

# Containing, Mitigating and Responding to COVID-19: Knowledge Generation and Exchange, Preparedness and Response (March 2020 to June 2022)- A Fiji Case Study

**Webinar**

**09 November 2022.**



# Content of this presentation

1. **Epidemiology of COVID-19 in Fiji**
2. **Socio-economic impact of COVID-19**
3. **Preparedness**
4. **Health Systems Response**
5. **Lessons Learnt: Best Practices and Challenges**





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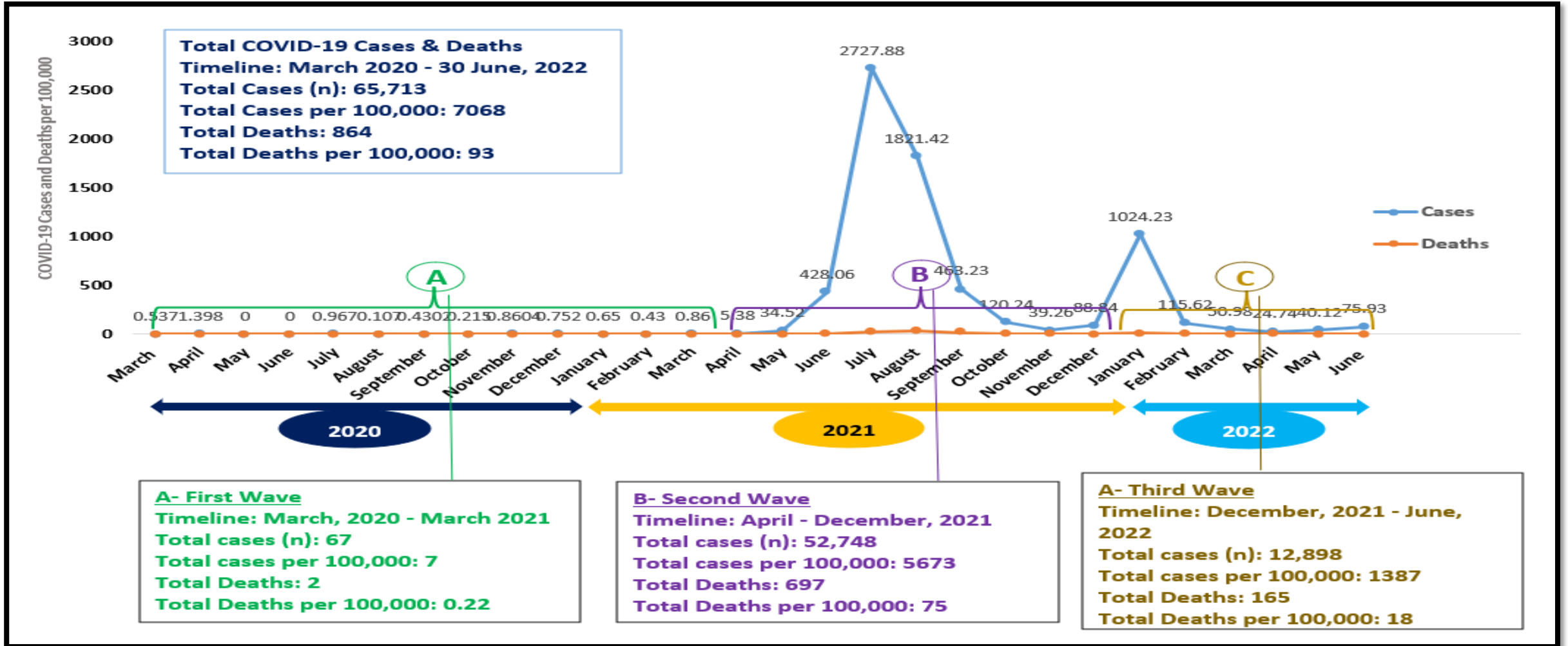
**EPIDEMIOLOGY  
OF COVID-19  
in Fiji (MARCH  
2020 – 30 JUNE  
2022**

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# EPIDEMIOLOGY OF COVID-19 (FIJI): March 2020 – 30 June 2022

# WHAT?

Figure 1: Summary of Cases and Deaths (March 2020 – 30 June, 2022)

