters	1	12,389	30,000
		Table Top Autoclave	5	10,500	22,148
		Portable Suction	5	6,000	12,656
		Automatic Handpiece Maintenancy System	5	5,750	12,129
		Handpiece Service Oil	64	2,246	4,939
		Disinfection solution for Suction Cleaner per bottle	50	2,047	4,502
		Slow speed handpiece	25	1,575	3,322
		Disinfection solution for surface per bottle	50	585	1,286
		Water distilled machine	5	400	844
	Case Management Total			2,099,393	4,957,560
	IPC	PPEs	(blank)	1,230,260	2,691,760
		Hygiene kits	5000	206,475	500,000
		Theatre PPEs	3	60,000	126,562
		Steam Sterilizer - CSSD	2	55,230	121,472
	IPC Total				

				1,551,965	3,439,794
	National laboratory system	extra 10,000 tests and reagents for PCR	10000	100,000	210,937
		Centrifuge-Grouping	1	2,924	6,431
		Refreshments	30	496	1,200
			90	1,487	3,600
		Scientific Balance	3	1,754	3,859
		Per diem	5	1,404	3,400
		Stationary	30	372	900
			35	434	1,050
		Venue	3	619	1,500
		Travel	5	619	1,500
		Lab supplies and reagents	(blank)	-	-
	National laboratory system Total			110,109	234,377
	POINT OF ENTRY	Renovation of old Nursing Home	1	1,032,375	2,500,000
	POINT OF ENTRY Total			1,032,375	2,500,000
	OPERATIONAL SUPPORT AND LOGISTICS	Project cost - pharmacy storage area	1	702,015	1,700,000
		Boats	3	214,734	520,000
		Staff Accommodation while in Covid-19 Patient Care	3	198,216	480,000
		4x4 Hilux	2	71,853	174,000

		Staff overtime	3	61,943	150,000
		Renovation of Staff Quarters at Mu'a	3	61,943	150,000
		Renovation Hospital Kitchen Vaiola	1	61,943	150,000
		Ration for staff while in 'quarantine'	3	56,987	138,000
		Transportation & Fuel Outer Islands	3	43,360	105,000
		Contingency	1	41,295	100,000
		Revovation of the morgue	1	33,036	80,000
		Ration for people in Quarantine and Isolation	3	28,494	69,000
		Hospital Beds	40	20,000	42,187
		Rations [Food Voucher]	900	14,866	36,000
		Salary [Senior Procurement Officer]	1	11,100	26,880
		Staff Accommodation	12	8,920	21,600
		Desktop	2	3,304	8,000
		Desk	1	41	100
		Chair	2	33	80
		retired medical officers	(blank)	-	-
		Senior Health Promotion Officer	1	-	-
		Health Promotion Officer Grade 2	1	-	-
		4 private nurses	4	-	-
		retired nurses	(blank)	-	-
	OPERATIONAL SUPPORT AND LOGISTICS Total			1,634,081	3,950,847

TBC Total				6,427,923	15,082,579
WB	Case Management	Ventilators	5	314,000	662,342
		Vital sign monitor	50	152,475	321,626
		Drug trolley	10	150,000	316,406
		Patient Emergency Transfer bed	20	146,237	308,468
		ICU Monitors	10	119,888	263,677
		Patient Warmer	20	113,200	238,781
		Infusion pump	50	100,000	210,937
		Transport Ventilator	2	90,125	190,107
		cential venous different size	2000	72,585	158,814
		operating tables	3	67,332	142,028
		Defibrillation	10	60,750	128,144
		Operating light fixed	5	52,388	110,505
		Portable Ultrasound	1	50,688	111,481
		Bedpan Washer/Sanitizer	5	49,210	107,670
		Medical fridge	20	43,496	95,663
		ECG machine	10	43,463	91,679
		Peadiatric Monitors with Centralize system	10	40,210	84,818
		Isolation Monitors with Centralize system	10	40,210	84,818
		syringe pump	50		

				39,760	83,869
		Respiratory Humidifier	20	37,828	79,793
		Medical air regulator	100	37,090	78,237
		Oxygen cyclinder pin index	100	37,090	78,237
		Oxygen cylinder (L size)	100	37,090	78,237
		Oxygen concentrator, mobile	20	34,925	73,670
		Patient trolley	20	34,125	71,982
		XJ-2 Negative Pressure Upflow (220/240V, 50/60Hz/1)	6	30,816	65,002
		Rapid IV infusion bags	20 pcs	30,500	64,336
		Blood Warmer	20	30,100	63,492
		Resusitator Kit	84	25,285	53,335
		aterial line catheterization	2000	23,990	52,489
		Operating light (LED)	20	23,275	49,096
		Blood pressure cuffs for vital sign monitor	800	21,000	44,297
		Blood gas analyser	5	20,000	42,187
		Portable suction units	20	20,000	42,187
		Video laryngoscope with plates 2, 3 4, 5	5	17,675	37,283
		ICU and Theature Centralized Monitoring system	1	16,375	36,014
		Obstetric table (labor)	5	15,325	32,326
		Spinal needle	1000	13,779	30,148

		Anesthetic Vaporizer	6	13,158	28,940
		Water Pump System	2	12,630	26,641
		Block needle	1000	11,564	25,303
		Endro traqio tubes size 3.5, 4, 4, 4.5, 5, 5,5, 6, 6.5, 7, 7.5, 8	200/size	10,350	21,832
		IV stand	100	10,000	21,094
		Portable Pulse oximeter	20	10,000	21,094
		closed system suction	1000	9,535	20,861
		Ultrasonic Cleaner	1	7,500	15,820
		Sterilizers spare parts curent system.	4	7,000	14,766
		Oxygen Flow meter	100	7,000	14,766
		Luryngeal mask size 2.5, 3, 3.5, 4.5	200/size	6,367	13,930
		IR Thermometer Gun	50	6,000	12,656
		Nebulizer mask	1000	5,000	10,547
		Oxygen Gas Regulator with humidifier	100	5,000	10,547
		High speed handpiece	5	5,000	10,547
		Medical air cylinder	100	5,000	10,547
		ECG simulator	1	4,020	8,480
		Nasal prong	10000	4,000	8,437
		Oxygen mask	1000	4,000	8,437
		Nebulizer cup	1000	4,000	

					8,437
		Sluice sink	1	3,450	7,589
		Medical air flow meter pullnose	20	3,300	6,961
		Electrical Safety analyser	1	3,260	7,133
		Rebreather mask	1000	3,000	6,328
		Stethoscope	100	2,485	5,466
		Table Top Autoclave	1	2,100	4,430
		Security Cover, for speed controller	6	1,380	2,911
		Portable Suction	1	1,200	2,531
		Automatic Handpiece Maintenancy System	1	1,150	2,426
		ECG dot	2000 pcs	1,000	2,109
		Plenum recirculating XJ-2	6	804	1,696
		Wall mount kit, XJ-2	6	792	1,671
		Disinfection solution for Suction Cleaner per bottle	10	409	900
		Slow speed handpiece	5	315	664
		Handpiece Service Oil	8	281	617
		Disinfection solution for surface per bottle	10	117	257
		Water distilled machine	1	80	169
	Case Management Total			2,424,533	5,151,722
	IPC	Medium size steam steraliser	10	47,875	100,986

	IPC Total			47,875	100,986
	OPERATIONAL SUPPORT AND LOGISTICS	Electrical Generator (KVA 100, Mu'a, Ha'apai)	2	48,293	101,867
		Electrical Generator (KVA 100, 'Eua, Vava'u,)	2	48,293	101,867
	OPERATIONAL SUPPORT AND LOGISTICS Total			96,585	203,734
WB Total				2,568,993	5,456,441
ADB	IPC	PPEs	(blank)	424,562	1,028,119
	IPC Total			424,562	1,028,119
ADB Total				424,562	1,028,119
Japan	Case Management	Ultrasound Scanner	2	135,150	303,450
		Incubator	5	90,100	202,300
		AED Defibrillator	20	88,118	197,849
		Negative Pressure Booth	6	54,060	121,380
		Emergency Card	30	54,060	121,380
		Bloodpressure Monitors	300	19,597	44,000
		Suction Unit	50	8,109	18,207
	Case Management Total			449,194	1,008,567
	POINT OF ENTRY	Thermography - IR camera	3	43,248	97,104
	POINT OF ENTRY Total			43,248	97,104

	OPERATIONAL SUPPORT AND LOGISTICS	Hospital Tent	10	540,600	1,213,800
		UPS	1	36,040	80,920
	OPERATIONAL SUPPORT AND LOGISTICS Total			576,640	1,294,720
Japan Total				1,069,082	2,400,391
China Inkind	Case Management	IR Thermometer Gun	100		
	Case Management Total				
China Inkind Total					
Who Inkind	Case Management	IR Thermometer Gun	2		
	Case Management Total				
Who Inkind Total					
India	Case Management	Transport Ventilator	1	29,700	62,648
		Autoclave (50l) + Equipment	1	14,109	29,761
		ECG machine	3	10,935	23,066
		Portable oxygen concentrator	1	1,418	2,991
		Pulse Oximeter	15	1,345	2,837
		Laryngoscope	5	1,169	2,466
		Oxygen tube, extension with mask	100	945	

					1,993
		Resuscitator, adult	5	931	1,964
		Airway, Guedel, sterile, single use (range of sizes)	20	563	1,188
		Flow splitter	3	555	1,171
		Thermometers	20	506	1,067
		Set of wooden steel depressors (disposable)	100	303	639
		Disposable canula	100	152	321
		Non-rebreather mask	100	146	308
		Oxygen prongs, nasal, non- sterile, single use	100	95	200
		Infusion giving set	100	30	63
		Endotracheal tube, with cuff	10	22	46
		Portable Xray	1	-	-
	Case Management Total			62,924	132,730
India Total				62,924	132,730
Recurrent 20/21	Case Management	Establish Quarantine Facilities for Healthcare Workers and Support Staff exposed to COVID-19 suspected and confirmed cases	1	644,087	1,559,722
			280	11,563	28,000
		Establish Quarantine Facilities for Asymptomatic travellers for 14 days quarantine	1	133,780	323,962
			1400	115,626	280,000
		Establish Mu'a Health Center as an Isolation Facility with adequate supplies	1	82,590	200,000

			360	115,626	280,000
		Establish Quarantine Facilities for Vulnerable Groups for 14 days quarantine	1	87,422	211,702
			700	28,907	70,000
		Dignity Kits	2000	82,590	200,000
		Set up COVID -19 triage Station at all Health Centers (Tongatapu) 6 Health Centers	12	53,023	128,400
			(blank)	-	-
		Mobile clinic vehicle	2	33,036	80,000
		Couch	1	826	2,000
			2	1,652	4,000
			14	23,125	56,000
		Portaloo	12	24,777	60,000
		Stainless Sink	5	2,065	5,000
			35	14,453	35,000
		TV	1	2,065	5,000
			7	14,453	35,000
		Washing Machine	1	1,313	3,180
			6	3,940	9,540
			7	9,192	22,260
		Washing powder	1	27	66
			20	543	1,316

			140	7,608	18,424
		Paper-towels (20 rolls/month)	50	206	500
			1000	4,130	10,000
			200	1,652	4,000
			500	2,065	5,000
		Games	20	1,652	4,000
			50	2,065	5,000
			100	4,130	10,000
		Linen Set	40	1,652	4,000
			100	2,065	5,000
			200	4,130	10,000
		Bible / Books	20	413	1,000
			40	826	2,000
			100	2,065	5,000
			200	4,130	10,000
		Pillow	40	3,038	7,356
			100	826	2,000
			200	2,707	6,556
		Rubbish bags	600	6,392	15,480
		Mattress	20	1,784	4,320

			50	4,130	10,000
			100	132	320
		Signboards	24	4,955	12,000
		Chairs	300	4,955	12,000
		Cooking Utensils	1	413	1,000
			7	2,891	7,000
		Chair	20	661	1,600
			50	826	2,000
			100	1,652	4,000
		Fuel	12	496	1,200
			56	2,313	5,600
		Blanket	40	743	1,800
			100	1,652	4,000
			200	83	200
		Thermometer	60	2,478	6,000
		Oximeter	12	2,478	6,000
		Phone Card	32	2,379	5,760
		Electric frying pan	1	289	700
			7	2,023	4,900
		Shampoo / Conditioner	20	123	298

			40	246	596
			100	615	1,490
			200	1,231	2,980
		Pillow-case	40	803	1,944
			100	826	2,000
			200	472	1,144
			24	50	120
		Sink	1	95	230
			2	190	460
			7	1,330	3,220
		Tissue box	40	330	800
			100	413	1,000
			200	826	2,000
		Paper Towels (20 rolls / month)	360	1,487	3,600
		Communication (Telephone) for Facility	1	165	400
			7	1,156	2,800
		Bed Tables	6	1,239	3,000
		Communication (Wifi)	1	149	360
			7	1,041	2,520
		Communication (Credit)	5	62	150

			6	74	180
			35	867	2,100
		Beds	12	991	2,400
		Refreshment	10	165	400
			40	661	1,600
		Blankets	48	793	1,920
		Toothpaste	20	41	100
			40	83	200
			100	206	500
			200	413	1,000
		Mop	2	91	220
			14	636	1,540
		Bleach	1	8	20
			5	41	100
			35	578	1,400
		Electronic Sphygmomanometer	12	595	1,440
		Stationary	5	62	150
			40	496	1,200
		Disinfectant	1	2	6
			10	25	60
			70	347	

					840
			60	149	360
		Toilet Paper (3 packs/month)	300	248	600
			120	198	480
			18	74	180
		Tables (2m x 2m)	12	496	1,200
		Linen sets	24	496	1,200
		Venue	2	496	1,200
		Stethoscope	12	496	1,200
		Toilet Paper	600	496	1,200
		Soap	20	17	40
			40	33	80
			50	41	100
			100	83	200
			120	99	240
			200	165	400
		Mops	18	409	990
		Plate	20	83	200
			50	103	250
			100	206	500
		Tea-cup	20	83	

					200
			50	103	250
			100	206	500
		small rubbish bins (step on)	36	372	900
		Teapot	1	41	100
			7	289	700
		Safety boots (pairs)	10	330	800
		Tissue-box	72	297	720
		Large rubbish bins	12	273	660
		Overalls	10	248	600
		Toothbrush	20	50	120
			50	62	150
			100	124	300
		Bucket	2	17	40
			14	116	280
			24	99	240
		Printing [Toner]	1	206	500
		Pillows	24	198	480
		Fork	20	33	80
			50	41	100
			100	83	

					200
		Spoon	20	33	80
			50	41	100
			100	83	200
		Hand Washing / Liquid	50	103	250
		Broom	2	8	20
			12	25	60
			14	58	140
		Printing [A4 box]	1	83	200
		Vehicle Requirements	2	-	-
		Vehicle Requirement	1	-	-
			7	-	-
		Vehicle	3	-	-
		(blank)	(blank)	-	-
		Identify and develop contingency plans / alternatives for the delivery of primary healthcare services to the Community	(blank)	-	-
		Security	1	-	-
			12	-	-
			7	-	-
		Establish a consultation/hot-line at each Health Center for telephone consultation prior to visiting the Health Center	(blank)	-	-
	Case Management Total			1,603,874	3,883,942
	IPC	PPE	2042820	843,583	2,042,820
		Larvacide (Abate) packets	2000	206,475	500,000

		Decontamination supplies	2500	206,475	500,000
		Larvacide (BTI) tablets	2000	82,590	200,000
		Chlorine (tablets) Purifying Tablets	50	51,619	125,000
		Water Engine and Pump for the Rural Water village	1	41,295	100,000
		Carrier (L)	200	41,295	100,000
		Disposal Yellow Plastic Bag - 900mm, 600mm, 300mm pack	300	37,166	90,000
		Disposal Black Plastic Bag - 900mm, 600mm, 300mm pack	300	37,166	90,000
		Aqua (L)	100	16,518	40,000
		Bait (kg)	200	16,518	40,000
		Bulk Printing [Posters]	20000	16,518	40,000
		Waste Management Vehicle (Septic Truck)	1	13,451	29,583
		Clinical Waste Truck	1	13,263	29,169
		Biphentrin (L)	100	13,214	32,000
		Agent for Water Bacteria Testing	10	10,324	25,000
		Salaries	1	8,019	19,420
		Spare parts for incinerator	1	7,901	17,288
		Diesel (40 Drums* 200 Litres)	40	7,433	18,000
		Yellow recycle bin(110kg) wheeled bins	14	5,781	14,000
		Yellow sharp bin (20kg)	12	4,955	12,000

		Traps	200	4,130	10,000
		Green Recycling Bin for Kitchen, Storage Room and Male Orderly (110kg)	13	4,026	9,750
		Bifenthrin 128 oz	100	3,304	8,000
		Sharps Bin - Yellow : medium	50	3,097	7,500
		Fuel	12	496	1,200
			48	1,982	4,800
		Fuel (3 months)	12	2,478	6,000
		Fogger	10	2,065	5,000
		Sharps Plastic Containers - Yellow/Red: Portable	50	2,065	5,000
		Maintenance Tools	1	2,065	5,000
		General Waste Plastic Bags - Clinical waste bin: size 1500 x 1180mm / box	6	1,858	4,500
		Sphygmomanometer (manual)	4	1,652	4,000
		General Waste Plastic Bags - General waste bin: size 1500 x 1180mm / box	8	1,652	4,000
		General Waste Plastic Bags - General waste bin: size 1000 x 760mm / box	8	1,602	3,880
		Safety Boots (pair)	2	330	800
			5	826	2,000
			10	330	800
		General Waste Plastic Bags - Clinical waste bin: suze 1000 x 760mm / box	6	1,487	3,600
		Signs	35	1,445	3,500

		Yellow recycle bin(110kg)	14	1,445	3,500
		Yellow recycle bin for patients room (40kg)	4	1,239	3,000
		Examination Table	2	826	2,000
		Raincoats	5	619	1,500
		Mist-blower	2	413	1,000
		Handwashing Stations	10	413	1,000
		Scrubs or materials for scrubs	10	413	1,000
		Bed Tables	2	413	1,000
		Luminescent Jacket	3	372	900
		Fog Machine	2	248	600
		Weighing scale for > 200kg	2	248	600
		Overalls	10	248	600
		Staff Uniform	2	206	500
		Curtains	10	206	500
		Disinfectant for Equipment	5	206	500
		Rubbish Bins (Large) to step on	6	198	480
		Small Tables	2	83	200
		Disinfectant	10	50	120
		Stationary	1	12	30
		Vehicle	1	-	-

		ICU Beds	(blank)	-	-
	IPC Total			1,726,306	4,172,640
	POINT OF ENTRY	Bulk Printing [Health arrival cards/Customs / IEC materials]	10000	8,259	20,000
		Infrared thermometer	10	4,130	10,000
		Media Coverage	10	2,478	6,000
		Desktop Computer	1	1,652	4,000
		Return Tickets [TBU - VVU - TBU]	3	867	2,100
		Mobile Health booth	5	826	2,000
		Communications [Credit]	30	743	1,800
		Return Tickets [TBU - HHP - TBU]	3	619	1,500
		Perdiem [EUA] x 3 staff	3	557	1,350
		Fuel	12	496	1,200
		White board [Large]	2	248	600
		Megaphone	2	83	200
		Printing [A4 box]	1	41	100
		Stationary	3	37	90
		Develop a Tonga point of entry public health emergency plan and protocol / procedure	(blank)	-	-
		Phase 1	(blank)	-	-
	POINT OF ENTRY Total			21,036	50,940

	OPERATIONAL SUPPORT AND LOGISTICS	32 student nurses	32	-	-
	OPERATIONAL SUPPORT AND LOGISTICS Total			-	-
	Country Level Cordination, Planning and Monitoring	Recruit M&E officers to assist in coordinating COVID-19 efforts	1	289	700
			2	20,664	50,040
		Develop TOR/contract to recruit Communication Specialist	90	16,724	40,500
		Identify and train staff/individuals to support incidence management functions and roles (drivers, assistants, security, cleaners, police, armed forces etc	1	248	600
			100	2,891	7,000
		Logistics for handover of COVID-19 related equipment/items (PPE, Equipment ect)	1	248	600
			6	496	1,200
			50	826	2,000
		Conduct regular meetings and updates with the Epidemic Taskforce Team	1	165	400
			10	372	900
			20	330	800
		Develop and update M&E Framework for monitoring the implementation of the Public Health Plan and develop reports/minutes (Secretariat)	1	165	400
			6	223	

					540
			10	165	400
		Negotiations with donors / existing programmes (meetings)	1	165	400
			10	165	400
		Develop a Post-Outbreak/Pandemic Report on lessons learned for future preparedness and response plans on pandemics	(blank)	-	-
	Country Level Cordination, Planning and Monitoring Total			44,136	106,880
	RISK COMMUNICATION AND COMMUNITY ENGAGEMENT	Develop and continuously supply risk communication / IEC materials (general and public in English and Tongan)	1	1,652	4,000
			20000	16,518	40,000
		Disseminate risk communication / IEC materials via various media channel (Posters, TV advertisement, Radio jingle, Facebook, Text-bomb etc.)	12	496	1,200
			15	1,858	4,500
			30	2,973	7,200
			100	2,065	5,000
			300	2,478	6,000
			200	3,304	8,000
		Implement community engagement / community health talks and education (fonos)	1	6,194	15,000

			2	-	-
			4	50	120
			5	206	500
			12	496	1,200
			100	41	100
		Contextualize communication / IEC materials for different groups (children, adolescent, at-risk groups etc.)	1	4,955	12,000
		Conduct radio talk-back shows	20	3,717	9,000
		Develop posters and signs for PoE (English, Tongan and Chinese)	4000	3,304	8,000
		Recruit Graphic Designer	90	2,973	7,200
		Develop a short educational video/clip on Coronavirus (in Tongan) for hygiene practices and community mobilization	1	2,395	5,800
		Identify all community /religious leaders, CSO / NGOs, relevant health workforce and other sectors	1	41	100
			12	496	1,200
			20	496	1,200
			100	41	100
			80	1,321	3,200
		Establish and support regular meetings of the Inter-cluster Groups	1	41	100
			20	248	600
			100	41	100

			80	1,321	3,200
		Develop National Risk Communication and Community engagement plan (including training packages for COVID-19 for different population groups/vulnerable groups	1	165	400
			3	743	1,800
			20	578	1,400
		Establish hot-lines at healthcare facilities, EOC and quarantine zones	10	950	2,300
		Implement school engagement / health talks and education (schools)	1	-	-
			4	50	120
			5	206	500
			12	496	1,200
			100	41	100
		Implement church engagement / health talks and education (churches)	1	-	-
			4	50	120
			5	206	500
			12	496	1,200
			100	41	100
		Empower the community to accept the use of their Community Facilities (Halls for Kolomotu'a and Kolofo'ou) or other needed Community Facilities (LDS churches).	1	206	500
			5	206	500

		Establish social media platforms (COVID-19 Facebook Page)	(blank)	-	-
	RISK COMMUNICATION AND COMMUNITY ENGAGEMENT Total			64,156	155,360
	SURVEILLANCE, RAPID RESPONSE TEAMS, AND CASE INVESTIGATION	Laptop	1	2,065	5,000
		Sharps disposal units	20	1,652	4,000
		New Computers	1	1,652	4,000
		Minor procedure Examination lamps w/ mobile stands	3	1,239	3,000
		Mobile Sphygmomanometer	2	1,239	3,000
		Perdiem (VVU) x 3 staff	5	1,053	2,550
		Return Tickets [TBU - VVU - TBU]	3	867	2,100
		Procedure Lamp w/ wall mount	1	826	2,000
		Wall-mounted Sphygmomanometer	2	826	2,000
		Examination bed	2	826	2,000
		Examination trolleys	2	743	1,800
		Diagnostic sets	2	661	1,600
		Return Tickets [TBU - HHP - TBU]	3	619	1,500
		Communications (*1 GB per week)	12	595	1,440
		Perdiem (HHP) x 3 staff	3	520	

					1,260
		Cuffs (S - XL)	6	496	1,200
		Projection screen	2	413	1,000
		PowerPoint projector	1	413	1,000
		Fuel	10	413	1,000
		Return Tickets [TBU - EUA - TBU]	3	372	900
		Perdiem (EUA) x 3 staff	2	372	900
		Rental	10	289	700
		Overall	10	248	600
		Weighing scale with height component for >200kg	2	248	600
		Stationary	10	124	300
		Communication (Credit) EWARS for all sentinel sites (10 sites)	5	124	300
		Data Package (1 GB plan)	4	99	240
		Data Packages (Communications)* 3 staff	3	74	180
		Email&Internet	3	74	180
		Telecommunication charges	3	37	90
		New Vehicles-vehicle requirement	1	-	-
		Vehicle (Vehicle Requirement)	1	-	-
	SURVEILLANCE, RAPID RESPONSE TEAMS, AND CASE INVESTIGATION Total			19,177	46,440

Recurrent 20/21 Total				3,478,685	8,416,203
MFAT	Case Management	Various	1	20,648	50,000
	Case Management Total			20,648	50,000
	IPC	PPEs	(blank)	615,130	1,345,880
	IPC Total			615,130	1,345,880
	National laboratory system	Benchtop Autoclave	1	826	2,000
		Sharps container	30	619	1,500
		Disinfectants (hypochlorite tablets)	4	413	1,000
		Refreshment	15	248	600
		Clinical and general rubbish bags	50	206	500
		Printing (Toner)	1	124	300
		Cleaning materials (mops/sponges/buckets)	3	124	300
		Miscellaneous	1	83	200
		Autoclave tapes	20	83	200
		Printing (A4 Paper / 1 box)	1	41	100
		Stationary	3	37	90
		Recycle yellow bins 110 kgs	1	29	70
		Recycle yellow bins 40 kgs	3	25	60
	National laboratory system Total			2,858	6,920
	POINT OF ENTRY	Toyota Hilux double cap	1		

				16,518	40,000
		Vest	50	1,239	3,000
			100	2,478	6,000
		Hard Helmet	50	3,097	7,500
		Pulse-oximeter	2	1,239	3,000
		Wash basin and paper towel dispenser at health rooms	3	1,239	3,000
		Communications [Credit]	30	743	1,800
		Waste bins that you step on	20	661	1,600
		Printer	1	289	700
		Overalls	10	248	600
		Sphygmomanometer	4	198	480
	POINT OF ENTRY Total			27,948	67,680
	OPERATIONAL SUPPORT AND LOGISTICS	Septic Truck	1	116,964	257,246
		ID Lanyard	800	1,321	3,200
		ID Cards	800	661	1,600
		Fuel	12	496	1,200
		ID Card Holder [Plastic] 25 per pack	35	289	700
		ID Machine Toner	2	248	600
		Printing (Toner)	1	124	300

		Printing (A4 box)	1	41	100
		Vehicle [Vehicle Requirement]	1	-	-
	OPERATIONAL SUPPORT AND LOGISTICS Total			120,144	264,946
	SURVEILLANCE, RAPID RESPONSE TEAMS, AND CASE INVESTIGATION	Refreshment x 40 people	40	661	1,600
		Perdiem (VVU) x 3 staff	3	632	1,530
		Perdiem (HHP) x 3 staff	3	520	1,260
		Venue x 2 days	2	496	1,200
		Transport Voucher	40	330	800
		Stationary	20	248	600
	SURVEILLANCE, RAPID RESPONSE TEAMS, AND CASE INVESTIGATION Total			2,887	6,990
MFAT Total				789,614	1,742,416
China	National laboratory system	UPS	5	1,032	2,500
			10	6,152	13,531
		Biosafety Cabinet	2	5,848	12,862
		Centrifuge-serum 1.5 ML TUBES for the PCR	1	5,536	12,113
		Desktop computers x 2 for PCR room	2	2,222	5,380

		Bllod Culture analyser	1	1,754	3,859
		Thermometers	10	1,188	2,723
			15	356	817
		Refrigerator-Specimens	2	1,032	2,500
		Refrigerator - Samples	2	1,032	2,500
		Printer	1	206	500
	National laboratory system Total			26,360	59,285
	OPERATIONAL SUPPORT AND LOGISTICS	Laptops to operate one of the Laboratory Equipment	1	1,503	3,640
	OPERATIONAL SUPPORT AND LOGISTICS Total			1,503	3,640
China Total				27,863	62,925
DFAT	Case Management	Furntiture, Sheets, Curtains	1	37,331	90,400
	Case Management Total			37,331	90,400
	IPC	PPEs	(blank)	615,130	1,345,880
	IPC Total			615,130	1,345,880
	National laboratory system	Laptop	1	1,858	4,500
	National laboratory system Total			1,858	4,500
	OPERATIONAL SUPPORT AND LOGISTICS	Maintenance	1	20,648	50,000

		Spare Parts / Tools	1	20,648	50,000
		Video Conference System	4	5,803	14,052
		55-inch TV Flat Screen	4	5,017	12,148
		Credit for Calls and Text Messages	30	3,717	9,000
		UPS	16	3,594	8,704
		Portable Internet Modem 30Gb per month	4	1,189	2,880
		8-Port Switches	14	809	1,960
		Fuel	12	496	1,200
		Multiple Plug Adaptor	14	289	700
		Printing (Toner)	1	248	600
		Access Point	1	171	415
		Data Communication Package	5	124	300
		Printing [Toner]	1	124	300
		New Extension Telephone Lines for new Laboratory Rooms	3	93	225
		Stationary	2	25	60
			5	62	150
		Printing (A4 box)	1	83	200
		Printing [A4 box]	1	41	100
		Vehicle Requirement	1	-	-
		Email System	(blank)	-	-

	OPERATIONAL SUPPORT AND LOGISTICS Total			63,179	152,994
	Country Level Cordination, Planning and Monitoring	Communication	3	15,486	37,500
		Workshop/meetings for the consultations with key stakeholders and relevant groups on the development of the MOH COVID-19 Plan & M&E framework	1	165	400
			4	991	2,400
			20	578	1,400
		Identify high-risk and vulnerable populations (elderly, people with disabilities etc)	1	41	100
			5	268	650
	Country Level Cordination, Planning and Monitoring Total			17,530	42,450
DFAT Total				735,028	1,636,224
WHO	POINT OF ENTRY	Perdiem [VVU] x 3 staff	3	632	1,530
		Perdiem [HHP] x 3 staff	3	520	1,260
		Refreshments	30	496	1,200
		Stationary	30	372	900
		Return Tickets [TBU - EUA - TBU]	3	372	900
	POINT OF ENTRY Total			2,391	5,790

	SURVEILLANCE, RAPID RESPONSE TEAMS, AND CASE INVESTIGATION	Return Tickets [TBU - VVU - TBU]	3	867	2,100
		Return Tickets [TBU - HHP - TBU]	3	619	1,500
		Perdiem (EUA) x 3 staff	3	557	1,350
		Refreshment	30	496	1,200
		Stationary	30	372	900
		Return Tickets [TBU - EUA - TBU]	3	372	900
		Fuel	3	124	300
	SURVEILLANCE, RAPID RESPONSE TEAMS, AND CASE INVESTIGATION Total			3,407	8,250
WHO Total				5,798	14,040
Grand Total				17,465,214	40,143,482

21.4 Annex D: Monitoring & Evaluation Framework

The Implementation Plan is initially highlighted by the eight pillars, which is later detailed by Action Areas and detailed Activities which are costed to meet that Action Point. The activities are then broken down by each Lead so that each Unit can identify their actions.

21.4.1 Pillar 1: Country-level Coordination, Planning and Monitoring

Coordinated and effective management of COVID-19 preparedness and response should be supported by the National Public Health Emergency Management mechanism"s through the engagement of relevant ministries such as Health, Education, Travel and Tourism, Public Works, Environment, Social Protection and Agriculture. The NAPHS and PIPP"s should also be revised to address COVID-19.

21.4.1.1 Summary of Actions and Activities for Pillar 1: Country Coordination, Planning and Monitoring

Action Point 1.2: Engage with national authorities and key partners to develop a country-specific operational plan (TPRR) with estimated resource requirements and monitoring and evaluation metric.

- **Activity 1.21**: Workshop/meetings for the consultations with key stakeholders and relevant groups on the development of the MOH COVID-19 Plan and M&E Framework.

Action Point 1.3: Conduct capacity assessment and initial risk assessment of vulnerable populations.

- **Activity 1.31**: Identify high-risk and vulnerable populations (Elderly, people with disabilities etc.)

Action Point 1.5: Identify, train, and designate focal spokespeople to disseminate COVID-19 updates.

- **Activity 1.51**: Dissemination of COVID-19 updates to the public via the designated focal point (Minister of Health, CEO for Health)
- **Activity 1.52**: Contract/Recruit Communication Specialist

Action Point 1.6:

- **Activity 1.61**: Meetings/Negotiations with donors / existing programmes and to consolidate and align budget commitments of Donors
- **Activity 1.62:** Logistics for Handover of COVID-19 related equipment/items [PPE, Equipment etc.]
- **Activity 1.63**: Identify and train staff /individuals to support incidence management functions and roles [drivers, assistants, security, cleaners, police, armed forces etc.]

