GENERAL GUIDELINES FOR DRIVE-THROUGH & MOBILE VACCINE ADMINISTRATION CENTRES

PREPARED BY:
ASM DATA SCIENTISTS TEAM FOR COVID-19

THE SPECIAL COMMITTEE OF ENSURING ACCESS TO COVID-19 VACCINE SUPPLY (JKJAV)

30 JUN 2021

GENERAL GUIDELINES FOR DRIVE-THROUGH & MOBILE VACCINE ADMINISTRATION CENTRES

Academy of Sciences Malaysia
Level 20, West Wing, MATRADE Tower
Jalan Sultan Haji Ahmad Shah off Jalan Tuanku Abdul Halim
50480 Kuala Lumpur, Malaysia

e-ISBN 978-983-2915-60-7
Perpustakaan Negara Malaysia Cataloguing-in-Publication Data
GENERAL GUIDELINES FOR DRIVE-THROUGH & MOBILE VACCINE ADMINISTRATION CENTRE /
PREPARED BY: ASM DATA SCIENTISTS TEAM FOR COVID-19.
Mode of access: Internet

eISBN 978-983-2915-60-7
1. COVID-19 (Disease)--Vaccination--Handbooks, manuals, etc.
2. COVID-19 (Disease)--Prevention--Handbooks, manuals, etc.
3. Vaccination centers--Handbooks, manuals, etc.
4. Government publications--Malaysia.
5. Electronic books.
I. ASM Data Scientists Team For COVID-19.
614.47

Table of Content

Table of Content

List of Abbreviations

AEFI	Adverse Event Following Immunization
ASM	Academy of Science Malaysia
CITF	COVID-19 Immunisation Task Force
CSR	Corporate Service Responsibility
MOH	Ministry of Health, Malaysia
MOSTI	Ministry of Science, Technology and Innovation
NPRA	National Pharmaceutical Regulatory Agency
OKU	Orang Kurang Upaya (Person with Disabilities)
PPV	Pusat Pemberian Vaksin
PVA	Pre vaccination assessment
VAC	Vaccine Administration Centre
VSC	Vaccine Storage Centre

Section 1: Introduction

1.0 Introduction

This document serves as a guide for the planning and implementation of the outdoor Vaccine Administration Centre (VAC) in the form of drive-through and mobile modes. Criteria for servicing OKU and implementation and house of worship are addressed. The drive-through VAC and mobile VAC are good options for second dose vaccination, targeting vulnerable groups, the elderly, and people with limited mobility.

The drive-through VAC reduces the need for large parking spaces while ensuring safety and timely vaccination process while the mobile VAC facilitates in the completion of vaccination programme, targeting the rural areas where there is no indoor VAC accessible. To implement both outdoor VAC modes, the venue will need to facilitate cars moving through stations located in shaded areas according to the steps in the vaccination administration. The driver (except for OKU driver) and passengers riding two and four-wheel vehicles are welcomed to the outdoor VAC. The four-wheel vehicle is expected to seat a minimum of two people and a maximum of four people (for four and six seater vehicle). At any given time, the maximum number of passengers will be based on the guidelines set by the National Security Council. In the case that the passengers of the vehicle have different appointment slots on the same day, any of the allocated slots can be given to the passengers (to receive the vaccination).

The emphasis of the drive-through VAC is to minimise direct contact. To achieve this, the vaccine recipient will remain in the vehicle for the entire duration of their vaccination while VAC staff (comprising the medical and non-medical staff assisting in the process) will be moving around the vehicle at each station.

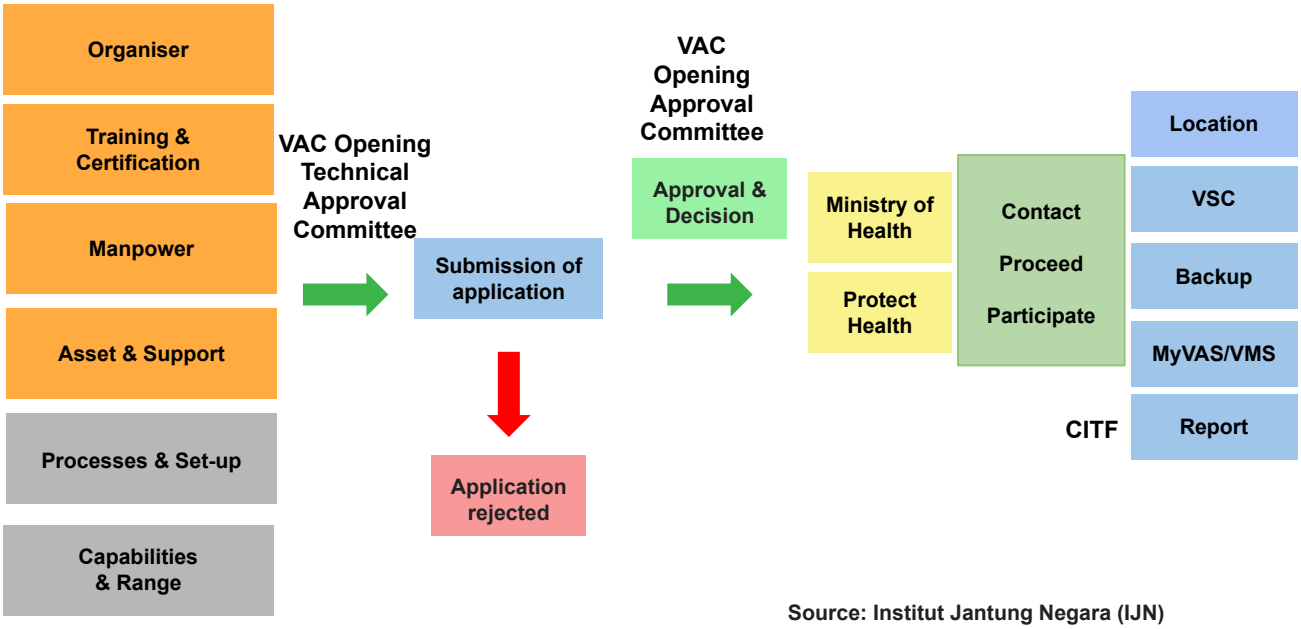
To ensure that the drive-through VAC adheres to green practices and standards, it is advisable for the vehicle's engine to be switched off at each station and proper ventilation to be practised at all times. The drive-through VAC supports the vaccination of persons with disabilities (OKU), and this document serves as a guide to prepare for inclusive implementation. Individuals with certain disabilities may require a dedicated indoor space for relevant process, which should also be planned for.

The mobile VAC allows the mobility of vaccination facilities to reach various target populations (e.g., marginalised community, rural, camps). The medicinal equipment are prepared in the vehicle (e.g., bus, trailer) to function as the Vaccination Station and Treatment Area while other procedures such as appointment confirmation, registration and observation are executed in adjacent available building (e.g., hall, school) or shaded facilities (e.g., tent).

****Important Note:** This guideline should be used in tandem with ***Garis Panduan Pelaksanaan pemberian Vaksin Covid-19 Untuk Anggota Kesihatan***.

1.1 Requirements for Organiser

The application by organisations/private entities to operate a drive-through or mobile VAC is processed by several committees under the COVID19 Immunisation Task Force. A set of criteria is evaluated per the operator's preparation. The following diagram shows the requirements of the application.