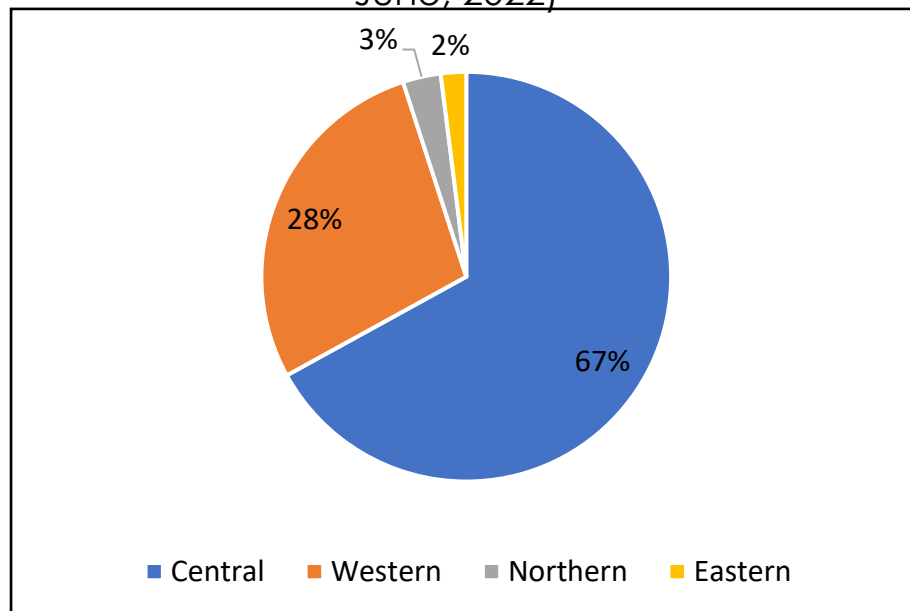


# EPIDEMIOLOGY OF COVID-19 (FIJI): March 2020 – 30 June 2022

## WHERE?

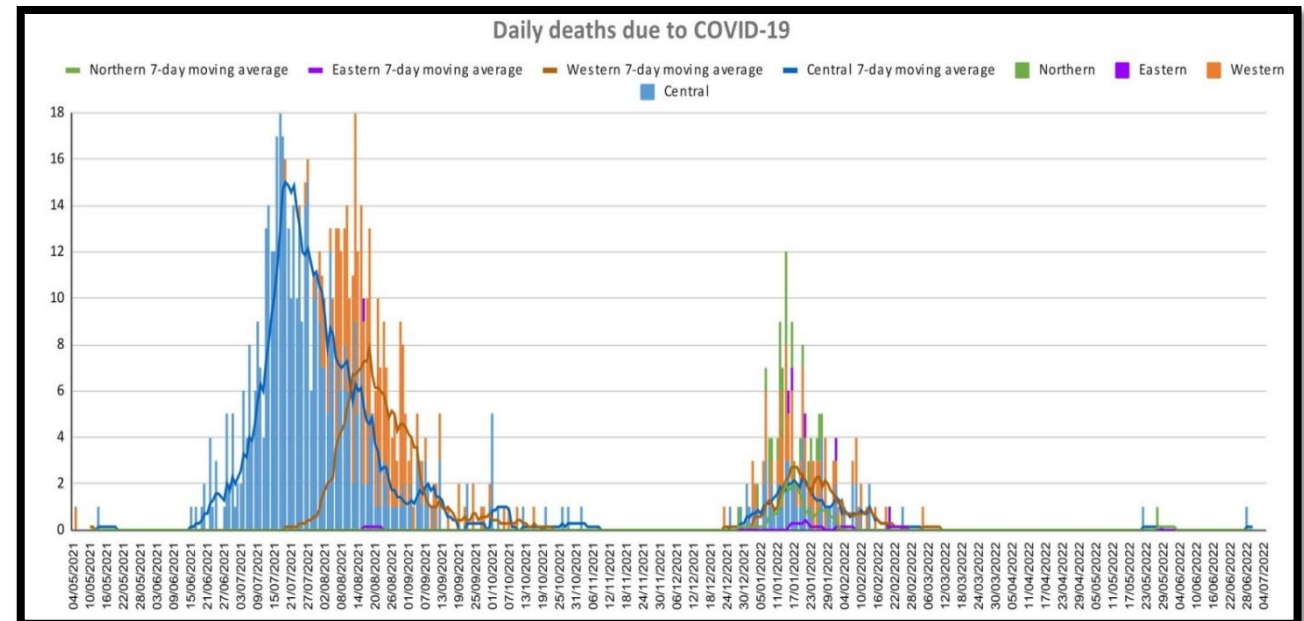
- ❑ Fiji's first case and death were reported from the Western division of Viti Levu. First case was a 27-year-old male flight attendant who returned from San Francisco, and first death was a 66-year-old man who returned from India.
- ❑ Majority of Fiji's COVID-19 cases and deaths were reported from the Central and Western division.

Figure 2: Cases by Division (March 2020 – June, 2022)



Source: MoHMS, 2022. COVID-19 Update-30-06-22

Figure 3: Deaths by Division (March 2020 – 04 July, 2022)



Source: MoHMS, 2022. COVID-19 Update-04-07-22

# EPIDEMIOLOGY OF COVID-19 (FIJI): March 2020 – 30 June 2022

# WHO?

- ❑ Majority of the recorded deaths were from older adults > 50 years.
- ❑ Elderly and patients with comorbidities were vulnerable to severe infections and death.

