

COVID-19: PRIMARY HEALTH CARE INITIATIVES IN MALAYSIA

By

Dr. Rachel Koshy
Public Health Physician
Family Health Development Division
Ministry of Health Malaysia

Dr. Nazrila Hairizan bt. Nasir
Deputy Director (Primary Care)
Family Health Development Division
Ministry of Health Malaysia

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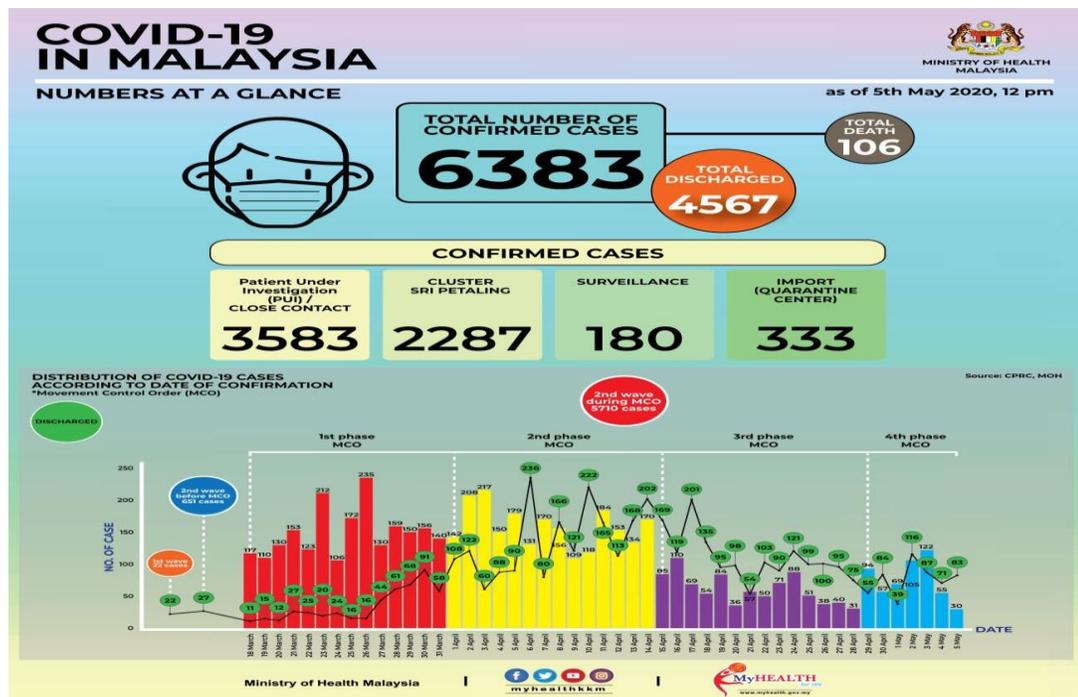
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1. BACKGROUND

The emergence and rapid spread of the 2019 coronavirus disease (COVID-19) is a significant threat to public health worldwide. WHO declared this outbreak a pandemic on 11 March 2020. Malaysia initiated its preparedness plan on 7 January 2020, well ahead of time and long before WHO declared it a pandemic. The plan was intensified when the neighbouring country Singapore confirmed their first case on 23 January 2020.