Source: Institut Jantung Negara (IJN)

Organiser	• Vaccination operation for Corporate Service Responsibility (CSR) will be referred to the Ministry of Health • Vaccination operation under private organisation will be managed by Protect Health • Budget/Funding • Coordination with partners • Please engage with local health department
Training & Certification	• One (1) day online training for medical practitioners • Training application will be managed by the Ministry of Health
Manpower	• Allocation of medical and non-medical manpower (traffic control, safety & patrol)
Asset & Support	• Equipment, logistic, VAC layout mapping
Processes & Set-up	• Location/Vehicle, ample space availability • The optimum time from the nearest hospital is 15-30 minutes
Capabilities & Range	• Capability and target number of vaccinate recipients by the organiser • Ability to store the vaccine supply

To apply for VAC operation for your organisation, please refer to Section 7.

SECTION 2:
DRIVE THROUGH VAC GUIDE

Section 2.1: Drive-through VAC Event Planning and Preparation

2.1.1 Criteria for drive-through VAC selection

The establishment of a drive-through VAC is a joint decision by the Federal and State authorities. The need for a drive-through VAC for a particular state is assessed and decided on by the Federal authorities. After a decision is made, the State authorities will determine the exact location of the drive-through VAC based on the following criteria:

- ☑️ Located in an area that is accessible and conducive to the community
- ☑️ Has a large ground area with ready shade (e.g. drive-through lobby or bay) with the ability to adequately meet the needs of the drive-through VAC from vaccine storage and preparation to parking and mandatory observation spaces
- ☑️ Has two (2) distinct and separate entry and exit points
- ☑️ Strategically located near a hospital/medical centre (within 15 to 30 minutes away)
- ☑️ Has space and amenities (with frequent sanitisation, good space to follow social distance SOP and good ventilation) to immediately treat adverse reactions to the vaccine
- ☑️ Has space for Troubleshoot Lane (where the drive-through VAC staff can address issues that arise)
- ☑️ Has broad road lanes for average-sized vehicles

The VAC needs to have basic inclusive facilities to ensure a good vaccination experience:

- Easy access to the VAC, the stations and the toilets
- Equipped with special needs fittings such as widen doors, elevated ramps, handicap elevators and accessible toilets
- Has special facilities such as sensory and calm room
- Dedicated parking for those waiting or accompanying special needs vaccine recipients

2.1.2 Operation Hours

The operation hours will vary at each drive-through VAC. However, the guidelines for the operation hours will need to take into account the below to ensure that the operations remain optimal:

- ☑️ Conducted during conducive operating hours: 8 am - 11 am and 5 pm - 10 pm (avoiding the hot weather)
- ☑️ Preparation for the day should be completed at least 2 hours before the drive-through VAC opens
- ☑️ The last appointments for the day need to be registered an hour before the drive-through VAC closes
- ☑️ Vaccination administration is estimated to be around 6 minutes per vehicle (three vaccine recipients can be vaccinated assuming two vaccinators are assigned per Vaccination Station)

Operating hours at the VAC that is set-up at the house of worship is between 8 am to 1 pm and 2 pm to 4 pm (for staffs to have a break and to respect prayer time).

2.13 Required Facilities/Service/Items

1. Ready-built shaded area (e.g. lobby/porch/bay) for vehicles to pass through; OR giant tents, big containers (and optional elevated deck for waterproofing)
2. 2 lanes driving path that can allow vehicles (and OKU van) to pass
3. Vaccine storage area
4. Computer-on-wheels
5. Good internet connectivity
6. AC supply
7. Water and electrical Supply
8. Emergency medical support/ ambulance
9. Partition or curtain (to separate gender)
10. Buzzer for observation (optional)
11. Audio system
12. Site map
13. Queue management system
14. Identity Card (IC) reader
15. Stationery (pen, clipboard etc)
16. Sanitisation equipment*
17. Vaccination equipment#
18. Traffic control equipment**
19. Staff welfare##
20. Normal and OKU accessible
21. Washroom//Mobile toilet
22. Elevated platforms and height-adjustable chairs for OKU
23. Prayer area
24. Command centre

Sanitisation Equipment*

- Sanitizer
- Soap
- Tissue
- Garbage disposal bin
- Clinical Waste Disposal System

Traffic Control Equipment**

- Signage (refer Appendix 5)
- Flags
- Traffic cones
- Chairs
- Hailer
- Whistle
- Torchlight
- Walkie-talkie
- Ambient thermometers

Vaccination Equipment#

- Top load fridge
- Cold Box and ice packs
- Syringe cases
- Syringes for 3 ml dilution
- 1 ml LDV syringe
- 21G needles
- 25G needles
- Alcohol swabs
- Cotton wool balls
- Apron gowns
- Medical face masks
- Disposable gloves

Staff Welfare##

- Dining area for on-duty staff
- Drinking Water

Basic inclusive facilities at the VAC to ensure a good vaccination experience for OKU:

- ramp walkway
- OKU parking
- accessible toilets
- handicap elevators
- wheelchair bound access
- sliding doors
- adjustable furniture (chairs, beds, platforms)
- wheelchair, mobility scooter, assistive cane, and walker

Reference :
COVID-19 Mass Vaccination Drive-Through Playbook, 2021 (Updated), Page 9
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, Tugas dan Tanggungjawab Anggota Kesihatan, page 20-26

2.1.4 Pre-Event Planning

2.1.4.1 Organiser, Funding and Coordination

The VAC opening requires the organiser to manage the planning, funding, coordination and reporting to ensure smooth vaccination operations. The organiser is also responsible for the recruitment of staff and volunteers, and making arrangement with the nearby hospital, ambulance and mechanics.

2.1.4.2 Pre-event Site Visit

As each drive-through VAC has its own sequence of locations and logistics requirements, a pre-event site visit is crucial. Several evaluations need to be conducted during the visit in order to determine the suitability of the site to function as a drive-through VAC:

1. Site layout mapping
2. Identification and documentation (through images and videos) of the location for each station and point (which could either be a lobby/porch/bay/big container/tent at a particular drive-through VAC). Stations should be located preferably in shaded areas to minimise additional set-up cost. Stations should also have a good power supply, internet connection, and good accessibility
3. Area measurement for each station and point, namely Registration Station, Appointment Station, Consultation Station, Vaccination Station, Observation Station, Treatment Area, Entrance, Troubleshoot Lane and Exit. The implementation of some stations may be co-located according to the logistics suitability to optimise the completion duration
4. Planning of traffic flow and routes (entrance, waiting lane, one station to another, troubleshoot lane, exit)
5. Determine ease of public access and parking space to visit the drive-through VAC, and consider any possibilities of traffic bottleneck prior to entering the drive-through VAC

Preparation of the VAC for inclusive readiness can be by identifying readily available facilities, or through installing additional equipment (refer to Page 11)

A dedicated space to provide a calming effect, reduce anxiety and improve focus need to be provided

- sensory/calm room (e.g., autistics)
- private room (e.g., limping)

Ensure the height of the selected space for vaccination operation to be higher than 2.5m

Options for Vaccination Stations (refer to Section 2.1.4.2 Station Guide):

a. Type 1: Stations to be set up under a covered area (lobby/porch/bay) attached to a building with facilities *(preferred)*
b. Type 2: Big container (size: 40ft long) for outdoor setting
c. Type 3: Tent style