**Table 1: Summary of COVID-19 Deaths- First, Second and Third Wave**

COVID-19 Wave	Pertinent Information
<p><u>First and Second Wave</u>  <b>Timeline:</b> March 2020 – 16 September 2021.                      (Note: <i>Data from September 17, 2021, and onwards was not obtained due to limited information of the deceased cases</i>)</p>	<ul style="list-style-type: none"> <li>❑ 543 COVID-19 deaths reported</li> <li>❑ Fiji's youngest and oldest death is a 4 months year old male and a 102-year-old female</li> <li>❑ By Sex: Males- 287 (53%), Females- 256 (47%)</li> <li>By Age:                             <ul style="list-style-type: none"> <li>❑ Most deaths reported from 50 years and above</li> <li>❑ Less deaths reported from 39 years and below</li> <li>❑ 3 deaths reported from &lt; 1 years of age</li> </ul> </li> </ul>
<p><u>Third Wave</u>  <b>Timeline:</b> December 2021 – 30 June 2022.</p>	<ul style="list-style-type: none"> <li>❑ 165 deaths reported</li> <li>❑ More deaths reported from 50 years and above</li> <li>❑ Least deaths reported from 39 years and below</li> <li>❑ 6 deaths reported from 0 – 9 age category</li> </ul>

**Table 2: Deaths by Sex and Division (First and Second Wave)**

Total Number of Deaths: 543 (59 per 100,000 population)						
Reporting Dates: March 2020 – 16 September 2021						
By Sex		By Division				
Males: 287 (53%)		Central: 374 (68.8%)				
Females: 256 (47%)		Western: 163 (30.02%)				
		Eastern: 6 (1.10%)				
Age Category	Total count (%)	Sex		Division		
		Male	Female	Central	Western	Eastern
Less than 1 years old	3 (0.55%)	3 (0.5%)	0 (0%)	3 (0.55%)	0 (0%)	0 (0%)
10-19	4 (0.74%)	0 (0%)	4 (0.74%)	3 (0.55%)	1 (0.18%)	0 (0%)
20-29	5 (0.92%)	2 (0.37%)	3 (0.55%)	2 (0.37%)	3 (0.55%)	0 (0%)
30-39	16 (2.92%)	7 (1.29%)	9 (1.66%)	11 (2.03%)	5 (0.92%)	0 (0%)
40-49	43 (7.92%)	25 (4.60%)	18 (3.31%)	27 (4.97%)	15 (2.58%)	2 (0.37%)
50-59	90 (16.57%)	45 (8.29%)	45 (8.29%)	59 (10.87%)	30 (5.52%)	1 (0.18%)
60-69	140 (25.78%)	74 (13.63%)	66 (12.15%)	111 (20.44%)	29 (5.34%)	0 (0%)
70-79	125 (23.02%)	68 (12.52%)	57 (10.50%)	90 (16.57%)	34 (6.26%)	1 (0.18%)
80-89	99 (18.23%)	54 (9.94%)	45 (8.29%)	57 (10.50%)	40 (7.37%)	2 (0.37%)
90-99	17 (3.13%)	9 (1.66%)	8 (1.47%)	10 (1.84%)	7 (1.29%)	0 (0%)
100-109	1 (0.18%)	0%	1 (0.18%)	1 (0.18%)	0 (0%)	0 (0%)

# EPIDEMIOLOGY OF COVID-19 (FIJI): WHO?

## (March 2020 – 16 Sep 2022) & (Decem 2021 – 30 June, 2022)

Figure 4: Proportion of Deaths (March 2020 – 16 Sep 2021)