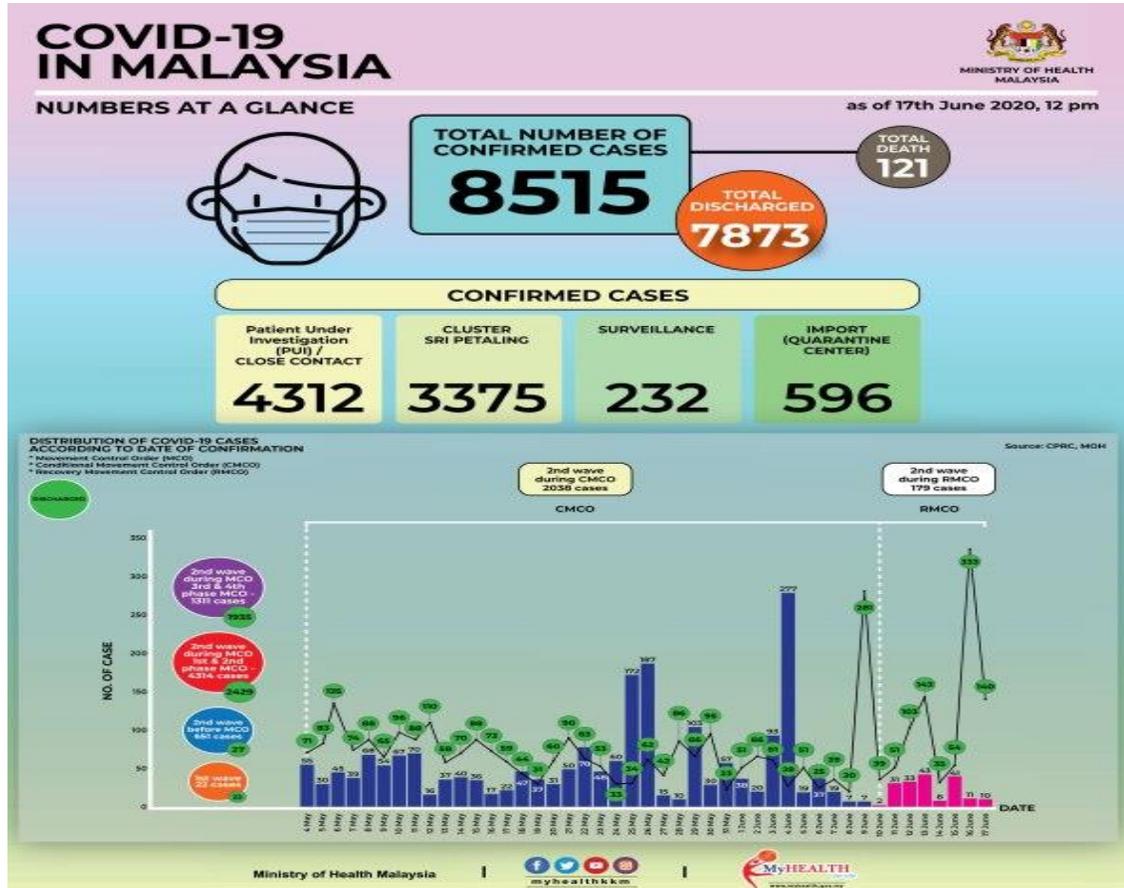
The first COVID-19 case reported in Malaysia was on 25 January 2020. Despite early importations resulting in the first wave of transmission, the rise in the number of cases stopped at 22. With a break of 11 days without any cases, the second wave emerged on 27 February 2020 with a steady increase to 235 cases on 26 March 2020.

In response to the increasing number of Covid-19 cases, Malaysia imposed a lockdown of the country under the Movement Control Order (MCO) to slow down the spread of the coronavirus. The first MCO, was enforced on 18 March 2020 for two weeks and subsequently extended until 3 May 2020 and followed by the Conditional MCO. During this period, borders are closed, strict social distancing imposed, non-essential services closed (lifted gradually) and passengers returning from overseas quarantined at gazetted centres. The stay-at-home measures seemed to be working, as the daily number of cases started decreasing.



The Conditional Movement Control Order ended on 9 June 2020 as planned, and entered into the next stage, the Recovery Movement Control Order that will last until 31 August 2020.

As of 17 June 2020, there are 8,515 confirmed cases with 121 (1.4%) deaths and 7,873 recoveries. The remaining cases are being treated in the health facilities.



Ministry of Health Malaysia (MOH) implemented several measures to break the chain of infection and flatten the coronavirus curve. The immediate support to minimize COVID-19 transmission is by early detection, accomplished through enhanced screening, testing, contact tracing and surveillance. Significant approaches related to planning, prevention, assessment of the preparedness and response to COVID-19 transpired in the domain of primary care. In any health care system, primary care is at the forefront of the response to any emerging health threats. The initiatives at primary health care to reduce the spread of COVID-19 include:

2. Primary Health Care Initiatives

2.1 Reforms at Health Clinic

2.1.1 Operational Status

Some changes were made to the operational status of the *Klinik Desa* (Rural health clinics) and Community Clinics with low patient attendance. The health staff from these clinics were deployed to other health clinics with high workload to cope with the anticipated increased influx of COVID-19 patients.