Action Point 1.8:

- **Activity 1.81**: Update M&E Framework for monitoring the implementation of the Ministry of Health Plan(Secretariat)
- **Activity 1.82**: Recruit M&E Officers to assist in co-ordinating COVID-19 efforts

Action Point 1.9:

- **Activity 1.91**: Conduct regular meetings and updates with the Epidemic Taskforce Team

Action Point 1.10: Conduct after action reviews and use COVID 19 outbreak to test/learn from existing plans, systems and exercises to inform future preparedness and response plans

- **Activity 1.101**: Develop a Post-Outbreak/Pandemic Report on lessons learned for future preparedness and response plans on pandemics
- **Activity 1.102**: Have online/ zoom meetings with neighbouring countries and regional bodies in relation to COVID-19

21.4.1.2 Budget Summary for Pillar 1: Country-level Coordination, Planning and Monitoring

Items	Rate	Quantity	Sub-Total
Communication [Credit]	60	16	960
Fuel	100	5	500
Laptop	5000	10000	10000
Media Broadcast [TV/Online]	200	6	1200
Miscellaneous	200	2	400
Office Chair	80	2	160
Printer [small[]	700	1	700
Printing (A4 box)	100	1	100
Printing (A4 Paper / 1 box)	100	6	600
Printing (Toner)	300	6	1800
Refreshment	40	210	8400
Salary [Communication Specialist]	450	90	40500
Salary [M&E Officers]	19840	2	39680
Stationary	30	141	4230
Tables	100	2	200
Venue	600	4	2400
TOTAL	**19840**	**10494**	**111830**

*__HR__: Human Resources, __C__: Communications

Standard Stationary		
Quantity	**Item**	**Cost**
1	Box of Blue/Black Pens	5
1	Staple Pins	10
1	Pack of Highlighters	5
1	Notepads / Sheets	3
1	Stack of folders	12
	Total Cost	**30**

*The table illustrated above is the standard stationary package which equals to a cost of $30 TOP.

21.4.1.3 Actions/Activities for Pillar 1: Country-level Coordination, Planning and Monitoring

21.4.1.4 Action / Output 1.2

Engage with national authorities and key partners to develop a country-specific operational plan (TPRR) with estimated resource requirements and monitoring and evaluation metric

Action 1.2: This action focuses on the development and finalization of the Ministry of Health COVID-19 Preparedness, response and containment Plan 2020 and the development of the accompanying M&E metric through stakeholder consultations and meetings.

21.4.1.5 Activities for Output 1.2

Activity 1.21: Conduct workshops/meetings to consult relevant stakeholders and groups on the development of the MOH COVID-19 Plan and M&E Framework.

#	Activity				
1.21	**Workshop/meetings for the consultations with key stakeholders and relevant groups on the development of the MOH COVID-19 Plan and M&E Framework**				
Cost($)	**4200**	**PHASE I**	Budget	Lead	Support
KPI	Development status of the MOH COVID-19 Plan & M&E Framework		**Met**	**HPI**	CSD
Target	To have an endorsed MOH COVID-19 Plan and M&E Framework		Status	Begin	End
Frequency	One-off		**In Progress**	March	June
#	**Item**		Rate	Quantity	Sub-Total
1	Venue		600	4	2400
2	Refreshments		40	20	800
3	Stationary		30	20	600
4	Printing [Toner]		300	1	300
5	Printing [A4 Box]		100	1	100

21.4.1.6 Action / Output 1.3

Conduct capacity assessment and initial risk assessment of vulnerable populations

Action 1.3: The Ministry of Health in collaboration with other line Ministries will need to make an initial risk assessment on vulnerable populations such as the elderly, people with disability, NCD patients whom are at high risk and are extremely vulnerable should the COVID-19 pandemic goes into the community (Local Transmission).

21.4.1.7 Activities for Output 1.3

Activity 1.31: This activity will either retrieve information from existing databases on the people with disability or high-risk populations. It may require some travelling in the main island.

#	Activity				
1.31	**Identify high-risk and vulnerable populations (Elderly, people with disabilities etc.)**				
Cost($)	**750**	**PHASE I**	Budget	Lead	Support
KPI	Total Number of vulnerable population by group		**Met**	CMO	Community/NCD
Target	A full assessment and identification of high-risk and vulnerable population		Status	Begin	End
Frequency	One-off		In Progress	March	June
#	Item		Rate	Quantity	Sub-Total
1	Fuel		100	5	500
2	Stationary		30	5	150
3	Printing (A4 box)		100	1	100

21.4.1.8 Action / Output 1.5

Identify, train, and designate focal spokespeople to disseminate COVID-19 updates

Action 1.5: This action focuses on training and supporting the designated focal spokesperson dedicated to be the „**face**" of the COVID-19 updates, in the case of Tonga; it is generally the Prime Minister, supported by the Minister of Health, the CEO for Health and other technical advisors. This activity runs across all Phases.

21.4.1.9 Activities for Output 1.5

Activity 1.51: Dissemination of COVID-19 updates to the public via the designated focal point.

#	Activity				
1.51	**Dissemination of COVID-19 updates to the public via the designated focal point (Minister of Health, CEO for Health)**				
Cost($)	**0**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total number of press-releases		**Met**	CMO	Communications
Target	Maintain continuous press-releases to the public on COVID-19		Status	Begin	End
Frequency	Continuous		In Progress	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	No costs [Risk Communication Budget]				0
#	**Phase**			**Total**	
1	**Phase I - IV**				

*Costs on this activity are covered by other Line Ministry

Activity 1.52: The Communication Specialist will provide technical communication and presentation advice and training to the Minister of Health, CEO of Health and other focal spokespeople on how to effectively communicate on COVID-19 issues to the general public. This activity is to be completed in Phase 1 and continuous payments for Phase 2 – 4.

#	Activity				
1.52	**Contract/Recruit Communication Specialist**				
Cost($)	**40500**	**PHASE I**	**Budget**	**Lead**	**Support**
KPI	Contract status of Communication Specialist		**Met**	CMO	Admin / CSD
Target	Communication Specialist contracted by April		**Status**	**Begin**	**End**
Frequency	One-off		**Complete**	March	April
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1 [**HR**]	Salary [Communication Specialist]		450	90	40500
#	**Phase**			**Total**	
1	Phase I – IV [Extend another 90 days]			40500	
	Possibility of further extensions				

*Additional costs may be a result of extending the contract

21.4.1.10 Action / Output 1.6

Engage with local donors and existing programmes/Ministries to mobilize/allocate resources and capacities to implement operational plan (MOA/MOUs in place if needed). Adequate funding sources and human resources are available for COVID-19 endeavours.

Action 1.6: This action area focuses on ensuring that sufficient financial support is available to fully implement the activities of the Plan. This action point is vital to ensure continuous funds are available to meet the vision and objectives of the Plan and that these various donors and budgets are synchronized and aligned accordingly.

21.4.1.11 Activities for Output 1.6

Activity 1.61: Meetings with donors is vital to discuss the COVID-19 preparedness and response efforts leading to donors to make their commitments to the COVID-19 plan. These donors include WHO, World Bank, ADB, DFAT, UN Agencies etc.

#	Activity Details				
1.61	**Meetings/Negotiations with donors / existing programmes and to consolidate and align budget commitments of Donors to identify what has been committed and whom is funding which activity**				
Cost($)	**800**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total Budget submitted by Donors		**Met**	CSD	Accounts
Target	Stocktake all donor contributions for COVID-19 efforts		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item (cost for 1-5 meetings)**		Rate	Quantity	Sub-Total
1	Refreshment		40	10	400
2	Printing (A4 Paper / 1 box)		100	1	100
3	Printing (Toner)		300	1	300

#	Phase	Cost ($TOP)
1	Phase I	800
2	Phase II – IV	1,600

Activity 1.62: As part of the ceremonial formalities, there must be some budget allocated for the handover of equipment / items, facilities and supplies related to the COVID-19 efforts.

#	Activity Details				
1.62	**Logistics for Handover of COVID-19 related equipment/items [PPE, Equipment etc.]**				
Cost($)	**3800**	**PHASE I**	Budget	Lead	Support
KPI	Total Number of Handover ceremonies		**Met**	Planning	CSD
Target	Stocktake all donor contributions for COVID-19 efforts		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item (cost for 1-5 meetings)**		**Rate**	**Quantity**	**Sub-Total**
1	Refreshment		40	50	2000
2	Printing (A4 Paper / 1 box)		100	1	100
3	Printing (Toner)		300	1	300
4	Media Broadcast [TV/Online]		200	6	1200
5	Miscellaneous		200	1	200

*It is expected that once the borders are open that there will be no-more Handing over ceremonies, an assistant from other Line Ministries may be required to assist.

Activity 1.63: As part of the COVID-19 preparation, staff and individuals from other Line Ministries and Organizations will be drafted to assist the Ministry of Health functions. The numbers will be dependent on the total number of staff approved to partake in the COVID-19 endeavors.

#	Activity Details				
1.63	**Identify and train staff /individuals to support incidence management functions and roles [drivers, assistants, security, cleaners, police, armed forces etc.]**				
Cost($)	**7600**	**PHASE I**	Budget	Lead	Support
KPI	Total Number of Trainings		**Met**	CMO	CSD
Target	Implement at-least 5 trainings for support staff		Status	Begin	End
Frequency	One-off		**In Progress**	March	Ongoing
#	**Item (cost for 1-5 meetings)**		**Rate**	**Quantity**	**Sub-Total**
1	Refreshment		40	100	4000
2	Printing (A4 Paper / 1 box)		100	1	100
3	Printing (Toner)		300	1	300
4	Stationary		30	100	3000
5	Miscellaneous		200	1	200

*Possibility that the numbers may exceed 100

21.4.1.12 Action / Output 1.8

Monitor implementation of TPRP based on key performance indicators and produce regular situation report and conduct regular operational reviews to assess implementation success and adjust operational plans as necessary

Action 1.8: These action areas focus on regularly monitoring and updating the Plan and utilizing the M&E framework to monitor successes and barriers. The information provided via the M&E Framework is crucial to identify possible bottlenecks and obstacles to efficient and timely implementation of the Plan.

21.4.1.13 Activities for Output 1.8

Activity 1.81: These are meetings of the Secretariat with the Planning Team to update the M&E Framework so that the progress updates are provided to the Head of Divisions, CEO and Minister of Health on the overall implementation of the COVID-19 plan.

#	Activity				
1.81	**Update M&E Framework for monitoring the implementation of the Ministry of Health Plan and develop Situational Reports**				
Cost($)	**1340**	**PHASE I – IV**	**Budget**	**Lead**	**Support**
KPI	Total Number of Situational Reports		**?**	Planning	All
Target	M&E Framework established with updated Situational Reports		Status	Begin	End
Frequency	Continuous		In Progress	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Refreshment		40	10	400
2	Printing (A4 Paper / 1 box)		100	1	100
3	Printing (Toner)		300	1	300
5	Stationary*		30	6	180
6	Communication [Credit]		60	6	360

#	Phase	Cost
1	Phase I	1340
2	Phase II	1340
3	Phase III	1340
4	Phase IV	1340

***Situational Reports will only be activated once Tonga has a suspected and confirmed COVID-19 case.**

Activity 1.82: These are meetings of the Secretariat with the Planning Team to update the M&E Framework so that the progress updates are provided to the Head of Divisions, CEO and Minister of Health on the overall implementation of the COVID-19 plan.

#	Activity				
1.82	**Recruit M&E Officers to assist in co-ordinating COVID-19 efforts**				
Cost($)	**50740**	**PHASE I**	Budget	Lead	Support
KPI	Recruitment status of M&E Officer		**?**	Planning	All
Target	To recruit 2 M&E Officers for the MOH COVID-19 implementation		Status	Begin	End
Frequency	One-off		In Progress	March	Ongoing
#	**Item**		Rate	Quantity	Sub-Total
1	Salary [M&E Officers - Collect Information]		19840	2	39680
2	Printer [small[]		700	1	700
3	Tables		100	2	200
4	Office Chair		80	2	160
5	Laptop		5000	10000	10000
#	**Phase**				**Cost**
1	Phase I - IV				39680

*Possibility that these 2 officers can be taken from existing roles from other Line Ministries

Activity 1.91: The Epidemic Taskforce will need to update and discuss crucial COVID-19 activities and processes. These meetings will be regular ranging from weekly to fortnightly depending on the Phase. Once the borders are open, the frequency of meetings will increase.

#	Activity				
1.91	**Conduct regular meetings and updates with the Epidemic Taskforce Team**				
Cost($)	**2100**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total Number of Epidemic Taskforce Meetings		**Met**	CMO/MS	All
Target	Conduct weekly Meetings until Pandemic ends		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item (1 – 5 meetings)		Rate	Quantity	Sub-Total
1	Refreshment		40	20	800
2	Printing (A4 Paper / 1 box)		100	1	100
3	Printing (Toner)		300	1	300
4	Communication [Credit]		60	10	600
5	Stationary*		30	10	300
#	**Phase**				**Cost ($TOP)**

1	Phase I	2100
2	Phase II	4200
3	Phase III	4200
4	Phase IV	4200

*Phase II – IV x 2 of initial costs

ADDITIONAL ACTIONS

21.4.1.14 Action / Output 1.10

Activity 1.101: Conduct after action reviews and use COVID-19 outbreak to test/learn from existing plans, systems and exercises to inform future preparedness and response plans

#	Activity
1.101	**Develop a Post-Outbreak/Pandemic Report on lessons learned for future preparedness and response plans on pandemics**
	Phase V

Activity 1.102: Consult with neighbouring countries, other countries and regional bodies on planning and management of the COVID-19 pandemic across sectors

#	Activity
1.102	**Have online/ zoom meetings with neighbouring countries and regional bodies in relation to COVID-19**
	Phase I - IV

21.4.2 Pillar 8: Operational Support and Logistics

Pillar 8 focuses on the need for logistical support and assistance to operations to ensure services and healthcare workers are functioning at their prime. Logistical arrangements to support incident management should be reviewed and in place. Expedited procedures may be required in key areas (e.g. surge staff deployments, procurement of essential supplies, staff payments), as this will play a crucial role in how prepared the healthcare system and support systems are to respond to the evolving and changing situations that COVID-19 can bring.

21.4.2.1 Summary of Actions and Activities for Pillar 8: Operational Support and Logistics

Action 8.1: Map available resources and supply systems in health and other sectors; conduct in-country inventory review of supplies and develop a central stock reserve for COVID 19 case management.

- **Activity 8.1.1** Inventory of Healthcare Human Resources, Transport, Equipment, Medical Supplies etc. COVID-19 preparedness and response
- **Activity 8.1.2**: Establish protocols for the maintenance and disposal of assets within quarantine and isolation facilities e.g. washing machines, computers etc.
- **Activity 8.1.3**: Regular maintenance of transport, equipment etc.

Action 8.2: Review supply chain control and management system (stockpiling, storage, security, transportation and distribution arrangements) for medical and other essential supplies, including COVID 19 and patient kit reserve in-country

- **Activity 8.2.1**: Review the supply chain and control system for the Ministry of Health and identify mechanisms of stockpiling, security and transportation/distribution of medical supplies/PPE etc. and alleviate possible obstacles
- **Activity 8.2.2**: Renovate Pharmacy Storage area in preparation for the influx of medical supplies, PPEs etc.[Existing Project - MFAT]
- **Activity 8.2.3**: Develop a Central Stock Reserve for case management of COVID-19 and regularly review the supplies (medical supplies, pharmaceuticals etc.)

Action 8.3: Review procurement processes (including importation and customs) for medical and other essential supplies, and encourage local sourcing to ensure sustainability. Assess the capacity of local market to meet increased demand for medical and other essential supplies, and coordinate international request of supplies through regional and global procurement mechanisms.

- **Activity 8.3.1** Strengthen Procurement Unit
- **Activity 8.3.2**.Identify local market sources for PPE and other essential supplies for COVID-19 efforts

Action 8.5: Prepare staff surge capacity and deployment mechanisms; health advisories (guidelines and SOPs); pre- and post-deployment package (briefings, recommended/mandatory vaccinations, enhanced medical travel kits, psychosocial and psychological support, including peer support groups) to ensure staff well-being.

- **Activity 8.50**: Develop a Surge Capacity Plan
- **Activity 8.51**: Rations for staff and support staff at PoE and contact tracing
- **Activity 8.52**: Ensure counselling services are available (psychological ad peer support) for staff partaking in the COVID-19 efforts (whether online or telephone)

- **Activity 8.53**: Identify all healthcare and support staff strictly for the COVID-19 and issue COVID-19 ID access specifically and strictly to these allocated staff [Registry]
- **Activity 8.54**: Recruit fit security for Quarantine Facility, Mu"a Health Centre and Vaiola Hospital to restrict unauthorized access once the Containment Plan is in effect. Recruit the assistance of HMAF, Police
- **Activity 8.55:** A shift /rotation schedule is available to ensure rotation of nurses / doctors / support staff at isolation facilities to prevent burnout
- **Activity 8.56**: Recruitment of extra healthcare workers including student nurses, private nurses, retired medical officers etc.

Action 8.6: Identify and support critical functions that must continue during a widespread outbreak of COVID 19 or pre-emptive lockdown (e.g. water and sanitation; fuel and energy; food supply; telecommunications/internet; finance; law and order; education; and transportation), necessary resources, and essential workforce

- **Activity 8.61**: Establish a Hazard Payment Scheme including Overtime for staff involved with COVID-19 especially for individuals registered under the COVID-19 registry. This is vital for the Public Service Commission and is currently in progress.

21.4.2.2 Budget Summary for Pillar 8: Operational Support and Logistics

#	Row Labels	Max of Rate	Sum of Quantity	Sum of Sub-Total	
1	Chair	40	2	80	
2	Data Communication Package	60	5	300	C
3	Desk	100	1	100	
4	Desktop	4000	2	8000	
5	Fuel	100	24	2400	
6	Hazard Allowance	0	0	0	
7	ID Card Holder [Plastic] 25 per pack	20	35	700	
8	ID Cards	2	800	1600	
9	ID Lanyard	4	800	3200	
10	ID Machine Toner	300	2	600	
11	Maintenance	50000	1	50000	
12	Printing (A4 box)	100	4	400	
13	Printing (Toner)	300	4	1200	
14	Rations [Food Voucher]	40	900	36000	
15	Salary [32 student nurses]		32		HR
16	Salary [4 private nurses]		4		HR

17	Salary [Security Guard]	0	0	0	**HR**
18	Salary [Senior Procurement Officer]	26880	1	26880	**HR**
19	Salary [TBC retired medical officers]				**HR**
20	Salary [TBC retired nurses]				**HR**
21	Spare Parts / Tools	50000	1	50000	
22	Stationary	30	7	210	
23	Vehicle [Vehicle Requirement]		2	0	**V**
24	Project Cost: Pharmacy Renovation	1700000	1	1700000	**P**
25	Counselling Services				
	TOTAL			**1881670**	

*__B__: Building Project, HR: Human Resources, C: Communications

21.4.2.3 Actions/Activities for Pillar 8: Operational Support and Logistics

21.4.2.4 Action /Output 8.1

Map available resources and supply systems in health and other sectors; conduct in-country inventory review of supplies and develop a central stock reserve for COVID 19 case management.

Action 8.1: Focuses on stock-taking all the available resources (Transport, Human Resources, Equipment, Medical Supplies etc. for the COVID-19 Preparedness and Response. The inventory will assist in planning and mobilizing resources accordingly and to ensure equipment and supplies are adequately available and operational. This also includes staff from other line Ministries and organizations.

21.4.2.5 Activities for Output 8.1

Activity 8.11: Development of a Master List inventory of the COVID-19 team, transport, facilities, medical supplies, budget etc. to calculate maximum capacity of staff and resources.

#	Activity				
8.11	**Inventory of Healthcare Human Resources, Transport, Equipment, Medical Supplies etc. COVID-19 preparedness and response**				
Amount($)	**460**	**PHASE I**	Budget	Lead	Support
KPI	In-Ministry inventory of Clinical, Public Health and CSD human resources, budget, equipment etc.		**Met**	CSD	All PH
Target	To have a full-inventory of the Public Health and CSD Human Resources, Budget, Transport etc.		Status	Begin	End
Frequency	One-off		In Progress	March	April
#	Item		Rate	Quantity	Sub-Total
1	Printing (A4 box)		100	1	100
2	Printing (Toner)		300	1	300
3	Stationary		30	2	60
#	**Phase**		**Cost ($TOP)**		
1	Phase I		460		
2	Phase II – IV		920		

***List may require some updates if the resources change accordingly**

Activity 8.12: Develop protocols/procedures for the disposal of large assets/equipment from Quarantine / Isolation Facilities and maintenance of transport vehicles that transport COVID-19 cases. There is a high chance these assets and equipment will be contaminated.

#	Activity				
8.12	**Establish protocols for the maintenance and disposal of assets within quarantine and isolation facilities e.g. washing machines, computers etc.**				
Amount($)	**400**	**PHASE I**	Budget	Lead	Support
KPI	Development status of procedures		**?**	MS	CSD
Target	All Equipment / Vehicles / Machinery remain operational		Status	Begin	End
Frequency	One-off		**?**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Printing [A4 box]		100	1	100
2	Printing [Toner]		300	1	300

Activity 8.13: Ensure adequate equipment and spare parts are available for the maintenance of vehicles, facilities and equipment/machinery to ensure that services and COVID-19 activities remain operational.

#	Activity				
8.13	**Regular maintenance of transport, equipment etc.**				
Amount($)	**100000**	**PHASE I - IV**	Budget	Lead	Support
KPI	Total Number of Maintenance implemented		**?**	CSD	Facility
Target	All Equipment / Vehicles / Machinery remain operational		Status	Begin	End
Frequency	Continuous			March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Maintenance		50,000	1	50000
2	Spare Parts / Tools		50,000	1	50000
#	**Phase**	**Cost ($TOP)**			
1	Phase I	100,000			
2	Phase II – IV	200,000			

21.4.2.6 Actions / Output 8.2:

Review supply chain control and management system (stockpiling, storage, security, transportation and distribution arrangements) for medical and other essential supplies, including COVID 19 and patient kit reserve in-country

21.4.2.7 Activities for Output 8.2

Activity 8.21: Reviewing the supply chain control and management systems for the Ministry of Health.

#	Activity				
8.21	**Review the supply chain and control system for the Ministry of Health and identify mechanisms of stockpiling, security and transportation/distribution of medical supplies/PPE etc. and alleviate possible obstacles**				
Amount($)	**2050**	**PHASE I - IV**	Budget	Lead	Support
KPI	Status of supply chain and control processes		**?**	Pharmacy	CSD
Target	Supply chain and control processes are in place and operational		Status	Begin	End
Frequency	Continuous		**In progress**	March	Ongoing
#	**Item**		Rate	Quantity	Sub-Total
1	Fuel		100	12	1200

2	Data Communication Package		60	5	300
3	Vehicle Requirement			1	0
4	Stationary		30	5	150
5	Printing (A4 box)		100	1	100
6	Printing (Toner)		300	1	300

Activity 8.22: As part of the expectation for an influx of PPE and extra supplies of medical supplies and pharmaceuticals in preparation for the COVID-19 pandemic, the Pharmacy Warehouse needs to increase its size to meet the influx of goods and to store them securely and adequately. This project was to be submitted for MFAT to fund prior to COVID-19 within the CP 2019/20.

#	Activity				
8.22	**Renovate Pharmacy Storage area in preparation for the influx of medical supplies, PPEs etc.[Existing Project - MFAT]**				
Amount($)		**PHASE I**	Budget	Lead	Support
KPI	Status of Renovation		**?**	Pharmacy	CSD
Target	Pharmacy Storage Renovation complete by late April		Status	Begin	End
Frequency	One-off		**No Progress**	March	April
#	Item		Rate	Quantity	Sub-Total
1	Project Cost		1700000	1	1700000

Activity 8.23: Conduct regular review of supplies; develop a central stock reserve for case management of COVID-19

#	Activity				
8.23	**Develop a Central Stock Reserve for case management of COVID-19 and regularly review the supplies (medical supplies, pharmaceuticals etc.)**				
Amount($)	No cost	**PHASE I**	Budget	Lead	Support
KPI	Development status of Central Stock Reserve List		**Met**	Pharmacy	CSD
Target	To have a central stock reserve in place and to consistently review		Status	Begin	End
Frequency	One-off		**In Progress**	March	June
#	Item		Rate	Quantity	Sub-Total
1	No cost				

21.4.2.8 Action / Output 8.3

Review procurement processes (including importation and customs) for medical and other essential supplies, and encourage local sourcing to ensure sustainability. Assess the capacity of local market to meet increased demand for medical and other essential supplies, and coordinate international request of supplies through regional and global procurement mechanisms.

21.4.2.9 Activities for Output 8.3

Activity 8.31: Strengthen Procurement Unit

#	Activity				
8.31	**Strengthen Procurement Unit at the Hospital**				
Amount($)	**35060**	**PHASE I**	**Budget**	**Lead**	**Support**
KPI	Total Number of Procurement staff recruited		**?**	Procure	HR
Target	At least 1 new staff recruited for Procurement Unit at the Hospital		Status	Begin	End
Frequency	One-off		**TBC**	March	April
#	**Item**		Rate	Quantity	Sub-Total
1 [HR]	Salary [Senior Procurement Officer]		26880	1	26880
2	Desktop		4000	2	8000
3	Desk		100	1	100
4	Chair		40	2	80

Activity 8.32: Identify local market sources for PPE and other essential supplies for COVID-19 efforts

#	Activity				
8.32	**Identify local sources for PPE procurement and other essential supplies**				
Amount($)	**1200**	**PHASE I**	**Budget**	**Lead**	**Support**
KPI	Total Number of local market sources that can supply essential supplies		**?**	Procure	CSD
Target	All local suppliers identified		Status	Begin	End
Frequency	One-off		**In Progress**	March	Ongoing
#	**Item**		Rate	Quantity	Sub-Total
1	Vehicle [Vehicle Requirement]			1	
2	Fuel		100	12	1200

21.4.2.10 Action / Output 8.5

Prepare staff surge capacity and deployment mechanisms; health advisories (guidelines and SOPs); pre- and post-deployment package (briefings, recommended/mandatory vaccinations, enhanced medical travel kits, psychosocial and psychological support, including peer support groups) to ensure staff well-being.

21.4.2.11 Activities for Output 8.5

Activity 8.50: Develop the Surge Capacity Plan. The Surge Capacity Plan for Tonga has been developed and in the process of refinement and completion. **The Draft Surge Capacity Plan is outlined in Annex Q.**

#	Activity				
8.50	**Develop a Surge Capacity Plan**				
Amount($)	**0**	**PHASE I**	Phase	Lead	Support
KPI	Development stage of Surge Capacity Plan		**Met**	MS/CMO	CSD
Target	A Surge Capacity Plan developed and endorsed		Status	Begin	End
Frequency	One-off		**Completed**	March	June
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	No cost				0

Activity 8.51: Rations for PoE staff. These rations are for the staff that are at the PoE (airport and seaports), whom will be working across various working hours. This will also include staff part of the contact tracing and other essential services.

#	Activity				
8.51	**Ensure rations are available for staff at Point of Entry staff during lunch and dinner to accommodate flight and ship / vessel schedules**				
Amount($)	**3600**	**PHASE I - IV**	Phase	Lead	Support
KPI	Rations available for healthcare staff and support staff		**Met**	EHS	CDU
Target	Daily rations available to authorized healthcare and support personnel at PoE [10 staff]		Status	Begin	End
Frequency	Continuous		**Completed**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Rations [Food Voucher]		40	900	36000

#	Phase	Total
1	Phase I	3600
2	Phase II	3600
3	Phase III	3600
4	Phase IV	3600

*Most likely rations may be provided from other Clusters

Activity 8.52: Counselling services for Healthcare workers and support staff during and after COVID-19. This service is essential to ensure that the mental wellbeing of all staff is maintained and healthy especially in a very stressful environment.

#	Activity				
8.52	**Ensure counselling services are available (psychological ad peer support) for staff partaking in the COVID-19 efforts (whether online or telephone)**				
Amount($)	**TBC**	**PHASE I - IV**	Budget	Lead	Support
KPI	Availability of Counselling Services		**?**	MS	Mental
Target	To develop and establish counselling services for staff partaking in the COVID-19 containment efforts		Status	Begin	End
Frequency	Continuous		**No Progress**	March	Ongoing
#	**Item**		Rate	Quantity	Sub-Total
1	Yet to be costed				

#	Phase	Total

1	Phase I - IV	TBC

Activity 8.53: Restrict access to all COVID-19 facilities including Taliai, Mu"a Health Centre and Quarantine Facilities [Vaiola Hospital]. This activity is vital to limit access to the contaminated areas including the airport, quarantine/isolation facilities, the surge capacity facilities [Vaiola Hospital] etc.

#	Activity				
8.53	**Identify all healthcare and support staff strictly for the COVID-19 and issue COVID-19 ID access specifically and strictly to these allocated staff [Registry]**				
Amount($)	**6500**	**PHASE I**	**Budget**	**Lead**	**Support**
KPI	List of all healthcare workers and support staff during lockdown		**Met**	HR	CSD
Target	To have clearance for minimal functions and services operational during lockdown		Status	Begin	End
Frequency	Continuous		**In progress**	March	April
#	**Item**		Rate	Quantity	Sub-Total
1	ID Card Holder [Plastic] 25 per pack		20	35	700
2	ID Cards		2	800	1600
3	ID Machine Toner		300	2	600
4	ID Lanyard		4	800	3200
5	Printing (A4 box)		100	1	100
6	Printing (Toner)		300	1	300
#	**Phase**			**Total**	
1	Phase I			5800	
2	Phase II			5800	
3	Phase III			5800	
4	Phase IV			5800	

Activity 8.54: Ensure that the Facilities are well-guarded and access is restricted to safeguard and limit possibility of contamination and infection spreading.

#	Activity				
8.54	**Recruit fit security [HMAF/Police] for Quarantine Facility, Mu'a Health Centre and Vaiola Hospital to restrict unauthorized access once the Containment Plan is in effect**				
Amount($)	**0**	**PHASE I - IV**	**Budget**	**Lead**	**Support**
KPI	Recruitment Status of Security		?	MS	HR
Target	Adequate number of Trained Security at each Facility		**Status**	**Begin**	**End**
Frequency	One-off		?	March	April
#	**Item**		Rate	Quantity	Sub-Total

1 [HR]	Salary [Security Guard]				TBC
#	**Phase**	**Total**			
1	Phase I - IV	TBC			

***Recruit the assistance of HMAF, Police**

Activity 8.55: A rotation/shift schedule is in place for nurses, doctors and support staff to prevent burnout.

#	Activity				
8.55	**A shift /rotation schedule is available to ensure rotation of nurses / doctors / support staff at isolation facilities to prevent burnout**				
Amount($)	**0**	**PHASE I - IV**	Budget	Lead	Support
KPI	The development of a shift/rotation schedule for all COVID-19 staff		**Met**	MS	HR
Target	A shift/rotation schedule is available with adequate staff available for shifts		Status	Begin	End
Frequency	Continuous		**In progress**	March	June
#	**Item**		Rate	Quantity	Sub-Total
1	No Cost				

***Shift/Rotation will be updated accordingly**

Activity 8.56: Recruitment of healthcare workers [nursing students, private nurses, retired medical officers etc.]. These will include nursing students to boost the nursing numbers needed, retired medical officers to alleviate the workload and also retired specialists whom can assist and provide advice to the COVID-19 efforts.

#	Activity				
8.56	**Recruitment of extra healthcare workers including student nurses, private nurses, retired medical officers etc.**				
Amount($)	**TBC**	**PHASE I - IV**	Budget	Lead	Support
KPI	Total number of extra staff recruited for COVID-19		**Met**	MS/CMO	HR
Target	To have a minimal number of staff recruited to assist in the COVID-19 efforts		Status	Begin	End
Frequency	Continuous		**In progress**	March	June
#	**Item**		Rate	Quantity	Sub-Total
1 [HR]	**32 student nurses**				
2 [HR]	**4 private nurses**				
3 [HR]	**TBC retired nurses**				
4 [HR]	**TBC retired medical officers**				

*These staff are essential as they will maintain some of the peripheral services while the majority of nurses will focus on COVID-19 cases.

21.4.2.12 Action / Output 8.6

Identify and support critical functions that must continue during a widespread outbreak of COVID 19 or pre-emptive lockdown (e.g. water and sanitation; fuel and energy; food supply; telecommunications/internet; finance; law and order; education; and transportation), necessary resources, and essential workforce

21.4.2.13 Activity for Output 8.6

Activity 8.61: Establish a Hazard Payment Scheme for staff involved with COVID-19 especially for individuals registered under the COVID-19 registry. This is vital for the Public Service Commission and is currently in progress.