2.1.4.3 Determining Stations and Number of Points

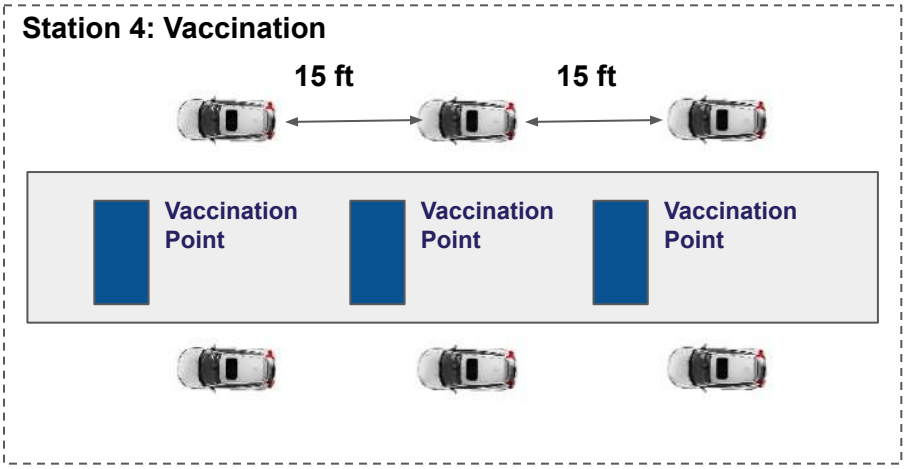
1. The recommended **minimum*** number of points at each station to be set up at a drive-through VAC are:
   - At Station 1: **1** Appointment verification points
   - At Station 2: **2** Registration points
   - At Station 3: **2** Consultation and Consent points
   - At Station 4: **4** Vaccination points
   - At Station 5: **40** parking slots which will be utilised for 20 vehicles for one appointment round (to ensure gaps are available between the vehicles)

For OKU, the number of points for Station 2 and 3 for OKU can be increased to meet the specific needs.

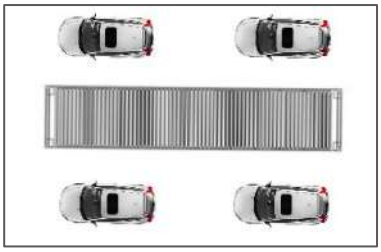
*Note: *The quantity of each point at each station can be multiplied based on the daily target vaccine dose to be administered.*

2. The key to decide the capacity of a drive-through VAC is based on the number of Vaccination Points that can be set-up. Each set-up should consider the smoothness of operation in various weather. The type of drive-through Vaccination Point can be decided by either of the following:

Type 1: Lobby-style with space of at least 15 ft between vehicles



Type 2: Big container-style with 40ft container



One container serves four vehicles

Type 3: Tent-style with drive-through tent (with an indoor compartment)

Tent with an indoor compartment and a drive-through path

Images Source: VAC Klinik Kesihatan Buntong, Ipoh

2.1.4.4 Station Layout Consideration

When planning the overall layout for all the stations at a drive-through VAC, the following aspects should be considered:

a) Availability of sufficient space for queueing before each station

- **In order to ensure that the traffic flow is managed smoothly, the following traffic control measures can be taken:**
  (1) Only vehicle that arrives within an hour of their appointment time will be allowed into the Registration Station.
  (2) Suppose a vehicle arrives an hour before the scheduled appointment, it will only be allowed to go in if the queue at the Vaccination Station is less than the station's maximum capacity.

b) Sufficient vehicle parking bays at the Observation Station

- Since the **maximum duration at Observation Station is 30 mins,** and **each appointment slot is 6 mins**, the vehicle parking bays required is **five times the maximum capacity** (number of vaccination bays) for one appointment time slot at the Vaccination Station.

c) Function of the Troubleshoot Lane

- To support the vaccine recipients with problems such as undisclosed medical conditions, wrong appointment date, MySejahtera issues, vehicle breakdown etc.
- It is allocated so that vaccine recipients who face the problems listed above would not cause traffic congestion at the main drive-through lanes.
- Access to the Troubleshoot Lane should be available at all times.
  No vehicle should be allowed to utilise the space unnecessarily.

d) Safety at Observation Station

- Vehicles MUST be spaced with consideration of emergency rescue and staff should be placed to do rounds.
- The Observation Station should be well-ventilated and the vehicle's engine should be switched off (depending on the weather).

e) Safety at Vaccination Storage and Preparation Area

- **The cold chain of the vaccine is a top priority. Storage, as well as vaccination preparation areas, must be air-conditioned to ensure viability. Security** is to be always exercised in these areas, and access only granted to those who are allowed to access the area. **Daily inventory management** should be in place. Refer to Section 6 for details on storage and handling.

f) Safety at Command Centre

- The command centre shall be used as the **operation control centre**. It will provide support for administrative documentation storage, formal discussions, monitoring and other relevant matters.

Each station should have the tools and equipment to support OKU. The space for queuing, vaccination administration, observation and using basic amenities should be suitable to support OKU. Since the duration for OKU vaccine recipient might be longer, the VAC team needs to prepare for possible bottlenecks.

All vaccine recipients and VAC visitors should respect the rules at the VAC, including those set up at house of worship.

Stations should be partitioned to separate the vaccination between each gender.

2.1.5 Target Doses Administration Estimation

2.1.5.1 Daily Target Dose Calculation

Daily target dose and drive-through VAC capacity are among the key factors in deciding if a drive-through VAC is to be operationalised. The following are the recommended steps to calculate the number of doses daily and estimation of the completion of the vaccine administration for a targeted population:

The duration for vaccination administration and observation for OKU vaccine recipient might differ, according to their specific needs.

Steps:

1. **Identify number of vaccine recipients in a vehicle**
2. **Identify duration for each drive-through appointment (recommended: 6 mins)**
3. **Identify number of vehicles per hour = 60 mins / (2)**
4. **Identify number of vaccination points**
5. **Identify number of operating hours per day**
6. **Calculate number of vaccine administered per hour = (1) x (3) x (4) x (5)**
7. **Identify number of operating days per week**
8. **Calculate number of vaccine administered per week = (1) x (3) x (4) x (5) x (6)**
9. **Identify target population**
10. **Calculate completion duration = (9) / (8) weeks**

Example of a Daily Target Dose Calculation (*for simplicity, in the table below Jab represents Vaccine)

Per Day (6 mins/vehicle)							Per Week (6 days)	Per Month (26 days)	Per Week (6 days)	Per Month (26 days)
Operation Hours	#Vaccination Points	#vehicle	#Jabs (2/ vehicle)	#Jabs (2.5/ vehicle)	#Jabs (3/ vehicle)	#Jabs (4/ vehicle)	#Jabs (2.5/ vehicle)	#Jabs (2.5/ vehicle)	#Jabs (3/ vehicle)	#Jabs (3/ vehicle)
8 Hours	1	80	160	200	240	320	1200	5200	1440	6240
	5	400	800	1000	1200	1600	6000	26000	7200	31200
	10	800	1600	2000	2400	3200	12000	58500	14400	62400
	15	1200	2400	3000	3600	4800	18000	78000	21600	93600
10 Hours	1	100	200	250	300	400	1500	6500	1800	7800
	5	500	1000	1250	1500	2000	7500	32500	9000	39000
	10	1000	2000	2500	3000	4000	15000	65000	18000	78000
	15	1500	3000	3750	4500	6000	22500	97500	27000	11700