2.1.2 Triage and Screening

Patients are screened for symptoms and possible exposure to COVID-19 before entering the health clinic in the temporary tents, or in designated areas just outside the main building. Those who are referred as contact of Persons Under Investigation (PUI) have their samples taken in this tent. Having a separate screening area will ensure that patients presenting with respiratory symptoms are not sharing the same waiting area with other patients. Patients who are symptomatic, are provided with surgical mask.



2.1.3 Waiting Areas

Modifications in the seating arrangement were made in the waiting areas inside the clinic. Only designated chairs, one metre apart can be occupied, which is in line with the distancing regimens. Hand sanitisers are located throughout the clinic and surgical mask is provided for those who are having respiratory symptoms.



The public are advised to be in any health facility only for the intention of seeking treatment. Only two persons can accompany patients who require assistance and children under 12 years old are not allowed to accompany patients.

2.2 Addressing Social Distancing

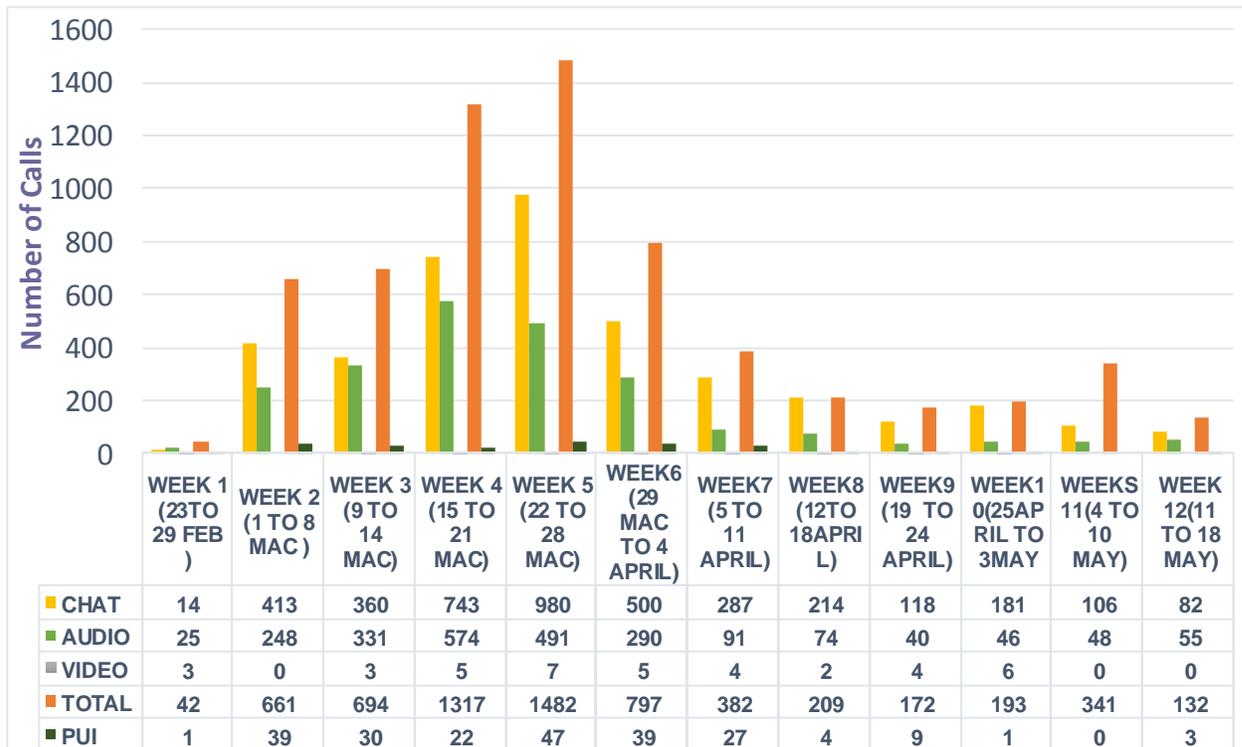
Social distancing is the primary strategy used to prevent and reduce the transmission of COVID-19. Application of social distancing is enforced in the primary health facilities by reducing patients' attendance through:

2.2.1 Virtual Health Advisory

Patients with symptoms of respiratory infection or have concerns regarding COVID-19 infection are advised to contact the Virtual Health Advisory directly through the website of the Ministry of Health Malaysia (MOH) instead of physically heading to the health clinic.