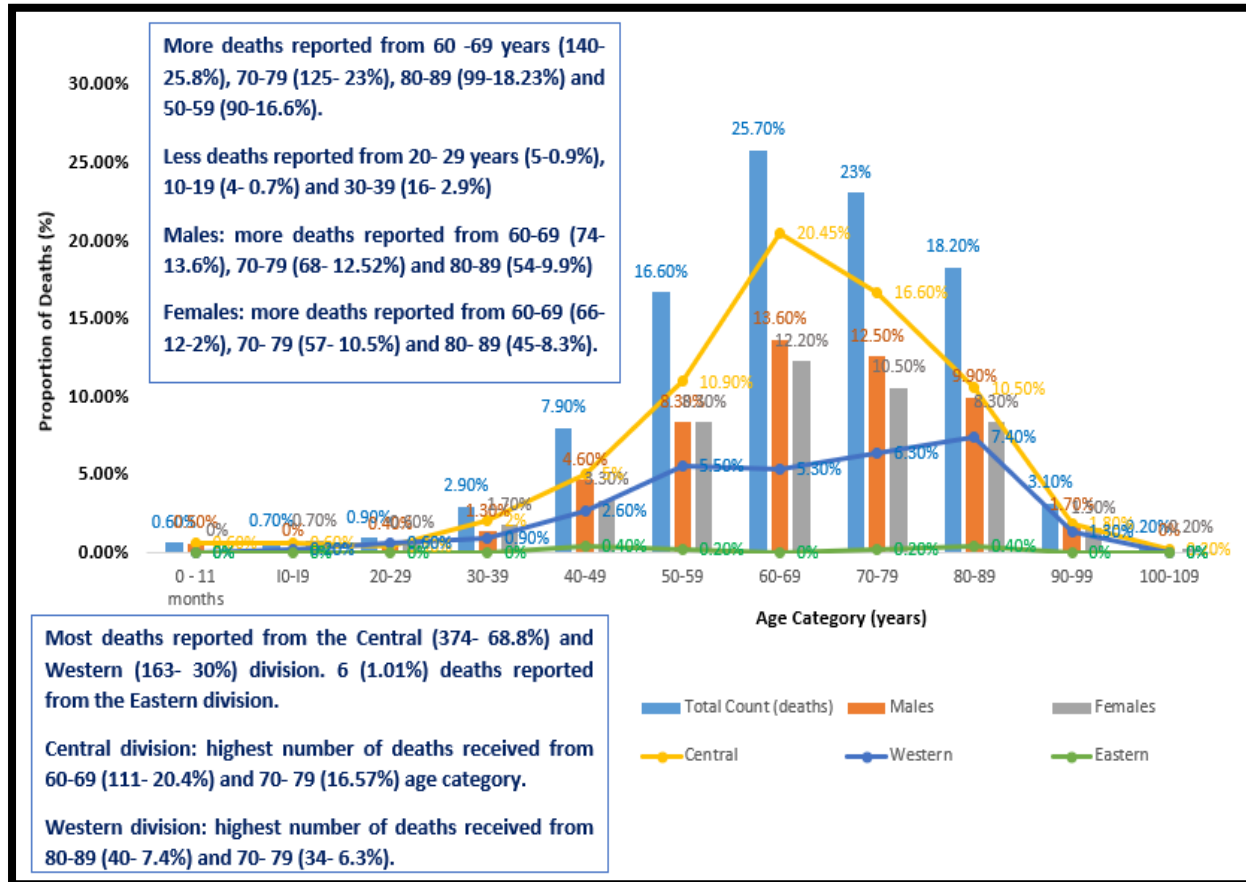
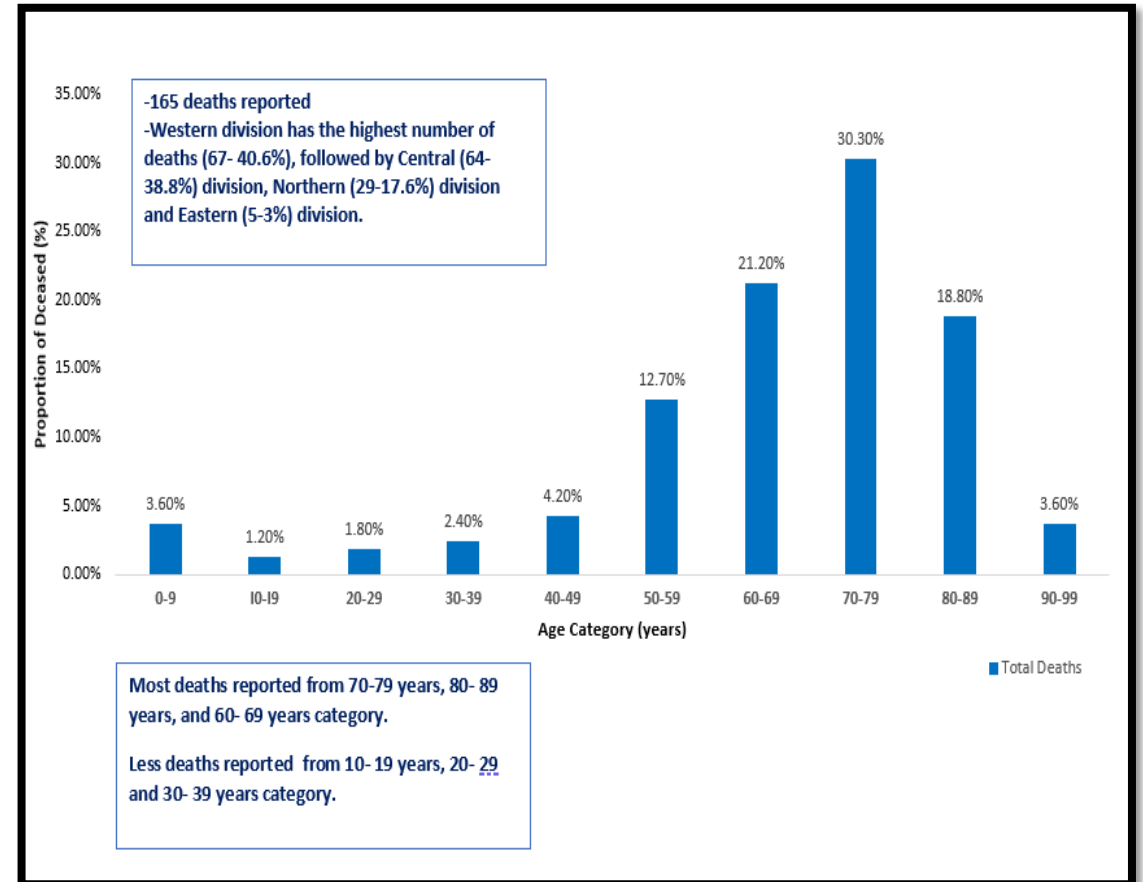


Figure 5: Proportion of Deaths (Decem 2021 – 30 June 2022)