#	Activity				
8.61	**Establish and commence Hazard Payment for staff registered within the COVID-19 list and Overtime**				
Amount($)	**TBC**	**PHASE I - IV**	Phase	Lead	Support
KPI	Status of Hazard Payment Scheme for COVID-19 staff		**Met**	CSD	PSC
Target	Allocated Budget for Hazard Payment of staff		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Hazard Allowance				TBC
2	Overtime				TBC
#	**Phase**		**Total**		
1	Phase I - IV				

*Based on the registry of staff for COVID-19 efforts

21.4.3 Pillar 2: Risk Communication and Community Engagement

Transparency with the community is fundamental for inciting public support. It is vital to communicate what is known, unknown and measures taken on a regular basis. Any activities for preparedness and response would receive a positive response if they are performed in a participatory, community-based way with changes based on the community"s feedback to reflect the community"s concerns, rumours and misinformation. Providing the public with up to date information regarding any changes ahead of time should be prompt and based on community perspectives. Messages to the community must carry with them a sense of empathy as well as being consistent and conveyed through trusted channels of communication. Establishing authority and trust is built upon a foundation of using community-based networks, key influencers and building the capacity of local entities.

21.4.3.1 Budget Summary for Pillar 2: Risk Communication and Community Engagement

#	Items	Quantity	Rate	Sub-Total	
1	1 hour Radio Talk-back Program (AM Radio)	20	250	**5000**	
2	1 hour Radio Talk-back Program (FM Radio)	20	200	**4000**	
3	1 minute Announcement (2x per day for 2 weeks)	200	20	**4000**	
4	2 minute Announcement (2x per day for 2 weeks)	200	20	**4000**	
5	Apple iMac Desktop	1	7000	**7000**	
6	Apple iMac Laptop	1	4000	**4000**	
7	Bulk Printing	24000	2	**48000**	
8	Cannon Still Camera	2	5000	**10000**	
9	Communication [Credit]	42	30	**1260**	C
10	Design Software	1	300	**300**	
11	Fuel	65	100	**6500**	
12	Hot-line connection	10	200	**2000**	C
13	Megaphones	15	100	**1500**	
14	Photocopier	1	15000	**15000**	
15	Printing [A4 box]	4	100	**400**	
16	Printing [Toner]	2	300	**600**	
17	Radio Program (AM Radio) 30min - 1 hr, 1x per week for 3 months)	30	240	**7200**	
18	Refreshment	180	40	**7200**	
19	Salary [Graphic Designer]	90	80	**7200**	HR
20	SDI-HDMI Converter	1	500	**500**	
21	SMS Text-bomb	300	20	**6000**	
22	Stationary	60	30	**1800**	
23	TV clips	100	50	**5000**	
24	TV Program (1 hr per week for 3 months)	15	300	**4500**	
25	Van Shuttle	5		**0**	V
26	Venue	3	600	**1800**	
27	Water bottles	600	1	**600**	
	TOTAL			**155360**	

*__B:__ Building Project, **HR**: Human Resources, **C**: Communications

21.4.3.2 Actions/Activities for Pillar 2: Risk Communication and Community Engagement

21.4.3.3 Action / Output 2.1

Develop and Implement national risk-communication and community engagement plan or standardized community training package for COVID 19 for different population-groups

21.4.3.4 Activity for Output 2.1

Activity 2.11: Development of National Risk Communication and Community Engagement Plan – this plan also includes training packages for the teams and workshops to be implemented to different community and vulnerable groups. This National Risk Communication Plan will also need to incorporate dissemination and communication in the Tongan language to ensure that the messages go across and are appropriate for each group that will be addressed.

#	Activity				
2.11	**Development of the National Risk Communication and Community Engagement Plan (including training packages for COVID-19 for different population groups / vulnerable groups**				
Cost($)	**3600**	**PHASE I**	Budget	Lead	Support
KPI	Development stages of National Risk Communication Plan		**?**	HPU	MEIDECC / ICT
Target	A finalized draft of the Plan endorsed		Status	Begin	End
Frequency	One-off		**No Progress**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Venue		600	3	1800
2	Refreshment		40	20	800
3	Stationary		30	20	600
4	Printing [A4 Box]		100	1	100
5	Printing [Toner]		300	1	300

21.4.3.5 Action / Output 2.3

Prepare local messages regarding COVID-19 to raise awareness, educate the population and de-bunk myths and misinformation (in Tongan and English)

21.4.3.6 Activities for Output 2.3

Activity 2.31: Development of IEC materials for the general public in English and Tongan. These are general IEC materials that convey general information about COVID-19 to the public.

#	Activity				
2.31	**Develop and continuously supply risk communication / IEC materials (general public in English and Tongan)**				
Cost($)	**44000**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total Number of IEC materials		**Met**	HPU	MEIDECC / ICT
Target	There is a variety of IEC materials		Status	Begin	End
Frequency	Continuous		**Completed**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Bulk-printing		2	20,000	40000
2	Apple iMac Laptop		4000	1	4000

#	Phase	Total
1	**Phase I**	40000
2	**Phase II**	40000
3	**Phase III**	40000
4	**Phase IV**	40000

Activity 2.32: Develop posters to be posted at all PoE which outlines requirements and information related to COVID-19 and to include posters in various languages including Chinese due to the growing Chinese population in Tonga.

#	Activity				
2.32	**Develop posters and signs for PoE (English, Tongan and Chinese)**				
Cost($)	**8000**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total Number of Posters / Signs for PoE		**Met**	HPU	Comm
Target	Adequate stock of Posters / Signs for all PoE		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Bulk Printing		2	4,000	8000

#	Phase	Total
1	Phase I	8000
2	Phase II	8000
3	Phase III	8000
4	Phase IV	8000

Activity 2.33: Contextualize IEC materials to different groups [vulnerable populations] pregnant women, adolescent, children and at-risk groups. These IEC materials will be language appropriate and inform particular groups on certain myths that need to be debunked and to reassure the different groups on coping mechanisms and helpful information during the COVID-19 pandemic.

#	Activity				
2.33	**Contextualize communication / IEC materials for different groups (children, adolescent, at-risk groups etc.)**				
Cost($)	**12000**	**PHASE I**	Budget	Lead	Support
KPI	Total IEC material for children, elderly, vulnerable groups etc.		**Met**	HPU	
Target	Each IEC material is contextualized to vulnerable groups		Status	Begin	End
Frequency	One-off		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Apple iMac Desktop		7000	1	7000
2	Cannon Still Camera		5000	1	5000

#	Phase	Total
1	Phase I	12000
2	Phase II - IV	0

Activity 2.34: Develop short-educational video-clips on hygiene practices and COVID-19 related lifestyle changes [both in English and Tongan]. The educational video-clips will help educate and raise awareness to the Tongan population on how to wash their hands and the importance of social distancing to name a few.

#	Activity				
2.34	**Develop a short educational video/clip on Coronavirus (in Tongan) for hygiene practices and community mobilization**				
Cost($)	**5800**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total Number of Video Clips on COVID-19		**Met**	HPU	ICT
Target	To have various video clips on COVID-19		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Design Software		300	1	300
2	Cannon Still Camera		5000	1	5000
3	SDI-HDMI Converter		500	1	500

#	Phase	Total
1	Phase I	5800
2	Phase II – IV	0

Activity 2.35: The costs for this activity focus on disseminating all the IEC material, educational videos and awareness programs on different media channels including poster distributions, TV Advertisements, Radio Jingles, SMS text bombs etc.

#	Activity				
2.35	**Disseminate risk communication / IEC materials via various media channel (Posters, TV advertisement, Radio jingle, Facebook, Text-bomb etc.)**				
Cost($)	**31900**		Budget	Lead	Support
KPI	Total Number of Mediums used to disseminate Risk Communication etc.	**PHASE I – IV**	**Met**	HPU	ICT
Target	To utilize multiple channels and mediums to disseminate risk communication		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Fuel		100	12	1200
2	SMS Text-bomb		20	300	6000
3	2 minute Announcement (2x per day for 2 weeks)		20	200	4000
4	1 minute Announcement (2x per day for 2 weeks)		20	200	4000
5	TV Program (1 hr per week for 3 months)		300	15	4500
6	Radio Program (AM Radio) 30min - 1 hr, 1x per week for 3 months)		240	30	7200
7	TV clips		50	100	5000

#	Phase	Total
1	Phase I	31900
2	Phase II	31900
3	Phase III	31900
4	Phase IV	31900

Activity 2.36: Strengthen the Media Unit by recruiting a Graphic Designer to assist in the development of high-quality IEC and media items including designing IEC materials, posters, brochures, websites etc.

#	Activity				
2.36	**Recruit Graphic Designer**				
Cost($)	**7200**	**PHAS**	Budget	Lead	Support
KPI	Recruitment status of Graphic Designer		**?**	HPU	CSD / Admin
Target	Graphic Designer recruited by April		Status	Begin	End
Frequency	One-off		**No Progress**	March	June

#	Item	E I	Rate	Quantity	Sub-Total
1	Salary [Graphic Designer]		80	90	7200

#	Phase	Total
1	Phase I	7200
2	Phase II	7200
3	Phase III	7200
4	Phase IV	7200

*Granted the service will require extension of contract

21.4.3.7 Action / Output 2.4

Identify trusted community groups in Tonga (local influencers such as community leaders, religious leaders, health workers, community volunteers) and local networks (women's groups, youth groups, business groups, traditional healers, etc.)

21.4.3.8 Activities for Output 2.4

Activity 2.41: One of the key objectives of the COVID-19 plan is the empowerment and engagement of the community and non-government organizations. The Ministry of Health cannot attempt to contain COVID-19 on it"s own hence the assistance of all other sectors but especially the community is essential, as such all key community stakeholders need to be identified and engaged.

#	Activity				
2.41	**Identify all community /religious leaders, CSO / NGOs, relevant health workforce and other sectors**				
Cost($)	5800		Budget	Lead	Support
KPI	Total number of stakeholders / volunteers / community leaders		?	Community	
Target	To stocktake all community / NGOs and volunteers that will assist	**P**	Status	Begin	End
Frequency	One-off	**H**	In Progress	March	April
#	Item	**A**	Rate	Quantity	Sub-Total
1	Fuel	**S**	100	12	1200
2	Communications [Credit]	**E**	30	20	600
3	Refreshment		40	80	3200
4	Stationary	**I**	30	20	600
5	Water bottles		1	100	100
6	Printing [A4 box]		100	1	100

21.4.3.9 Action / Output 2.5

Ensure consistent communication mechanism in place to engage with all existing sectors and networks (public health and community-based networks, media, local NGOs, schools, education sector, business, travel and food/agriculture sectors).

21.4.3.10 Activities for Output 2.5

Activity 2.51: Since the Cluster groups have been initiated there will be some form of support given to the WASH cluster that is part of the Cluster Groups. The WASH Cluster is led by the Ministry of Health.

#	Activity				
2.51	**Establish and support regular meetings of the Inter-cluster Groups (WASH Cluster)**				
Cost($)	**4000**	PHASE I – IV	Budget	Lead	Support
KPI	Total Number of Inter-Cluster Meetings		**Met**	CMO	All
Target	Monitoring the total number of cluster meetings		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Refreshment		40	80	3200
2	Stationary		30	20	600
3	Water Bottles		1	100	100
4	Printing [A4 box]		100	1	100

#	Phase	Total
1	Phase I	4000
2	Phase II	4000
3	Phase III	4000
4	Phase IV	4000

21.4.3.11 Action / Output 2.6

Utilize two-way 'channels' for community and public information sharing such as hotlines (text and talk), responsive social media, and radio shows (talk-back shows), with systems to detect and rapidly respond to and counter misinformation

21.4.3.12 Activities for Output 2.6

Activity 2.61: To ensure that two-way channels of communication are available for the public and the Ministry of Health – hotlines need to be established. The hotline is to be established and run by the Public Health Division. There is an expectation that there will be more than one hot-line for the communications. These activities including 2.62 and 2.63 provide platforms for the community to voice and find information on COVID-19 and the efforts being done.

#	Activity				
2.61	**Establish hot-lines at healthcare facilities, EOC and quarantine zones**				
Cost($)	**2300**	**PHASE I**	Budget	Lead	Support
KPI	Total Number of Hotlines established		**Met**	ICT	CMO / MS
Target	All designated facilities have a hot-line		Status	Begin	End
Frequency	One-off		**In Progress**	March	June
#	Item		Rate	Quantity	Sub-Total
1	Hot-line connection		200	10	2000
2	Communications [credit]		30	10	300

Activity 2.62 and 2.63: This activity also focuses on debunking myths and to educate the public and raise awareness on the different lifestyle changes that is expected once COVID-19 hits Tonga. These include proper lifestyle practices like hygiene practices, social distancing and the importance to adhere to public health advice. In addition other means of coping with COVID-19 will be discussed to boost mental well-being and to reassure the public to be cooperative and that the Ministry of Health and other line Ministries are all working towards preventing any spread of COVID-19 to the community of Tonga and that community empowerment is extremely important. Thus radio-talk shows and social media platforms need to be available to all the public.

#	Activity				
2.62	**Conduct radio talk-back shows**				
Cost($)	**9000**	**PH**	Budget	Lead	Support
KPI	Total Number of Radio Talk-back shows / TV Programs		**Met**	HPU	All

Target	At least 2 Radio-Talk back shows and 2 TV programs a month	**A S E I – IV**	Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	1 hour Radio Talk-back Program (AM Radio)		250	20	5000
2	1 hour Radio Talk-back Program (FM Radio)		200	20	4000

#	Phase	Total
1	Phase I	9000
2	Phase II	9000
3	Phase III	9000
	Phase IV	9000

#	Activity				
2.63	**Establish social media platforms (COVID-19 Facebook Page, Youtube, Website)**				
Cost($)	**0**	**P H A S E I**	Budget	Lead	Support
KPI	Status of the Facebook Page development		**Met**	ICT	HPU
Target	A MOH COVID-19 Facebook Page is setup by April [complete] Website [complete] Youtube page / Instagram etc. [Yet to be done]		Status	Begin	End
Frequency	One-off		**In Progress**	March	April
#	Item		Rate	Quantity	Sub-Total
1	No cost				7,000

21.4.3.13 Action / Output 2.7

Implement community engagement for social and behaviour change approaches to ensure preventative community and individual health and hygiene practices in accordance to public health recommendations and disseminate the latest and vital information for community awareness and mobilization (people to self-identify symptoms and call healthcare professionals)

21.4.3.14 Activities for Output 2.7

Activity 2.71: This activity focuses on empowering the community to accept the use of their Community Facilities to be utilized by the Health Sector especially when the main Hospital [Vaiola Hospital] is converted to a COVID-19 isolation facility. This is a result if Mu"a and Taliai Isolation Facilities" capacity is maxed out. The overflow will then come to the main hospital and as a result the consultations will move to the Health Centres and Community Halls. Thus, community awareness and acceptance needs to be established first and educating and advising the community that there is no COVID-19 threat while utilizing their community facilities. The establishment of the Mu"a Isolation Facility underwent this process.

***Surge Capacity Plan Annex Q**

#	Activity				
2.71	**Empower the community to accept the use of their Community Facilities (Halls for Kolomotu'a and Kolofo'ou) or other needed Community Facilities (LDS churches).**				
Cost($)	**1000**	**PHASE I – II**	Budget	Lead	Support
KPI	Total Number of Communities with a Facility to be utilized		**Met**	Comm	
Target	At least 2 of the Community Facilities are established with Community Consent		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Fuel		100	5	500
2	Printing [A4 box]		100	1	100
3	Printing [Toner]		300	1	300
4	Van Shuttle			1	0
5	Water bottles		1	100	100
#	**Phase**	**Total**			
1	Phase I	1000			
2	Phase II	1000			

Activity 2.72, 2.73 and 2.74: Community Engagement / Community Health Talks at (2.72) Community Districts [fonos], (2.73) Schools and (2.74) Churches. These three areas are key during the pre-COVID-19 stages and are instrumental to the dissemination of key messages in relation to COVID-19. These groups were divided amongst the Public Health Teams and each targeted key players such as community leaders, church leaders, teachers and school children (Primary and High School).

#	Activity				
2.72	**Implement community engagement / community health talks and education (fonos)**				
Cost($)	**16920**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total Number of Districts/Communities covered		**?**	RH	Comm/HPU
Target	All Communities/Districts in Tongatapu have been covered		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Megaphones		100	5	500
2	Fuel		100	12	1200
3	Communication [Credit]		30	4	120
4	Van Shuttle			2	0
5	Photocopier		15,000	1	15000
6	Water bottles		1	100	100
#	**Activity**				
2.73	**Implement school engagement / health talks and education (schools)**				
Cost($)	**1920**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total Number of schools covered		**Met**	Comm	RH, HPU
Target	All Schools (High School, Primary/Middle) in Tongatapu have been covered		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item**		Rate	Quantity	Sub-Total
1	Megaphones		100	5	500
2	Fuel		100	12	1200
3	Communication [Credit]		30	4	120
4	Van Shuttle			1	0
5	Water bottles		1	100	100
#	**Activity**				
2.74	**Implement church engagement / health talks and education (churches)**				
Cost($)	**1920**	**PHASE**	Budget	Lead	Support
KPI	Total Number of Churches covered		**Met**	Comm	RH, HPU
Target	All Churches in Tongatapu have been covered		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item**		Rate	Quantity	Sub-Total

1	Megaphones	**I – IV**	100	5	500
2	Fuel		100	12	1200
3	Communication [Credit]		30	4	120
4	Van Shuttle			1	0
5	Water bottles		1	100	100

#	Phase	Total [For 2.72, 2.73, 2.74]
1	Phase I	4760
2	Phase II	4760
3	Phase III	4760
4	Phase IV	4760

ADDITIONAL ACTIONS

21.4.3.15 Action / Output 2.2

Conduct rapid behaviour assessment to understand key target audience, perceptions, concerns, influencers and preferred communication channels

#	Activity
2.21	Conduct a rapid assessment of key vulnerable groups / communities
2.22	Implement services catering to key vulnerable groups / communities

21.4.3.16 Action / Output 2.9

Document lessons learned to inform future preparedness and response activities

#	Activity
2.91	Implement a workshop post-outbreak to document lessons learned for Communications

21.4.4 Pillar 3: Surveillance, Rapid Response Teams and Case Investigation

Each country is unique and thus surveillance objectives must align with that country"s priorities, conclusive COVID-19 surveillance data is crucial to attune appropriate and proportionate public health measures. For countries who are at high-risk of imported or local transmission, surveillance will focus on rapid detection of imported cases, comprehensive and rapid contact tracing and case identification. Should community transmission be detected, objectives will expand to include monitoring the spread of the virus geographically, transmission intensity, disease trends, characterization of virological features and the assessment of impacts on healthcare services.

21.4.4.1 Budget Summary for Pillar 3: Surveillance, Rapid Response Teams and Case Investigation

#	Item	Rate	Quantity	Sub-total	
1	Communication (Credit)	60	8	390	C
2	Communication (Data Packages)	60	22	1320	C
3	Cuffs (S - XL)	200	6	1200	
4	Desktop	4000	1	4000	
5	Diagnostic sets	800	2	1600	
6	Examination bed	1000	2	2000	
7	Examination trolleys	900	2	1800	
8	Fuel	100	13	1300	
9	Laptop	5000	1	5000	
10	Minor procedure Examination lamps w/ mobile stands	1000	3	3000	
11	Mobile Sphygmomanometer	1500	2	3000	
12	Overall	60	10	600	
13	Perdiem (EUA) x 3 staff	450	5	2250	
14	Perdiem (HHP) x 3 staff	420	6	2520	
15	Perdiem (VVU) x 3 staff	510	8	4080	
16	PowerPoint projector	1000	1	1000	
17	Procedure Lamp w/ wall mount	2000	1	2000	
18	Projection screen	500	2	1000	
19	Refreshment	40	30	1200	
20	Refreshment x 40 people	40	40	1600	
21	Rental	70	10	700	
22	Return Tickets [TBU - EUA - TBU]	300	6	1800	
23	Return Tickets [TBU - HHP - TBU]	500	6	3000	
24	Return Tickets [TBU - VVU - TBU]	700	6	4200	
25	Sharps disposal units	200	20	4000	
26	Stationary	30	60	1800	
27	Transport Voucher	20	40	800	
28	Vehicle (Vehicle Requirement)		2	0	
29	Venue x 2 days	600	2	1200	V

30	Wall-mounted Sphygmomanometer	1000	2	2000	
31	Weighing scale with height component for >200kg	300	2	600	
	TOTAL			**60960**	

21.4.4.2 Actions/Activities for Pillar 3: Surveillance, Rapid Response Teams and Case Investigation

21.4.4.3 Action / Output 3.2

Activate and strengthen active case finding and event-based surveillance for influenza-like illness (ILI), and severe acute respiratory infection (SARI)

21.4.4.4 Activities for Output 3.2

Activity 3.21: This activity focuses on activating the surveillance system for ILI and SARI. While all cases will be quarantined and contained within the „pipeline" system, in the unfortunate case that local transmission occurs, this surveillance team will be vital for response teams and case investigation.

#	Activity				
3.21	**Active case finding and event-based surveillance for influenza-like illness (ILI), and severe acute respiratory infection (SARI)**				
Cost($)	**4270**	**PHASE I – IV**	Budget	Lead	Support
KPI	Total Number of ILI and SARI cases		**Met**	CDU	
Target	Monitor the total number of ILI and SARI cases to ensure		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Desktop		4000	1	4000
2	Communication (Data Packages)		60	3	180
3	Communication (Credit)		30	3	90
4	Vehicle (Vehicle Requirement)			1	0

#	Phase	Total
1	Phase I	4270
2	Phase II	270
3	Phase III	270
4	Phase IV	270

Activity 3.22: This activity will focus on providing the necessary equipment for the Communicable Disease Unit whom are the primary unit for surveillance, contact tracing and case investigation. The equipment needed will ensure that the Unit is fully equipped and prepared for the COVID-19 response

#	Activity				
3.22	**Provide the necessary equipment for the screening and examination of asymptomatic cases (CD Section)**				
Cost($)	**21800**		Budget	Lead	Support
KPI	Inventory Status of Screening/Examination areas[Incomplete / Complete]		**?**	CDU	
Target	Screening and Examination areas fully equipped		Status	Begin	End
Frequency	Continuous		**In Progress**	March	April
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Wall-mounted Sphygmomanometer	**PHASE I – IV**	1000	2	2000
2	Mobile Sphygmomanometer		1500	2	3000
3	Cuffs (S - XL)		200	6	1200
4	Examination bed		1000	2	2000
5	Overall		60	10	600
6	Diagnostic sets		800	2	1600
7	Examination trolleys		900	2	1800
8	Sharps disposal units		200	20	4000
9	Weighing scale with height component for >200kg		300	2	600
10	Minor procedure Examination lamps w/ mobile stands		1000	3	3000
11	Procedure Lamp w/ wall mount		2000	1	2000

#	Phase	Total
1	Phase I	4270
2	Phase II	270
3	Phase III	270
4	Phase IV	270

Activity 3.23: This activity focuses on strengthening the surveillance unit at the Communicable Disease Section. The Equipment outlined will be utilized for the Surveillance team to ensure timely reporting of surveillance information and reports.

#	Activity				
3.23	**Strengthen existing surveillance unit**				
Cost($)	**7540**	PHASE I	Budget	Lead	Support
KPI	Procurement of equipment		?	CDU	
Target	Surveillance System fully equipped		Status	Begin	End
Frequency	One-off		TBC	March	April
#	Item		Rate	Quantity	Sub-Total
1	Laptop		5000	1	5000
2	Projection screen		500	2	1000
3	PowerPoint projector		1000	1	1000
4	Communication (Credit) EWARS for all sentinel sites (10 sites)		60	5	300
5	Data Package (1 GB plan)		60	4	240
6	Vehicle (Vehicle Requirement)			1	0

21.4.4.5 Action / Output 3.4

Enhance existing surveillance systems to enable monitoring of COVID 19 transmission and adapt tools and protocols for contact tracing and monitoring to COVID 19

21.4.4.6 Activities for Output 3.4

Activity 3.42: Upskilling the surveillance staff at the 10 sentinel sites located throughout Tonga. Staff from the outer islands will also come for the training in the main island [Tongatapu].

#	Activity				
3.42	**Monitoring of EWARS and upskilling of surveillance staff in sentinel sites (including outer islands) [10 sentinel sites]**				
Cost($)	**11390**	PHAS	Budget	Lead	Support
KPI	Total Number of Sentinel sites that are reporting ILI and SARI		?	CDU	Communication
Target	All sentinel sites are activated and operational		Status	Begin	End
Frequency	One-off		In progress	March	April

#	Item	E I	Rate	Quantity	Sub-Total
1	Perdiem (VVU) x 3 staff		510	5	2550
2	Perdiem (HHP) x 3 staff		420	3	1260
3	Perdiem (EUA) x 3 staff		450	2	900
4	Return Tickets [TBU - VVU - TBU]		700	3	2100
5	Return Tickets [TBU - HHP - TBU]		500	3	1500
6	Return Tickets [TBU - EUA - TBU]		300	3	900
7	Rental		70	10	700
8	Data Packages (Communications)* 3 staff		60	3	180
9	Stationary		30	10	300
10	Fuel		100	10	1000

21.4.4.7 Action / Output 3.1

Disseminate case definition and investigation protocols to all healthcare workers (public and private sectors) & undertake case-based reporting to Surveillance HQ [WHO] within 24 hours under IHR (2005). Produce weekly epidemiological and social science reports and disseminate to all levels and international partners

21.4.4.8 Activity 3.51

Activity 3.51: This activity is disseminating important information related to COVID-19 to all relevant stakeholders however focusing on informing all relevant teams in Tonga on any updates regarding the case definition of COVID-19 especially if unique case definitions and incubation periods are observed in Tonga.

#	**Activity**				
3.51	**Updating and Reporting case definitions to international organizations and internal stakeholders [All Healthcare Workers and Private Organizations] however primarily for Healthcare workers part of the COVID-19 response Team**				
Cost($)	**720**	P I - IV	Budget	Lead	Support
KPI	Total Number of Case Definition Updates disseminated		**Met**	CDU	CMO
Target	Regularly update all Healthcare Workers in Tonga [public and private] on the case definition of COVID-19		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**

1	Communications (*1 GB per week)		60	12	720

#	Phase	Total
1	Phase I	720
2	Phase II	720
3	Phase III	720
4	Phase IV	720

*No need for constant updates if Tonga is COVID-19 free and borders are closed. However it will commence once Tonga borders open.

Activity 3.52: This activity is disseminating and reporting back to main office [CMO/CEO/Minister] on the number of suspected and confirmed cases of COVID-19.

#	Activity				
3.52	**Weekly updates on suspected and confirmed cases**				
Cost($)	**720**	**P I - IV**	Budget	Lead	Support
KPI	Total Number of Suspected and Confirmed COVID-19 cases reported		**Met**	CDU	CMO
Target	Monitor the number of suspected and confirmed COVID-19 cases and report to relevant organizations.		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Communications (*1 GB per week)		60	12	720

#	Phase	Total
1	Phase I	720
2	Phase II	720
3	Phase III	720
4	Phase IV	720

*No need for constant updates if Tonga is COVID-19 free and borders are closed. However it will commence once Tonga borders are open.

21.4.4.9 Action / Output 3.7

Train and equip rapid-response teams to investigate cases and clusters early in the outbreak, and conduct contact tracing within 24 hours

21.4.4.10 Activities for Output 3.7

Activity 3.71 and 3.72: These activities focus on training the rapid-response and contact tracing teams and will engage staff from multiple areas which includes Communicable Disease Unit staff, Reproductive Health Nurses, NCD Nurses, other-MOH staff and staff from other line Ministries, NGOs and the community whom have volunteered to be part of the rapid response and contact tracing teams. These trainings include the Outer Islands.

#	Activity				
3.71	**Training of Communicable Disease staff and support staff on investigating cases and clusters (contact tracing) Tongatapu**				
Cost($)	**4200**	**PHASE I - IV**	Budget	Lead	Support
KPI	Total Number of Training implemented in Tongatapu		**Met**	CDU	Clinical / All
Target	At least 1 Training implemented in Tongatapu		Status	Begin	End
Frequency	One-off		**In Progress**	March	April
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Refreshment x 40 people		40	40	1600
2	Stationary		30	20	600
3	Venue x 2 days		600	2	1200
4	Transport Voucher		20	40	800
#	**Activity**				
3.72	**Training of Communicable Disease staff and support staff on investigating cases and clusters (contact tracing) Outer Islands**				
Cost($)	11040	**PHASE I - IV**	Budget	Lead	Support
KPI	Total Number of Training implemented in the Outer Islands		**Met**	CDU	Clinical / All
Target	At least 1 Training implemented in the Outer Islands		Status	Begin	End
Frequency	One-off		**In Progress**	March	April
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Perdiem (VVU) x 3 staff		510	3	1530
2	Perdiem (HHP) x 3 staff		420	3	1260
3	Perdiem (EUA) x 3 staff		450	3	1350
4	Return Tickets [TBU - VVU - TBU]		700	3	2100
5	Return Tickets [TBU - HHP - TBU]		500	3	1500
6	Return Tickets [TBU - EUA - TBU]		300	3	900
7	Refreshment		40	30	1200
8	Stationary		30	30	900

9	Fuel		100	3	300

21.4.4.11 Action / Output 3.9

Test the existing system and plan through actual experience and/or table-top or simulation exercises, and document findings to inform future preparedness and response activities

21.4.4.12 Activity for Output 3.9

Activity 3.91: Implement a drill of the entire process to ensure that the pipeline is secure and that any gaps are identified and addressed. The drill is essential for all healthcare workers and support staff [airline workers, cargo workers, security, transport drivers etc.]. Through the drill all individuals" part of the COVID-19 response team will be identified and this drill will allow the teams to function on the field and to apply all the knowledge and skills learned during the training. It will also require full PPE for Training and the Quarantine Facility to also be ready.

#	Activity				
3.91	**Implement a drill of the entire process**				
Cost($)	**0**	**P I - IV**	Budget	Lead	Support
KPI	Total Number of Drills implemented		**Met**	CDU	CMO
Target	Implement at least one drill or two before the border opens		Status	Begin	End
Frequency	One-off		**In Progress**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	TBC				TBC

*To identify if there are items to be costed

21.4.5 Pillar 4: Point of Entry

Points of Entry (PoE) are the entry points of COVID-19 into the nation, primarily through airports or seaports. As such, actions and activities around these points should focus their efforts and resources on screening, risk communication, surveillance and have procedures in place for different scenarios.

21.4.5.1 Budget Summary for Pillar 4: Point of Entry

#	Item	Rate	Quantity	Sub-Total	
1	Communications [Credit]	60	60	**3600**	**C**
2	Toyota Hilux double cap	40000	1	**40000**	**V**
3	Desktop Computer	4000	1	**4000**	
4	Fuel	100	12	**1200**	
5	Hard Helmet	150	50	**7500**	
6	Infrared thermometer	1000	10	**10000**	
7	Media Coverage	600	10	**6000**	
8	Megaphone	100	2	**200**	
9	Mobile Health booth	400	5	**2000**	
10	Overalls	60	10	**600**	
11	Perdiem [EUA]	450	3	**1350**	
12	Perdiem [HHP]	420	3	**1260**	
13	Perdiem [VVU]	510	3	**1530**	
14	Printer	700	1	**700**	
15	Printing [A4 box]	100	1	**100**	
16	Printing [Health arrival cards/Customs / IEC materials]	2	10000	**20000**	
17	Pulse-oximeter	1500	2	**3000**	
18	Refreshments	40	30	**1200**	
19	Return Tickets [EUA]	300	3	**900**	
20	Return Tickets [HHP]	500	3	**1500**	
21	Return Tickets [VVU]	700	3	**2100**	
22	Sphygmomanometer	120	4	**480**	
23	Stationary	30	33	**990**	
24	Vest	60	150	**9000**	
25	Wash basin and paper towel dispenser at health rooms	1000	3	**3000**	
26	Waste bins that you step on	80	20	**1600**	
27	White board [Large]	300	2	**600**	
	TOTAL			**124410**	

*__C__: Communication __V__: Vehicle

21.4.5.2 Actions/Activities for Pillar 4: Point of Entry

21.4.5.3 Action / Output 4.1

Develop and/or implement a Tonga point of entry public health emergency plan / actions

21.4.5.4 Activities for Output 4.1

Activity 4.11: Development of a Tonga Point of Entry Public Health Emergency Plan with protocols and procedures for the travellers and how they will be handled and transported to their respective quarantine or isolation facility. This piece of work is essential to lay the foundation for coordinated and collaborative efforts on how to systematically approach travellers and process their entry into Tonga. This development may require a workshop and some staff to draft the document. Yet to be decided and costed.

#	Activity				
4.11	**Develop a Tonga point of entry public health emergency plan and protocol / procedure**				
Amount($)	**TBC**	**PHASE I**	Budget	Lead	Support
KPI	Status of each PoE rapid health assessment facility		**?**	CDU	TAL
Target	Ensure each PoE rapid health assessment facility is fully equipped		Status	Begin	End
Frequency	One-off		**?**	March	April
#	Item		Rate	Quantity	Sub-Total
1	TBC				TBC

21.4.5.5 Action / Output 4.2

Disseminate latest disease information, standard operating procedures, equip and train staff in appropriate actions to manage ill passenger(s)

21.4.5.6 Activities for Output 4.2

Activity 4.21: Establish the minimum health requirements and equipment to ensure that processes and procedures are able to be adhered to when managing ill-passengers at Fua‟amotu airport and the seaport.