This technology assist to disseminate rapid, credible information to the public on the Covid-19 outbreak. In February 2020, MOH signed a collaboration with a private online medical consultation company that developed a customised virtual health advisory portal. This initiative was part of the company's corporate social responsibility without any financial involvement from MOH. The advisory allows the public to have free consultation either by chat, audio and video call with the public Family Medicine Specialists. This service is only for the purpose health advisory and not for diagnosing and treating patients. The sessions started in late February 2020 and the number of enquiries increased from 42 to 1482 after one month. However, as more information on COVID-19 was available on other forms of media, the number of enquiries reduced to 132 in May 2020. During the two months, 222 cases of Persons Under Investigation was identified and referred to the National CPRC for further action.

Fig. 1: Number and Type of Virtual Health Advisory accessed by the public



CUMALATIVE: 23 Feb to 18 May 2020, Cases =6350 (Chat -3998, Audio 2313, video 39), PUI=222

2.2.2 Virtual Health Clinic

This service is already implemented in five public health clinics to ease congestion and waiting time. Following the COVID-19 pandemic, MOH will expand virtual health clinics (VC) to another 35 sites. VC is beneficial to patients as it reduce their visits to the health facilities, provide continuity of care for the targeted and identified groups thus reducing the risk of clients contracting COVID-19 and travelling time as well as financial burden.

2.2.3 Online Appointment System

Online Appointment system (OAS) is a collaboration between MOH and four online health services companies. It is their corporate social responsibility for MOH during the COVID-19 outbreak. This system will allow patients to select appointment slots according to their convenience for treatment at public health clinics. This will also reduce the long waiting time to see the health care provider. OAS is being implemented in stages, beginning in four health clinics in Putrajaya and expanding to other health clinics in Kuala Lumpur.

2.2.4 Pharmaceutical Services

- a. Existing Pharmaceutical 'Value Added Services' were strengthened to reduce the attendance of patients at health

clinics. These services are provided for the convenience of patients to collect their regular supply of medicines through:

- *Medicines by Post* where the medicines are delivered by Express Mail to the patient's choice of location throughout Malaysia at a nominal fee. However, during the COVID-19 pandemic, MOH bears all delivery cost for this postal service for three months until June 30.
- *Locker2U* where patients can collect their drugs from the lockers at the health clinics
- *Integrated Drug Distribution System* where patients can collect their supply of medicines at any MOH health facilities according to their choice. This is convenient for patients to get their medication close to their homes.
- *Drive Through Pharmacy* is available in some health clinics where patients can drive directly to the dedicated counter and collect their medications.
- *Pharmacy appointment systems such as Telephone Take N Go or SMS Take N Go* is a service provided for patients to collect their medications without having to queue or wait too long at the pharmacy counter. Patients just send a short message (SMS) and provide their details and the preferred date and time of collection.



- b. Medications are prescribed for longer durations, especially those on regular prescription drugs for chronic diseases such as diabetes, hypertension, heart conditions etc.
- c. Family members are encouraged to collect medications on behalf of elderly or high-risk patients.

2.2.5 Additional Measures

To limit exposure for the patients and health staff, several adjustments are done in the health clinics through:

- Strengthening staggered appointment system;
- Temporary postponement of non-essential/ follow-up appointments for stable patients;
- Reschedule/ scaling back elective procedures after clinical evaluation by the doctor; and
- Encouraging patients to adhere to the appointment date and time specified

2.3 Health Services

2.3.1 Continuum of Essential Health Services

Essential services continue to be provided at the primary care facilities during the COVID-19 pandemic. These include Maternal & Child Health Services, home visits for high risk cases, Mobile Health Clinics and non-communicable disease services. School children are advised to go to the nearest health clinic for their immunisation.