# SOCIO-ECONOMIC IMPACT OF COVID-19 IN FIJI





# SOCIO-ECONOMIC IMPACT OF COVID-19

## Gross Domestic Product (GDP)

- ❑ GDP contracted by -15.4% in 2020 and -4.1% in 2021. Expected to increase by 11.3% in 2022.
- ❑ Fiji's main source of revenue- tourism went down to 146,905 in 2020, and 31,618 in 2021 (expected no. of tourists per year: 850,000)

## Businesses

- ❑ How has it affected businesses in Fiji:
  - Lockdown measures- shortened periods of work or business hours
  - Temporary reduction of staff working hours
  - Lost of jobs
  - Work from home initiative
- ❑ Business were affected, and employers had to:
  - Renegotiate buildings rents
  - Deferment of loan repayments
  - Reduce wages and salaries

## Inflation rates

- ❑ Low inflation rates in 2021 and 2022- influenced by COVID-19 pandemic as movement were restricted, labor shortages, higher freight costs and discrepancies between demand and supplies.

## Government Debt

- ❑ Before COVID-19- Fiji's debt ratio remained within accepted benchmark of 50%
- ❑ Pandemic contributed to Fiji's increase in debt levels to 80% of GDP
- ❑ Country had to support the economy as businesses plummeted, tax revenue decline and with tourism being affected. To counter this, Government increased borrowings from domestic and external sources, such as ADB, WB, JICA, AIIB, DFAT/MFAT.

## Remittances

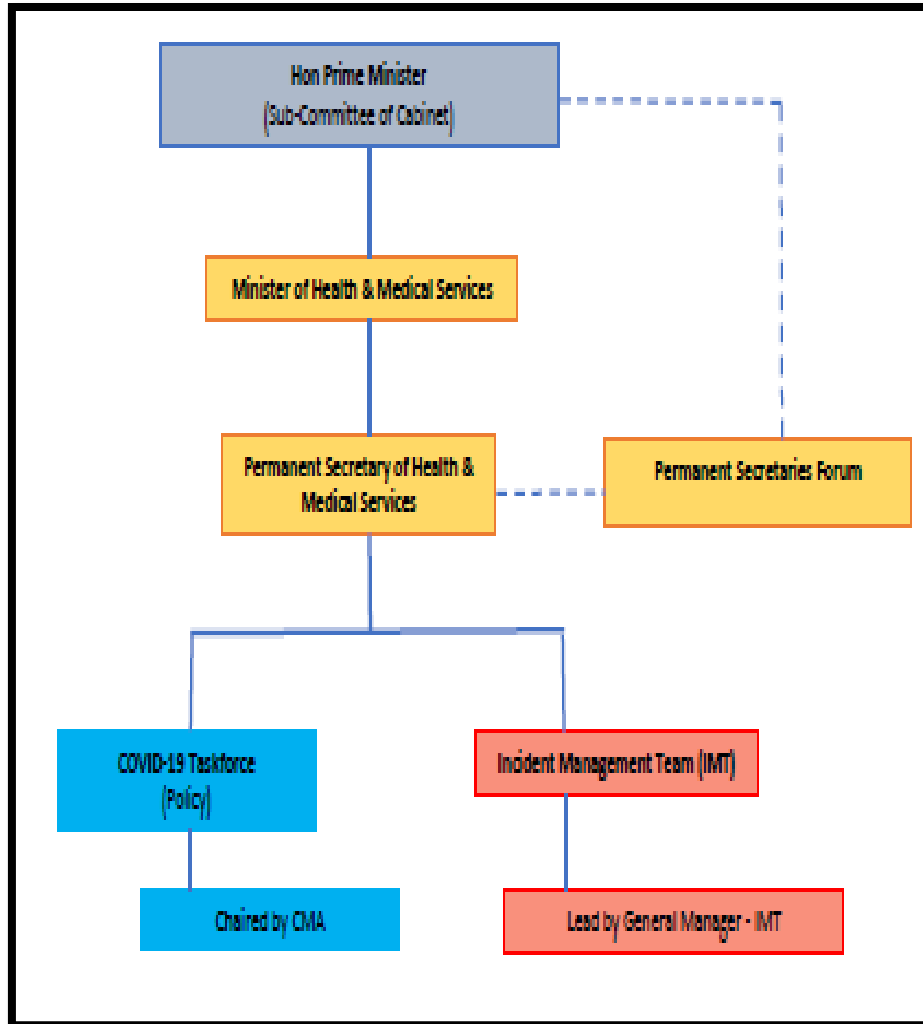
- ❑ Increased by 14.6% in 2021- influenced by Fijians living abroad- provided cash assistance to family members/relative and friends in-country

# Preparedness



# PREPAREDNESS: Organizational Structure

Figure 6: Fiji MoHMS COVID-19 Response Team



Source: MoHMS, 2020.