#	Activity				
4.21	**Establish and adhere to the minimum health requirements (SOP, PPE, trained staff) at each PoE to ensure appropriate actions and processes are in place to manage ill passenger(s)**				
Amount($)	**25380**	**PHASE I**	Budget	Lead	Support
KPI	Status of each PoE rapid health assessment facility		**?**	CDU	TAL
Target	Ensure each PoE rapid health assessment facility is fully equipped		Status	Begin	End
Frequency	One-off		**?**	March	April
#	Item		Rate	Quantity	Sub-Total
1	Infrared thermometer		1000	10	10000
2	Mobile Health booth		400	5	2000
3	Desktop Computer		4000	1	4000
4	Printer		700	1	700
5	Overalls		60	10	600
6	Sphygmomanometer		120	4	480
7	Pulse-oximeter		1,500	2	3000
8	Waste bins that you step on		80	20	1600
9	Wash basin and paper towel dispenser at health rooms		1,000	3	3000

Activity 4.22: Training of border officers in all island groups (Vava‟u, Ha‟apai and „Eua), the training will be implemented at each island respectively. This is to build the capacity and knowledge of border officers should the need arise where COVID-19 spreads to the outer islands.

#	Activity				
4.22	**Training of officers designated as border officers in all the islands (Vava'u, Ha'apai, 'Eua)**				
Amount($)	**10740**	**PHASE I**	Budget	Lead	Support
KPI	Total Number of Trainings implemented in the Outer Islands		**Met**	CDU	EH
Target	To have at least 1 or 2 trainings in Vava'u, Ha'apai and 'Eua		Status	Begin	End
Frequency	One-off		**In progress**	March	April
#	Item		Rate	Quantity	Sub-Total
1	Perdiem [VVU] x 3 staff		510	3	1530
2	Perdiem [HHP] x 3 staff		420	3	1260

3	Perdiem [EUA] x 3 staff		450	3	1350
4	Return Tickets [TBU - VVU - TBU]		700	3	2100
5	Return Tickets [TBU - HHP - TBU]		500	3	1500
6	Return Tickets [TBU - EUA - TBU]		300	3	900
7	Refreshments		40	30	1200
8	Stationary		30	30	900

21.4.5.7 Action / Output 4.3

Prepare rapid health assessment/isolation facilities to manage ill passenger(s) and to safely transport them to designated health facilities

21.4.5.8 Activities for Output 4.3

Activity 4.31 and 4.33: These two activities are focused on the two PoEs which are the Sea-ports and Airports and the screening of travellers from these ports under the established procedures and tents. There are plans for the travellers to go directly from the tarmac to their designated transports after being screened . Immigration and passports will be processed electronically as to avoid any contact with Immigration Officers.

#	Activity				
4.31	**Screening at Sea-ports (Port of Entry): Conduct Risk Assessment including Vessel Clearance**				
Amount($)	**15300**	**PHASE I-IV**	Budget	Lead	Support
KPI	Total Number of Travellers screened at Sea-ports		**Met**	CDU/EH	FISA
Target	Maintain consistent updates on the number of travellers inbound at Sea-ports		Status	Begin	End
Frequency	Continuous		**In progress**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Hard Helmet		150	50	7500
2	Vest		60	100	6000
3	Communications [Credit]		60	30	1800
4.32	**Screening at Airports (Port of Entry): Collection and Detection of Suspected and Quarantine travellers**				
Amount($)	**44800**	**PHASE I-IV**	Budget	Lead	Support
KPI	Total Number of Travellers screened at Airports		**Met**	CDU/EH	TAL
Target	Maintain consistent updates on the number of travellers inbound at Airports		Status	Begin	End
Frequency	Continuous		**In progress**	March	Ongoing
#	**Item**		Rate	Quantity	Sub-Total
1	Vest		60	50	3000
2	Toyota Hilux double cap		40000	1	40000
3	Communications [Credit]		60	30	1800

4.33	Establish Electronic processing mechanisms for passports / immigration to reduce contact of travellers to immigration staff				
Amount($)	TBC	PHASE I	Budget	Lead	Support
KPI	Development status of electronic immigration processing		?	CDU/EH	Immi.
Target	To have established electronic processing of passports / immigration		Status	Begin	End
Frequency	One-off		?	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	TBC				TBC

#	Phase	Total
1	Phase I	60100
2	Phase II	2000
3	Phase III	2000
4	Phase IV	2000

21.4.5.9 Action / Output 4.4

Communicate information about COVID 19 to traveller(s)

21.4.5.10 Activities for Output 4.4

Activity 4.41: Equip the health assessment facilities at the PoE with adequate equipment and communication facilities/equipment to broadcast COVID-19 – related information and traveller requirements at the PoE.

#	Activity				
4.41	Fully equip all PoE with adequate communication facilities and equipment / IEC materials to broadcast COVID-19 information and advisories to travellers				
Amount($)	20800	PHASE I - IV	Budget	Lead	Support
KPI	Total number of PoE with adequate communication material / equipment		?	CDU	EH / CMO
Target	All PoE have adequate communication equipment/facilities to broadcast information		Status	Begin	End
Frequency	One-off		?	March	On-going
#	Item		Rate	Quantity	Sub-Total
1	Bulk Printing [Health arrival cards/Customs / IEC materials]		2	10,000	20000
2	White board [Large]		300	2	600
3	Megaphone		100	2	200

Activity 4.42: Developing Travel Advisories and Diversion Orders for Tonga.

#	Activity				
4.42	**Develop Travel Advisories and Diversion Orders**				
Amount($)	**6190**	**PHASE I-IV**	Budget	Lead	Support
KPI	Total Number of Travel Advisories and Diversion Orders		**Met**	CMO	EH / CDU
Target	Maintain constant dissemination of Travel Advisories and Diversion Orders		Status	Begin	End
Frequency	Continuous		**In Progress**	March	On-going
#	Item		Rate	Quantity	Sub-Total
1	Stationary		30	3	90
2	Printing [A4 box]		100	1	100
3	Media Coverage		600	10	6000

21.4.5.11 Action / Output 4.5

Regularly monitor and evaluate the effectiveness of readiness and response measures at points of entry, and adjust readiness and response plans as appropriate

21.4.5.12 Activities for Output 4.5

Activity 4.51: Supervisory visit of the Environmental Health Unit and Communicable Disease Unit to check on the PoE and vessels to review current processes and address any gaps or issues that were previously identified. This role is crucial to ensure that the „pipeline" is fully sealed and that there is no leakage that could lead to the possibility of cross-contamination and the spread of the COVID-19 virus.

#	Activity				
4.51	**Supervisory Rounds to assess current measures and identify and address possible gaps and issues at PoE, quarantine/isolation facilities or the vessels.**				
Amount($)	**1200**	**PI-IV**	Budget	Lead	Support
KPI	Total Number of Supervisory Checks on PoE to review current measures		**Met**	EH	CDU
Target	Total Number of Supervisory Checks on PoE		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	Item		Rate	Quantity	Sub-Total
1	Fuel		100	12	1200

#	Phase	Total
1	Phase I	1200
2	Phase II	1200
3	Phase III	1200
4	Phase IV	1200

21.4.6 Pillar 5: National Laboratories

Countries should prepare laboratory capacity to manage large-scale testing for COVID‑19 domestically, through public, private and academic laboratories. If this is not possible, testing should be organized through arrangements with international reference laboratories. In the event of community transmission, surge plans should be activated to manage the increased volume of samples from suspected cases. See the Special Considerations section in this document for actions to adapt laboratory capacity to meet surge demand during community transmission, low capacity, and humanitarian settings. WHO can support access to relevant reference laboratories and protocols, reagents, and other supplies through the interagency COVID‑19 Supply Chain System (CSCS).

21.4.6.1 Actions/Activities for Pillar 5: National Laboratories

21.4.6.2 Action / Output 5.1

Establish access to designated domestic COVID-19 diagnostic laboratory and radiology.

21.4.6.3 Activities for Output 5.1

Activity 5.11: Strengthening the diagnostic capacity of the Ministry of Health which includes the Laboratory and Radiology Unit

#	Activity				
5.11	**Strengthen the diagnostic capacity of the Ministry of Health by procuring PCR Machine and relevant equipment**				
Amount($)		**PHASE II**	Budget	Lead	Support
KPI	Total Number of Tests made by PCR		**Met**	Lab / X-ray	MS
Target	Monitor number of Tests made by PCR		Status	Begin	End
Frequency	Continuous		**Complete**	March	June
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	PCR			2	
2	Reagents for PCR			2000	
3	Biosafety Cabinet			2	
4	Refrigerator-Specimens			2	
5	Refrigerator - Samples			2	
6	Centrifuge-serum 1.5 ML TUBES for the PCR			1	
7	UPS			10	
8	Blood Culture analyser			1	
9	Multichannel Pipette			2	
10	Desktop computers x 2 for PCR room			2	
11	Portable X-ray			2	
12	VTM swabs			5000	
13	Ultrasound Machine			2	

Activity 5.12: Renovate the Laboratory Facility for the PCR testing machine. This activity aims to have an allocated room/space for the PCR.

#	Activity				
5.12	**Renovation of the Laboratory Facility to cater for the new PCR Machine.**				
Amount($)	**100,000**	**PHASE I**	Budget	Lead	Support
KPI	Development Status of the Renovation		**Met**	Lab / X-ray	MS
Target	Laboratory Facility complete for new PCR Machine		Status	Begin	End
Frequency	Continuous		**In Progress**	March	June
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Project Cost		100,000	1	100,000

21.4.6.4 Action / Output 5.2:

Adopt and disseminate SOPs (as part of disease outbreak investigation protocols) for collection, management, and transport of COVID-19 diagnostic specimens. Ensure specimen collection, management, referral network and procedures are functional.

21.4.6.5 Activities for Output 5.2:

Activity 5.21: Development of Laboratory Procedures for the Collection, Transport, Testing and Storage of specimens for COVID-19 suspected and confirmed cases.

#	Activity				
5.21	**Develop laboratory procedures for the collection and testing of COVID-19 suspected and confirmed cases**				
Amount($)	**0**	**PHASE I**	Budget	Lead	Support
KPI	Development status of Laboratory Procedures for COVID-19 testing		**Met**	Lab / X-ray	MS
Target	A Laboratory Procedure is developed and finalized		Status	Begin	End
Frequency	One-off		**Complete**	March	June
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	No Cost		0	0	0

** Laboratory staff should handle clinical specimens under Universal Precaution accordance with Safety in Laboratories / Microbiological Safety and Containment. However, viral isolation for a PCR-confirmed specimen should be handled under PC3 conditions (WHO interim recommendations for laboratory bio-risk management.)* [MOH, 2020 COVID-19 Case Management]. *Amendments may be made to protocols.

Activity 5.22: Development of Radiology procedures for the collection and testing of COVID-19 at-risk, suspected and confirmed cases [**Annex L and M**]

#	Activity				
5.22	**Develop radiology procedures for the collection and testing of COVID-19 at-risk, suspected and confirmed cases**				
Amount($)	**0**	**PHASE I**	Budget	Lead	Support
KPI	Development status of Radiology Procedures for collecting and testing at risk, suspected and confirmed COVID-19 cases		**Met**	Lab / X-ray	MS
Target	A drafted and endorsed protocol for Radiology		Status	Begin	End
Frequency	One-off		**Complete**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	No Cost		0	0	0

*Amendments may be made to protocols

21.4.6.6 Action / Output 5.3:

Identify hazards and perform a biosafety risk assessment at designated laboratories; use appropriate biosafety measures to mitigate risks

21.4.6.7 Activities for Output 5.3

Activity 5.31: Conduct Biosafety Risk Assessment for the Vaiola Hospital once the Laboratory Room is complete and PCR is set-up in room.

#	Activity				
5.31	**Conduct Biosafety Risk Assessment at the Laboratory at Vaiola Hospital and develop a Hazard Report to address any possible risks**				
Amount($)	**TBC**	**PHASE I**	Budget	Lead	Support
KPI	Development status of Hazard/ Biosafety Report for Laboratory		**Met**	Lab / X-ray	MS
Target	A Hazard/Biosafety Report is drafted and endorsed		Status	Begin	End
Frequency	One-off		**In Progress**	March	June
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	TBC		0	0	0

Activity 5.32: Procure items, equipment or establish procedures to mitigate any biohazard or safety risks identified in Activity 5.31

#	Activity				
5.32	**Procure items/equipment and establish procedures to mitigate biohazard risks identified in Activity 5.31**				
Amount($)	**TBC**	**PHASE**	Budget	Lead	Support
KPI	Total Number of Risks addressed or mitigated		**Met**	Lab / X-ray	MS
Target	All Risks and Hazards addressed >90% of possible risks mitigated		Status	Begin	End
Frequency	One-off		**In Progress**	March	June
#	**Item**		**Rate**	**Quantity**	**Sub-Total**

1	TBC	**I**	0	0	0

21.4.6.8 Action / Output 5.4

Laboratories should adopt systems for molecular (PCR) testing, supported by timely access to reagents, testing kits, and a trained workforce

21.4.6.9 Activities for Output 5.4

Activity: Procure Reagents and Testing kits for the Laboratory and PCR Machine

#	Activity				
5.41	**Procure reagents and necessary equipment for the Laboratory to facilitate testing for COVID-19 cases**				
Amount($)	**TBC**	**PHASE I**	Budget	Lead	Support
KPI	Procurement status of items		**Met**	Lab / X-ray	MS
Target	All Reagents and Testing kits procured by June and in Tonga		Status	Begin	End
Frequency	One-off		**Complete**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	Centrifuge-serum				
2	CFX96 ex test kits				
3	Genesis Real Time PCR				
4	Lab supplies and reagents				
5	Lab supplies and reagents				
6	Haematology Analyser				
7	Biochemistry Analyser				
8	Electrolyte Analyser				
9	Centrifuge-Grouping				
10	Scientific Balance				
11	Bloodtest Analyser COVID TEST KIT				
12	Genexpert analyser X 1				
13	Genexpert analyser X 1 CATRILAGES				

**If diagnostic capacity is insufficient, implement prioritized testing and measures that can reduce spread (e.g. isolation), including priority testing of: high-risk individuals, quarantined/isolated individuals*

21.4.6.10 Action / Output 5.5

Develop and implement surge plans to manage increased demand for testing; consider conservation of lab resources in anticipation of potential widespread COVID-19 transmission

21.4.6.11 Activities for Output 5.5

Activity 5.41: Projection/forecast for the maximum testing capacity for the PCR Machine/Diagnostic Unit and the resources required to remain fully operational for a month – 3 months. This is essential to identify what is the diagnostic capacity for Tonga and how many tests or patients it can test for. These forecasts can assist in planning and prepositioning to allow the continuous implementation of tests.

#	Activity				
5.41	**Project the maximum testing capacity of the PCR Machine / Diagnostic Unit and identify additional resources needed**				
Amount($)	**TBC**	**PHASE I - IV**	Budget	Lead	Support
KPI	Forecast for PCR Testing including reagents etc. needed		**Met**	Lab / X-ray	MS
Target	Forecast for the capacity of the PCR tests established for at least 3 months duration/capacity		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	No Cost		0	0	TBC

Activity 5.42: Procurement of additional Influenza Swabs

#	Activity				
5.42	**Increase the supply of swabs for Influenza Testing**				
Amount($)	**TBC**	**PHASE I - IV**	Budget	Lead	Support
KPI	Procurement of Influenza Swabs		**?**	Lab / X-ray	MS
Target	3 months of supplies on standby		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	TBC				TBC

Activity 5.43: Procurement of additional reagents and supplies in anticipation for a local transmission of COVID-19 or surge, or the prepositioning of stock [reagents, supplies etc.] in neighbouring nations/islands.
***SURGE CAPACITY**

#	Activity				
5.43	**Procure additional reagents and supplies in preparation and anticipation for local transmission of COVID-19.**				
Amount($)	**TBC**	**PHASE I - IV**	Budget	Lead	Support
KPI	Procurement of additional reagents and supplies or Prepositioning of Supplies			Lab / X-ray	MS
Target	3 months of supplies and reagents on standby [Preposition Scheme[]		Status	Begin	End
Frequency	Continuous		**In Progress**	March	Ongoing
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	TBC				TBC

21.4.6.12 Action / Output 5.5

Develop a quality assurance mechanism for laboratory testing, including quality indicators

21.4.6.13 Activity for Output 5.5

Activity 5.51: Develop quality assurance indicators and mechanisms for the COVID-19 Laboratory Tests. This is to ensure all tests are done accordingly and appropriately as to maintain quality standards and confidence in the results of the laboratory tests.

#	Activity				
5.51	**Develop quality assurance mechanism for laboratory testing**				
Amount($)	**0**	**PHASE I**	Budget	Lead	Support
KPI	Quality Indicators / Mechanisms and Standards			Lab / X-ray	MS
Target	Laboratory Quality standards and indicators established for PCR		Status	Begin	End
Frequency	One-off		**In Progress**	March	June
#	**Item**		**Rate**	**Quantity**	**Sub-Total**
1	TBC				TBC

21.4.7 Pillar 6: Infection Prevention and Control

One of the most vital steps in preparation for treatment of patients with COVID-19 and to prevent transmission to staff, all patients/visitors and the wider community, infection prevention and control (IPC) practices in communities and health facilities must be reviewed.

21.4.7.1 Budget for Pillar 6: Infection Prevention and Control

#	Item	Quantity	Rate	Sub-Total	
1	Agent for Water Bacteria Testing	50	500	25000	
2	Aqua (L)	500	80	40000	
3	Bait (kg)	1000	40	40000	
4	Bed Tables	2	500	1000	
5	Biphentrin (L)	500	80	40000	
6	Bulk Printing [Posters]	20000	2	40000	
7	Carrier (L)	1000	100	100000	
8	Chlorine (tablets) Purifying Tablets	250	500	125000	
9	Curtains	10	50	500	
10	Decontamination supplies	2500	200	500000	
11	Diesel (40 Drums* 200 Litres)	40	450	18000	
12	Disinfectant	20	6	120	
13	Disinfectant for Equipment	5	100	500	
14	Disposal Black Plastic Bag - 900mm, 600mm, 300mm pack	1500	60	90000	
15	Disposal Yellow Plastic Bag - 900mm, 600mm, 300mm pack	1500	60	90000	
16	Examination Table	2	1000	2000	
17	Fog Machine	10	60	600	
18	Fogger	50	100	5000	
19	Fuel	120	100	11650	
20	General Waste Plastic Bags - Clinical waste bin: size 1500 x 1180mm / box	6	750	4500	
21	General Waste Plastic Bags - Clinical waste bin: suze 1000 x 760mm / box	6	600	3600	
22	General Waste Plastic Bags - General waste bin: size 1000 x 760mm / box	8	485	3880	
23	General Waste Plastic Bags - General waste bin: size 1500 x 1180mm / box	8	500	4000	
24	Green Recycling Bin for Kitchen, Storage Room and Male Orderly (110kg)	65	150	9750	
25	Handwashing Stations	10	100	1000	

26	Hygiene kits	5000	100	500000	
27	Larvacide (Abate) packets	10000	50	500000	
28	Larvacide (BTI) tablets	10000	20	200000	
29	Luminescent Jacket	15	60	900	
30	Maintenance Tools	1	5000	5000	
31	Mist-blower	10	100	1000	
32	Overalls	10	60	600	
33	Raincoats	25	60	1500	
34	Rubbish Bins (Large) to step on	6	80	480	
35	Safety Boots (pair)	45	80	3400	
36	Salary [PPE Coordinating Officer]	1	19420	19420	
37	Scrubs or materials for scrubs	10	100	1000	
38	Sharps Bin - Yellow : medium	50	150	7500	
39	Sharps Plastic Containers - Yellow/Red: Portable	50	100	5000	
40	Signs	35	100	3500	
41	Small Tables	2	100	200	
42	Sphygmomanometer (manual)	4	1000	4000	
43	Staff Uniform	10	50	500	
44	Stationary	1	30	30	
45	Traps	1000	10	10000	
46	Vehicle		1	0	V
47	Water Engine and Pump for the Rural Water village	1	100000	100000	
48	Weighing scale for > 200kg	2	300	600	
49	Yellow recycle bin for patients room (40kg)	20	150	3000	
50	Yellow recycle bin(110kg) wheeled bins	70	250	17500	
51	Yellow sharp bin (20kg)	60	200	12000	
	Total			2553230	

It should be noted that PPE was costed separately but is part of the IPC activities. Hence the overall total costs for the Pillar 6:IPC is shown below.

#	Items	Overall Cost
1	IPC Activity Items (Table above)	2553230
2	PPE	2042820
	OVERALL COST	**4596050**

*PPE list was costed separately (Annex A)

21.4.7.2 Activities for Pillar 6

For the ease of reading and identifying activities, the full-list with items is shown in Annex B: IPC full items and costing. For this section, only the activities with additional information are provided. The full list of items and costs are outlined in Annex B.

21.4.7.3 Action / Output 6.1

Assess IPC capacity at all levels of healthcare system, including public, private, traditional practices and pharmacies. Minimum requirements include functional triage system and isolation rooms, trained staff (for early detection and standard principles for IPC); and sufficient IPC materials, including personal protective equipment (PPE) and WASH services/hand hygiene stations / borders / fences to regulate patient flow / vector control

21.4.7.4 Activities for Output 6.1

Activity 6.11: Prepare the Isolation Facility at Vaiola Hospital to cater for COVID-19 patients

#	Activity				
6.11	**Adequate equipment and rooms for the isolation facility [COVID-19] including negative pressure rooms**				
Amount($)	**11180**	**PI**	Budget	Lead	Support
KPI	Status of Isolation Facility equipment		**?**	CDU	Isolation
Target	Isolation Facility fully equipped of COVID-19 cases		Status	Begin	End
Frequency	One-off		**In Progress**	March	June

Activity 6.12: Development of the IPC Protocol and to include waste management during COVID-19

#	Activity				
6.12	**Development of IPC Protocol including Waste Management**				
Amount($)	**0**	PI	Budget	Lead	Support
KPI	Development stages of the IPC Protocol		**Met**	CMO/CDU	MS/IPC
Target	A final draft of the IPC Protocol endorsed and available		Status	Begin	End
Frequency	One-off		**Complete**	March	June

Activity 6.12a: Establish Hygiene stations [sanitizers and hand-washing basins] are available at the Hospital/Wards and Offices

#	Activity				
6.12a	**Procure and establish hand-hygiene stations at the Hospital and in densely populated areas like the Wards and General Consultation Areas and to include Offices and Medical Records**				
Amount($)	**TBC**	PI	Budget	Lead	Support
KPI	Total Number of Hygiene Stations at Vaiola Hospital / Ministry of Health		**Met**	IPC	CDU
Target	For Vaiola Hospital to have Hygiene stations established in all key areas		Status	Begin	End
Frequency	One-off		**Complete**	March	June
#	**Phase**		**Total**		
1	Phase I - IV				

***Refill of sanitizers and repairing of hand-washing basin/syncs will incur extra-costs**

Activity 6.13: Establish Triage System at Vaiola Hospital for Consultations including a separate area outside of the main hospital for early detection prior to entering the Vaiola Hospital General Consultation area.

#	Activity				
6.13	**Establish Triage System outside of Vaiola Hospital for consultations**				
Amount($)	**0**	PI	Budget	Lead	Support
KPI	Establishment status of Triage System at Vaiola Hospital		**Met**	MS	EM
Target	A Triage System fully operational at Vaiola Hospital		Status	Begin	End
Frequency	One-off		**Complete**	March	June

Activity 6.14: Establish Triage Systems at the Outer Island Hospitals [Niu"eiki, Fusipala and Prince Ngu] and implement Training for staff in the Outer Islands **[SURGE CAPACITY PLAN]**

#	Activity				
6.14	**Establish Triage System at the Outer Island Hospitals [Niu'eiki, Fusipala and Prince Ngu]**				
Amount($)	**0**	P	Budget	Lead	Support
KPI	Development stages of the IPC Protocol	I	**Met**	CDU	CMO
Target	A final draft of the IPC Protocol endorsed and available		Status	Begin	End
Frequency	One-off		**Complete**	March	June

Activity 6.15: Train staff on the triage system for the Hospital and on the use of PPE and donning and doffing the full-set of PPE

#	Activity				
6.15	**Train staff on the updated triage system for the Hospital [Vaiola Hospital]**				
Amount($)	**0**	P	Budget	Lead	Support
KPI	Development stages of the IPC Protocol	I	**Met**	CDU	CMO
Target	A final draft of the IPC Protocol endorsed and available		Status	Begin	End
Frequency	One-off		**Complete**	March	June

21.4.7.5 Action / Output 6.1a

Establish and implement proper waste disposal and management processes (clinical and general) for suspected and confirmed cases at healthcare facilities/isolation areas including facility maintenance, water maintenance and vector control

21.4.7.6 Activities for Output 6.1a

Activity 6.1a1: Procuring of waste disposal vehicles for the isolation and quarantine facilities [including health centres/fever clinics]

#	Activity				
6.1a1	**Procure adequate transport for the disposal of waste (general) from the isolation/quarantine facilities and transportation of equipment / staff**				
Amount($)	0	P I	Budget	Lead	Support
KPI	Total Number of Vehicles procured		**Met**	EH	Procure
Target	The 3 vehicles listed are procured by June		Status	Begin	End
Frequency	One-off		**In Progress**	March	April

Activity 6.1a2: Ensuring that the Incinerator is operational for the disposal of clinical waste and spare parts for the possibility of maintenance needed for the Incinerator.

6.1a2	**Waste disposal: Operation and maintenance of the Incinerator**				
Amount($)	18500	P I	Budget	Lead	Support
KPI	Status of the Incinerator (Operational)		**Met**	EH	Procure
Target	Ensure Incinerator operates regularly		Status	Begin	End
Frequency	One-off		In Progress	March	Ongoing

Activity 6.1a3 – 6.1a6: Waste management, water treatment and vector control in all isolation/quarantine facilities, PoE and Health Centres/Fever Clinics.

6.1a3	**Waste management/Water treatment and vector control of Taliai Camp Isolation Unit**				
Amount($)	**263820**	P I - IV	Budget	Lead	Support
KPI	Total Number of Visits to Taliai Camp Isolation Unit		?	EH	
Target	Regular 2 - 3 time visits per week		Status	Begin	End
Frequency	Continuous		In progress	March	Ongoing
6.1a4	**Waste management/Water treatment and vector control of Mu'a Health Center Isolation Unit**				
Amount($)	**264170**	P I - IV	Budget	Lead	Support
KPI	Total Number of Visits to Mu'a Health Center		?	EH	
Target	Regular 2 - 3 time visits per week		Status	Begin	End
Frequency	Continuous		In progress	March	Ongoing

6.1a5	**Waste management/Water treatment and vector control of Port of Entries (Fua'amotu Airport and Wharves)**				
Amount($)	**264110**	P	Budget	Lead	Support
KPI	Total Number of Visits to PoE	I	?	EH	
Target	Regular 2 - 3 time visits per week	-	Status	Begin	End
Frequency	Continuous	IV	In progress	March	Ongoing
6.1a6	**Waste management/Water treatment and vector control of Quarantine Facilities**				
Amount($)	**369110**	P	Budget	Lead	Support
KPI	Total Number of Visits to Quarantine Facilities	I	?	EH	
Target	Regular 2 - 3 time visits per week	-	Status	Begin	End
Frequency	Continuous	IV	In progress	March	Ongoing

[SURGE CAPACITY]

6.1a7	**Waste management/Water treatment and vector control of Health Centres [Fever Clinics are activated]**				
Amount($)	**264110**	P	Budget	Lead	Support
KPI	Total Number of Visits to Health Centres	II -	?	EH	
Target	Regular 2 - 3 time visits per week	IV	Status	Begin	End
Frequency	Continuous		In progress	March	Ongoing

Activity 6.1a8: Establish Processes/Protocols for the Quarantine Facility and includes Cleaning, Catering, Laundry etc.

6.1a8	**Establishment of protocols and procedures for the quarantine individuals including how food will be handled, clothes will be washed, clothes will be distributed etc.**				
Amount($)	**0**	P	Budget	Lead	Support
KPI		II -	?		
Target		IV	Status	Begin	End
Frequency	Continuous		In progress	March	Ongoing
6.1a8					

Activity 6.1a9: Set-up Communications for Quarantined Individuals [Phones/Credit/Video Calls] to ensure continuous contact with family and friends over internet and networks.

6.1a9	**Set-up capability for Quarantine Rooms to have communications [phones and video-screens] for daily contact with family and friends.**				
Amount($)	**0**	P II - IV	Budget	Lead	Support
KPI	Total Number of Visits to Health Centres		?	EH	
Target	Regular 2 - 3 time visits per week		Status	Begin	End
Frequency	Continuous		In progress	March	Ongoing
6.1a8					

21.4.7.7 Action / Output 6.2

Assess IPC capacity in public places and community spaces where risk of community transmission is considered high

21.4.7.8 Action / Output 6.3

Review and update existing national IPC guidance. Health guidance should include defined patient-referral pathways, including an IPC focal point, in collaboration with case management. Community guidance should include specific recommendations on IPC measures and referral systems for public places such as schools, markets and public transport, as well as community, household, and family practices

21.4.7.9 Action / Output 6.4

Develop and implement a plan for the management and monitoring for respiratory illness of health workers exposed to confirmed cases of COVID-19

21.4.7.10 Action / Output 6.5

Manage PPE supply (stockpile, distribution) and to identify IPC surge capacity (numbers and competence) through a systematic process or plan

#	Activity				
6.51	**Recruitment of a PPE Coordinating Officer to manage and monitor PPE supply and stock**				
Amount($)	**20,650**	PI	Budget	Lead	Support
KPI	Recruitment status of PPE Coordinating Officer		?	CSD	
Target	To recruit a PPE Officer by April		Status	Begin	End
Frequency	One-off		TBC	March	April
6.52	**Procurement of PPE for healthcare workers and support staff**				
Amount($)	**2,042,820**	PI-IV	Budget	Lead	Support
KPI	Stocktake inventory of PPE		?	Pharmacy	All PH
Target	Maintain adequate stock of PPE by PPE Officer		Status	Begin	End
Frequency	Continuous		In Progress	March	Ongoing
6.53	**Procurement of Waste Segregation Resources**				
Amount($)	**529,480**	PI-IV	Budget	Lead	Support
KPI	Procurement status of Waste Segregation Resources		?	EH	
Target	Waste Segregation Resources procured by April		Status	Begin	End
Frequency	Continuous		In progress	March	Ongoing
6.54	**Generate Forecast of PPE required / maximum capacity against Human Resources available and COVID-19 cases**				
Amount($)	**0**	PI-IV	Budget	Lead	Support
KPI			?	EH	
Target			Status	Begin	End
Frequency	Continuous		In progress	March	Ongoing

21.4.7.11 Action / Output 6.5

Identify and engage trained staff with the authority and technical expertise to implement IPC activities that are prioritized based on risk assessment and local care-seeking patterns

Record, report, and investigate all cases of healthcare-associated infections

21.4.7.12 Action / Output 6.9

Implement triage, early detection, and infectious-source controls, administrative controls and engineering controls; implement visual alerts (educational material in Tongan) for family members and patients to inform triage personnel of respiratory symptoms and to practice respiratory etiquette or encourage telephone consultations if patient has self-diagnosed their COVID-19 symptoms.

#	Activity				
6.91	**Establish posters / signs at Health Centres with instructions for self-examination of symptoms/ helplines / online consultations**				
Amount($)	**43500**	PI	Budget	Lead	Support
KPI	Total Number of Posters / Signs at each Health Centre		**Met**	Community	
Target	4 Posters and 2 signs set up at Health Centres		Status	Begin	End
Frequency	One-off		TBC	March	April

21.4.7.13 Action / Output 6.10

Support access to water and sanitation for health (WASH) services in areas (schools etc.) and communities most at risk

#	Activity				
6.101	**Distribution of hygiene kits**				
Amount($)	**504800**	PI-IV	Budget	Lead	Support
KPI	Total Number of Hygiene Kits distributed by Village		**Met**	EH	
Target	To distribute adequate hygiene kits to vulnerable populations by village [n = 5000]		Status	Begin	End
Frequency	Continuous		TBC	March	May

ADDITIONAL ACTIVITIES

21.4.7.14 Action / Output 6.10

Assess IPC capacity at all levels of healthcare system, including public, private, traditional practices and pharmacies. Minimum requirements include functional triage system and isolation rooms, trained staff (for early detection and standard principles for IPC); and sufficient IPC materials, including personal protective equipment (PPE) and WASH services/hand hygiene stations / borders / fences to regulate patient flow / vector control

***IPC Protocol: Final stages include Waste Management protocols (include/flesh out flu section)**

21.4.7.15 Action / Output 6.11

Monitor IPC and WASH implementation in selected healthcare facilities and high-risk areas like schools, prisons, workplaces etc.