Fig.: Immunisation in the health clinic



Fig.: Outreach services

2.3.2 Referrals and Ambulance Services

Every district has identified a specific ambulance to transfer COVID-19 suspected patients from the primary health care facilities to the designated hospital. The referring doctor will discuss the case with the infectious disease physician prior to the transfer. These patients are instructed not to use public transport or taxis to get to hospital. Inside the ambulance, the accompanying health staff and driver use the appropriate PPE. After transferring the patient, the ambulance are decontaminated at the hospital or in an identified area.



Fig.: Ambulance services

2.3.3 Deferment of Non-Essential Health Activities

To accommodate COVID-19 outbreak-related activities, many non-essential activities in primary care are temporarily suspended. These are:

- a. group activities/ sessions at health facilities such as cooking demonstration, counselling, health education, rehabilitation sessions;
- b. routine health screening and screening activities like Health Status, Screening, Routine Medical Examination, health screening at a care institution and Community Rehabilitation Center;
- c. community activities involving public gatherings such as health camps, health related celebrations; and
- d. school health services except immunization

2.4 Safety and Well Being of Patient and Health Care Workers

2.4.1 Infection Prevention and Control Practice

Health care workers are constantly reminded to practise Infection Prevention and Control measures such as hand washing, social distancing and use of Personal Protective Equipment (PPE). Those assigned as frontliners for COVID-19 are trained, advised to strictly

follow the procedures for donning and doffing of PPE in the correct sequence. Masks are provided for symptomatic patients and hand sanitisers are available in the health clinics.

2.4.2 Personal Protective Equipment

PPE is a key requirement for frontline health personnel in the COVID-19 outbreak. The shortage of PPE is a global issue as almost every country is affected by the pandemic. The usage of PPE dramatically increased in the health facilities in Malaysia. In view of the urgent requirement of large supply of PPE, central purchasing of PPE under the provision of emergency procurement for combating Covid-19 was sanctioned. Many private companies, Non-Governmental Organizations, universities and others have also helped to make PPE for the frontliners.



Fig. Making PPE for frontliners

MOH has developed a simple online reporting database system, which is managed by the State Health Department, hospitals, District Health Office and health clinics. MOH recommends the prudent use of PPE in accordance to the guidelines.

2.4.3 Mental Health and Psychosocial Support

The health and well-being of health staff at primary care are monitored to detect fatigue, depression, burn out and other mental health related matters. Counsellors and psychologist are available to provide psychosocial support when needed.

In addition, a Psychological First Aid Hotline for the public has been established by the volunteer relief organisation, Mercy Malaysia with the Health Ministry's Crisis Preparedness and Response Centre. This is a free and dedicated hotline operated by professionals to provide emotional support for people affected by the COVID-19 pandemic.

2.5 Sampling for COVID-19

2.5.1 Sampling at Public Health Clinics

Testing for COVID-19 in public health clinics are done for individuals who fulfil the criteria as outlined in the Guidelines on COVID-19 Management in Malaysia (5th Edition). Testing is for those with acute respiratory infection (sudden onset of respiratory infection with at least one of these: shortness of breath, cough or sore throat) with or without fever and meets one or more of the following criteria:

- Travelled to/ resided in foreign country within 14 days prior to onset of illness
- Close contact in 14 days before onset of illness with a confirmed case of COVID-19 or
- Attended an event associated with known COVID-19 outbreak.

Initially, these tests were conducted in the public hospitals but due to the high volume of cases, it was extended to primary care clinics. Health staff at the health clinics are trained to take both nasopharyngeal and oropharyngeal swabs and handling of specimens, which are sent for analysis to the laboratories. Testing for COVID-19 can be done in more than 460 health clinics. Drive-through sampling services are provided, in some community centres, public health clinics and District Health Offices. All patients who test positive, whether asymptomatic or symptomatic are referred for admission to the designated COVID hospital for further management.



Fig.: Drive Through Sampling Centre

2.4.2 Uberisation: COVID-19 Home-Testing

Several private medical sectors in collaboration with Ministry of Health Malaysia provide home based COVID-19 sampling service. COVID-19 testing is done in the homes of individuals who are concerned and wish to be tested for the disease but unfortunately do not fulfil the criteria to have the test done in the public health clinics.