2.1.5.2 Drive-Through Planning Simulator

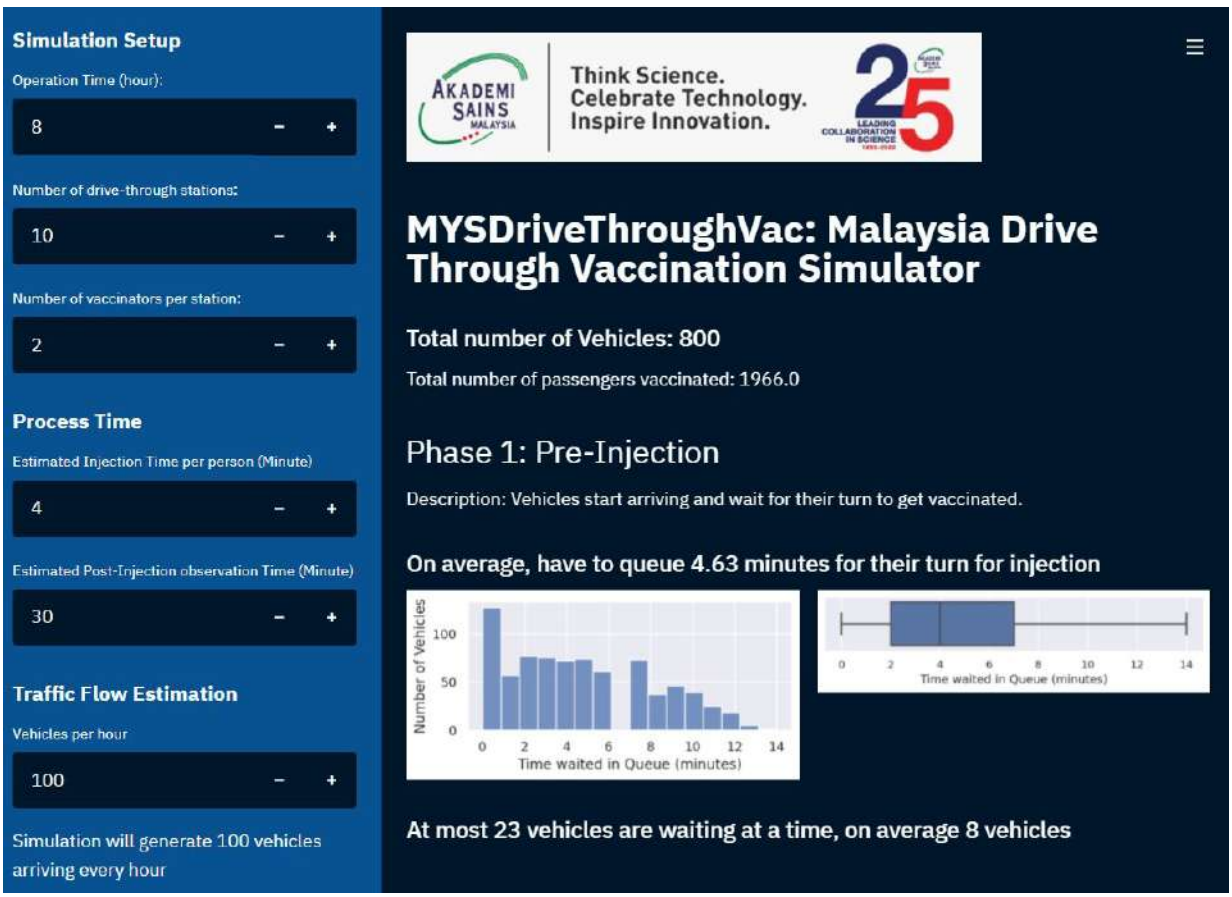
ASM has developed an **interactive drive-through planning simulator app** to estimate the vaccine doses administered per day, which can be accessed via this link: https://mys-drivethrough-vac.herokuapp.com/

SCAN ME

The simulator will allow a drive-through VAC to estimate the completion of the vaccination process and identify bottlenecks for pre-emptive management based on a set of simulation parameters.

Below is the screenshot of the **interface for the interactive drive-through planning simulation app** that consists of two panels:

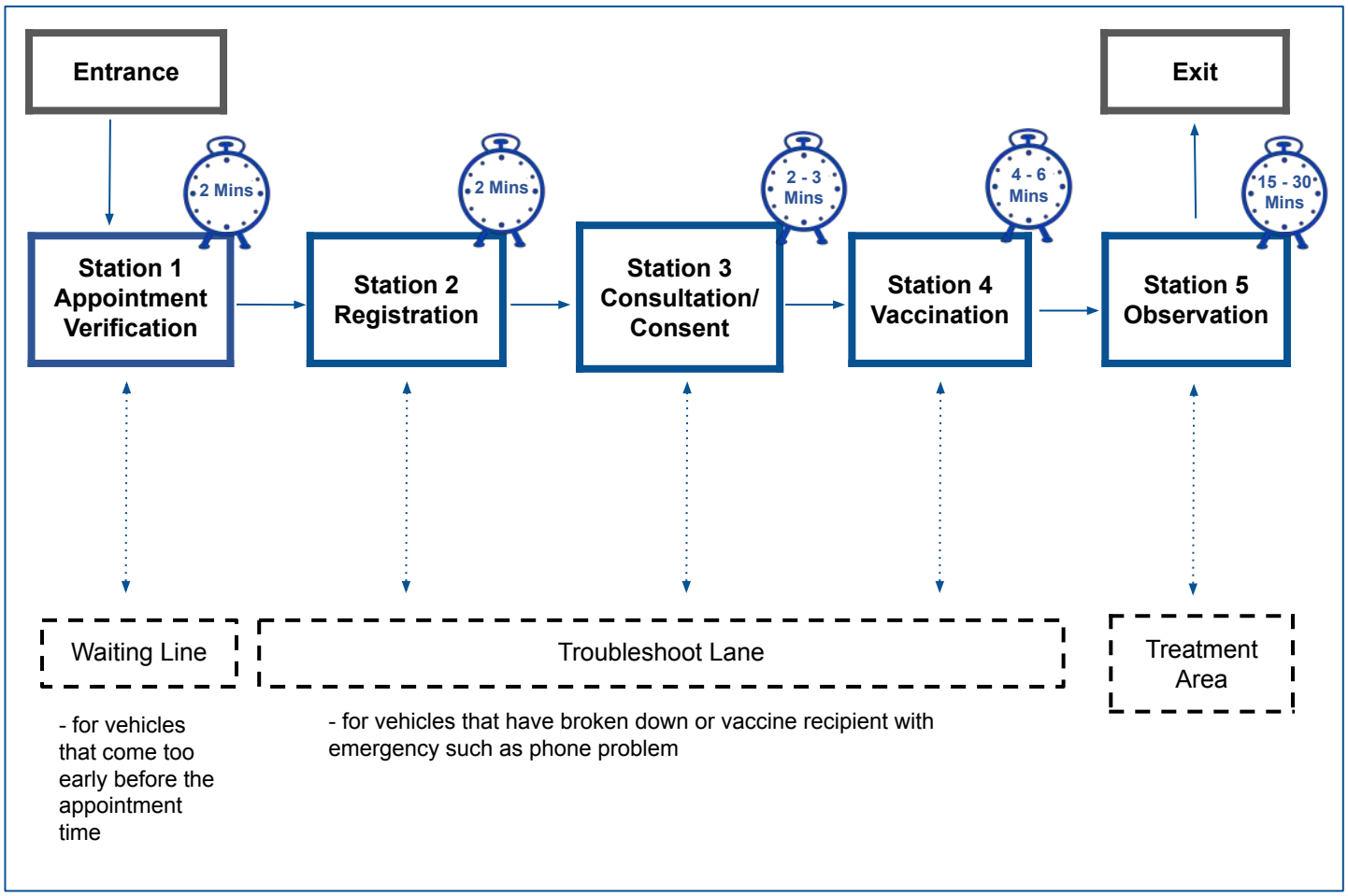
- **Left panel: simulation parameters** of a drive-through scenario that can be adjusted:
  - operation time
  - number of vaccination stations
  - number of vaccinators per station
  - estimated injection time
  - estimated post-injection (observation) time
  - vehicles per hour
- **Right panel**: **simulation results** (based on the simulation parameters on the left panel), which include the estimated number of vehicles registered for the drive-through, number of vaccination recipients targeted, waiting time, average/min/max number of vehicles at the observation station etc., along with some graphs to visualise the statistics of the vaccination process that can be useful for identifying potential bottlenecks.