21.4.8 Pillar 7: Case Management

Healthcare workers should prepare themselves and their healthcare facilities for an influx of suspected COVID-19 by familiarizing themselves with the different case definitions. A high number of cases will increase pressure on staff and facilities thus staff should feel confident when prioritizing patients based on the severity of their illness as well as providing guidance for mild cases. Plans inclusive of business continuity and the availability of healthcare facilities should be reviewed. Marginal community made up of vulnerable populations of elderly, and patients with chronic diseases, pregnant and lactating women and children"s" programmes should be implemented.

21.4.8.1 Budget Summary for Pillar 7: Case Management

#	Items	Rate	Quantity	Sub-Total	
1	Bed Tables	500	6	3000	
2	Beds	200	12	2400	
3	Bible / Books	50	360	18000	
4	Blanket	40	428	17120	
5	Bleach	20	76	1520	
6	Broom	5	44	150	
7	Bucket	10	56	560	
8	Chair	40	490	19600	
9	Communication (Credit)	30	81	1380	
10	Communication (Telephone) for Facility	200	28	5600	
11	Communication (Wifi)	180	48	7380	
12	Cooking Utensils	500	16	8000	
13	Couch	2000	31	62000	
14	Dignity Kits	100	2000	200000	
15	Disinfectant	6	211	1266	
16	Electric frying pan	350	16	5600	
17	Electronic Sphygmomanometer	120	12	1440	
18	Fork	2	190	380	
19	Fuel	100	68	6800	
20	Games	100	190	19000	
21	Hand Washing / Liquid	5	50	250	
22	Large Rubbish Bins	55	12	660	
23	Linen Set	50	404	20200	
24	Mattress	200	190	38000	
25	Mobile Clinic Vehicle	40000	2	80000	

26	Mop	55	32	1760	
27	Mops	55	18	990	
28	Overalls	60	10	600	
29	Oximeter	500	12	6000	
30	Paper Towels (20 rolls / month)	10	2310	23100	
31	Pillow	20	404	8080	
32	Pillow-case	20	404	7720	
33	Plate	5	190	950	
34	Portaloo	5000	12	60000	
35	Printing [A4 box]	100	2	200	
36	Printing [Toner]	300	2	500	
37	Rations	100	2740	274000	
38	Refreshment	40	50	2000	
39	Renovation Building Costs	1500000	1	1500000	B
40	Rubbish Bags	25.8	600	15480	
41	Safety Boots (pair)	80	10	800	
42	Security	0	22	0	
43	Shampoo / Conditioner	14.9	360	5364	
44	Signboards	500	24	12000	
45	Sink	230	17	3910	
46	Small Rubbish Bins (step-on)	25	36	900	
47	Soap	2	530	1060	
48	Spoon	2	190	380	
49	Stainless Sink	500	80	40000	
50	Stationary	30	45	1350	
51	Stethoscope	100	12	1200	
52	Tables (2m x 2m)	100	12	1200	
53	Tea-cup	5	190	950	
54	Teapot	50	16	800	

55	Tents (1 for consultation, 1 for Isolation) 40 x 20 ft	10500	12	126000	
56	Thermometer	100	60	6000	
57	Tissue box	10	452	4376	
58	Toilet Paper (3 packs/month)	10	1158	2460	
59	Toothbrush	3	190	570	
60	Toothpaste	5	360	1800	
61	TV	2500	16	40000	
62	Vehicle [Vehicle Requirement]	0	27	0	V
63	Venue	600	2	1200	
64	Washing Machine	1590	22	34980	
65	Washing Powder	65.8	301	19805.8	
	TOTAL			2728792	

21.4.8.2 Activities for Pillar 7

For the ease of reading and identifying activities, the full-list with items is shown in Annex C: Case Management full items and costing. For this section, only the activities with additional information are provided. The full list of items and costs are outlined in Annex C.

21.4.8.3 Action / Output 7.1

Map vulnerable populations and public and private health facilities in Tonga (including traditional healers, pharmacies and other providers) and identify alternative facilities that may be used to provide treatment / isolation / quarantine and fully equip and operationalize these facilities

#	**Activity**				
7.11	**Establish Mu'a Health Centre as an Isolation Facility with adequate supplies**				
Amount($)	63159.80	P I	Budget	Lead	Support
KPI	Development status of the Mu'a Health Centre		Partial	Community	Shelter
Target	Mu'a Health Centre operational by April [Capacity 14 beds]		Status	Begin	End
Frequency	One-off		In Progress	March	April

*__Update__*To complete the renovation and conversion of Mu"a Health Center to Mu"a Community: Costs: 50,000 include Oxygen Plan, Disability Access, Furniture & Linen, Sub-switches to main switch board.

#	Activity				
7.12	**Establish Quarantine Facilities for Asymptomatic travellers for 14 days quarantine**				
Amount($)	323962.00	P	Budget	Lead	Support
KPI	Development status of Quarantine Facilities	I	?	Community	Shelter
Target	Establish at least 7 Quarantine Facilities [with a total capacity of 100]	-	Status	Begin	End
Frequency	One-off	II	TBC	March	April

__Update__

#	Activity				
7.13	**Ensure Quarantine Facilities are appropriate for Vulnerable Groups [14 days quarantine]**				
Amount($)	211702.00	P	Budget	Lead	Support
KPI	Development status of Quarantine Facilities for Vulnerable groups	I	?	Community	Shelter
Target	Establish at least 7 Quarantine Facilities [with a total capacity of 50]	-	Status	Begin	End
Frequency	One-off	II	TBC	March	April

#	Activity				
7.14	**Establish Quarantine Facilities for Healthcare Workers and Support Staff exposed to COVID-19 suspected and confirmed cases**				
Amount($)	1559722	P	Budget	Lead	Support
KPI	Development status of Quarantine Facilities for Healthcare Workers and Support staff	I	?	CSD	All
Target	Establish at least 7 Quarantine Facilities [with a total capacity of 20]	-	Status	Begin	End
Frequency	One-off	II	In Progress	March	April

#	Activity				
7.15	**Establish Taliai as an isolation facility**				
Amount($)		P	Budget	Lead	Support
KPI	Development status of Isolation Facilities for Vulnerable groups	I	?	Community	Shelter
Target		-	Status	Begin	End
Frequency	One-off	II	TBC	March	April

*To complete Taliai to work on installation of additional toilets, septic and additional hand washing

Activity 7.16

#	Activity				
7.16	**Renovate QSINAH Old Building**				
Amount($)		P I - II	Budget	Lead	Support
KPI	Development status of Isolation Facilities for Vulnerable groups		?	Community	Shelter
Target			Status	Begin	End
Frequency	One-off		TBC	March	April

21.4.8.4 Establish dedicated COVID-19 treatment areas to effectively isolate and treat all COVID-19 cases.

21.4.8.5 Assess oxygen capacity and mechanical ventilation capacity.

21.4.8.6 Establish process and procedures for COVID-19 deceased cases.

21.4.8.7 Deliver optimized standard of care for all patients, including those with severe and critical COVID‑19.

21.4.8.8 Ensure comprehensive medical, nutritional, psycho-social, and palliative care for those with COVID‑19 including patients with disability, mental illness, pregnant women etc.

21.4.8.9 Establish dedicated pre-hospital COVID‑19 care pathways, with equipped teams and ambulances to safely transport suspected and confirmed cases (including safe transfer of severe and critically ill patients) to designated treatment areas.

21.4.8.10 Maintain routine and emergency health service provision for the population

21.4.8.11 Action / Output 7.2

Continuously assess burden on local health system, and capacity to safely deliver primary healthcare services especially for vulnerable populations in Tonga (infants, new-borns, pregnant women, elderly etc.). Identify and develop contingency plans / alternatives for the delivery of primary healthcare services to the Community

[SURGE CAPACITY]

Re-allocate consultations and some healthcare services to the Health Centers so that the main Vaiola Hospital will be utilized as an over flow area for COVID-19 treatment and care.

Activity 7.41:

#	Activity				
7.41	Set up Fever Clinics (COVID -19 triage Station) at all Health Centres (Tongatapu) 6 Health Centres (Establish hot-line / telephone consultations)				
Amount($)	271730	PII	Budget	Lead	Support
KPI	Total Number of Health Centres with an establish triage and isolation system		?	Comm	Clinical
Target	All 6 Health Centres have an established and isolation/referral in place		Status	Begin	End
Frequency	6 times (6 Health Centres)		No Progress	March	April

21.4.8.12 Action / Output 7.3

Ensure that guidance and communication is made available for the self-care of patients with mild COVID 19 symptoms, including guidance on when referral to healthcare facilities is recommended

#	Activity				
7.31	**Establish SOP/Guidelines for handling patients at the Health Centres for COVID-19 and regular patients (NCD/RH etc.) time-scheduling [transportation of patients to/from Isolation / Quarantine Facilities]**				
Amount($)	850	PI	Budget	Lead	Support
KPI	Status of SOP/Guideline for Health Centres		?	Comm	Clinical
Target	SOP / Guideline in place for the Health Centres on handling COVID-19 suspects/patients		Status	Begin	End

Frequency	One-off		TBC	March	April
#	**Activity**				
7.32	**Establish a mobile clinic for home visits/consultations/SOPD/refills etc.**				
Amount($)	80000	P II - IV	Budget	Lead	Support
KPI	Status of the Mobile Clinic Vehicle		?	Comm	
Target	To have a mobile clinic vehicle established once a case of COVID-19 is confirmed		Status	Begin	End
Frequency	One-off		TBC	April	June

*To include the use of telemedicine [telephone consultations] with patients prior to coming to Health Center??

21.4.8.13 Action / Output 7.4 & 7.5

Disseminate regularly updated information, train, and refresh medical/ambulatory teams in the management of severe acute respiratory infections and COVID 19-specific protocols based on international standards and WHO clinical guidance; set up triage and screening areas at all healthcare facilities. Establish dedicated and equipped teams and ambulances to transport suspected and confirmed cases, and referral mechanisms for severe cases with co morbidity

#	Activity				
7.42	Training of staff on COVID-19 Triage System and PPE Handling				
Amount($)	4400	P I - II	Budget	Lead	Support
KPI	Total Number of COVID-19 Triage System training and PPE Handling for Community Health Centres		?	Comm	CDU / EH
Target	To train all staff of the 6 Health Centres on Triage and PPE (at least 2 trainings)		Status	Begin	End
Frequency	One-off		TBC	March	April

21.4.8.14 Set-up Screening and Triage Areas at main Hospital (Vaiola Hospital)

21.4.9 Pillar 9: Maintaining essential health services and systems

21.4.9.1 Action / Output 8.7:

Ensure that services, schemes and strategies are in place and available to cater to vulnerable populations (NCD, elderly, pregnant women, children, disability etc.) and communities/families that are affected both directly and indirectly by the impact of COVID-19

*Procurement of Vaccines [Immunization]

*Procurement of Pharmaceuticals / Drugs

#	Activity				
7.21	**Providing and adjusting regular healthcare services to vulnerable populations during the COVID-19 pandemic (Lifestyle, GDM, Home Dressing, Home Clinic, Disability, Benzathine Monthly Injections etc.)**				
Amount($)	**2050**	P	Budget	Lead	Support
KPI	Total Number of Patients seen by groups	I	?	NCD	Comm
Target	Continuous monitoring and delivery of services to the general and vulnerable population	-	Status	Begin	End
Frequency	Continuous	IV	In Progress	March	Ongoing
7.22	**Providing and adjusting regular healthcare services to vulnerable populations during the COVID-19 pandemic (Immunization, Family Planning, Antenatal, Postnatal etc..)**				
Amount($)	211360	P	Budget	Lead	Support
KPI	Total Number of Patients seen by groups	I	?	RH	Comm
Target	Continuous monitoring and delivery of services to the general and vulnerable population	-	Status	Begin	End
Frequency	Continuous	IV	In Progress	March	Ongoing

21.5 Annex E: PPE Request

21.5.1.1 PPE Request by Quantity

Outlined below is the PPE Request for Public Health by Sections

- ***CDU**: Communicable Disease Unit
- ***COMM**: Community Health Section ***NCD**: Non-Communicable Disease Unit
- ***EH**: Environmental Health Section
- ***RH**: Reproductive Health Section

#	Items	CDU	COMM	EH	NCD	RH	Total
1	Apron, Plastic (Pk/25)	35	35	600			670
2	Face Shield	50	10	500			560
3	Gloves	1500	2600	200		500	4800
4	Goggles	40					40
5	Gowns (2XL)			1000			1000
6	Gowns (Disposable)		2100	100			2200
7	Gowns L (Ct/50)	20	20	70			110
8	Gowns XL (Ct/50)			70			70
9	Hair Covers - Fluid Resistant: Disposal			1000			1000
10	Hair Covers (Bx/100)			50			50
11	Hazard Suits	10	10				20
12	Head and Shoe Covers	500	2600				3100
13	Household Gloves L (Bx/100)			25			25
14	Household Gloves XL (Bx/100)			25			25
15	Household Gloves: Non-medical gloves: Nitrile, Fluid resistant			50			50
16	Masks: N95 (Bx/35)	32	2120	600		100	2852
17	Patient Examination Gloves - non sterile: Natural rubber latex, size 7			1000			1000
18	Patient Examination Gloves - non sterile: Natural rubber latex, size 7.5			2000			2000

19	Patient Examination Gloves - non sterile: Natural rubber latex, size 8			4000			4000
20	Safety Shoe			200			200
21	Safety Spectacles			1030			1030
22	Sanitizer	400	448	6120	20	70	7058
23	Shoe Cover	1500	500	1000			3000
24	Surgical Masks	1000	2100	11100	1000	500	15700

21.5.1.2 PPE Request by Cost ($TOP)

#	Items	CDU	COMM	EH	NCD	RH	Total
1	Apron, Plastic (Pk/25)	1225	1225	21000			23450
2	Face Shield	4000	800	40000			44800
3	Gloves	90000	156000	15250		25000	286250
4	Goggles	2400					2400
5	Gowns (2XL)			20000			20000
6	Gowns (Disposable)		63000	3000			66000
7	Gowns L (Ct/50)	4000	4000	14000			22000
8	Gowns XL (Ct/50)			14000			14000
9	Hair Covers - Fluid Resistant: Disposal			5000			5000
10	Hair Covers (Bx/100)			3000			3000
11	Hazard Suits	5000	5000				10000
12	Head and Shoe Covers	10000	52000				62000
13	Household Gloves L (Bx/100)			500			500
14	Household Gloves XL (Bx/100)			500			500
15	Household Gloves: Non-medical gloves: Nitrile, Fluid resistant			1500			1500
16	Masks: N95 (Bx/35)	4480	296800	84000		14000	399280
17	Patient Examination Gloves - non sterile: Natural rubber latex, size 7			50000			50000
18	Patient Examination Gloves - non sterile: Natural rubber latex, size 7.5			120000			120000
19	Patient Examination Gloves - non sterile: Natural rubber latex, size 8			280000			280000

20	Safety Shoe			4000			4000
21	Safety Spectacles			52400			52400
22	Sanitizer	12000	13440	183600	600	2100	211740
23	Shoe Cover	30000	10000	20000			60000
24	Surgical Masks	20000	42000	222000	10000	10000	304000
	Total	183105	644265	1153750	10600	51100	2042820

21.6 Annex F: IPC Detailed Items

6	**INFECTION PREVENTION AND CONTROL**				
#	**Actions**				
6.1	Assess IPC capacity at all levels of healthcare system, including public, private, traditional practices and pharmacies. Minimum requirements include functional triage system and isolation rooms, trained staff (for early detection and standard principles for IPC); and sufficient IPC materials, including personal protective equipment (PPE) and WASH services/hand hygiene stations / borders / fences to regulate patient flow / vector control				
#	Activity				
6.11	Adequate equipment for the isolation facility				
#	Item		Rate ($TOP)	Quantity	Sub-Total
1	ICU Beds				
2	Weighing scale for > 200kg		300	2	600
3	Scrubs or materials for scrubs		100	10	1000
4	Small Tables		100	2	200
5	Rubbish Bins (Large) to step on		80	6	480
6	Sphygmomanometer (manual)		1,000	4	4000
7	Safety Boots (pair)		80	10	800
8	Overalls		60	10	600
9	Curtains		50	10	500
10	Examination Table		1000	2	2000
11	Bed Tables		500	2	1000
6.1a	Establish and implement proper waste disposal and management processes (clinical and general) for suspected and confirmed cases at healthcare facilities/isolation areas including facility maintenance, water maintenance and vector control				

#	Activity				
6.1a1	Procure adequate transport for the disposal of waste (general) from the isolation/quarantine facilities and transportation of equipment / staff				
#	Item		Rate ($TOP)	Quantity	Sub-Total
1	Clinical Waste Truck	V	22678 (NZD)	1	Complete
2	Waste Management Vehicle (Septic Truck)	V	23000 (NZD)	1	Complete
6.1a2	**Waste disposal**: Operation and maintenance of the Incinerator				
#	Item		Rate ($TOP)	Quantity	Sub-Total
1	Spare Parts for Incinerator		12845 (AUD)	1	Complete
2	Diesel (40 Drums* 200 Litres)		450	40	18000
3	Disinfectant for Equipment		100	5	500
#	Activity				
6.1a3	Waste management/Water treatment and vector control of **Taliai** Camp Isolation Unit				
#	Item		Rate ($TOP)	Quantity	Sub-Total
For Clinical Waste: Patients Room (3 months)					
1	Yellow sharp bin (20kg)		200	12	2400
2	Yellow recycle bin(110kg)		250	14	3500
3	Yellow recycle bin for patients room (40kg)		150	4	600
4	Disposal Yellow Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
5	Disinfectant		6	10	60
6	Luminescent Jacket		60	3	180
7	Raincoats		60	5	300
8	Safety Boots (pair)		80	5	400
General Waste (3 months)					
1	Green Recycling Bin for Kitchen, Storage Room and Male Orderly (110kg)		150	13	1950
2	Disposal Black Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
Logistics					
1	Fuel (3 months)		100	12	850
Water Treatment (3x a week)					
1	Chlorine (tablets) Purifying Tablets		500	50	25000
2	Agent for Water Bacteria Testing		500	10	5000
3	Safety Boots (pair)		80	2	160
4	Staff Uniform		50	2	100

Vector Control (2x a week)					
1	Carrier (L)		100	200	20000
2	Mist-blower		100	2	200
3	Fog Machine		60	2	120
4	Biphentrin (L)		80	100	8000
5	Aqua (L)		80	100	8000
6	Larvacide (BTI) tablets		20	2,000	40000
7	Larvacide (Abate) packets		50	2,000	100000
8	Bait (kg)		40	200	8000
9	Traps		10	200	2000
10	Fogger		100	10	1000
#	Activity				
6.1a4	Waste management/Water treatment and vector control of **Mu'a Health Center** Isolation Unit				
#	Item		Rate ($TOP)	Quantity	Sub-Total
For Clinical Waste: Patients Room (3 months)					
1	Yellow sharp bin (20kg)		200	12	2400
2	Yellow recycle bin(110kg) wheeled bins		250	14	3500
3	Yellow recycle bin for patients room (40kg)		150	4	600
4	Disposal Yellow Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
5	Disinfectant		6	10	60
6	Luminescent Jacket		60	3	180
7	Raincoats		60	5	300
8	Safety Boots (pair)		80	5	400
General Waste (3 months)					
1	Green Recycling Bin for Kitchen, Storage Room and Male Orderly (110kg)		150	13	1950
2	Disposal Black Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
Logistics					
1	Fuel (3 months)		100	12	1200
Water Treatment (3x a week)					
1	Chlorine (tablets) Purifying Tablets		500	50	25000
2	Agent for Water Bacteria Testing		500	10	5000
3	Safety Boots (pair)		80	2	160

4	Staff Uniform		50	2	100
Vector Control (2x a week)					
1	Carrier (L)		100	200	20000
2	Mist-blower		100	2	200
3	Fog Machine		60	2	120
4	Biphentrin (L)		80	100	8000
5	Aqua (L)		80	100	8000
6	Larvacide (BTI) tablets		20	2,000	40000
7	Larvacide (Abate) packets		50	2,000	100000
8	Bait (kg)		40	200	8000
9	Traps		10	200	2000
10	Fogger		100	10	1000
#	Activity				
6.1a5	Waste management/Water treatment and vector control of **Port of Entries (Fua'amotu Airport and Wharves)**				
#	Item		Rate ($TOP)	Quantity	Sub-Total
For Clinical Waste: Patients Room (3 months)					
1	Yellow sharp bin (20kg)		200	12	2400
2	Yellow recycle bin(110kg) wheeled bins		250	14	3500
3	Yellow recycle bin for patients room (40kg)		150	4	600
4	Disposal Yellow Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
6	Luminescent Jacket		60	3	180
7	Raincoats		60	5	300
8	Safety Boots (pair)		80	5	400
General Waste (3 months)					
1	Green Recycling Bin for Kitchen, Storage Room and Male Orderly (110kg)		150	13	1950
2	Disposal Black Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
Logistics					
1	Fuel (3 months)		100	12	1200
Water Treatment (3x a week)					
1	Chlorine (tablets) Purifying Tablets		500	50	25000
2	Agent for Water Bacteria Testing		500	10	5000
3	Safety Boots (pair)		80	2	160

4	Staff Uniform		50	2	100
Vector Control (2x a week)					
1	Carrier (L)		100	200	20000
2	Mist-blower		100	2	200
3	Fog Machine		60	2	120
4	Biphentrin (L)		80	100	8000
5	Aqua (L)		80	100	8000
6	Larvacide (BTI) tablets		20	2,000	40000
7	Larvacide (Abate) packets		50	2,000	100000
8	Bait (kg)		40	200	8000
9	Traps		10	200	2000
10	Fogger		100	10	1000
#	Activity				
6.1a6	Waste management/Water treatment and vector control of **Quarantine Facilities / Villages**				
#	Item		Rate ($TOP)	Quantity	Sub-Total
For Clinical Waste: Patients Room (3 months)					
1	Yellow sharp bin (20kg)		200	12	2400
2	Yellow recycle bin(110kg) wheeled bins		250	14	3500
3	Yellow recycle bin for patients room (40kg)		150	4	600
4	Disposal Yellow Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
6	Luminescent Jacket		60	3	180
7	Raincoats		60	5	300
8	Safety Boots (pair)		80	5	400
General Waste (3 months)					0
1	Green Recycling Bin for Kitchen, Storage Room and Male Orderly (110kg)		150	13	1950
2	Disposal Black Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
Logistics					0
1	Fuel (3 months)		100	12	1200
Water Treatment (3x a week)					
1	Chlorine (tablets) Purifying Tablets		500	50	25000
2	Water Engine and Pump for the Rural Water village		100,000	1	100000
3	Maintenance Tools		5,000	1	5000

4	Agent for Water Bacteria Testing		500	10	5000
5	Safety Boots (pair)		80	2	160
6	Staff Uniform		50	2	100
Vector Control (2x a week)					
1	Carrier (L)		100	200	20000
2	Mist-blower		100	2	200
3	Fog Machine		60	2	120
4	Biphentrin (L)		80	100	8000
5	Aqua (L)		80	100	8000
6	Larvacide (BTI) tablets		20	2,000	40000
7	Larvacide (Abate) packets		50	2,000	100000
8	Bait (kg)		40	200	8000
9	Traps		10	200	2000
10	Fogger		100	10	1000
#	Activity				
6.1a7	Waste management/Water treatment and vector control of **Health Centres**				
#	Item		Rate ($TOP)	Quantity	Sub-Total
For Clinical Waste: Patients Room (3 months)					
1	Yellow sharp bin (20kg)		200	12	2400
2	Yellow recycle bin(110kg) wheeled bins		250	14	3500
3	Yellow recycle bin for patients room (40kg)		150	4	600
4	Disposal Yellow Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
6	Luminescent Jacket		60	3	180
7	Raincoats		60	5	300
8	Safety Boots (pair)		80	5	400
General Waste (3 months)					
1	Green Recycling Bin for Kitchen, Storage Room and Male Orderly (110kg)		150	13	1950
2	Disposal Black Plastic Bag - 900mm, 600mm, 300mm pack		60	300	18000
Logistics					
1	Fuel (3 months)		100	12	1200
Water Treatment (3x a week)					
1	Chlorine (tablets) Purifying Tablets		500	50	25000

2	Agent for Water Bacteria Testing		500	10	5000
3	Safety Boots (pair)		80	2	160
4	Staff Uniform		50	2	100
Vector Control (2x a week)					
1	Carrier (L)		100	200	20000
2	Mist-blower		100	2	200
3	Fog Machine		60	2	120
4	Bifenthrin 128 oz		80	100	8000
5	Aqua (L)		80	100	8000
6	Larvacide (BTI) tablets		20	2,000	40000
7	Larvacide (Abate) packets		50	2,000	100000
8	Bait (kg)		40	200	8000
9	Traps		10	200	2000
10	Fogger		100	10	1000
#	Actions				
6.5	Manage PPE supply (stockpile, distribution) and to identify IPC surge capacity (numbers and competence) through a systematic process or plan				
#	Activity				
6.51	Recruitment of a PPE Coordinating Officer to manage and monitor PPE supply and stock				
#	Item		Rate ($TOP)	Quantity	Sub-Total
1	Salary [PPE Coordinating Officer]	HR	19420	1	19420
2	Stationary		30	1	30
3	Fuel		100	12	1200
4	Vehicle	V		1	0
#	Activity				
6.52	Procurement of PPE for healthcare workers and support staff				
#	Item		Rate ($TOP)	Quantity	Sub-Total
1	PPE List		1	2,042,820	2042820
#	Activity				
6.53	Procurement of Waste Segregation Resources				
#	Item		Rate ($TOP)	Quantity	Sub-Total
1	Sharps Bin - Yellow : medium		150	50	7500

2	Sharps Plastic Containers - Yellow/Red: Portable		100	50	5000
3	General Waste Plastic Bags - General waste bin: size 1500 x 1180mm / box		500	8	4000
4	General Waste Plastic Bags - General waste bin: size 1000 x 760mm / box		485	8	3880
5	General Waste Plastic Bags - Clinical waste bin: size 1500 x 1180mm / box		750	6	4500
6	General Waste Plastic Bags - Clinical waste bin: suze 1000 x 760mm / box		600	6	3600
7	Handwashing Stations		100	10	1000
9	Decontamination supplies		200	2500	500000
#	Actions				
6.9	Implement triage, early detection, and infectious-source controls, administrative controls and engineering controls; implement visual alerts (educational material in Tongan) for family members and patients to inform triage personnel of respiratory symptoms and to practice respiratory etiquette or encourage telephone consultations if patient has self-diagnosed their COVID-19 symptoms.				
#	Activity				
6.91	Establish posters / signs at Health Centers with instructions for self-examination of symptoms/ helplines / online consultations				
#	Item		Rate ($TOP)	Quantity	Sub-Total
1	Bulk Printing [Posters]		2	20,000	40000
2	Signs		100	35	3500
#	Actions				
6.10	Support access to water and sanitation for health (WASH) services in areas (schools etc.) and communities most at risk				
#	Activity				
6.101	Distribution of hygiene kits				
#	Item		Rate ($TOP)	Quantity	Sub-Total
1	Fuel		100	48	4800
2	Hygiene kits		100	5,000	500000

21.7 Annex G: Case Management Detailed Items

7	CASE MANAGEMENT				
#	Actions				
7.1	Map vulnerable populations and public and private health facilities in Tonga (including traditional healers, pharmacies and other providers) and identify alternative facilities that may be used to provide treatment / isolation / quarantine and fully equip and operationalize these facilities				
#	Activity				
7.11	Establish Mu'a Health Center as an Isolation Facility with adequate supplies				
#	Item		Rate	Quantity	Sub-Total
1	Renovation Building Costs	B	200000	1	Complete
#	Quarantine individual				
2	Rations		100	360	36000
3	Mattress		200	20	4000
4	Pillow		20	40	800
5	Pillow-case		20	40	800
6	Blanket		40	40	1600
7	Linen Set		50	40	2000
8	Toilet Paper (3 packs/month)		2	120	240
9	Paper-towels (20 rolls/month)		10	200	2000
10	Tissue box		10	40	400
11	Toothpaste		5	20	100
12	Toothbrush		3	20	60
13	Soap		2	20	40
14	Shampoo / Conditioner		14.9	20	298
15	Chair		40	20	800
16	Bible / Books		50	20	1000

17	Games		100	20	2000
18	Plate		5	20	100
19	Fork		2	20	40
20	Spoon		2	20	40
21	Tea-cup		5	20	100
#	Facility				
22	Vehicle Requirement	V		1	
23	Washing Machine		1590	1	1590
24	Washing powder		65.8	1	65.8
25	Mop		55	2	110
26	Broom		5	2	10
27	Bucket		10	2	20
28	Bleach		20	1	20
29	Disinfectant		6	1	6
30	TV		2500	1	2500
31	Couch		2000	1	2000
32	Communication (Telephone) for Facility	C	200	1	200
33	Communication (Wifi)	C	180	1	180
34	Communication (Credit)	C	30	6	180
35	Sink		230	2	460
36	Cooking Utensils		500	1	500
37	Electric frying pan		350	1	350
38	Teapot		50	1	50
39	Stainless Sink		500	5	2500
40	Security	HR		1	
#	Activity				

7.12	Establish Quarantine Facilities for Asymptomatic travellers for 14 days quarantine				
#	Item		Rate	Quantity	Sub-Total
1	Renovation Building Costs	B			0
#	Quarantine individual				
2	Rations		100	1,400	140000
3	Mattress		200	100	20000
4	Pillow		20	200	4000
5	Pillow-case		20	200	4000
6	Blanket		40	200	8000
7	Linen Set		50	200	10000
8	Toilet Paper		2	600	1200
9	Paper-towels (20 rolls/month)		10	1,000	10000
10	Tissue box		10	200	2000
11	Toothpaste		5	200	1000
12	Toothbrush		3	100	300
13	Soap		2	200	400
14	Shampoo / Conditioner		14.9	200	2980
15	Chair		40	100	4000
16	Bible / Books		50	200	10000
17	Games		100	100	10000
18	Plate		5	100	500
19	Fork		2	100	200
20	Spoon		2	100	200
21	Tea-cup		5	100	500
#	Facility				
22	Vehicle Requirement	V	0	7	
23	Washing Machine		1590	7	11130
24	Washing powder		65.8	140	9212

25	Mop		55	14	770
26	Broom		5	14	
27	Bucket		10	14	140
28	Bleach		20	35	700
29	Disinfectant		6	70	420
30	TV		2500	7	17500
31	Couch		2000	14	28000
32	Communication (Telephone) for Facility	C	200	7	1400
33	Communication (Wifi)	C	180	7	
34	Communication (Credit)	C	30	35	
35	Sink		230	7	1610
36	Cooking Utensils		500	7	3500
37	Electric frying pan		350	7	2450
38	Teapot		50	7	350
39	Stainless Sink		500	35	17500
40	Security	HR	0	1	
#	Activity				
7.13	Establish Quarantine Facilities for Vulnerable Groups for 14 days quarantine				
#	Item		Rate	Quantity	Sub-Total
1	Renovation Building Costs	B			0
#	Quarantine individual				
2	Rations		100	700	70000
3	Mattress		200	50	10000
4	Pillow		20	100	2000
5	Pillow-case		20	100	2000
6	Blanket		40	100	4000
7	Linen Set		50	100	5000
8	Toilet Paper (3 packs/month)		2	300	600

9	Paper-towels (20 rolls/month)		10	500	5000
10	Tissue box		10	100	1000
11	Toothpaste		5	100	500
12	Toothbrush		3	50	150
13	Soap		2	100	200
14	Shampoo / Conditioner		14.9	100	1490
15	Chair		40	50	2000
16	Bible / Books		50	100	5000
17	Games		100	50	5000
18	Plate		5	50	250
19	Fork		2	50	100
20	Spoon		2	50	100
21	Tea-cup		5	50	250
#	Facility				
22	Vehicle Requirement	V	0	7	
23	Washing Machine		1590	7	11130
24	Washing powder		65.8	140	9212
25	Mop		55	14	770
26	Broom		5	14	70
27	Bucket		10	14	140
28	Bleach		20	35	700
29	Disinfectant		6	70	420
30	TV		2500	7	17500
31	Couch		2000	14	28000
32	Communication (Telephone) for Facility	C	200	7	1400
33	Communication (Wifi)	C	180	7	1260
34	Communication (Credit)	C	30	35	1050
35	Sink		230	7	1610

36	Cooking Utensils		500	7	3500
37	Electric frying pan		350	7	2450
38	Teapot		50	7	350
39	Stainless Sink		500	35	17500
40	Security	HR	0	7	0
#	Activity				
7.14	Establish Quarantine Facilities for Healthcare Workers and Support Staff exposed to COVID-19 suspected and confirmed cases				
#	Item		Rate	Quantity	Sub-Total
1	Renovation Building Costs	B	1,500,000	1	1500000
#	Quarantine individual				
2	Rations		100	280	28000
3	Mattress		200	20	4000
4	Pillow		20	40	800
5	Pillow-case		20	40	800
6	Blanket		40	40	1600
7	Linen Set		50	40	2000
8	Toilet Paper (3 packs/month)		2	120	240
9	Paper-towels (20 rolls/month)		10	200	2000
10	Tissue box		10	40	400
11	Toothpaste		5	40	200
12	Toothbrush		3	20	60
13	Soap		2	40	80
14	Shampoo / Conditioner		14.9	40	596
15	Chair		40	20	800
16	Bible / Books		50	40	2000
17	Games		100	20	2000
18	Plate		5	20	100
19	Fork		2	20	40

20	Spoon		2	20	40
21	Tea-cup		5	20	100
#	Facility				
22	Vehicle Requirement	V	0	1	
23	Washing Machine		1590	1	1590
24	Washing powder		65.8	20	1316
25	Mop		55	2	110
26	Broom		5	2	10
27	Bucket		10	2	20
28	Bleach		20	5	100
29	Disinfectant		6	10	60
30	TV		2500	1	2500
31	Couch		2000	2	4000
32	Communication (Telephone) for Facility	C	200	1	200
33	Communication (Wifi)	C	180	1	180
34	Communication (Credit)	C	30	5	150
35	Sink		230	1	230
36	Cooking Utensils		500	1	500
37	Electric frying pan		350	1	350
38	Teapot		50	1	50
39	Stainless Sink		500	5	2500
40	Security	HR		1	

#	Actions
7.2	Continuously assess burden on local health system, and capacity to safely deliver primary healthcare services especially for vulnerable populations in Tonga (infants, new-borns, pregnant women, elderly etc.). Identify and develop contingency plans / alternatives for the delivery of primary healthcare services to the Community
#	Activity

7.21	Providing and adjusting regular healthcare services to vulnerable populations during the COVID-19 pandemic (Lifestyle, GDM, Home Dressing, Home Clinic, Disability, Benzathine Monthly Injections etc.)				
#	Item		Rate	Quantity	Sub-Total
1	Hand Washing / Liquid		5	50	250
2	Soap		2	50	100
3	Paper-towels (20 rolls/month)		10	50	500
4	Vehicle Requirements	V	0	2	0
5	Fuel		100	12	1200
7.21	Providing and adjusting regular healthcare services to vulnerable populations during the COVID-19 pandemic (Immunization, Family Planning, Antenatal, Postnatal etc..)				
#	Item		Rate	Quantity	Sub-Total
1	Dignity Kits		100	2000	200000
2	Phone Card	C	180	32	5760
3	Fuel		100	56	5600
4	Vehicle	V		3	

#	Actions
7.3	Ensure that guidance and communication is made available for the self-care of patients with mild COVID 19 symptoms, including guidance on when referral to healthcare facilities is recommended
#	Activity
7.31	Establish SOP/Guidelines for handling patients at the Health Centers for COVID-19 and regular patients (NCD/RH etc.) time-scheduling.