MOH provide training and certification for private medical health staff in collecting and handling of specimens as well as the use of personal protective equipment. The service is subject to charges determined by the respective private sector. Patients who test positive are admitted to the COVID hospital. Besides home sampling, the private medical providers has also embarked to provide 'drive through' testing services at their private facilities. It is convenient as individuals can have their sample taken without leaving their car. Such collaboration with private medical providers relieves the burden, ease congestion at public health facilities and helps to detect more positive cases..

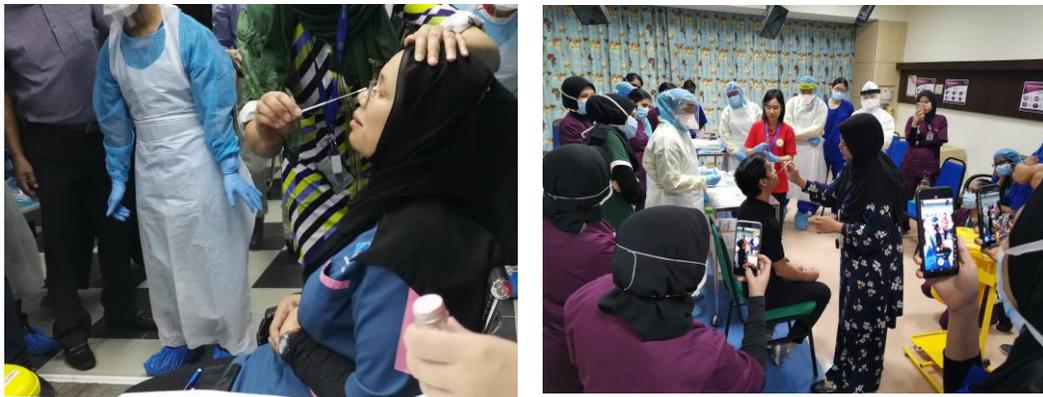


Fig.: Training sessions

COVID-19
GET TESTED BY DOCTOR
FOR COVID-19 AT HOME

BP DOCTOR2U

ONLY
RM700 / PER PAX

Group Special Rate :
1-5 pax - RM700 per pax
6-10 pax - RM500 per pax
11-20 pax - RM400 per pax
21-40 pax - RM250 per pax

Results ready within 24 hours shop.doctor2u.my/covid19

2.6 Targeted Screening

Mass screening and testing for COVID-19 on Malaysia's 32 million people is not practical due to the limited resources and low detection rate. Malaysia has taken the approach of testing high-risk groups and locations. Those detected positive are hospitalised to reduce the infection. This targeted group include senior citizens at care centres, participants of religious gatherings, students and staff of religious schools, passengers in quarantine centres, health care workers, residents in areas under the Enhanced Movement Control Order, workers and traders at specific markets and foreign workers at construction sites in particular areas.

2.6.1 Aged Care Facilities

The elderly are at high risk of developing serious health complications if infected with COVID-19. The coronavirus incidence rate per 100,000 population is 32.5 among those aged 60 to 64, followed by 31.5 in the 55-59 age group, and 26.8 in the 65-69 age group.

MOH has taken the initiative to screen and test the residents as well as staff of all nursing homes serving the elderly. This will ensure the employees and residents are in an environment with minimal chances of contracting the virus. Screening has started at the 17 centres under the Welfare Department, which will be extended to the 357 centres registered under the Care Centres Act 1993 and 26 nursing homes registered under the Private Healthcare Facilities and Services Act 1988.



Fig.: Screening at the Aged Care Home

2.6.2 Religious Gathering and Schools

Mass coronavirus screening was done for participants who attended a three days religious gathering in Kuala Lumpur after some of them tested positive for COVID-19. Nearly 16,000 people have attended the Tabligh gathering in a mosque in Sri Petaling from Feb 27 to March 1 and this remains the largest Covid-19 cluster in Malaysia.

The focus for screening is shifted to the tahfiz students from madrasah (religious schools) throughout the country as some of their staff had attended the Tabligh gathering. The district health office is continuing with active case detection together with screening and testing for the students, teachers and staff.

2.6.3 Quarantine Stations

Since 3 April 2020, all passengers arriving in Malaysia are sent to the gazetted quarantine stations for 14 days where they are screened and tested for COVID-19. Those with symptoms upon arrival, develop symptoms in the quarantine station or test positive for COVID-19 are referred to the hospital for further management. However, passengers are now required to under go home surveillance for 14 days.