Section 2.2 : Drive-Through VAC Flow Guide

2.2.1 Drive-Through VAC Flow

It is proposed for there to be a one-way traffic flow with FIVE (5) stations where the estimated total duration for a vehicle to complete the vaccination is between 35 to 40 minutes. The flow, details and the estimation of the duration for each station are illustrated below. The implementation of Station 1 until Station 3 may be co-located according to the logistics suitability to optimise the completion duration.



Note: *Estimated time to be spent by a vaccination recipient at each station*

Note:

- *If the drive-through VAC is to be mobilised only for the second dose of the vaccine, the stations can be reduced as deemed necessary due to a simpler registration and consultation/consent process.*
- *Refer to Appendix 6 for the drive-through flow guide*

2.2.2 Station Guide

Station 1: Appointment Verification

Station 1 will check the vaccine appointment for the day. Only vaccine recipient(s) with appointment(s) for the day will be allowed to proceed to Station 2 for registration.

Set-up

- Laptop/tablet with internet connectivity
- Direction signage: Station 2, Waiting Lane, Exit
- Signage that states only vehicle that arrives within 1 hour before the appointment time will be attended to

Individuals with behavioural/mental problem must provide the letter issued by their doctor

SOP / Processes

- Only passengers will be allowed as vaccine recipient
- Individuals requiring pre-vaccination assessment (PVA) must provide the letter issued by their doctor
- Check vaccine recipient's temperature and identify symptoms
- Validation of IC and appointment in MySejahtera (using the IC Reader, if available)
- For second dose appointment, use stickers or signs to display on the windscreen to state the vaccine type
- If the vaccine recipient(s) arrive one hour before the appointment, they will be asked to wait at the Waiting Lane and rejoin the lane when it is time for their slot
- Consent forms need to be filled in by the vaccine recipient, either manually or electronically.
- The vaccine recipient moves to Station 2
- Supposed the vaccine recipient has symptoms and cannot be vaccinated at that time, reschedule another appointment

Manpower

- Medical : -
- Non-Medical : One person per Appointment Verification Point
  : Four people to control traffic

Pre-vaccination assessment (PVA) is an assessment conducted by the treating doctor (i.e. medical officer or clinical specialist) to determine an individual's eligibility, schedule and the suitable facility for them to be vaccinated (i.e. hospital or other vaccination centres).

Source: BERNAMA TV
https://www.youtube.com/watch?v=ahgVQd4I9S0

Station 2: Registration

Station Guide

This station focuses on registration validation. Only a vaccine recipient who has registered will be vaccinated.

Set-up

- Computer on wheels or laptop/tablet with internet connectivity
- Direction signage: Station 3, Troubleshoot Lane
- Drive-through VAC QR code

All stations will be equipped with communication tools to aid the OKU vaccine recipients. Staff and volunteers with the relevant skill sets are best to be stationed here for duty.

SOP / Processes of the vaccination

- Vaccine recipient scans QR code
- Staff updates vaccine recipient's visit status in MyVAS
- Vaccine recipient fills up vaccine card and gets a queue token
- Staff marks vehicles to manage the traffic. Use sticker or place card to mark for vehicle's lane queue and dose number (optional)
- The vaccine recipient moves to Station 3

OKU vaccine recipients who could not receive the vaccine while staying in the vehicle (e.g., limping, autism) will be directed to a designated indoor space to complete the process involving Station 3 to 5

Manpower

- Medical : -
- Non-medical : One person per Registration Point
  One person to control traffic per Registration Point

Source:
ttps://jakartaglobe.id/news/bali-now-has-southeast-asias-first-covid-vaccination-drivethru

Source:
METRO TV https://www.youtube.com/watch?v=pLITyzIYX4g

Station 3: Consultation and Consent

Station Guide

At this station, the vaccine recipient can consult a doctor on their medical condition and their suitability to be vaccinated. The vaccine recipient will also sign the consent form at this station.

Set-up

- Direction signage: Station 4, Troubleshoot Lane
- Bin/box for consent form collection

SOP / Processes

- The doctor moves around for the consultation with the vaccine recipient (based on MOH policy)
- The vaccine recipient stays in their vehicle
- The doctor provides consultation to the vaccine recipient
- Upon consultation, the vaccine recipient signs Consent Form and submits to the doctor to be endorsed
- The vaccine recipient moves to Station 4

Manpower

- Medical : One doctor per Consultation and Consent Point
- Non-medical : One person to assist every two doctors

Elevated and adjustable platforms at Station 3 for OKU vaccination

The Consent Form for OKU can be signed by the carer

The staff should guide the vaccine recipients to proceed to the designated station for each gender (if available).

Source:
https://www.gponline.com/gps-asked-consider-drive-through-covid-19-vaccine-clinics-boost-coverage/article/1711365

Source:
Facebook Jawatankuasa Khas Jaminan Akses Bekalan Vaksin COVID-19

Station 4: Vaccination

Station Guide

The Vaccination Station is a dedicated area for vaccine administration.

Set-up

- Area and equipment to prepare the vaccine
- Trolleys to move the vaccination equipment to the vaccine recipient
- *Borang Daftar Nombor Siri MyVAS*
- Ambient thermometer - vaccination area must be near air-conditioned areas and cold chain to be observed
- Direction signage: Station 5, Troubleshoot Lane

Elevated and adjustable platforms at Station 4 for OKU vaccination

Some OKU vaccine recipients may need to use special rooms (for privacy and calm room for sensory disabilities)

SOP / Processes

- The vaccine recipient stays in their vehicle
- Vaccinator prepares vaccine, which must be administered within 10 minutes of preparation
- The vaccinator moves around the vehicle
- The vaccinator explains the procedure to the vaccine recipient. The vaccine can be administered by opening the vehicle door or through an open car window, as long as it complies with the stipulation of being 90 degrees from the skin's surface
- Vaccine recipient agrees and the vaccinator administer vaccine according to vaccination SOP
- The vaccine recipient scans QR code to confirm vaccine is administered
- The vaccine recipient moves to Station 5
- The vaccine must be restocked as required

Manpower

- Medical : Two vaccinators per Vaccination Point (preferably one male and one female)
- Non-Medical : Two people as vaccinator assistant per Vaccination Point
  : Two people to control traffic for every four Vaccination Points

Source:
Angkatan Tentera Malaysia

Source: METROTV
https://www.youtube.com/watch?v=pLITyzIYX4g

Source:
Facebook Berita Tentera Darat Malaysia

Source: VAC Klinik
Kesihatan Buntong, Ipoh

Station 5: Observation

Station Guide

After being vaccinated, the vaccine recipient will proceed to this station to be observed between 15 to 30 minutes to ensure they have no AEFI (adverse reaction or allergy to the vaccine).

Set-up

- Covered (parking) area with elevated platforms (to support monitoring during rainy time) and computers on wheels
- Ambulance (preferably two units)
- Two Observation Zones based on medical condition
  - Zone for 15 mins and 30 mins observation
- For an easy observation process, vehicles to be lined-up in the *first in-first out* order
- May use stickers or other markers to assist in observation
- Laptop for MyVAS update
- Direction signage: Treatment, Exit

SOP / Processes

- Vehicles are to be assigned according to the observation zones
- Staff to inform the vaccine recipient about AEFI
- The vaccine recipient is informed to keep vehicle unlocked and to unwind window
- The vaccine recipient to honk and activate the emergency sign should any problem(s) arise. They can be provided with sanitised flags during the observation period to signal for attention.
- Vehicle's engine must be switched off (to be decided based on the weather)
- If there are any complications, the vaccine recipient will be taken to the Treatment Area.
- The vaccine recipient will be given the second vaccination appointment (Refer Appendix 6) and Vaccination Certificate (only for those who have completed the full dose)

Elevated and adjustable platforms for monitoring at Station 5 for OKU vaccination.