#	Item		Rate	Quantity	Sub-Total
1	Stationary		30	5	150
2	Printing [A4 box]		100	1	100
3	Printing [Toner]		200	1	200
4	Refreshment		40	10	400

#	Activity				
7.32	Establish a mobile clinic for home visits/consultations/SOPD/refills etc.				
#	Item		Rate	Quantity	Sub-Total
1	Mobile Clinic Vehicle	V	40,000	2	80000

#	Actions
7.4	Disseminate regularly updated information, train, and refresh medical/ambulatory teams in the management of severe acute respiratory infections and COVID 19-specific protocols based on international standards and WHO clinical guidance; set up triage and screening areas at all healthcare facilities
7.5	Establish dedicated and equipped teams and ambulances to transport suspected and confirmed cases, and referral mechanisms for severe cases with co morbidity

#	Activity				
7.41	Set up Fever Clinics (COVID -19 triage Station) at all Health Centres (Tongatapu) 6 Health Centers (Establish hot-line / telephone consultations)				
#	Item		Rate	Quantity	Sub-Total
1	Vehicle (Vehicle Requirement)	V	0	6	0
2	Phones + Credit	C	200	12	2400
3	Tents (1 for consultation, 1 for Isolation) 40 x 20 ft		10500	12	126000
4	Large Rubbish Bins		55	12	660
5	Small Rubbish Bins (step-on)		25	36	900
6	Stethoscope		100	12	1200
7	Electronic Sphygmomanometer		120	12	1440
8	Thermometer		100	60	6000
9	Oximeter		500	12	6000
10	Portaloo		5000	12	60000
11	Overalls		60	10	600
12	Safety Boots (pair)		80	10	800
13	Chairs		40	300	12000
14	Tables (2m x 2m)		100	12	1200

15	Washing Machine		1590	6	9540
16	Signboards		500	24	12000
17	Beds		200	12	2400
18	Bed Tables		500	6	3000
19	Rubbish Bags		25.8	600	15480
20	Disinfectant		6	60	360
21	Mops		55	18	990
22	Broom		5	12	60
23	Soap		2	120	240
24	Tissue-box		10	72	720
25	Paper Towels (20 rolls / month)		10	360	3600
26	Bucket		10	24	240
27	Pillows		20	24	480
28	Pillow-case		5	24	120
29	Blankets		40	48	1920
30	Linen sets		50	24	1200
31	Toilet paper (3 packs/month)		10	18	180
32	Security	HR		12	0

#	Activity				
7.42	Training of staff on COVID-19 Triage System and PPE Handling				
#	Item		Rate	Quantity	Sub-Total
1	Venue		600	2	1200
2	Refreshment		40	40	1600
3	Stationary		30	40	1200
4	Printing [A4 box]		100	1	100
5	Printing [Toner]		300	1	300

21.8 Annex H: Public Health Sectional Plans

21.8.1.1 Reproductive Health Plan

REPRODUCTIVE HEALTH NURSING COVID-19 Preparedness and Response Plan 2020

"Planning in Preparation for COVID-19"

Head of Section: Sr. Afu Tei

Date: 01st April 2020 **Version**: 2.1

Period: April – June 2020

Introduction

During the COVID-19 pandemic, the world is experiencing an unprecedented demand on individuals to play a greater role in protecting their own health. In addition to the COVID-19 specific self-care measures such as physical distancing, good respiratory hygiene and hand washing, there are many other areas, **especially for sexual and reproductive health**, in which people may play an important role in protecting their own health. Violence against women remains a major global public health and women"s health threat during emergencies. As such this plan is to guide and shepherd services related to sexual and reproductive health focusing on infants, mothers and youth.

Core Responsibilities

- Immunization
- Ante-natal Clinic
- Post-natal Clinic
- Baby Clinic
- Family Planning
- School Health
- Youth-Friendly Services (Adolescent Health Clinic)
- Operation Logistics and Support

Current Operations

There is on-going partnership with Obstetric, Pediatrics and Ante Natal Clinic where tasks are prioritizing for completion. At this stage, Reproductive Health Nurses will continue to:

- Work with the quarantine clients at Taliai Camp
- Contact tracing of COVID 19
- Community awareness
- Training of staff building capacity and confidence to provide services during crisis
- Assess team‟s condition and allocate appropriately. For instance, a lot of PHN are over 50 years old; some have existing medical conditions etc. where highly vulnerable to disease. They will be rotated to do work at back end.
- Leave management – high leave balances build up during Measles outbreak. Nurses to take leave now in preparation to a “what if” scenario where we will need all hands on deck.

Donors / Partners

Organization	Resources
Ministry of Health	Overall implementation and service delivery
WHO / DFAT etc.	Financial support
UNICEF / UNFPA	Dignity Kits
Telecommunications	Credit
NEMO	Vehicle assistance
Ministry of Internal Affairs	Community Engagement
Tonga Family Health Association	Support in service delivery
Tonga Leiti’s Association	Support in service delivery
Talitha Project	Support in service delivery

Strategic Actions

Plan A: Zero COVID-19 cases in Tonga

Core Responsibility 1: Immunization			
#	Strategic Action	Responsible	Budget (TOP$)
1.1	BCG vaccination completed at Obstetric ward before baby is discharged from the hospital to avoid travel back with baby to hospital.	RHN	12460

1.2	Continue immunization from the immunization room, HC and the RH Clinics		
1.3	Book appointments for immunization service (2-3 people at a time). People unable to come to the clinics will receive services at home.		2880
1.4	Immunization team to manage immunization and provide update on a weekly basis to SPHS.		
1.5	Ensure adequate supply of vaccines are available		
Core Responsibility 2: Ante- natal Clinic			
#	Strategic Action	Responsible	Budget
2.1	PHN to complete ante-natal charts	All	
2.2	Refer to Vaiola ante natal clinic for continuity of care.		12460
2.3	If additional information / assistance required from RHS assist.		
Core Responsibility 3: Post-Natal Clinic			
#	Strategic Action	Responsible	Budget
3.1	Post - natal services will continue to provide services from HC and RHC	All	
3.2	Book appointments for mothers to come in two at a time to avoid overcrowded in the clinic		12460
3.3	Provide PNC at home for those is hard to get transportation.		
3.4	Distribute Dignity Kits for Pregnant Women		200000
Core Responsibility 4: Baby Clinic			
#	Strategic Action	Responsible	Budget
4.1	On hold baby clinic except infants need regular visits, this care will provide at home	All	0
Core Responsibility 5: Family Planning			
#	Strategic Action	Responsible	Budget
5.1	Follow up of Family planning clients to be provided at home	All	12460
5.2	New cases to book appointments to provide at the HC and the RHC		
5.3	Counseling for family Planning will be provided over the phone		
5.4	Ensure adequate supply of contraceptives		
Core Responsibility 6: School Health			
#	Strategic Action	Responsible	Budget
6.1	On hold until further notice.	All	0
Core Responsibility 7: Youth Friendly Services(adolescent Health clinic)			
#	Strategic Action	Responsible	Budget
7.1	Services prioritized for clients who urgently need assistance.	All	12460
7.2	Services can be provided over the phone and if required, book appointments to come to Clinics		2880
#	Strategic Action	Responsible	Budget

8.1	Ensure adequate supplies and equipment is available for the continuous delivery of services	RH	22,600

Plan B: A case is confirmed COVID-19 positive

All Core Responsibilities			
#	Strategic Action	Responsible	Budget (TOP$)
1.1	Close all RH Clinics	RHN	
1.2	Redirect all RH Nurses to assist other key Sections in Community Awareness, Contact Tracing, Monitoring Suspected cases etc.		
Core Responsibility 8: Operation Logistics and Support			
#	Strategic Action	Responsible	Budget
8.1	Ensure adequate supplies and equipment is available for the continuous delivery of services	RH	

Costing

Should there be a positive COVID 19 case; RH Clinics will close with resources to deploy to Vaiola to assist. The Public Health Team will provide direction for all Sections.

Dignity Kit composition

The dignity kits are to be allocated for pregnant women or women of child-bearing age, for the time-being we will estimate a total of 2,000, in preparation for when the borders open and these vulnerable groups will be quarantined. Once quarantined, these dignity kits will be distributed, however at the meantime, while undergoing antenatal and post-natal clinics, the kits will be distributed.

#	Items	Rate	Quantity	Sub-Total
1	Toothbrush	2	1	2
2	Toothpaste	6	1	6
3	Comb	2	1	2
4	Soap	3	1	3
5	Pads	7	1	7
6	Underwear	10	1	10
7	Bath Towel	2	1	2
8	T-shirt	15	1	15
9	Lavalava (Tupenu)	15	1	15
10	Credit($5 Ucall, $5 Digicel)	10	1	10

11	Deodorant	3	1	3
12	Small Sanitizer	5	1	5
13	Toiletry Bag	20	1	20
	TOTAL ($)			100

Overall Costing

The overall cost of the plan for the next 3 months is outlined below, it should be noted that the costs of the plan will change accordingly as time passes to meet the upcoming demands of the Public Health Division. The overall costing is provided below, however it should be noted that the Vehicle was not costed as to allow volunteering organizations to provide some vehicles, however if costing is needed, it will be provided.

*The supply costs for 3-months" supply for the vaccines and contraceptives will be costed separately.

*Vaccines, contraceptives and vehicles are not part of the costing

#	Item	Rate	Quantity	Sub-Total
1	Fuel	200	56	11200
2	Vehicle	Need 3 extra	3	0
3	Phone Card	180	32	5760
4	Photocopier	15000	1	15000
5	Projector	3000	1	3000
6	Laptop	3000	1	3000
7	Stationary	30	30	900
8	Printing (A4 box)	100	3	300
9	Printing (Toner)	200	2	400
10	Dignity Kits	100	2000	200000
	PPE			0
11	Sanitizer	30	70	2100
12	N95 Masks	140	100	14000
13	Surgical Mask	20	500	10000
14	Gloves	50	500	25000

		TOTAL COST	290660

21.8.1.2 NCD Nursing Plan

NCD Nursing Planning in Preparation for COVID 19

NCD Nursing in Vaiola

Core Responsibilities	Strategic Action	Responsible staff	Requirements
Lifestyle clinic	• On hold until further noticed depending on the condition of COVID 19 • People with unstable result that desperately need continuous monitor – should be conduct at their individual homes to avoid coming to the hospital	ALL	• Mask • Hand Sanitizer • Hand washing liquid or soap • Paper towel • Vehicle • Fuel for private vehicles if there won"t be available MOH Vehicle
Gestational Diabetes Screening	• Collaborate with Ante-Natal and Laboratory • Suggest from Ante-Natal to decrease booking – 10 mothers only per day • They will all come through screening tent • Suggest for another screening tent in front of our building if possible	NCDN Mele Palu SND Ceriaca De Castro Kalolaine Tahitu"a Pupungatoa Fa"ulua	• Mask • Hand Sanitizer • Hand washing liquid or soap • Paper towel
Home Dressing	• Continue COD at home • Leave untouched for couple days even a week	SNCDNS Kalolaine Tahitu"a Folau Lolohea Ceriaca De Castro	• Mask • Hand Sanitizer • Vehicle • Fuel for private vehicles if

	• Not more than 5 patient a day • ???Screen households	Sr. Seilini Soakai	there won"t be available MOH Vehicle
Home Clinic	• Vulnerable group • Continue for at least 5 people a day for people with multiple problems • 3 months pace until COVID 19 settle • Provide them with the staff phone number • They can call us when they need help	Finau Fifita Pupungatoa Fa"ulua Mele Palu Launga"eiki Tu"akalau	• Mask • Hand Sanitizer • Vehicle • Fuel for private vehicles if there won"t be available MOH Vehicle
Disability	• Vulnerable group – Home monitor according to individual conditions • Staff phone numbers will be given to all of them, give us a call when they need help • Might home screening for COVID 19	Finau Fifita Mele Palu Pupungatoa Fa"ulua Launga"eiki Tu"akalau	• Mask • Hand Sanitizer • Vehicle • Fuel for private vehicles if there won"t be available MOH Vehicle
Benzathine Monthly Injection	Continue for they usually come one by one	Manatu Vea And all	1. Mask 2. Hand Sanitizer 3. Hand washing liquid or soap 4. Paper towel

NCD Nurses will also continue with the following responsibilities:-

- Contact Tracing of COVID 19
- Nursing of the quarantine clients at Taliai Camp
- Community Awareness of COVID 19
- Any other essential task for COVID 19 that might need NCD Nurses to work on
- We are ready to start early like 6.00am or 7.00am and off duty late according to the nature of each individual day tasks in fighting against COVID 19
- On our normal duty we will do flexi hours for those who will start early like 7.00am they"ll off duty when completed their 8hours a day

21.8.1.3 National Diabetes Centre Mitigation Plan

Goals: To PROTECT

• Individuals at increased risk for severe illness, including older adults and persons of any age with underlying health conditions.

• The healthcare and critical infrastructure workforce.

Potential mitigation action according to level of COVID-19 community transmission			
Setting	**No positive case**	**Positive case**	**Evidence of person to person transmission**
National Diabetes Center	1. Increase awareness for COVID-19 (Patient) 1. What is COVID 19? Clinical Manifestations. 2. Preventative Measures (Proper Hand washing, Social Distancing, Stay Healthy, Keep Hydrated, Self-isolation) 3. Mental Preparedness of Patients.(Promote Safety, Calm, Connectedness, Self-efficacy, Hope) Stay Connected with Loved Ones 4. Inform Public of the proposed plans below (TV, Radio, Social Media) 1. Set up COVID -19 triage Station 1. Training of staff on COVID 19 & COVID 19 triage 2. Training on proper handling of PPE and in a suspected COVID 19 case. 3. Explore the feasibility of setting up screening triage station outside the facility. (To ensure regular clinic patient not mixed with sick patients currently triage outside OPD screening area)	7. Provide awareness for COVID-19 ➢ What is COVID 19? Clinical Manifestations. ➢ Preventative Measures (Proper Hand washing, Social Distancing, Stay Healthy, Keep Hydrated, Self-isolation) ➢ Mental Preparedness of Patients.(Promote Safety, Calm, Connectedness, Self-efficacy, Hope) Stay Connected with Loved Ones ➢ Inform Public of the proposed plans below (TV, Radio, Social Media) 8. Set up COVID-19 triage station outside the NDC. ➢ Identify HOTSPOT	REMOTE MOBILE CLINIC: - 2 TEAMS - VISIT VILLAGES PER DAY - Team to include Medical Officer, NCD Nurses, Pharmacy

	2. Decrease the appointments Booked (Explore the feasibility of doing phone triage, call before coming to the clinic. Encourage patients to call prior to clinic) ● Triage the patient for need to attend clinic, home visiting or refilling medication and re-booking. ● Explore the possibility of forming a NDC home visit team apart for elderly, CKD and wheelchairs (High Risk Groups find it difficult to come through the main triage area in OPD) Includes Dr, NCD Nurse, Pharmacist if not available, consider collecting medication cards for refill & distribute accordingly. ● National Diabetes Center to open at 6:30am to 11:30am, patients to be book using time slot 5-10min intervals. Prevent Crowdedness not more than 40 outside & 20 inside) ● Decrease the number booking to 20- max 30 patient a day 3. Wound Dressings: ➢ Time Allocations already given to booked patients ➢ Maximum 20 patients/day (15 follow-up plus new cases) ➢ All dressing patients MUST come through screening/triage for clearance 2. Identify ALTERNATE PLACE in case of a person to person transmission - Not sure at the moment! Most likely be remote/mobile clinic 3. Plan for mobile clinic, a medical officer a nurse and pharmacy running clinic remotely. - Similar outreach group during TC Gita, scheduled villages 4. Negotiate with pharmacy to give 3-month	COMMUNITY ➢ Updated case definition to be translated into Tongan. Pamphlet available to distribute to patients. ➢ Home visit Team to conduct COVID-19 screening/triage as well 9. Decrease Appointments Booking - Max 20 patients - Young & Poorly Controlled - Vulnerable Group (Wheelchair bound) to be seen with home visit team	

	supply to patient recommended by NDC (At the moment they dispensing 2/12 supply) 5. Team meeting every Monday, Wednesday and Friday to update staff on the latest and review propose plan 6. Re-enforce Staff wellness (Physical & Mental) Promote Safety, Calm, Connectedness, Self-efficacy, Hope) Stay Connected with Loved Ones. Stay healthy.		

21.8.1.4 Community Health Centre Mitigation Plan

Goals: To PROTECT

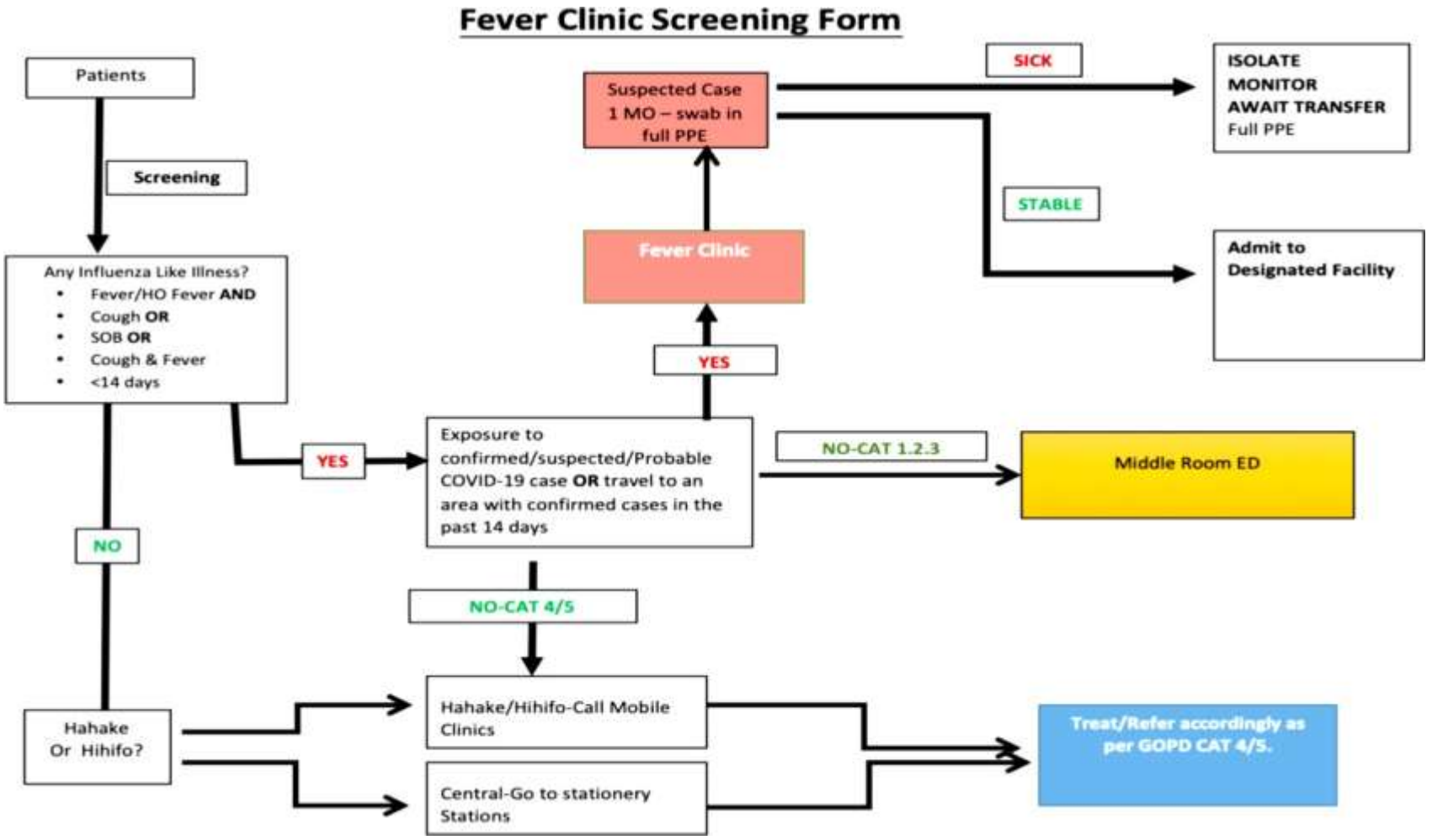
1) Individuals at increased risk for severe illness, including older adults and persons of any age with underlying health conditions.
2) The healthcare and critical infrastructure workforces

Potential mitigation action according to level of COVID-19 community transmission			
Setting	No positive case	Positive case	Evidence of person to person transmission
Health Centre	4. Increase awareness for COVID-19 (Patient) 5. What is COVID 19? Clinical Manifestations. 6. Preventative Measures (Proper Hand washing, Social Distancing, Stay Healthy, Keep Hydrated, Self-isolation) 7. Inform Public of the proposed plans below (Outreach Community Meetings, Radio, TV) 8. When to seek medical advice & Precautions Measures (Working Hours & After Hours) 9. Know where to get local information - Listen to updated travel advisory & Press Release & Live Talk back shows by MOH. EVIDENCE BASED MEDICINE!	16. IDENTIFY HOT SPOT AREA WITHIN OUR COMMUNITY 17. Provide awareness for COVID-19 ➢ What is COVID 19? Clinical Manifestations. ➢ Preventative Measures (Proper Hand washing, Social Distancing, Stay Healthy, Keep Hydrated, Self-isolation) ➢ Mental Preparedness of	**OPTION 1:** REMOTE CLINIC **OPTION 2:** 1 STATION PER EACH SIDE (WESTERN / EASTERN) DECIDE OF A CENTER FOR THIS - ASK COMMUNITY HALL SINCE NO CHURCH SERVICES. SCHEDULE ROSTER PER HEALTH CENTER STAFF!! **OPTION 3:** CLOSE DOWN ALL HC & COME TO VAIOLA HOSPITAL!

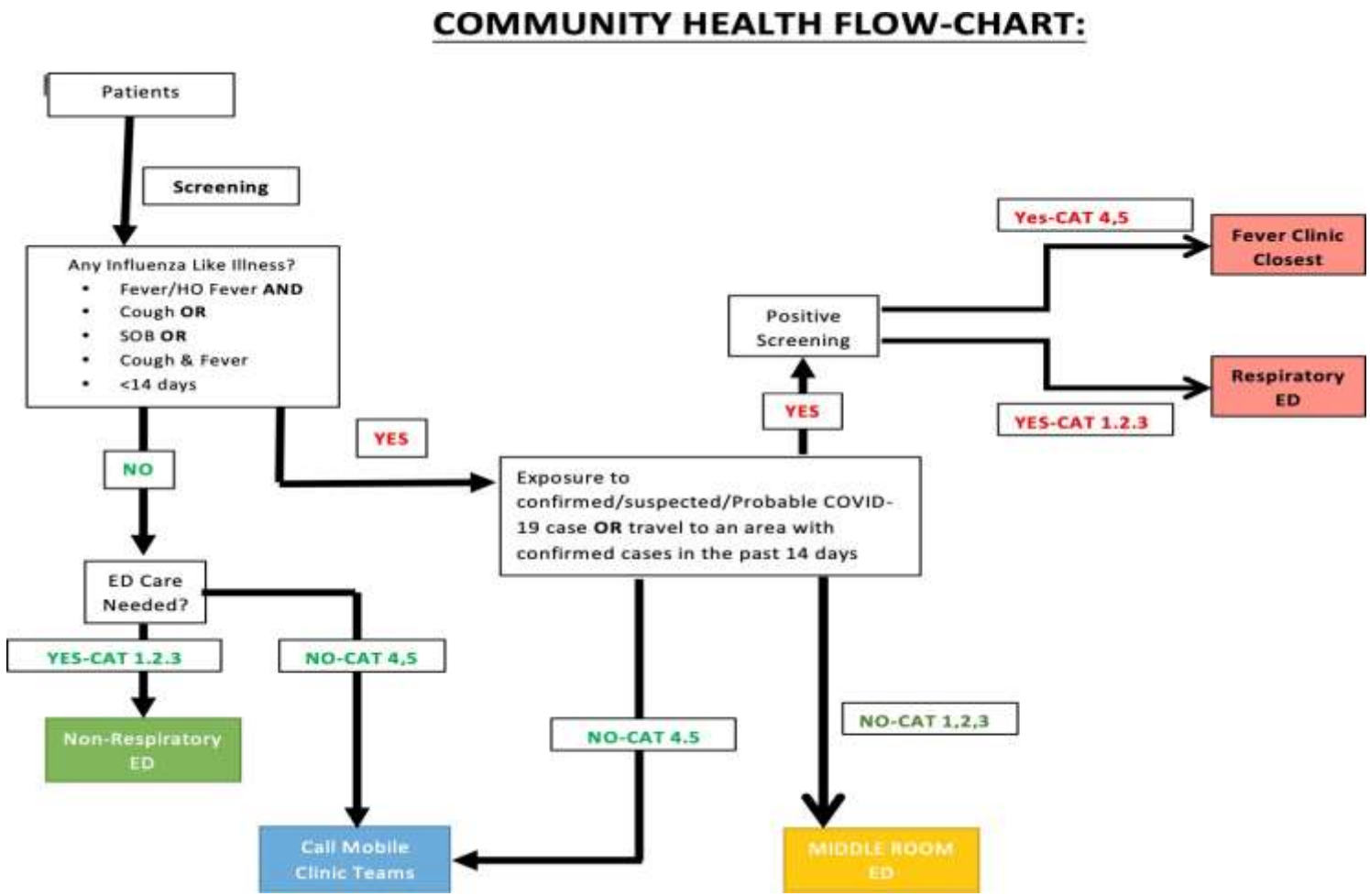
	10. Mental Preparedness of Patients. (Promote Safety, Calm, Connectedness, Self-efficacy, Hope) Stay Connected with Loved Ones 10. Set up COVID -19 triage Station 4. Training of staff on COVID 19 triage (Separate Respiratory vs Non-respiratory) 5. Training on proper handling of PPE and in a suspected COVID 19 case. 6. Setting up layout/flow of patients in the HC 7. Set up Referral Pathway if suspected case 5. Decrease the appointments Booked (Explore the feasibility of doing phone triage, call before coming to the center. Encourage patients to call prior to presentations) SOPD Patients ● Triage the patient for need to attend clinic, home visiting or refilling medication and re-booking. ● Decrease number to 20 patients only ● Identify High Risk group - Wheel Chair/ Amputees/ Elderly for Home visits ● Schedule Day per Village for Outreach clinic ● Pre-pack Medications ● Scheduled day for Refill of Medications & Encourage drop and pick-up/distribute of medications. Wound Dressing: ● Two Days in a Week depending on total number (Please expect we have send patients back to your respective centres from the NDC - only stable are send back). Consider Time-slot interval 10-30mins interval RHD Benzathine Injection: ● Schedule afternoon on a specific day. Whether 3-4pm after school. If school breaks - encourage to	Patients. (Promote Safety, Calm, Connectedness, Self-efficacy, Hope) Stay Connected with Loved Ones ➢ Inform Public of the proposed plans below (TV, Radio, Social Media) ➢ Know where to get updated local information"s. 18. Set up COVID-19 triage. ➢ Updated case definition to be translated into Tongan. Pamphlet available to distribute to patients. ➢ Home visit Teams to conduct COVID-19 screening/triage as well 19. Decrease Appointments Booking - Max 15 - 20 patients - Young & Poorly Controlled - Vulnerable Group (Wheelchair bound) to be seen with home visit team 1. Outreach/Remote Clinic - to Villages but still need to set up COVID 19 Triage as well. Schedule villages / day feasible to your staff/workload	

	come in the afternoon or during Outreach clinic RH Nurse Program ● Explore feasibility of Phone Triage & Scheduling time for visits - (Post-natal & Immunization, Family Planning, Antenatal Booking) • EXPLORE HOW TO INCLUDE HEALTH CENTERS IN THE UPDATED SUSPECTED CASES OR QUARANTINED CASES - CONFIDENTIALITY PLEASE! 11. Identify EVACUATION CENTER in case of a person to person transmission - Not sure at the moment! Most likely be remote/mobile clinic - Explore availability of Community Hall per each side of the island 12. Plan for mobile clinic, a HO & a nurse and pharmacy running clinic remotely. - Similar outreach group during TC Gita, scheduled villages 13. Negotiate with Pharmacy for supply of medications - increase as we will be distributing at least 2/12 supply from now on. 14. Team meeting every Monday, Wednesday and Friday to update staff on the latest and review propose plan 15. Re-enforce Staff wellness (Physical & Mental) Promote Safety, Calm, Connectedness, Self-efficacy, Hope) Stay Connected with Loved Ones. Stay healthy. During the Team meetings.		