2.6.4 Foreign Workers

22,339 Non-Malaysians have been screened with 986 testing positive for Covid-19 and four fatalities recorded until 11 May 2020. The main issue concerning migrant workers are that many of them reside in cramped and unkempt accommodations. Many of these workers are employed in different sectors such as construction, industries or retail. The employer is now responsible for ensuring that the following steps are implemented in the workplace:

- Check body temperature and symptoms before entering the premises;
- Provision of hand sanitizer;
- Regularly cleaning and disinfecting especially shared spaces;
- Safe social distance practices of at least 1 meter at work and dining areas



2.6.5 High-Risk Locations

Refugees and asylum seekers dominate some of the Enhanced Movement Control Order (EMCO) areas. These areas are identified as Red Zones in view of the high number of positive cases. EMCO is essential to halt the spread of COVID-19 in the community.

Traders and workers from several wholesale markets in Kuala Lumpur, Selangor and Negeri Sembilan were tested for COVID-19 after some workers were found to be positive for the disease. The markets were temporarily closed for health checks and cleansing. The district health office will conduct the active case detection of close contacts of the infected trader.

2.7 Risk Communication and Community Engagement

2.7.1 Webinars and Facebook Live

Providing accurate information and advice to the public is vital during a pandemic to prevent confusion and spread of false news. MOH initiated Webinars and Facebook Live sessions daily at scheduled times to provide updates on the COVID-19 situation. Through the MOH Facebook, family medicine specialists would conduct a live 30 minutes session where the public could enquire further about the disease. Similarly, the webinars involves web-based question-and-answer sessions between the public and the public health specialist, family medicine specialist and nursing staff. The webinars and Facebook were fantastic ways for interactive sessions between health care providers and the public.



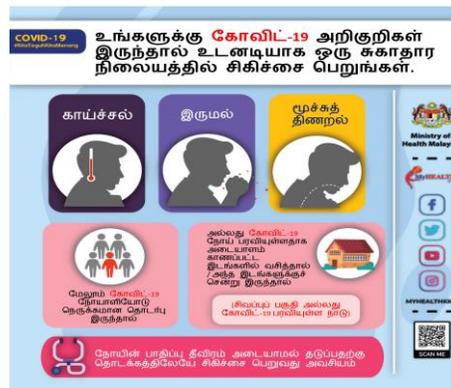
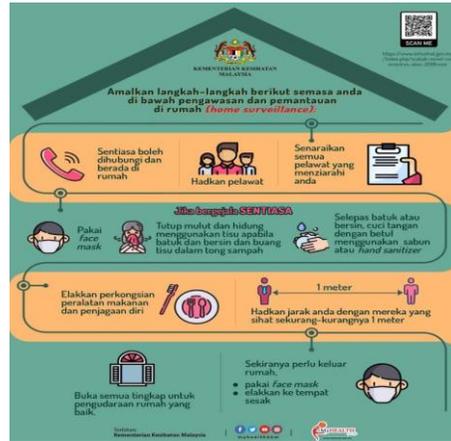
Fig. : Facebook Live



Fig.: Webinar Session

2.7.2 Health Education

Key messages in the health education materials repeatedly stress on self-care through hand hygiene, social distancing, respiratory etiquette and to seek early medical treatment for symptoms of COVID-19. In Malaysia, the use of masks to prevent infection is highly encouraged but not mandatory. The print and visual media conveys COVID-19 messages and alerts in the four main languages (Bahasa Malaysia, English, Mandarin and Tamil).



2.7.3 Media Engagement

Effective communication and information management is crucial to keep people safe and informed during the coronavirus pandemic. It is to ensure rapid, reliable and accurate information are available on traditional print and broadcast media, as well as social media channels. The engagement with the public involves multiple approaches through tailor-made messages, timely media briefings, press release, and public announcements. The Ministry of Health through their official Facebook and other webinars keep the public updated on the progress of the disease status regularly. This has prevented and cleared fake information from spreading to the public. The Director General of Health Malaysia has daily live telecast and

provides information on the current situation, actions and advice for COVID-19.