Since some OKU vaccine recipients may be receiving the vaccine at a special room, observation may also be done there, with suitable staffs in place.

Observation duration for some OU vaccine recipients may be extended.

The space for observation should be airy, not too hot and easy to monitor, and vehicles are parked with gaps

Separate section for Observation Station needs to be provided for VAC that is set up at house of worship.

Manpower

- Medical : One medical staff per 10 vehicles
- Non-medical : One assistant per 10 vehicles
  : One traffic controller per 10 vehicles

An adverse event following vaccination (AEFI) is any untoward medical occurrence that follows vaccination and does not necessarily have a causal relationship with the usage of the vaccine.

Images Source: VAC Klinik Kesihatan Buntong, Ipoh

Treatment Area

Station Guide

If the vaccine recipient is observed to have any adverse or allergic reaction to the vaccine, the vaccine recipient will be taken to the Treatment Area for early treatment.

Set-up

- Treatment equipment according to MOH Policy

SOP / Processes

- The vaccine recipient to be treated and observed according to treatment SOP
- Ambulance to be ready at all times in case the recipient needs to go to the nearest hospital

Manpower

- Medical : Two doctors and one assistant

Standby additional treatment areas as well as ambulances

The staff should guide the vaccine recipients to proceed to the designated treatment area for each gender.

Source: VAC Klinik Kesihatan Buntong, Ipoh

Medical equipment and medicine requirement from MOH at Treatment Area

Medical Equipment

- Stethoscope
- NIBP set
- Thermometer
- PPE Set
- Face mask
- Bag valve mask
- Airway set
- Oxygen
- Pulse oximeter
- Glucometer
- Drip stand
- IV drip (0.9% sodium chloride, Hartmann's dll)
- Couch, pillow, sheet
- IV Branula, Disposable syringe, micropore dll
- PPE – Gloves, apron, face mask, etc
- Clear plastic (in case CPR is required)
- Manual external defibrillator

Medicine

- Piriton 4mg tablet
- Chlorpheniramine Maleate 10mg/ml injection
- Hydrocortisone 100mg injection
- Paracetamol 500mg tablet
- Mefenamic Acid 250mg capsule
- Maxolon 10mg tablet
- Calamine lotion
- Adrenaline 1mg/ml injection
- EpiPen (if available)
- Water for Injection 10ml

Reference :
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, Tugas dan Tanggungjawab Anggota Kesihatan, p.70

SECTION 3:
MOBILE VAC GUIDE

Section 3.1: Mobile VAC Event Planning and Preparation

3.1.1 Criteria for Operating Mobile VAC

The establishment of a mobile VAC is a joint decision by the Federal and State authorities. The need for a mobile VAC for a particular state will be assessed and decided by the Federal authorities. After the application for mobile VAC is approved, the State authorities will determine the exact location of the mobile VAC based on the following criteria:

- ☑ Mobile VAC will be implemented at venues that have no dedicated VAC (or assigned location by the VAC Opening Approval Committee).
- ☑ The vehicle (e.g. trailer, bus) to operate for vaccination program must be ready for vaccination program (e.g. frequent sanitisation, convenient to setup vaccination points and follow SOP for distancing). The ventilation in the vehicle must always be assured (e.g. head compartment in the bus to be removed, both doors working, window is shaded for comfort).
- ☑ Located in an area that is reachable and conducive to the community
- ☑ Has a vast ground area for large vehicles (i.e.: trailer, bus, truck) to pass through and park for the vaccination administration operation
- ☑ Adjacent to a well-ventilated building for Observation Station
- ☑ Large tents may be used as shade
- ☑ Has a large area for vaccine recipients parking, and two (2) distinct separate entry and exit points
- ☑ Strategically located near a hospital/medical centre within 15 to 30 minutes away
- ☑ Availability of space and amenities to ensure any vaccine adverse reactions can be treated immediately
- ☑ The mobile VAC is equipped with treatment facilities (optional) or in an available building
- ☑ Sufficient manpower, facilities and equipment are available

3.1.2 Operation Hours

The operation hours will vary at each mobile VAC. In order to ensure an optimal operation of vaccine administration, below are the key factors that should be considered:

- ☑ Conducted during conducive operating hours (e.g. 8.00 am to 5.00pm)
- ☑ Preparation for the day should be completed at least two (2) hours before the mobile VAC starts operating
- ☑ The last appointments for the day need to be registered an hour before the mobile VAC closes for operation
- ☑ Vaccination administration is estimated to be around four (4) minutes per vaccine recipients

Operating hours at the VAC that is set-up at the house of worship is between 8 am to 1 pm and 2 pm to 4 pm (for staffs to have a break and to respect prayer time).

3.1.3 Required Facilities/Service/Items

1. Mobile vaccination vehicle
2. Ready-built shaded area (e.g. lobby/porch/bay) OR giant tents for set-up of non-vaccination stations.
3. Vaccine storage area
4. Tablet/computer on wheels
5. Command centre
6. Good internet connectivity
7. AC supply
8. Water and electrical Supply
9. Emergency medical support/ ambulance
10. Audio system
11. Site map
12. Queue management system
13. Identity Card (IC) reader
14. Stationery (pen, clipboard etc)
15. Sanitisation equipment*
16. Vaccination equipment#
17. Traffic control equipment**
18. Staff welfare##
19. Normal and OKU accessible washroom//mobile toilet
20. Elevated platforms and height-adjustable chairs for OKU
21. Prayer area

Sanitisation Equipment*

- Sanitizer
- Soap
- Tissue
- Garbage disposal bin
- Clinical Waste Disposal System

Staff Welfare##

- Dining area for on-duty staff
- Break time
- Drinking water
- Tidbits

Vaccination Equipment#

- Fridge
- Cold Box and ice packs
- Syringe cases
- Syringes for 3 ml dilution
- 1 ml LDV syringe
- 21G needles
- 25G needles
- Alcohol swabs
- Cotton wool balls
- Apron gowns
- Medical face masks
- Disposable gloves

To ensure a pleasant vaccination experience for OKU vaccine recipients, the VAC needs to provide basic inclusive facilities such as :

- Ramp walkways
- OKU parking bays
- Accessible toilets
- Handicap elevators
- Wheelchair bound access
- Sliding doors

It is recommended that the portion of autism and mental illness OKU vaccine recipients per day is 20% from the total target recipients to ensure smoothness and extra care could be provided.

Reference :
COVID-19 Mass Vaccination Drive-Through Playbook, 2021 (Updated), Page 9
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, Tugas dan Tanggungjawab Anggota Kesihatan, page 20-26

3.1.4 Pre-Event Planning

For a mobile VAC, vaccination will be administered inside the mobile vehicle while registration, observation and other processes will be conducted by utilising the space surrounding the mobile vehicle. An additional indoor setting (i.e. community hall) or an outdoor setting (i.e. tent) will also be required. Therefore, (1) **the suitability of the mobile vaccination vehicle**, and (2) **a site visit to the vaccination site (to assess the availability of required facilities, to develop a proper layout of the mobile VAC, and to determine the exact location of each station)** need to be included in the mobile VAC planning process.

3.1.4.1 Organiser, Funding and Coordination

The VAC opening requires the organiser to manage the planning, funding, coordination and reporting to ensure smooth vaccination operations. The organiser is also responsible for the recruitment of staff and volunteers and making arrangement with the nearby hospital, ambulance and mechanics.