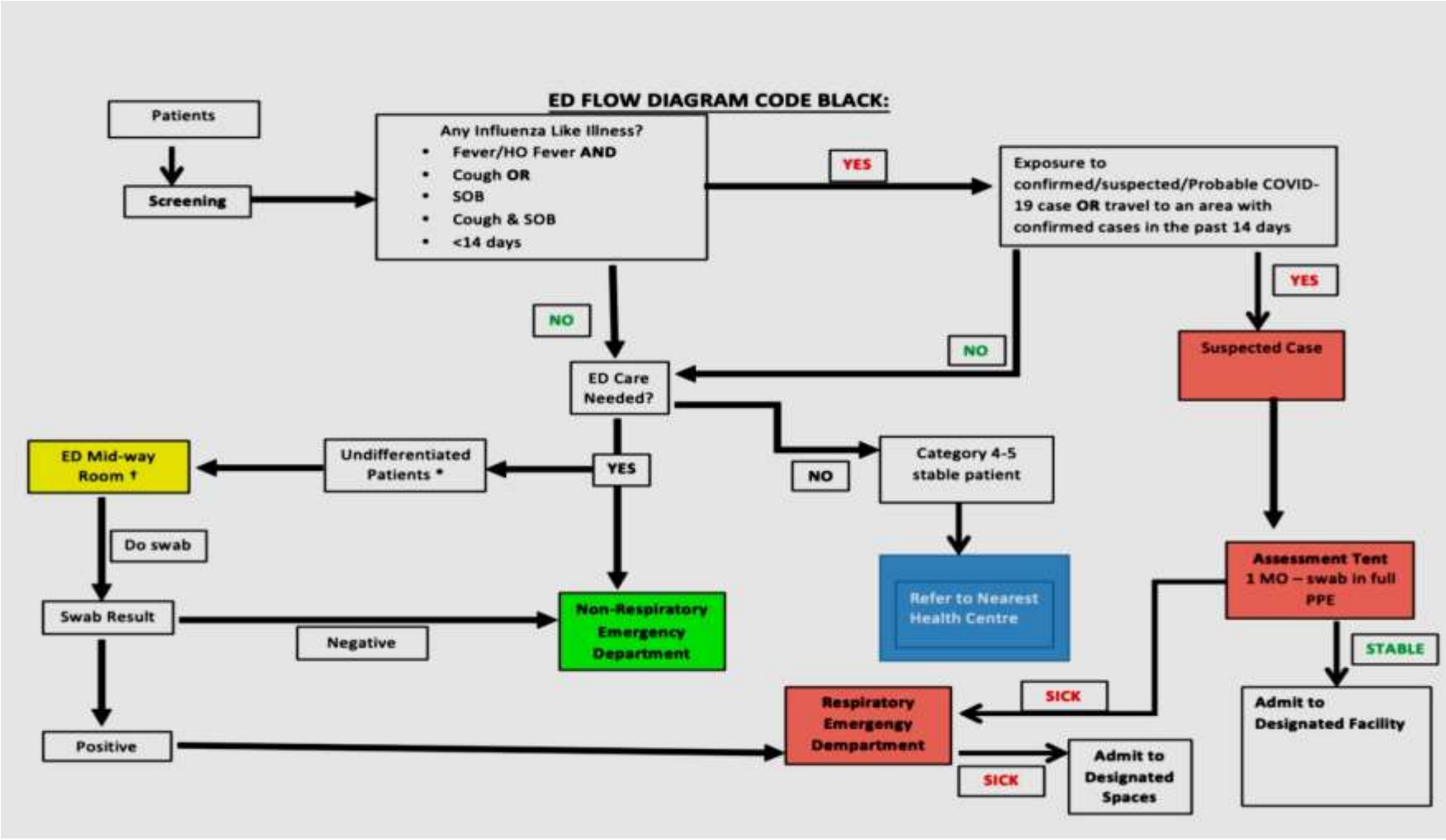
21.9 Annex I: Fever Clinic Screening Form



21.10Annex J: Community Health Flow-Chart



21.11Annex K: ED Flow Diagram CODE BLACK



21.12 Annex L: Laboratory Plan: Laboratory Sample Management, Testing, Referral and Reporting of Laboratory Results, Lab COVID-19 team

1. Sample Management

Staff must be appropriately trained in specimen collection and adhere to infection prevention and control guidelines. Use appropriate PPE for specimen collection (droplet and contact precautions for URT specimens; airborne precautions for LRT specimens). When collecting URT samples, use viral swabs (sterile Dacron or rayon, not cotton) and viral transport media.
All specimens collected for laboratory investigations should be regarded as potentially infectious.

1.1 Collection of Samples

Collect specimens from BOTH the upper respiratory tract (URT; nasopharyngeal and oropharyngeal) and/or lower respiratory tract (LRT; expectorated sputum, endotracheal aspirate, or bronchoalveolar lavage) for COVID19 testing by RT-PCR. Clinicians may elect to collect only LRT samples when these are readily available (e.g. in mechanically ventilated patient).

1.1.1 Nasopharyngeal Swab Collection Procedure

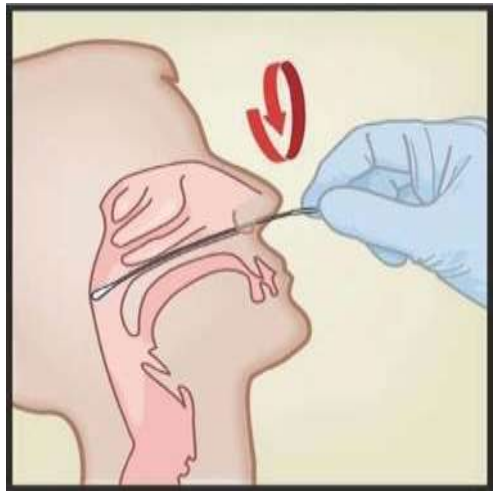


Figure 1 Nasopharyngeal swab collection, *Cepheid Genexpert*

Insert the swab into either nostril, passing it into the posterior nasopharynx (see Figure 1). Rotate swab by firmly brushing against the nasopharynx several times. Remove and place the swab into a viral transport tube (3 mL). Break swab at the indicated break line and cap the specimen collection tube tightly.

1.1.2 Throat Swabs

Insert swab into the posterior pharynx and tonsillar areas. Rub swab over both tonsillar pillars and posterior oropharynx and avoid touching the tongue, teeth, and gums.

1.1.3 Mid-Turbinate Swab Collection Procedure

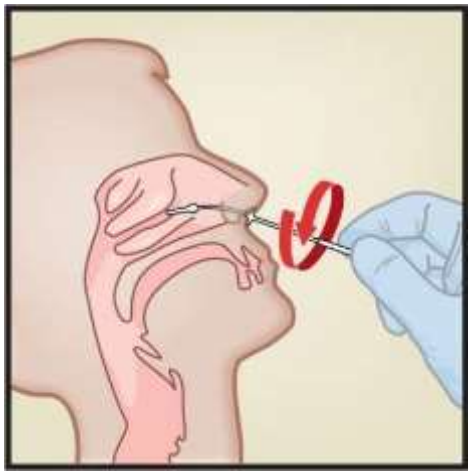


Figure 2 Mid-turbinate swab collection, *Cepheid Genexpert*

1. Insert the mid-turbinate swab into either nostril, passing it into the mid-turbinate area (see Figure 2). Rotate swab by firmly brushing against the mid-turbinate area several times.
2. Remove and place the swab into the tube containing 3 ml of viral transport medium. Break swab at the indicated break line and cap the specimen collection tube tightly.

1.2 Specimen labelling

1.2.1 After collection, label all samples correctly, accompanied by a Laboratory Request Form both with the following details:

- patient information: Name, DOB, sex, address, hospital number
- date and time of sample collection

*anatomical site and location of sample collection
*tests requested
*patient clinical details

**only on the Laboratory Request Form*

1.2.2 Put the sample and request form inside a specimen biohazard bag and store in the tranport cooler (foam box with ice pack for sample storage and transportation).

1.3 Storage and Transportation

1.3.1 Alert the Laboratory COVID-19 contact person of pending specimen transport. Alerting the laboratory before sending specimens encourages proper and timely receipt and processing of samples and timely reporting of the results.
1.3.2 Deliver the sample/s as soon as possible to the Laboratory. Swabs are stored in VTM temperature 2–8 °C up to 12 days until testing, more than 12 days, store at -70 oC.
1.3.3 Deliver all Laboratory samples (including blood, sputum, swabs) from any suspected or contact case to the Lab"s NEW PCR ROOM window. Delivery of samples should be done trained medical/ward staff who adhere to universal precaution in accordance to safety guidelines.
1.3.4 Receiving staff will exchange the sample packed cooler with a new transport cooler for the next lot of samples.

2. PCR Testing and Referrals

PCR screening and confirmatory testing for sars cov 2 virus can be done at Vaiola Hospital Laboratory.

2.1 Testing of samples will be according to the algorithm in Figure 4.

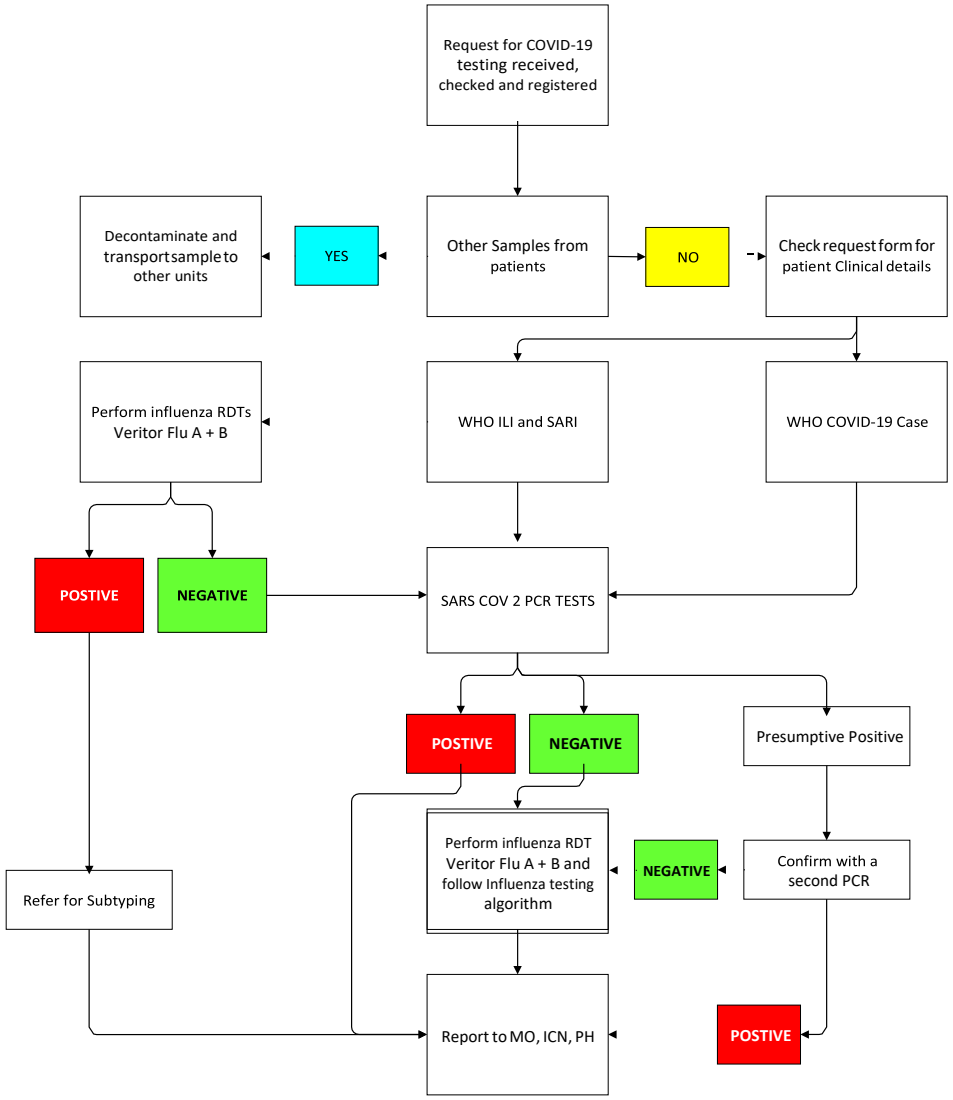
2.2 Turn around time for COVID-19 tests range from 2 hours to 6 hours depending on whether testing will be run individually or in batches.

2.3 For Laboratory Confirmed COVID-19 Positive cases:
2.3.1 Repeat URT and LRT samples should be collected to demonstrate viral clearance.
2.3.2 Specimen collection should be at least every 2 to 4 days until there are two consecutive negative results (both URT and LRT samples if both are collected) in a clinically recovered patient at least 24 hours apart.

3. Reporting of Results

As according to Laboratory Notifiable Disease policy, the result will be reported to:
-The requesting Clinician
-Infection Control Nurse
Updated e-copy of the notifiable database will be circulated to:
-SMO i/c CDOP
-CMO i/c Public Health

Laboratory Testing Algorithm



4. Lab COVID-19 team

Once a MOH emergency mode is on, Lab services will run on emergency service mode only thereby processing only "emergency" requests only. Lab OPD will close, Reception will relocate to "after-hour" window. Lab management to decide on number of staff to remain and attend to emergency requests and staff on standby depending on demand.

For a COVID-19 positive case/s, Lab staff will be rostered as below:
-A team of 3 technical Lab staff and 1 Laboratory maid will carry out all sample testing for any COVID-19 related patient/contact for those 2 weeks before the next team replaces them.
-Lab team of 4 (3 technical staff and 1 maid) will be quarantined on a 2 weekly basis (similar to other clinical frontline staff)
-The number of Lab staff quarantined will increase/decrease depending on the demand for Lab testing.

21.13Annex M: Radiology Department Tonga.COVID-19 Plan

21.14Annex N: Ultrasound Transducer and Equipment Cleaning and Disinfection

Authors: FUSIC Committee on behalf of the Intensive Care Society and endorsed by the FAMUS working group on behalf of the Society for Acute Medicine

INTRODUCTION

Point of care ultrasound (POCUS) is an important tool in the management of the acutely unwell patient (1). The potential for transmission of infection via ultrasound machines has been recognised, mandating hygienic practice while performing scans (2). This document provides recommendations for individual FUSIC and FAMUS Practitioners and departments for minimising the risks associated with POCUS.

The vast majority of POCUS diagnostic imaging involves surface imaging only with no bodily fluid contact, and thus are considered low level risk (2).

RECOMMENDATIONS (normal infection risk)

- Equipment should be appropriate for POCUS use, as outlined in the Guidelines for Provision of Intensive Care Services (3) and/or according to local guidance.
- Individual practitioners should perform hand hygiene before and after performing POCUS, as per local policy.
- Before scanning, the machine should be inspected for any obvious external contamination. If present, cleaning should occur.
- If a gel bottle is used, it is strongly recommended to avoid touching the probe surface with the gel bottle tip. Gel bottles should be cleaned before and after each use.Single use gel sachets (e.g OptilubeTM) are recommended where available.
- After scanning, excess gel should be removed, and the machine decontaminated with a hospital grade cleaning agent or wipes prior to storage. For surface level imaging, decontamination of the probe, keyboard and screen is recommended as a minimum.
- For invasive/semi-invasive procedures (Vascular access, fluid drainage, endocavitary probe insertion) probes should undergo high level decontamination as per local guidelines for such equipment. The use of a probe cover is strongly recommended for such procedures.
- Post invasive/semi-invasive procedures, decontamination of the entire machine is recommended.
- Refer to the equipment manufacturer"s instructions in order to avoid using cleaning products that will damage the machine or probes. (4,5,6) Cleaning agents recognised to be safe are Tuffie5TM Universal Sanitising Wipes (Vernacare, UK) and ClinellTM Universal Wipes (Gama Healthcare, UK)
- Ensure probes and wires are thoroughly wiped down with the appropriate agents immediately after use and prior to returning them to the holder on the machine.

- It is recommended that a cleaning register should be kept for each machine, and each use and clean logged. This is especially important in severe infections (see appendix).

RECOMMENDATIONS FOR SEVERE CONTAGIOUS INFECTIONS (eg COVID19, SARS, EBOLA)

- Scans should be performed only when deemed necessary. The team should ask “Will this change management?”
- PPE should be worn as appropriate according to national guidance.
- Where possible, a dedicated ultrasound probe should be assigned to the specific area where these patients are cohorted.
- High level disinfection should be performed with a hospital grade cleaning agent with recognised antiviral activity, such as Tuffie5TM Wipes, ClinellTM Wipes, or TristelTM Sporicidal wipes (Tristel, UK)
- The whole machine should be wiped down completely before returning to circulation.

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21.15Annex O: The role of ultrasound for patients with suspected or proven COVID-19

Introduction

Point of care ultrasound (POCUS) is currently being used internationally in the management of patients with COVID-19 infection and has been widely reported. Lung ultrasound shows typical sonographic signs. Cardiac ultrasound reveals effects on the heart. Different healthcare systems worldwide have different capacities, logistical considerations, and diagnostic and management pathways. With this in mind, UK guidance would seem appropriate. This document briefly outlines potential indications and uses of POCUS and how, when and by whom it should be performed. Sonographic features of COVID-19 are also described.

Indications - diagnosis and triage

Lung ultrasound: Identification of ultrasound signs consistent with viral interstitial pneumonia / non-cardiogenic pulmonary oedema, to facilitate early identification of patients who may have COVID-19 as opposed to alternative lung pathologies. This may have benefits in terms of patient triaging, and early routing of patients to the appropriate location. There may also be a role in identifying low probability severity cases requiring less intensive early input. Anecdotal reports from Italy and elsewhere suggest lung US may have a better sensitivity for detection of COVID-19 than swabbing.

Cardiac ultrasound: Identification of significant co-morbidities and assessing cardiac function at symptom onset.

Indications - management

Alternative causes of deterioration in the context of worsening clinical condition:

These may include acute cardiomyopathy, evidence consistent with pulmonary embolism, evidence consistent with secondary, super-added infection, pleural effusions and pneumothorax.

Ventilation strategies:

Lung recruitment - in intubated patients with COVID-19 associated respiratory failure, and on-going / worsening hypoxia, in whom different treatment strategies are being considered, POCUS may differentiate two lung patterns; 1) bilateral, diffuse, anterior, multiple B-line with pleural abnormalities vs 2) „normal" anterior lung (or anterior lobar consolidation) with postero-lateral / basal atelectasis / consolidation. These two patterns may identify patients who are better treated with increased PEEP trials (pattern 1) or prone ventilation (pattern 2). There is no solid outcome evidence for this, but according to units that have treated many COVID-19 patients this is an appropriate algorithm.

Lung aeration - as the lung goes from aerated to non-aerated, lung ultrasound appearances progress from A lines → a few B lines → lots of B lines → coalesced B lines → consolidation. *Weaning* - resolution of pathological signs to an A line pattern signifies disease resolution.

Fluid balance:

Monitoring of extra-vascular lung water in patients who suffer primarily from respiratory failure. Monitoring of haemodynamic features of intravascular volume status in patients with cardiovascular instability.

Cardiac function:

Monitoring of right heart function in patients who are at risk of suffering acute cor pulmonale secondary to either hypoxic vasoconstriction and / or ventilator induced lung injury. Left heart function may also be assessed as COVID-19 patients can develop acute cardiomyopathy, presumably secondary to viral myocarditis.

Avoidance of alternative imaging:

The Royal College of Radiologists has released a statement that routine CT scanning of these patients is not indicated *(link to - https://www.rcr.ac.uk/college/coronavirus-covid-19-what-rcr-doing/rcr-position-role-ct-patients-suspected-covid-19)*. Transfers to CT are resource intensive, time consuming and have significant infection control risks. Lung ultrasound will significantly reduce the need for either chest x-rays or CT scans.

When?

The indications above state when POCUS may be beneficial. Demands on the service will dictate how often it is practical to perform ultrasound. There should always be a clear clinical question where the answer is likely to significantly contribute to patient care. This is, of course, a professional judgement call. Ultrasound is, by no means, the most important thing in these patients. Lung protective ventilation and strict avoidance of a positive fluid balance are the mainstays of management. Ultrasound does however have a role in monitoring and guiding these two treatment strategies.

By whom?

Ultrasound training should ideally be delivered in the manner in which the FUSIC and FAMUS modules have been developed; with education, mentored learning and assessment. Cardiac ultrasound is more difficult to learn and has more pitfalls than lung ultrasound and for the COVID-19 pandemic this advice remains in place. However, lung ultrasound is easier to learn, particularly with a modified data set *(see below)*. In the context of the potential need to rapidly up-skill an untrained workforce to deal with the COVID-19 pandemic, and the potentially important beneficial role focused lung ultrasonography can play in the management of these patients, we have created some information highly pertinent to the anticipated case-mix that may be utilised to manage them from diagnosis to later treatment. Whilst in every case imaging should ideally be reviewed by a trained expert, it is hoped that this information may help those without easy access to this to look after their patients, and potentially entice them towards full training at a later stage. The committee wishes every practitioner of ultrasonography all the best in utilising their valuable skills in this challenging time ahead.

How?

A video of how to perform a full FUSIC lung ultrasound can be found at *(Coming soon).* A flowchart of how to perform and interpret lung ultrasound in a focused COVID-19 exam can be found at *(*link to http://www.ics.ac.uk/ICS/Pdfs/FUSIC_DOCS/FUSIC_COVID-19_Lung_ultrasound_dataset.aspx*)*. An infographic „how to" with examples of pathology can be found at *(*http://www.ics.ac.uk/ICS/Pdfs/FUSIC_DOCS/FUSIC_COVID19_info.aspx *)*. Each lung is examined at 3 points - upper anterior, lower anterior and postero-lateral. Normal signs are a clearly seen, thin pleural line with A-line artefacts below the pleura. Pathological signs are outlined below.

Infection control:

Infection control is paramount. National and local guidance on PPE should be followed. Information on machine decontamination can be found at

*(*http://www.ics.ac.uk/ICS/Pdfs/FUSIC_DOCS/FUSIC_decontamination_guidelines.aspx*)***.** It would be ideal to have a dedicated machine for cohorted patients or a handheld device for single patient use.

Remote supervision:

NHSX have set out COVID-19 guidance on the use of mobile messaging and videoconferencing using off the shelf products like WhatsApp. This is deemed appropriate “where there is no practical alternative and the benefits outweigh the risk”. This guidance can be found at (link to

https://www.nhsx.nhs.uk/key-information-and-tools/information-governance-guidance)

Sonographic features

Lung ultrasound

As would be expected for interstitial pneumonia and ARDS:

B lines - often non-homogenous with spared areas, increasing in number with severity, coalesced with „white lung" appearance with severe disease.

Thickened or irregular pleural line

Small consolidations immediately below the pleural line

Lobar consolidation: Severe disease, fluid overload, super-added bacterial pneumonia

Pleural effusions: Unlikely to be present in early disease, may suggest an alternative pathology if significant; later a potential sign of fluid overload.

Recovery phase - transition back to normal appearance (A-lines)

Heart ultrasound

A focused scan can give valuable information. A more detailed expert scan will be appropriate in certain circumstances.

FUSIC heart / FICE practitioners:

LV - systolic impairment; significant dilatation,

RV - systolic impairment (TAPSE, eyeballing contractility); volume/pressure overload (dilatation),

Expert / level 2 practitioners:

Quantification of:

LV and RV function

Identification of:

Raised LV end diastolic pressure

Raised PA pressure

Low pre-load (low stressed venous volume)

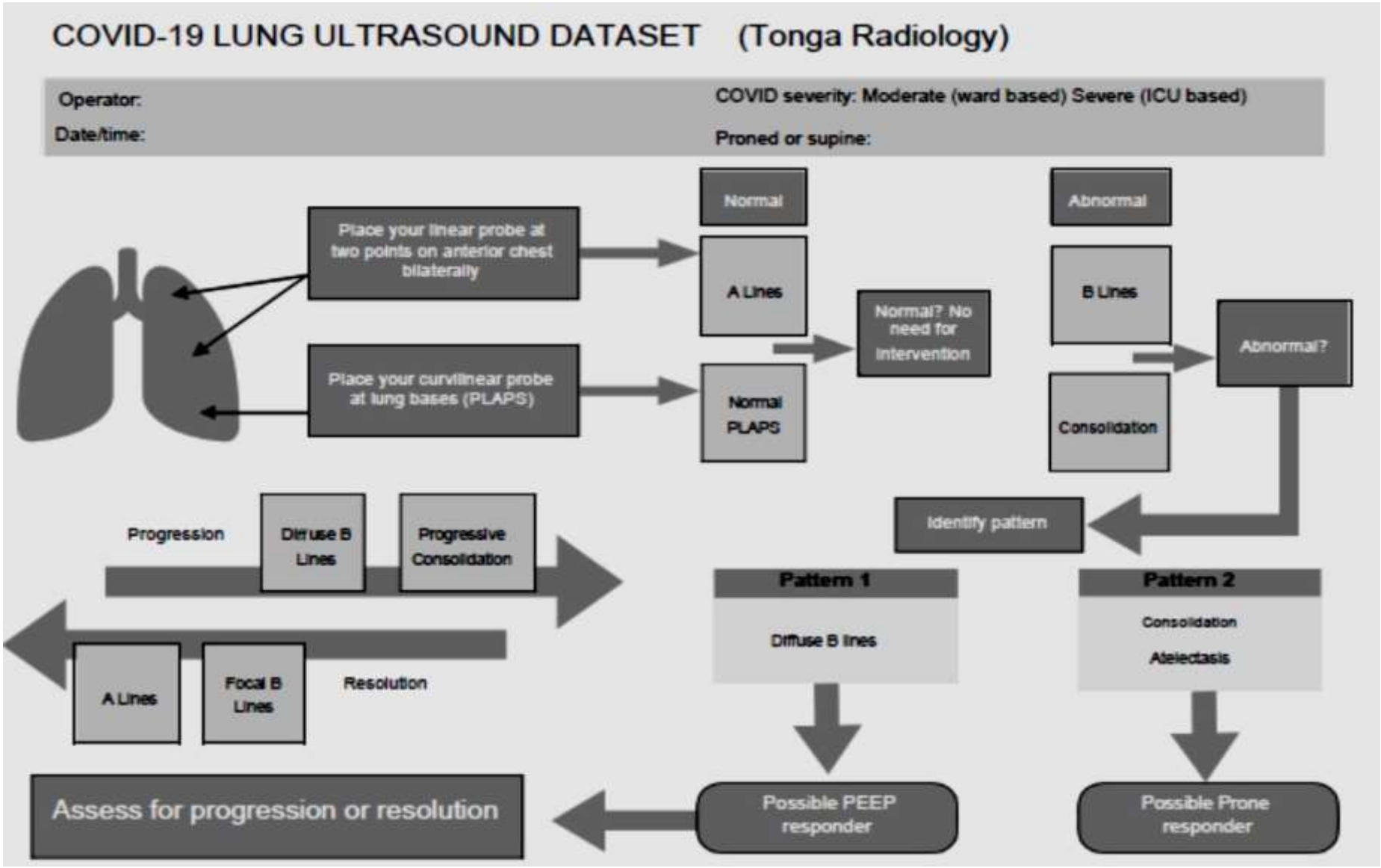
Volume overload

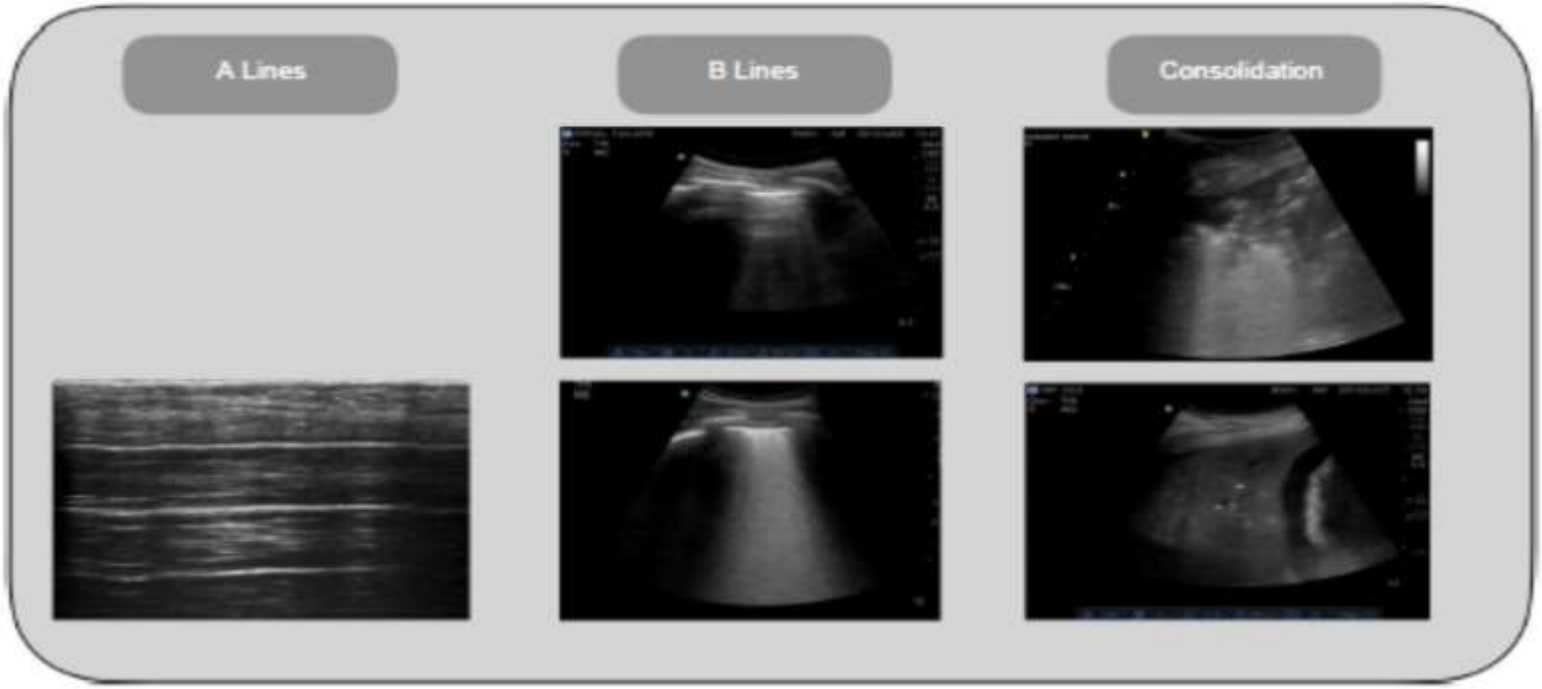
Other

Venous congestion - dilated IVC plus abnormal Doppler flow patterns in HV, PV or renal vein signifying high venous pressures from cor pulmonale or fluid overload

Conclusion

Ultrasound is having, and will continue to have, a significant impact on the care of COVID-19 patients during this pandemic. In particular, lung ultrasound is easy to learn, quick to deliver, and impacts on the patient pathway from triage through to intubation and beyond. We believe that the more people that use it the better. Clinicians will become better diagnosticians, and patients will be spared unnecessary radiation and transfers. WhatsApp, FaceTime and other videoconferencing apps may revolutionise how supervision is delivered, with positive effects felt long after the pandemic is over.


COVID-19 LUNG ULTRASOUND DATASET (Tonga Radiology)
Operator:
Date/time:
COVID severity: Moderate (ward based) Severe (ICU based)
Proned or supine:
Place your linear probe at two points on anterior chest bilaterally
Place your curvilinear probe at lung bases (PLAPS)
Normal
A Lines
Normal PLAPS
Normal? No need for intervention
Abnormal
B Lines
Consolidation
Abnormal?
Identify pattern
Progression
Diffuse B Lines
Progressive Consolidation
A Lines
Focal B Lines
Resolution
Pattern 1
Diffuse B lines
Pattern 2
Consolidation
Atelectasis
Possible PEEP responder
Possible Prone responder
Assess for progression or resolution



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21.16Annex P: Paediatric Section Management Plan For Moderate/Severe/Critical Paediatric Suspected/Confirmed Covid19 Cases

CONTENT-

i. INTRODUCTION

This is a tentative plan which will be amended with the evolving circumstances. This plan takes into consideration different circumstances such as availability of testing, sufficient PPE, adequate staffing and necessary medical equipment. It also addresses the possibility of a surge of such patient numbers.

Staffing

We have only 2 paediatric doctors available to care for children with covid19. We have 26 nurses altogether to provide care for the 2 wards under paediatrics department (15 paediatrics nurses and 11 special care nursery nurses).

8 nurses are not eligible to care for covid-19 patients due to comorbidities, leaving only 18 nurses available to care for covid19 paediatric patients. In addition, only 11 have volunteered to do this.

In the event where we have children with covid-19 to care for, 8-12 nurses (depending on number of patients) will be needed and taken out from these 2 wards to care for covid-19 patients. The sisters in charge of paediatric ward and SCN have agreed that in the event there is shortage of nurses in the paediatric ward, SCN nurses will help to cover. We still need to be able to care and provide service for the other sick children that will be admitted to the hospital.

Proposed Isolation Beds Overflow Option

This plan works on the premise that only Vaiola Isolation ward is available as of now for sick covid-19 children. However, it is noted that isolation ward has only 6 beds, 4 of which would be for ventilator bed spaces. Furthermore, Mu"a health centre"s capacity to provide segregated bed space for children is not known at this stage. The likely bed space there for children is limited .

Our PLAN C, therefore is to wall off 6 rooms in the East wing of the Vaiola Paediatric ward as a space for potential paediatric patients who have moderate/severe or critical covid-19 infection (details on this below) that could not be fitted into either Plan A or B-see pg 3

The risk of this being part of the existing general ward would be offset by vigilant modifications (details below) and the proximity of paediatric human and otherwise resources.

This plan gives scenarios for <6 paediatric cases and for 6-12 cases. Maximum number of cases that could be accommodated here is 12. If more than 12 children are admitted at any one time under the paediatric team care, we would need further planning for more space, more resources and more staffing.

ii. PRINCIPLES FOR CARING FOR CHILDREN WITH COVID-19 IN TONGATAPU

i. Children have to be segregated from adults.
ii. Placement of critical patients requiring intubation and ventilation, following discussions with anaesthetist, will be in Isolation ward and if this is not available then one of the rooms (to be converted) in the East wing will be equipped to ventilate a critical child.
iii. Depending on the demand for bed space, discharge could be done when patient is well enough to be discharged to an arranged placement(to be discussed with public health) for ongoing isolation unless repeat swabs has proved negative, then child can be discharged home.
iv. MUST HAVE FULL PPE (including goggles/face protection) for staff and portable CXR available.

v. Need ADEQUATE NUMBERS of TESTING ability, with swift turn around time to get results.
vi. Paediatric nurses will take care of paediatric covid19 cases only. If there are no paediatric cases, they will return to paediatric ward normal duties.
vii. Rooms to be equipped to facilitate monitoring and less contact and usage of PPE

iii. CLINICAL PATHWAY-only for Moderate Severe and Critical cases.

a) <u>Admit to designated room-</u>

i. **Plan A**- Isolation ward (will need 2 rooms at least)
ii. **Plan B**- should be a clear segregated space in Mua HC (bed space/numbers and level of severity to be confirmed with administration).
iii. **Plan C**- Paediatric ward East wing.