2.7.4 Hotline

The public can contact the Hotline at the National Crisis Preparedness Response Centre (CPRC), state CPRC or Operational Room at the District Health Office for information on the COVID-19. Information is also available through the Ministry of Health's CPRC telegram channel; <https://t.me/cprckkm>. The hours of operation are from 8.00 am to 10.00 pm daily; however, when the number of COVID-19 cases increased the hotline service was operating 24 hours.

2.8 Multipronged Approaches

2.8.1 Point of Entry

Health screening at all entry points into Malaysia has been enhanced since 16 January 2020 to contain the spread of COVID-19. Screening measures include the placement of Thermal scanners at these points to detect passengers and flight crews with fever. During the initial part of the outbreak, passengers had to declare their current state of health and any travel history to China. Those having fever, cough or breathing difficulties were taken to the nearest hospital upon arrival. Those who did not fulfil the criteria for Person Under Investigation were issued with Home Assessment Tool and placed under Home Surveillance for 14 days. They were provided with Health Alert Cards issued by MOH which needs to be shown to the doctor if they develop symptoms. However, from 3rd April 2020 until 9 June 2020, all passengers arriving in Malaysia were sent to the quarantine centres for 14 days.

2.8.2 Contact Tracing

Public health staff interview the individuals who have been diagnosed with COVID-19 to map who they have recently been in contact within the last 14 days. The staff make an effort to trace every one of the contacts and interviews them for more information. If the contacts are symptomatic, they are referred to the designated hospital. For those who are asymptomatic they are tested, directed to self-isolate and issued with home surveillance order for 14 days. The contacts will notify the public health staff if they develop symptoms. The health staff will inform the contacts of their test results and check on their health status.

2.8.3 Primary Care Surveillance for COVID-19

Since February 23 2020, samples from patients presenting with Influenza Like Illness (ILI) are tested in nine (9) MOH health clinics

to determine the prevalence of COVID-19 in the community. Surveillance activities act as an early warning and early detection system for COVID-19 infection. Similarly, sampling is done for the Severe Acute Respiratory Infection (SARI) cases in the hospitals. As of the 18th epidemiology week, 14 COVID-19 positive cases (0.88%) were identified from 1,592 samples. The number of primary health care clinics as sentinel sites for COVID-19 has increased to 26.



Fig.: Health clinic equipped with the Biosafety Cabinet

2.8.4 Development of Guidelines

The Interim Guidelines Novel Coronavirus Management in Malaysia 2020 was promptly developed to scale up the country's preparedness and response for an outbreak. It provided actionable guidance for case definition, early detection and testing, screening at the Point of Entries, infection and prevention control measures and notification of the disease. These documents are regularly revised and available on the MOH's website <http://www.moh.gov.my>. Some of the other documents produced for health care providers are 'Rational use of PPE during COVID-19 Pandemic' and 'Guidelines on COVID-19 Testing using Antigen Rapid Test Kit for the health facilities'.

2.8.5 Volunteers

Volunteers from various areas of health care across Malaysia have been working with MOH since the beginning of the outbreak. The volunteers include medical professionals, medical officers, nurses, lab technicians, assistant medical doctors, X-ray technicians, physiotherapists, microbiologists, pharmacists, assistant pharmacists, safety and health officers, psychologists and counsellors.

MOH is working closely with United Nations High Commission for Refugees (UNHCR) to ensure that refugees and asylum seekers are

covered in preventive and control activities for COVID-19. MOH also received a lot of assistance from non-governmental organizations (NGOs) and volunteers in conducting field surveillance activities with the involvement of the District Health Office.

2.8.6 Financial Support

The federal government allocated additional budget to MOH when COVID-19 was declared a pandemic. The emergency budget was utilized to purchase medical equipment, drugs, PPE and laboratory instruments as well as to hire medical staff as contract workers to contain the spread of COVID-19. Procurement of medical and non-medical equipment for screening services in primary care include portable air conditioners, tables, infrared thermometers and tents. Budget was also available to upgrade the emergency rooms in the health clinics and purchase digital blood pressure sets, pulse oxymeters, infrared thermometers, cardiac monitors, nebulisers.