Preparation for mobile VAC to ensure inclusivity/proper support for OKU vaccine recipients comprises available facilities and additional equipment installation (refer to Page 11)

3.1.4.2 Pre-Event Site Visit

1. The following activities would support the operator to determine the suitability of the site to function as a mobile VAC:
   a. Site layout mapping will underline the utilisation of both vaccination vehicles (to function as Vaccination Station and Treatment Area) and a spacious shaded / outdoor area (to function as Appointment, Registration, and Consultation and Consent Stations) as the mobile VAC set-up
   b. Identification and documentation through images and videos of the location for each station (i.e. building/lobby/porch/bay/tent/big container adjacent to the vaccination vehicle). Non-vaccination stations should be located preferably in shaded areas to minimise additional set-up costs and be provided with sufficient power supply, internet connection, and accessibility. Adjacent building with power supply may optimise expenses and provide vaccine storage facilities
   c. Area measurement for each station and point, namely Registration Station, Appointment Station, Consultation and Consent Station, Vaccination Station, Observation Station, Treatment Area, Entrance, and Exit

Dedicated space to provide a calming effect, reduce anxiety and improve focus need to be provided

- Sensory/calm rooms (e.g. autistics)
- Private rooms (e.g. limping recipients)

Ensure the height of the selected space for vaccination operation to be higher than 2.5m

2. Engagement with Resident Association / Village Head (Penghulu Kampung) to identify vaccine recipients and engage additional volunteers for assisting in traffic flow control / assisting OKU, etc.

3. Options for Mobile Vaccination Vehicles (refer to <u>Section 3.1.4.2 Station Guide</u>)
   a. Type 1 : Long trailer
   b. Type 2 : Bus
   c. Type 3 : Truck

The vehicle will function as the Vaccination Station and may have several Vaccination Points (through the usage of cubicles or curtains). The vehicle should support the vaccine cold chain.

3.1.4.3 Determining Stations and Number of Points

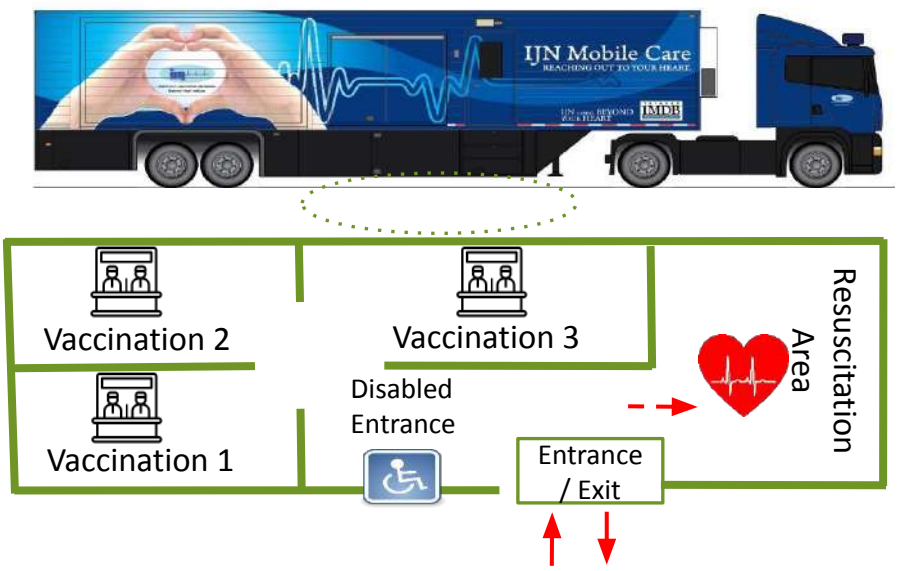
1. The recommended **minimum*** number of points at each station to be set-up at a mobile VAC are as follows:
   - At Station 1: **1** Appointment verification points
   - At Station 2: **1** Registration points
   - At Station 3: **1** Consultation and Consent points
   - At Station 4: **2** Vaccination points
   - At Station 5: **10** chairs for observation area

   Note**: *The quantity of each point for each station can be multiplied based on the daily target vaccine dose to be administered. Several stations may be co-located as-long as all processes are conducted.

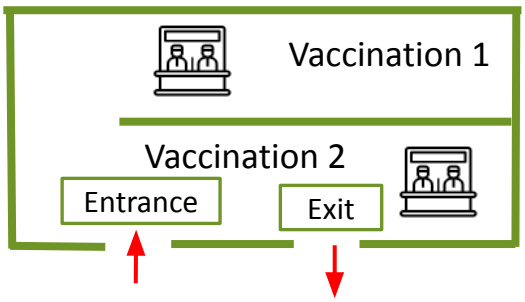
Estimation of the size for one Vaccination Station should be based on the number of Vaccination Points (each size is 2m X 2m) that could be set up, plus some space for movement that follows SOP for distancing. Good ventilation MUST also be ensured.

2. The key factor in deciding the capacity of a mobile VAC is based on **the number of mobile vaccination vehicle** and **the number of Vaccination Points that can be set up at each mobile VAC.** The following are three possible types of mobile vaccination vehicles, along with the recommended set-up of the Vaccination Points.

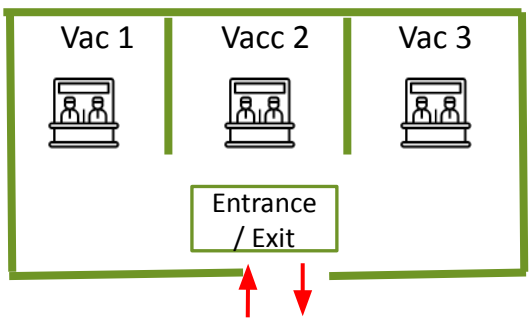
Type 1: Long trailer



Type 2: Bus



Type 3: Truck



3.1.4.4 Station Layout Consideration

For mobile VAC, the mobile vaccination vehicles will serve as the vaccination stations. Other stations will be set up outside the vaccination vehicles, which can be indoor (community hall) or outdoor (tent) settings. In planning the overall layout of mobile VAC stations, the following aspects should be considered:

a) **Sufficient space for the mobile vaccination vehicle(s). Ideally, the mobile VAC will be placed next to a shaded area or an indoor building with the required facilities**

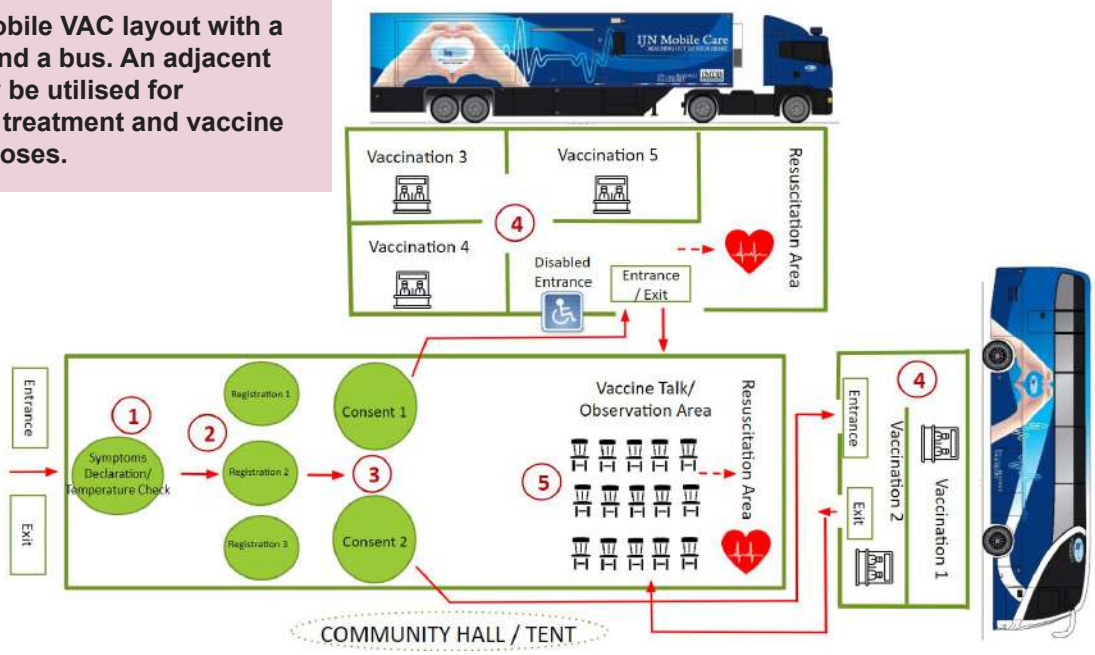
b) **Vast space for the set-up of the four non-vaccination stations, with sufficient waiting space at each station to ensure social distancing among vaccine recipients**