## The COVID-19 Response Team

- ❑ Hon. Prime Minister Chairs the Fiji MoHMS COVID-19 Response Team
- ❑ MoHMS Chief Medical Advisor chairs the COVID-19 Taskforce
- ❑ General Manager IMT led the Incident Management Team- responsible for the implementation of the COVID-19 Response Plan

## Economic Recovery

- ❑ COVID-19 Risk Mitigation Team was established
- ❑ Chaired by PS-Economy and worked closely with the PS-Health and PS- Commerce, Trade, Tourism and Transport, PS- Immigration, the Health Protection Unit, the Incident Management Team (IMT) and the Fiji Military Forces.

## Challenges

- ❑ Slow dissemination of information from Admin level to Clinicians e.g., New SOPDs, Gazetted directions.

# PREPAREDNESS: Legal Framework

- ❑ Since this is a health crisis, Government convened cabinet at MoHS HQ.
- ❑ Hon. Prime Minister and all Govern. Ministers were present in the sittings.
- ❑ Immediate actions required → cabinet papers were approved in these sittings → notices, restrictions, policies and new regulations were developed.
- ❑ *Milestone*: Commandment of the Public Health Infringement Notices.

## Gaps and Challenges

- ❑ No policies or protocols were in place for quarantining people who refuse treatment for infectious diseases
- ❑ Legal system was not able to:
  - Trace a few violators who broke the PH Infringement Notices, as they gave incorrect information detail to the enforcer.
  - Keep track on those who failed to pay the notice penalty-risk of people breaking the same law.

Figure 7 Pictures of the Sittings at the MoHMS



# Health System Response

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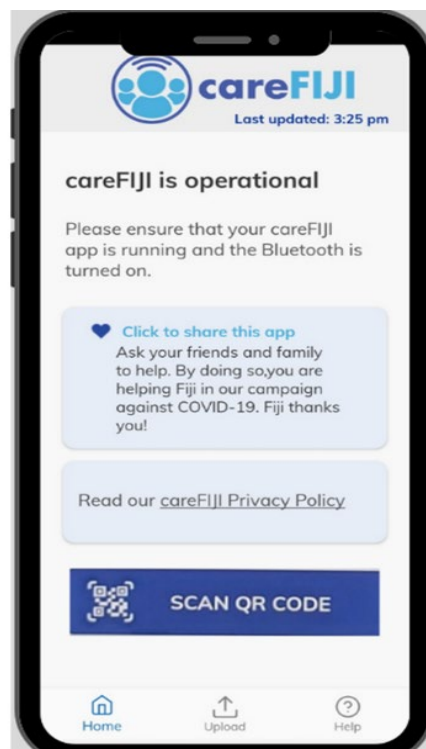


# Health System Response- Contact Tracing and Testing

## Contact Tracing

- ❑ Critical component of Fiji's success in the detection and breaking the chains of COVID-19 transmission.
- ❑ CareFiji App was used as a complement to support traditional contact tracing methods.

Figure 8: CareFiji App



## Challenges:

- ❑ *Incompatible Devices*- older generation and low-income earners use simple mobile phones that are not capable of installing the App
- ❑ *Insufficient digital literacy*- CareFiji App requires basic knowledge about android and iOS operating system. Common among older generation.
- ❑ *Issues installing App on low end devices*- Some people have insufficient storage capacity in their device- hence cannot install the app.

## Testing

Figure 9: COVID-19 Testing



- ❑ Testing began in 28 Jan, 2020- with samples shipped to Australia.
- ❑ Testing began in Fiji on March 2020, using real time RT-PCR test (done at the Fiji CDC).
- ❑ Country increased testing capacity by placing several GeneXpert machines around the country. 5 testing sites in total. Private labs also moved in to assist the MoHMS
- ❑ During peak periods (June and July of 2021), MOH conducted 3000- 4000 tests/million population per day (More tests than NZ and same as AUS in the same period).
- ❑ 3 methods of testing: Rapid test (Abbott/ BD Bioline), PCR test and GeneXpert test.

# Health System Response- Vaccination

## Vaccines used

- AstraZeneca and Moderna vaccines were the predominant vaccines used in Fiji.
- Pfizer vaccine was deployed to children between the ages of 12-15 years in early November 2021.

**Table 4: Statistics- MoHMS Update (30 June, 2022)**

Adults (>18)		Children (15-17yrs)		Children (12-14yrs)	
Dose 1	Dose 2	Dose 1	Dose 2	Dose 1	Dose 2
642,154	587,556	38,726	32,061	25,738	15,702
103.9%	95%				

## Government Strategy to Increase Vax coverage

- The No Job, No Job policy
- Use of incentives- contributed to the increase in vaccination coverage in Fiji.

## System Used for Vax

- Vaccination Registration System (VRS)

## Challenge

- Issue of vaccination cards to people who were not vaccinated.

## Establishment

- Drive through vaccination drives- people were vaccinated in the comfort of their vehicles

**Table 5: Other software or App used during COVID-19:**

Response	App/ Software Used	Detail
Swabbing	Tamanu System	Track and analyze people who have successfully been swabbed
Surveillance of incoming travelers- if they display symptoms of COVID-19	SORMAS (Surveillance Outbreak Response Management and Analysis System)	Track and monitor health status of incoming travelers who were quarantined.
Tracking activities in medical facilities	Tupaia and Meditrak	To update and track activities in different medical facilities.