<u>Designated rooms must have-</u>

- Oxygen
- Medical air
- Suction
- Emergency trolley (stocked with intubation equipment and emergency drugs- see below)
- Cardiac monitor
- Pulse oximeter
- Sphygmomanometer, thermometer, stethoscope and torch
- 2-3 infusions pumps, one syringe pump
- Monitoring camera
- Cot and carers bed
- Phone (mobile or landline)
- Intercom
- Waste bins
- Clock
- Dressing trolley
- Commode/own bathroom

b) <u>Assessment by Paediatric covid-19 doctor (Dr Flora or Dr Meleane)</u>

- Patient to be cared for by paediatric nurses and doctor.
- Frequency of observations to be decided by doctor on day by day basis

c) <u>After paediatric doctors' assessment</u>

- Management plans to be executed by the paediatric doctor and nurse.
- Depending on severity, further discussion could be made with consultants, and paediatric interns or associate interns may be recruited for further support.

1. -portable CXR to be available and quick response time
2. -IV line insertion- would need carers cooperation to hold.
3. -procedures may need more hands e.g. IDC, chest drain insertion (will need to do this in the room not OT, and 2 doctors required including one for sedation)

d) <u>Ongoing care</u>

a) Nursing care will be done on 12-hour shifts.
b) If child is sick requiring close observation- caring nurse to stay inside the room with patient at all times, the nurse to donn and stay in the room for max 3 hours and be replaced by next nurse for same duration.
c) If there are more than 2 patients needing care, this cannot be done. Nurse will need to doff and see other patients and remotely observe.
d) Early testing would be paramount in this instance so that patients can be cohorted and nursing care can be provided to more patients without the need to doff.
e) Separate observation chart to remain in the room, numbers can be relayed to nurse outside the room to plot observations into the patient"s chart.
f) If <6 cases, 2 nurses per shift needed-one inside the room one outside. This means 8 nurses required per week. (depending on patients" condition, may need more)
g) If ≥6 cases, 3 nurses (at least) per shift needed, that is, at least 12 nurses required per week (depending on patients condition, may need more)
h) If child doesn"t require close observation, vitals to be done at 4 hourly intervals as per usual.
i) Exchange zone/trolley required for handing of equipment/needs from outside into the room. (Infection control team to comment on contamination issues with this method, including the conversion of the sluice room in paediatric ward east wing to Isolation Nurses Station).

e) <u>Doctors reviews-</u>

- Timing will depend on clinical status of patient.
- Will monitor by physical review or via phone, intercom or with video recordings and monitors as necessary.
- Nurse to inform doctor for review if any clinical concerns.

f) <u>If child is intubated (critical case)</u>

4. This will either be in Isolation ward or the designated ventilation room in East wing
5. Nursing care will be done on 12 hour shifts.
6. 2 nurses per patient to stay inside the room, one ICU nurse and one paediatric nurse.
7. Both are to be in the room at the same time- up to 3-hour intervals then exchange with another pair. For the 2 nurses outside, they are to take turns, one to assist needs of the nurses inside and the other to rest/break.
8. Shared care by anaesthetists and paediatric doctors.
9. Same principal of one observation chart inside and one outside in patients notes

iv. THINGS TO CONSIDER

1.1. **Capacity**:

We are more likely to operate at maximal occupancy rate IF TESTING IS readily AVAILABLE, as cohorting can be done and negative suspects can be discharged early. TESTING is very much needed to lessen workload, free up bed space, and save PPE.

1.2. Logistics with carers:

5 Risks of being a carer need to be explained to them, including the possibility of becoming infected. A form should be given to the carer to sign that they accept that risk. Even more paramount if the carer has a comorbidity but still wants to stay. By definition they would be regarded as contacts and treated as such.

6 Carer will need to commit that they will be the sole carer for the duration of the admission to minimise contacts.

7 If carer wants protection while staying, they will need to be swabbed and have PPE until swab results is known

Carer will need to be taught to be part of the team. They will need to assist with some monitoring (some basic observations if nurse leaves room, also putting oxygen saturation monitor on child"s finger so nurse can see the saturations from outside the room). This will be included in their introduction to being a carer (orientation sheet with rules of stay will be made and provided to the carer).

1.3. Required number of Paediatric doctors:

If first paediatric doctor becomes a contact, will have to be replaced by second paediatric doctor. If both become contacts, MOH to have a back -up plan for that (perhaps a capable junior doctor can see cases and discuss with senior consultants).

1.4. Required number of Nursing staff:

- A two-week covid-19 nursing staff roster is ready. Once we have cases and the covid-19 nursing team is removed from the ward roster, nursing managers to have 7 nurses ready to bring to the paediatric ward to cover for that shortage. At least 4 to be senior nurses.

- Note the plan above for an intubated case, with 12 hour shifts, we need 4 ICU nurses per 24 hours. That is about 8 ICU nurses for a week"s work, and that is for one case only. We could probably stretch that to 2 intubated cases if they share the same room or are in adjacent rooms. Administration/nursing managers to explore the capacity to do that, especially considering there is a small number of ICU nurses.

1.5. Sustainability

- To sustain this plan and avoid exhaustion of healthcare workers, it would be ideal to do this in teams. However, we do not have the numbers to do this. So this dedicated covid-19 team (nursing and doctors) will be carrying out duties for the duration of the outbreak, which could be months. If team members become contacts, or exhausted or sick, MOH will need to bring in more nurses and doctors to care for paediatric cases.
- The calculated PPE usage for 12 patients for one month for nurses is 2688 and 1344 for doctors-TOTAL 4,032. If one of those patients are intubated an extra 280 is needed for the extra ICU staff who will be involved. This number does not include PPE usage of cleaners and carers. PPE supply should accommodate for this need.

1.6. Health care workers accommodation/meal.

Food for the workers and suitable accommodation for them HAVE to be provided should they not want to return home during the outbreak.

1.7. A decontamination team'

This team should clean rooms once each patient is discharged. Infection control team current plan tasks the nurse to do this. With limited nurses available would suggest having trained cleaners do this.

2. EQUIPMENT REQUIRED

To Convert 6 rooms in Paediatric ward East Wing to Care for 12 paediatric patients with moderate/severe/critical covid19 infection

2.1. For Patient care/monitoring

1. All 6 rooms to have oxygen outlet of the wall
2. Room 38 to be equipped as negative pressure for ventilation requirement
3. The other 5 rooms to have air outlet to allow delivering of CPAP

v. All 6 rooms must have suction either from the wall or suction machine.
vi. The Sluice room to be thoroughly decontaminated and converted to Isolation Nurses station
vii. 3 emergency trolleys (stocked with intubation equipment and emergency drugs, list below)
viii. 11 cardiac monitors + 500 dots
ix. 11 pulse oximeters

- **x.** 6 sphygmomanometers (infant, child and adult size cuffs) (one for each room)
- **xi.** 6 stethoscopes, thermometers, torch (one for each room)
- **xii.** 12 infusions pumps and 4 syringe pumps
- **xiii.** 3x Nebulisers
- **xiv.** AIRVO consumables
- **xv.** 5 CPAP (including flowmeter for both oxygen and air)
- **xvi.** 6 low flowmeters
- **xvii.** Istat machine with 200 in-date cartridges
- **xviii.** 10 chest drain sets (including underwater seal, trochar various paediatric sizes)
- **xix.** 20 sets of PICC lines/long lines
- **xx.** 2 paediatric ECG machines with 200 ECG dots
- **xxi.** Intraosseous needles [x60 15mm (pink) and x20 25mm (blue)]
- **xxii.** Intraosseous gun

2.2. Other logistics

- **xxiii.** 6 monitoring CCTV camera (for patient remote monitoring)
- **xxiv.** Phone per room (mobile or landline) (for calling doctors and or nurses desk if need help)
- **xxv.** 6 Intercom built-in sets (for ease of communicating from inside the room without doffing)
- **xxvi.** Both the intercom and CCTV camera monitoring are to be monitored from Nurses Isolation station, Head of dept office, doctor‟s office, and the main ward nurse‟s station.
- **xxvii.** 1 refrigerator (one designated for COVID-19 area)
- **xxviii.** Waste bins for 6 rooms plus nurse‟s isolation station
- **xxix.** 6 dressing trolley (mobile and sturdy for use in/outside the rooms)
- **xxx.** 6 clocks (for each room)
- **xxxi.** 6 commode
- **xxxii.** 2 weighing scales
- **xxxiii.** 12 IV stands
- **xxxiv.** 4 medication trolley
- **xxxv.** Perspex swinging double doors to separate off Isolation unit from the rest of the Ward
- **xxxvi.** 4032 full PPE this will be sufficient supply for one month only
- **xxxvii.** 50 Scrubs
- **xxxviii.** 4 additional rooms to have Air condition
- **xxxix.** 30 pillows

xl. Drinking water dispenser

5.3. Emergency trolley equipment- all ETT sizes for children (2.5-5.5- cuffed and uncuffed), AMBU bag and all sizes of masks, laryngoscope (all blade sizes), IV cannulas, extension, IO needles and IO gun, op-site, introducers x4, glucometer x3.

5.4 Emergency Drugs- Adrenaline, Midazolam, Morphine, Suxamethonium, Fentanyl, Ketamine, Atropine, Phenytoin, Phenobarbital, Antibiotics (ceftriaxone, ampicillin, cefuroxime, vancomycin), dopamine, calcium gluconate, sodium bicarbonate, adenosine, aminophylline, amiodarone, magnesium sulphate, naloxone.

5.5 Other Drugs- El Panadol, El omeprazole, Cetirizine elixir and tablets , El Ibuprofen, Frusemide, Salbutamol MDI, spacers (12 at least), Salbutamol (for nebulisers), atrovent, prednisone, dexamethasone, IV Acyclovir, El Flucloxacillin, El Cefuroxime, El Amoxicillin, El Augmentin, El Azithromycin, El Sodium valproate, IV Omeprazole, lignocaine and other common drugs to be separated to the covid19 area

5.6 Other Stock- IDC (sizes 5,6,8,10,12), x100 IV cannulas (B Braun size 24, 22) , tapes, swabs, NGT tubes (size 5,6,8,10), suction tube (size 6, 8,10), Yanker, urine bag (children,adult), mask and reservoir (different sizes), syringes(50,20,10,5,3,1cc), needles(19,20,21,22,23,24G), litmus paper and lubricant, iv stopper, x100 IV extension, x100 opsite and all common stock required for the ward, to have separate supply for covid19 area.

a. Fluids- D50%, D5, D10, N/S, 0.45 NaCl, N/S with 5% dextrose and 20mmol KCl- 100 vials/bags at least.

2. PAEDIATRIC WARD EAST WING ISOLATION OPTION

There are 6 rooms in paediatric east wing that can be converted for this purpose. These rooms need to be stocked with the list noted above. The floor sketch for this area is attached, and further details would be provided if this plan is approved. It also needs to be prepared with a partition designed to allow for proper isolation from the rest of the ward (including a barrier 2m from outside the windows of the East wing)

One room can take up to 2 patients, so the total capacity of this area is 12 children. This is only able to take 12 if testin g is available so they can be cohorted. If no testing is available the capacity would be 6 only. If pushed, room 38 can be transformed to allow one child to be ventilated.

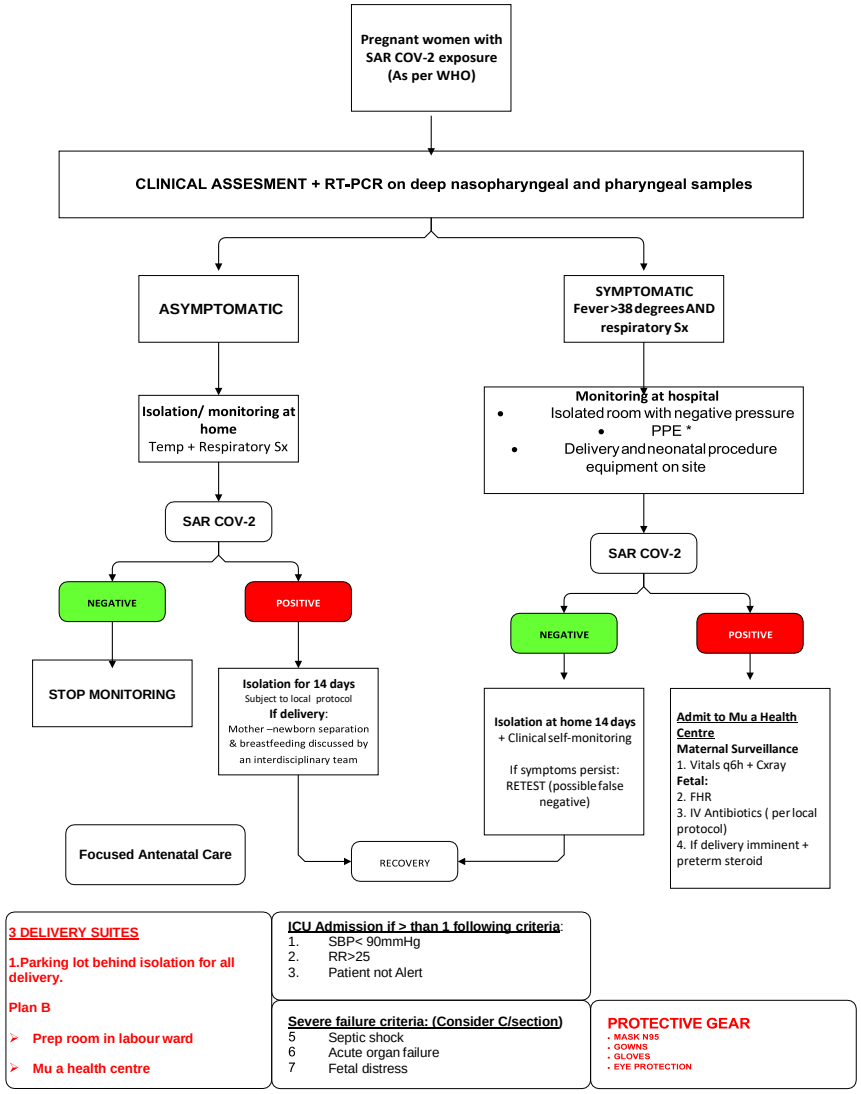
3. PROPOSED EAST WING FLOOR-PLAN SKETCH FOR COVID-19COVID-19 NURSING DUTY ROSTER: PAEDIATRICS

Roster will depend on number of patients, the first 8 nurses needed for <6 patients, and the full roster of 12 nurses needed for 6-12 patients. Roster may change according to clinical status of children.

NAMES	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1.Neomai Fatai	n	n	n	n	DO	DO	DO		am	am	am	DO	DO	DO	DO
2.Laisa Siale	n	n	n	n	DO	DO	DO		am	am	am	DO	DO	DO	DO
3.Tuna Masi	am	am	am	am	DO	DO	DO		n	n	n	DO	DO	DO	DO
4. Viliami Leakona	am	am	am	am	DO	DO	DO		n	n	n	DO	DO	DO	DO
5.Mele Fa	DO	DO	DO	DO	n	n	N		DO	DO	DO	am	am	am	am
6.Mina Sevaki	DO	DO	DO	DO	n	n	N		DO	DO	DO	am	am	am	am
7 Siu Felemi	DO	DO	DO	DO	am	am	Am		DO	DO	DO	n	n	n	n
8.Siaosi Fifita	DO	DO	DO	DO	am	am	am		DO	DO	DO	n	n	n	n
9.Semisi Taulaki	n	n	n	n	DO	Do	DO		am	am	am	DO	DO	DO	DO
10 xxxx	Do	DO	DO	DO	n	n	N		DO	DO	DO	am	am	am	am
11.Seini Vao	DO	DO	DO	DO	am	am	am		DO	DO	DO	n	n	n	n
12.Kisu Fa	am	am	am	am	DO	DO	DO		n	n	n	DO	DO	DO	DO

George Aho, Head of Paediatrics for Paed Team . 8th April 2020

21.17Annex Q: Assess Covid-19 Risk In Maternity Ward



21.18Annex R: Clinical Procedures / Mental Health Referral Pathway

21.19 Annex S: COVID-19 CONTAINMENT PLAN

For the COVID-19 response, the Ministry of Health Containment Plan will focus on controlling the spread of COVID-19 into the Community. At the moment, Tonga is currently COVID-19 free and the only entry point for COVID-19 into the country is via the point of entries: through the Airport and the Sea-ports. Generally speaking, travellers will be quarantined in allocated facilities and all contact with family and friends or even fellow travellers will be highly restricted for the duration of 14 days. Tonga at the moment can only hold a capacity of 50 travellers, while further quarantine facilities are being built or renovated. In that regard, staff and efforts will focus on the process of travellers arriving, being transported to the facility and remaining within the quarantine facility for 14 days, **with no contact to the community**. The only individuals in contact with the travellers are allocated teams from the Ministry of Health staff and support staff from other line Ministries. Access to these facilities will be highly restricted to unauthorized personnel. Once the 14 days are complete, the traveller will then be further assessed and discharged from the quarantine facility accordingly. Follow-up may be required. For suspected, sick and confirmed cases, they will undergo monitoring, treatment and care at allocated isolation facilities. Only once the 50 travellers are discharged will the borders will reopen for another 50 travellers. If however the quarantine facility and healthcare facilities increase, we may be able to increase the quarantine capacity.

The concept for the COVID-19 response is similar to a water-pipeline; the containment around the pipeline represents the containment plan. The water that will run from the pipeline represents the travellers whom will be entering the nation. If the containment plan is effective, any drops of water (travellers) entering the clean general pool (population) will be screened and tested to be clean of COVID-19, this is to ensure that the general population pool is COVID-19 free. Should there be a leak in the pipeline, then the lockdown process will commence. The main outcome here is that the Tongan general population continues life while COVID-19 is contained within the „pipeline" process.

Strategic Infrastructural Projects for COVID-19 Preparedness and Response

#	Infrastructure	Estimated Cost ($TOP)	Preparation for Phase	Status
1	**QSINAH Renovation**	**1.5 million**	**Phase 3 - 4**	**No Progress**
Rationale: The QSINAH Renovation is part of the Surge Capacity plan, where the lower half of the building is a make-shift hospital; this will be utilized for the overflow of patients from the Paediatrics Ward, since the Paediatric Ward will be reallocated to provide adequate space for COVID-19 cases. This project was to be submitted for ChinaAid to fund prior to COVID-19 within the CP 2019/20				Costing and Design Complete
2	**Pharmacy Warehouse**	**1.7 million**	**Phase 1 - 4**	**No Progress**

	Renovation			
Rationale: As part of the expectation for an influx of PPE and extra supplies of medical supplies and pharmaceuticals in preparation for the COVID-19 pandemic, the Pharmacy Warehouse needs to increase its size to meet the influx of goods and to store them securely and adequately. This project was to be submitted for MFAT to fund prior to COVID-19 within the CP 2019/20				Costing and Design Complete Activity **8.22**
3	**Clinical Storage Areas**	**1,500,000**	**Phase 1 - 4**	**No Progress**
Rationale: In addition to the Pharmacy Warehouse, there also needs to be more storage for the medical equipment and medical supplies that will be supplied to the COVID-19 cases. These need to be near the hospital and separate from the Warehouse. This storage area will be near Vaiola Hospital and will be stocking space for medical equipment, supplies and inventory for the COVID-19 response teams. This project was to be submitted for MFAT to fund prior to COVID-19 within the CP 2019/20				Costing and Design Complete
4	**Mu'a Health Centre**	**200,000**	**Phase 1 - 4**	**In Progress**
Rationale: The Mu"a Health Centre will be the primary health facility for confirmed COVID-19 cases and requires renovation to ensure that the facility is appropriate and within acceptable standards.				The Building is complete, however new amendments to be made
5	**Taliai Camp**	**300,000**	**Phase 1 - 4**	**In Progress**
Rationale: Taliai Camp will be the primary health facility for suspected COVID-19 cases and have mild symptoms. Thus the Taliai Camp will need to be renovated to ensure the facility is within acceptable standards and appropriate.				The Building is complete, however additional amendments to be made
6	**Expansion of Laboratory Facility**	**100,000 TOP**	**Phase 1**	**In Progress**
Rationale: The Laboratory Facility expansion is to cater for the PCR machine and COVID-19 related testing / diagnostic capabilities of the Ministry of Health				The Building is currently being renovated Activity **5.22**
7	**Quarantine Facilities**	**TBC**	**Phase 1 - 4**	**In Progress**
Rationale: These facilities are critical for the Containment Plan and should take priority. The quarantine facilities will cater to healthcare workers, support staff and travellers. It would be ideal to have adequate washing and bathroom facilities for each individual – this is to prevent the possibility of cross-contamination. For sustainability reasons, it would be recommended that these facilities be spread-out in the community to have multiple buildings and that once the COVID-19 pandemic ends, these facilities could be utilized by the Community. There should also be separate facilities for vulnerable populations like the elderly and children (whom will require a guardian/parent) and taking into account people with disabilities.				

Repatriation plan

The following outlines the flow of travellers/patients from the Point of Entry to the health system. **Minimal to no contact with the community is to be enforced with no family/friends or relatives allowed to the Airport to pick up travellers. Processes and procedures will be adhered to with officers in each area to ensure that social distancing is maintained and that minimal number of travellers are in one place for example, only 5 passengers by the bagging area, social distancing seating in the buses that will transport the travellers.**

When a traveller enters the Point of Entry (PoE), there is a Rapid Health Assessment prior to entering Immigration. The medical officers and public health inspectors in the Unit use a predetermined questionnaire to assess the travellers" health status and ensure that a medical certificate (issued within 3 days prior to arrival) is present.

***Clinical Classification based on Clinical Definitions**
***Minimal contact of travellers to community or to others**
Asymptomatic & Vulnerable Groups

Containment Pathway

Travellers whom are asymptomatic or vulnerable (elderly, children/guardian/mothers, pregnant women, disability etc.) go through immigration and are boarded into a transport (bus or shuttle) that enforces social distancing. No family members or friends are allowed to pick up travellers from the airport or PoE. The travellers will be transported or allocated to their designated quarantine facility/zone whereby they will undergo a 14-day quarantine to ensure that they are COVID-19 free before they are released to the general population. Travellers under quarantine will not be allowed to have any contact with the community until they have completed their 14-day quarantine.

In the Quarantine Facilities, a nurse will be in charge and will be supported by Volunteers, HMAF, Police, Support staff and the community church groups etc. to ensure that the travellers in the Quarantine Facility remain sane and cared for during the 14-day stay. The main concept is that people discharged from the facility are COVID-19 free.

Mitigating Action

When the facilities that are quarantining individuals reaches 80 – 90% capacity, then it is highly recommended that the borders close temporarily to allow the people to be discharged and free up rooms. In addition, if the stock of the PPE and equipment are depleting rapidly and the PPE are in short-stock, then the borders again should be closed to allow restocking of PPE and necessary supplies.

Symptomatic / Suspected / Sick Groups

Figure 2: Symptomatic / Suspected and Sick Cases

Symptomatic and/or suspected cases have an allocated vehicle to transport them directly to the Taliai Camp Isolation Facility, where they will undergo isolation and constant monitoring. Symptomatic/suspected cases undergo a laboratory test to confirm their status with COVID-19. Immigration officers can follow-up afterwards to ensure immigration requirements are met.

Travellers that present sick and include the symptoms will be transported directly to the Mu"a Health Centre Isolation Facility for monitoring and treatment. These cases will tested by the laboratory to confirm their status.

Should the Mu"a Health Centre reach 80% capacity, the Surge Capacity Plan will come into effect.

SURGE CAPACITY PLAN SUMMARY

- All Out patient consultation be done outside of hospital preferably at health centres, since the most densely populated area of Nuku"alofa does not have a Health Centre - identifying 1 or 2 community halls in Nukuálofa for general consultation – one for Kolomotu"a and Kolofo"ou respectively. However, if a Health Center can be built for these two areas, it would be highly preferable.
- Convert present OPD to be Non Respiratory ED.
- Leave present ED for Respiratory ED, (Annex P: ED plan- code black)
- Renovate old QSINAH building to cater for “Paediatric Hospital”, with emergency room, ICU, consultation area and Ward.
- Extend ICU to current Paediatric Ward location with 20-30 beds.
- If cases exceed all of the above, Field Hospital will be established outside at the Parking Lot area of Vaiola Hospital.
- Summary Scenario and Action

#	Scenario Triggers	Action
1	COVID-19 Free	Preparedness Activities in effect
2	Tonga Borders Open	Containment Plan in effect Business as usual for Community – ban access to restricted areas such as the quarantine facility and isolation facilities.
3	COVID-19 Case Detected 1 case detected [**imported**] Cases still within Containment process	Containment Plan in effect Lockdown necessary **Activate Surge Capacity Plan Tonga Borders Closed to allow Healthcare workers to contain the COVID-19 cases Inter-island travel closed [Outer Islands] Taliai and Mu"a Health Centres utilized
5	Isolation Facility [Taliai and Mu"a Health Centre reaching 80%] Full Capacity	**
6	No COVID-19 cases detected and quarantine Facility Nearing Full Capacity (90% Capacity)	Tonga Borders Closed to allow quarantined individuals to complete 14 days and then discharged
7	PPE stock begins to deplete past an acceptable threshold	Tonga Borders Closed to allow Tonga to re-stock on supplies
8	**1 or 2 Local Transmission Detected** [COVID-19] case detected outside the containment process	Tonga Borders Closed to prevent further spread of COVID-19 and for the Health System to respond Inter-island travel closed [Outer Islands] Fever Clinics Operational Lockdown Initiated to reduce contact /movement between individuals including suspension of mass gatherings, closure of non-essential places/educational establishments and public transport. Surveillance and Rapid Response Teams deployed to Community
9	2+ Local Transmission detected	Tonga Borders Closed to prevent further spread of COVID-19 and for the Health System to respond Inter-island travel closed [Outer Islands] Fever Clinics Fully Operational Strict Lockdown Enforced Lockdown Initiated to reduce contact /movement between individuals including suspension of mass gatherings, closure of non-essential places/educational Surveillance and Rapid Response Teams strengthened Field Hospitals operational

21.20Annex T: Surge Capacity Plan

SURGE CAPACITY PLAN – COVID 19 PANDEMIC FOR TONGATAPU

Background

Covid 19 a respiratory infection caused by SARS- Cov2 virus (Novel Corona Virus) was declared by WHO on 11th March 2020 as pandemic has caused significant morbidity and mortality in many countries in the world. It originated in Wuhan, Hubei Province China reported in December 2019. Since late January to date, the world has been reporting and watching the spread of this disease in awe. It has changed the way we live, travel and practice.

Tonga is one of very few countries in the World that still has no Covid 19 probably due to our geographical isolation in this vast Pacific Ocean. A few of our neighboring Pacific Islands such as Fiji, Tahiti and Guam has been affected. We declared ourselves Covid 19 free after 3 weeks from closing

our borders and still no patients. Despite this, we must still be vigilant and prepare ourselves for this pandemic. Closing of our borders to international flights and passenger vessels has helped to maintain our Covid 19 free status. However, it is a given conclusion that once the restrictions on travel ban is lifted, Covid 19 will come to Tonga.

Much preparation is done in Tonga not only by the Ministry of Health but by all related Ministries to help with country preparedness in the event that Covid 19 is introduced to Tonga. The question is how prepared can we be?

We have learned from the media and from Covid 19 statistics collected by John Hopkins Hospital(?) in U.S.A, this virus affects any health system in the world. It does not respect how rich a country is and how much foreign reserve is. It can and has overwhelmed many health care systems that previously thought were the best in the world. The NHS in Great Britain, and many U.S.A health systems particularly New York, are overwhelmed. Our closer neighbors New Zealand and Australia with their World class health care system are not doing too badly with their strict measures in place of quarantining, isolation and practice of social distancing.

Australian Modelling.

A recent article released by the Australian Government titled “IMPACT OF COVID-19. Theoretical modelling of how the health system can respond”, has outlined scenario modelling undertaken to inform how Australia was preparing their health care system in response to Covid 19. Modelling for Covid 19 involves making assumptions about how the virus behaves. The scenarios presented in this article used early data from China and other countries and their understanding of how corona viruses behave.

Tabled below are Scenarios proposed by this article for Australia:

	Scenario 1: No Mitigation	Scenario 2: Quarantine and isolation	Scenario 3: quarantine, isolation and social distancing (25%)	Scenario 4: Quarantine, isolationand social distancing (33%)
Infection rate	89.1 %	67.5%	37.7%	11.6%
Hospitalisation rate	5.4%	4%	2.2%	0.8%

Of course there are marked differences between Australia and Tonga, not least the differences in our health care systems. Population in Australia are mixed races whereas in Tonga we are mostly Polynesian. We have learned over the past few days and weeks data coming out of USA, that there seem to some racial differences in how patients turn out as more black American descent and other minority races, such as Asian seem to be more severely affected. Our population also has a lot of co-morbidites with obesity being endemic, high diabetic and hypertensive rates etc. However, since we in the Pacific have not come up with any models to predict the impact of Covid-19 in our Pacific Community, I propose herewith to use the modeling coming out of Australia to try and project the impact of Covid 19 in Tonga if and when in reaches our shores.

Scenario 1 hopefully will not happen in Tonga as we have been given time to prepare ourselves learning from the experiences of other countries. For Scenario 2, Tonga‟s population of around 100 thousand without social distancing will result in about 67,500 people being infected with Covid-19 and 4% of population being hospitalized. This will be 4,000 beds. Obviously, our capacity cannot cope with this as we have only less than 400 beds in all hospitals in Tonga. Scenario 3 and 4 are the same except differences in reduction of transmission by social distancing. Even with reduction of transmission by social distancing with infection rate of 11.6% we still are under the capacity for hospitalization rate. With this best scenario we will still need 800 beds hopefully they will not all be needed at the same time as we try our best to quarantine, isolate and practice social distancing. The importance of Social distancing cannot be stressed enough. People need to stay at home.

Preparatory Work in Tonga

From the Clinical Division of the Ministry of Health, preparatory work includes screening of all people coming to Vaiola Hospital, setting up of assessment tent, renovation of the Muá Health Centre to cater for severe Covid 19 patients and also the preparation of Isolation ward to cater for the critically ill.

As outlined above using modeling from Australia, Tonga will never be prepared for this pandemic. Our number of beds are too small. Our number of health care workers are smaller. However, with strict guidelines in place of quarantining, testing and isolating those testing positive before we open up our borders, we may win yet.

In the event that we are not doing the quarantine, isolation and social distancing well, and we end up with local transmission of this virus (Sars Cov 2) we have to have plans in place including a Surge Capacity Plan thus the purpose of this proposal. For this plan to work we will need to call for outside help as we have only 2 Anaesthetists/ Intensivists in Tonga at present.

It will be unfair to totally rely on only 2 Anaesthtists who also are working for the normal non Covid 19 population of Tonga to also take care of our Covid 19 critically ill patients. We have learned that ICU care is very much an important part of management of patients with Covid 19. Failing this will mean more deaths. We have potentially 6 ICU beds at Isolation ward. 2 more ICU beds is planned for Pediatric ICU. If push come to shove Tonga can potentially have 10 ICU beds for a population of 100,000. Australia on the other hand has 7,000 ICU beds for a population of approximately 28,000,000. As such this is another marked difference between our fragile health care system and that of Australia. Tonga has 1 ICU bed per 10,000 population compared to 1:4000 population in Australia.

As such the surge capacity plan below describes what the Ministry of Health will do if the capacities at Tatakamotonga Health Centre and Isolation units are no longer able to cope with sick Covid-19 patients.

The plan will be dependent on the ability to renovate the Old Nursing School in Vaiola as described below and availability of teams such as AusMAT form Australia and from China can be deployed to Tonga when the need arise.

SURGE CAPACITY PLAN

1) All Out patient consultation be done outside of hospital preferably at health centres, identifying 1 or 2 community halls in Nukuálofa for general consultation – Kolomotuá Community Hall, Suniaákaveka Rd and Fofoánga Hall, Alaivahamamaó Rd, Pahu e.g.
2) Convert present OPD to be Non Respiratory ED.
3) Leave present ED for Respiratory ED, (please see ED plan- code black)
4) Renovate old QSS of Nursing building to cater for “Pediatric Hospital”, with emergency room, ICU, consultation area and Ward.
5) Extend ICU to current pediatric ward location with 20-30 beds.

Logistics:

- For Ministry of Health to approach the Kolomotuá District officer and Town officer through MIA to use their facility in Halaano for the purposes of consultations.
- MOH also via MIA approach the Fofoánga Members asking for the use of their facilities also for OPD consultation.
- General population are encouraged or advised to call in before coming for consultation.
- Renovation of QSS of Nursing? Shelter Cluster/ ?MOH fund. Plans are ready with QSSN Principal.
- Once QSSN is renovated non Covid-19 Pediatric patients can be transferred to the QSSN leaving the whole of Pediatric Ward for severe and critically ill Covid-19 patients.