# Health System Response: Service Delivery (COVID-19)

## Response:

- Health care workers were grouped into working bubbles to ensure that health services were not disrupted
- Establishment of the Boarder Health Control Unit
- Nursing stations and health centres were used as screening facilities
- HCWs conducted health promotion and identifying cases through assistance of village head-man
- Schools, community and village halls and hotels- used as quarantine facilities.
- COVID-19 care facilities- established: CWMH and Lautoka Hospital.
- Mobile swabbing team established to reach primary and secondary index case- to limit the spread of COVID-19.
- Toll free lines (165) established. Virtual Care- Doctors and nurses access patients through telephones

## Establishment

- Fiji Emergency Medical Assistance Team (FEMAT) established to treat cases that hospital would normally treat.
- Pre- Hospital Emergency Coordination Care Centre (PHECCC), an ambulance transfer and retrieval service.
- Oxygen body established to look at restocking oxygen tanks in the mornings and evenings.
- Commandment of the "COVID-19 Engagement of Private Medical General Practitioners Scheme"- 17 Private GPs allocated

## Assistance- Human Resources:

Apart from Health personnel being deployed:

- Non-health ministries moved in to assist the MoHMS
- Australia and New Zealand sent in their medical assistance team
- Retired health personnel, volunteers and civil society organizations offered their assistance



# Health System Response- Risk Communication

- ❑ Prime Minister, Minister for Health and PSH conducted daily COVID-19 briefings and updates.
- ❑ Social media platforms such as Facebook, Twitter etc., were used to get information to the general public.
- ❑ Panel discussions were conducted to elaborate the COVID-19 disease and to address importance of being vaccinated. FNU, health experts in Fiji and overseas commanded the discussions. Discussion were done in English, Hindi and local Fijian dialect (Bauan dialect).

## Challenges

- ❑ MoHMS faced issues in trying to deal with Mis-Information- vaccines, COVID-19 virus.

Figure 10: Daily briefings by MoHMS



Figure 11: Panel Discussions



# COVID-19 Impact on Universal Health Coverage and Sustainability

## Background

- ❑ Fiji's UHC index stands at 61 in 2019, with **RMNCH** being the highest, followed by **infectious disease, services capacity and access** and the least from **non-communicable diseases**.
- ❑ Comparing UHC in the PICTs, Fiji scored the highest with 61 points, followed by Tonga, Samoa and the least from Papua New Guinea.

Figure 13: UHC Services Index- Middle Income countries in the PICTs (2019)

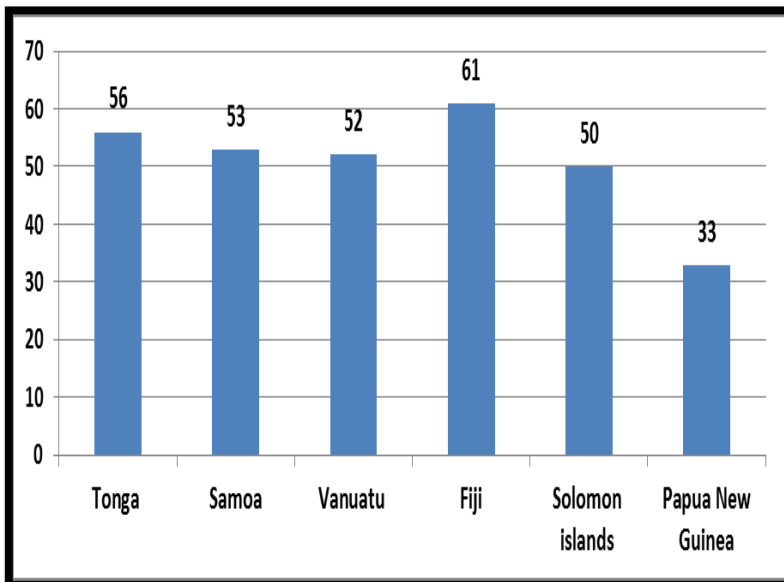
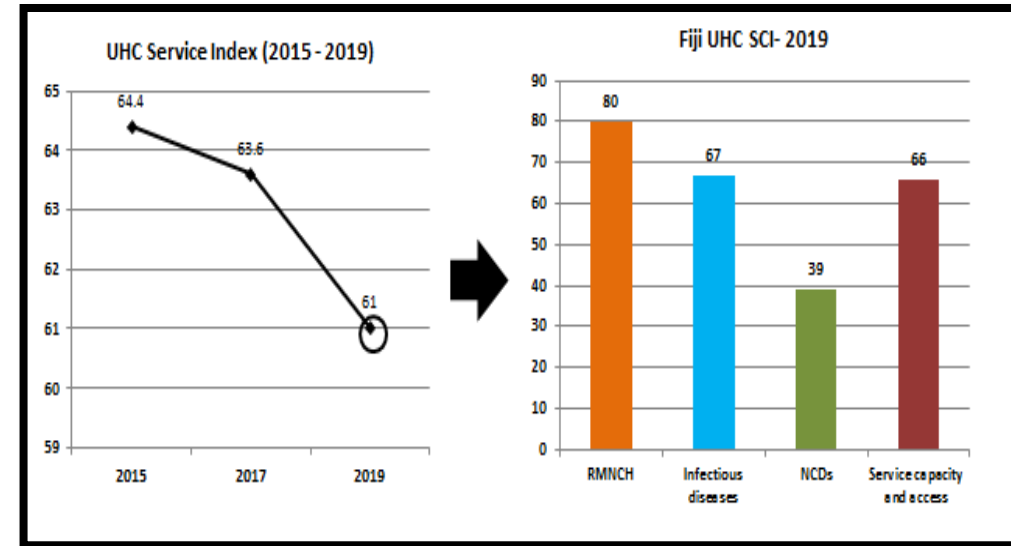


Figure 12: UHC Service Index- Fiji



## Impact of COVID-19 on UHC

COVID-19 has hindered the utilization of medical facilities and health personnel, which includes:

- ❑ Restricted movement of public services vehicle due to enforcement of lockdowns and establishment of containment area
- ❑ Lack of health specialist/ profession due to sickness or were out in the field- with COVID-19 response team
- ❑ Suspension of certain medical procedures due to the risk of transmitting COVID-19 virus

# Lessons Learnt: Best Practices and Challenges



# Lessons Learnt: Best Practices

## Containment

- ❑ Early activation of FEMAT was critical to ensure continuum of health services delivery during the pandemic.
- ❑ Early formation of the Incident Management Team was important for the coordination of the whole of government response
- ❑ Early closure of borders and strict implementation of border control measures helped keep the COVID-19 virus out of the country.
- ❑ Intensive testing, contact tracing and timely treatment is important to prevent further spread of infection.
- ❑ The role of Fiji CDC in facilitating good testing capacity led to the early detection of cases which prevented the direct transmission of the virus to the community- (first wave).
- ❑ The establishment of the Border Health Protection Unit was critical in the response to the pandemic.
- ❑ Publicizing of cases using spot maps was critical in informing people on the location of cases and to prevent the spread of the virus.

## Mitigation

- ❑ Government's varied vaccination locations enabled the successful vaccination of more than 90% of Fiji's population
- ❑ ICT applied to track COVID-19 infections and vaccine uptake in real time is useful to inform decision making
- ❑ Establishment of the Pre-hospital Coordination Care Centre (PHECCC) and the MoHMS Oxygen unit were critical during the pandemic
- ❑ Aggressive risk communication during the second wave was conducted to combat vaccine hesitancy
- ❑ Retaining the trust of community institutions and leaders (especially religious leaders and healthcare professionals) are pivotal towards the Government success in combating COVID-19.
- ❑ The use of incentives has been effective in boosting vaccination coverage in Fiji.

# Lessons Learnt: Best Practices

## Containment and Mitigation

- ❑ The whole of government approach involving stakeholders from the government, private sectors as well as local and international non-governmental organizations are important tools for the fight against COVID-19.
  - ❑ Fiji's healthcare system allowed everyone to access health services for free without any burden during the pandemic
  - ❑ Utilization of technology enabled fast and efficient track of data collation, analysis and dissemination.
  - ❑ Continuous capacity developments at the institutional, legislative, and individual levels was critical for the overall understanding of the preparedness and mitigation process to ensure trust.
  - ❑ Good leadership was a prominent factor in the fight against COVID-19.
  - ❑ Full support from Bilateral Partner Countries, Technical Agencies, private organizations/ non-government organizations and communities enabled the MoHMS to function effectively during the pandemic.
- ❑ Government involved international academic institutions and technical agencies to assist and inform the country of the protocols to take during the pandemic.
  - ❑ Arrival and contribution of AUSMAT and NZMAT Teams boosted morale and services delivery.
  - ❑ Decentralization of workload has enabled health workers to battle through the containment and mitigation phases of the COVID-19 pandemic
  - ❑ The existence of toll-free helplines was critical during the pandemic.
  - ❑ Strengthening of Fiji's legal system was able to address prominent issues during the pandemic- No Jab, No Job Policy and the public health Infringement Notice.

# Lessons Learnt: Challenges

- ❑ **Mis-information-** Government and MoHMS to develop and adapt a messaging framework to counter mis-information.
- ❑ **Burnout and stress among Healthcare Workers-** Psychosocial support through individual or group counselling and training is critical to provide respite and continually motivate health care professionals
- ❑ **Vaccine Hesitancy-** Conducting awareness programs is critical in the case of an outbreak and more research is needed to determine cause of vaccine hesitancy among HCWs in Fiji.
- ❑ **Financial burden on quarantining returning Fiji Citizens-** Government to plan and develop management systems on quarantining returning Fiji citizens and health care workers during a health crisis
- ❑ **Social Gathering (is of traditional and cultural importance)-** challenge in terms of enforcing non-pharmaceutical intervention
- ❑ **Insufficient digital literacy-** Online capability training to be conducted to health care workers and other non-health ministries.