c) **Ample parking space for vaccine recipients**

d) **Safety at Vaccination Storage and Preparation Area**
   - **The cold chain of the vaccine is a top priority. Storage, as well as vaccination preparation areas, must be air-conditioned to ensure viability. Security** is to be always exercised in these areas, and access should only be granted to those who are authorised to do so. **Daily inventory management** should be in place. Refer to Section 6 for details on storage and handling.

e) **Safety at Command Centre**
   - The command centre will be used as the **operation control centre** that provides support for administrative documentation storage, formal discussions, monitoring and other relevant matters.

Proposed mobile VAC layout with a long trailer and a bus. An adjacent building may be utilised for observation, treatment and vaccine storage purposes.



Flow plan contributed by: **Institut Jantung Negara**

The mobile VAC stations layout for OKU vaccine recipients should consider inclusivity by focusing on vehicle accessibility and vaccine recipients checking-in (based on special needs). Each station should provide tools and equipment to support OKU vaccine recipients. Space for queuing, vaccination administration, observation and basic amenities should be suitable to support OKU. Since the duration for OKU vaccine recipient might be longer, the VAC team needs to prepare for possible bottlenecks.

3.1.5 Target Doses Administration Estimation

3.1.5.1 Daily Target Dose Calculation

Daily target dose and mobile VAC capacity are among the key factors in deciding if a mobile VAC is to be operationalised. Below are the recommended steps to calculate the number of doses daily and estimation of the completion of the vaccine administration for a targeted population:

The duration for vaccination administration and observation for OKU vaccine recipients may differ according to their specific needs.

Steps:

1. **Identify the duration for each mobile VAC appointment (recommended: 4 mins)**
2. **Identify the number of vaccine recipients per hour = 60 mins / (1)**
3. **Identify the number of vaccination points**
4. **Identify the number of operating hours per day**
5. **Calculate the number of vaccine administered per hour = (2) x (3) x (4)**
6. **Identify number of operating days per week**
7. **Calculate the number of vaccine administered per week = (2) x (3) x (4) x (6)**
8. **Identify the target population**
9. **Calculate the completion duration = (8) / (7) weeks**

Example of a Daily Target Dose Calculation

Per Day (4 mins/vaccine recipient)				
Operation Hours	**Number of Vaccination Points**	**Per day**	**Per week (6 days)**	**Per month (26 days))**
8 Hours	1	120	720	18720
	5	600	3600	93600
	10	1200	7200	187200
	15	1800	10800	280800
10 Hours	1	150	900	23400
	5	750	4500	117000
	10	1500	9000	234000
	15	2250	13500	351000

3.1.5.2 Mobile VAC Simulator

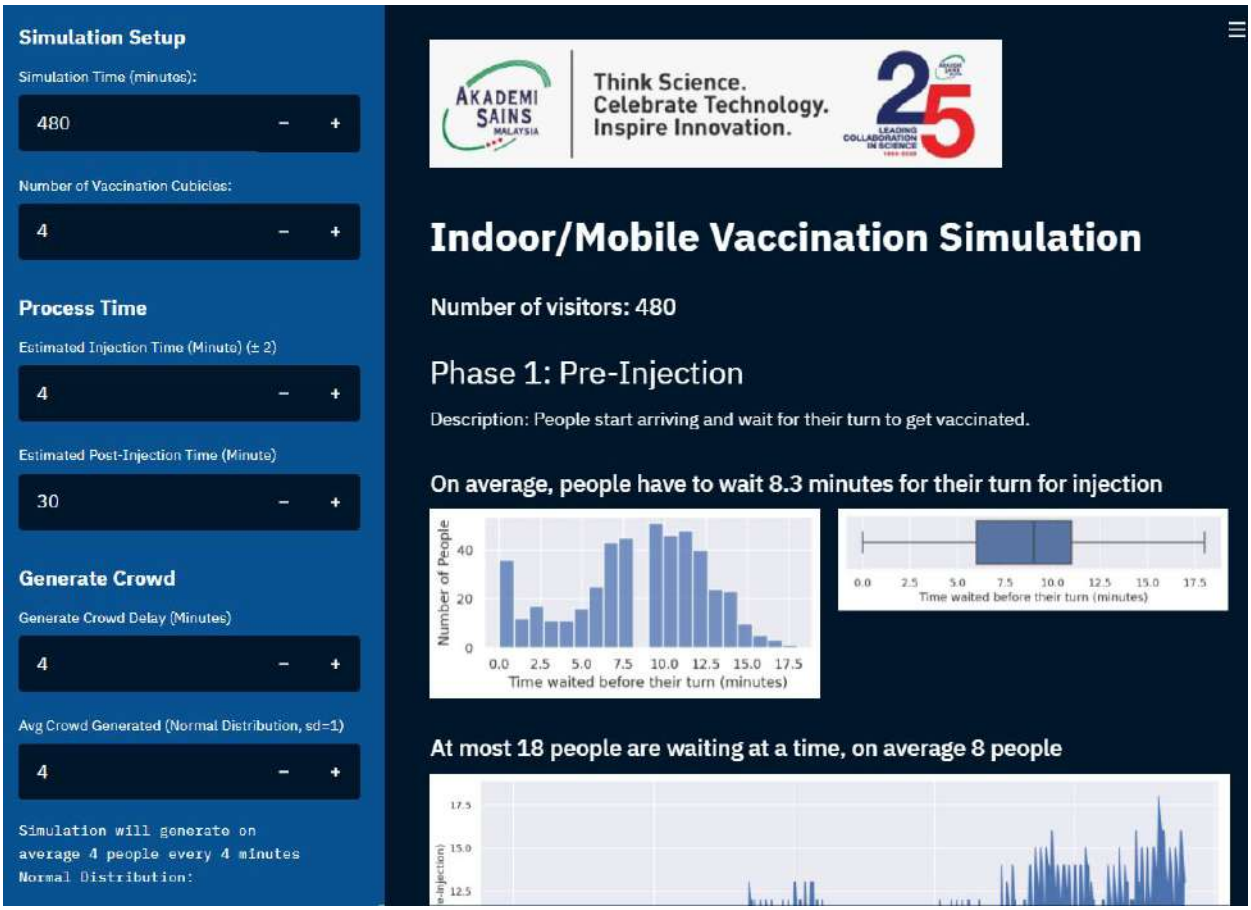
ASM has developed an **interactive mobile VAC simulation app** to estimate the vaccine doses administered per day, which can be accessed via this link: https://mys-mobile-vac.herokuapp.com/

SCAN ME

The simulator will allow a mobile VAC to estimate the completion of the vaccination process and identify bottlenecks for pre-emptive management based on a set of simulation parameters.

Below is the screenshot of the **interface for the interactive mobile VAC simulation app** that consists of two panels:

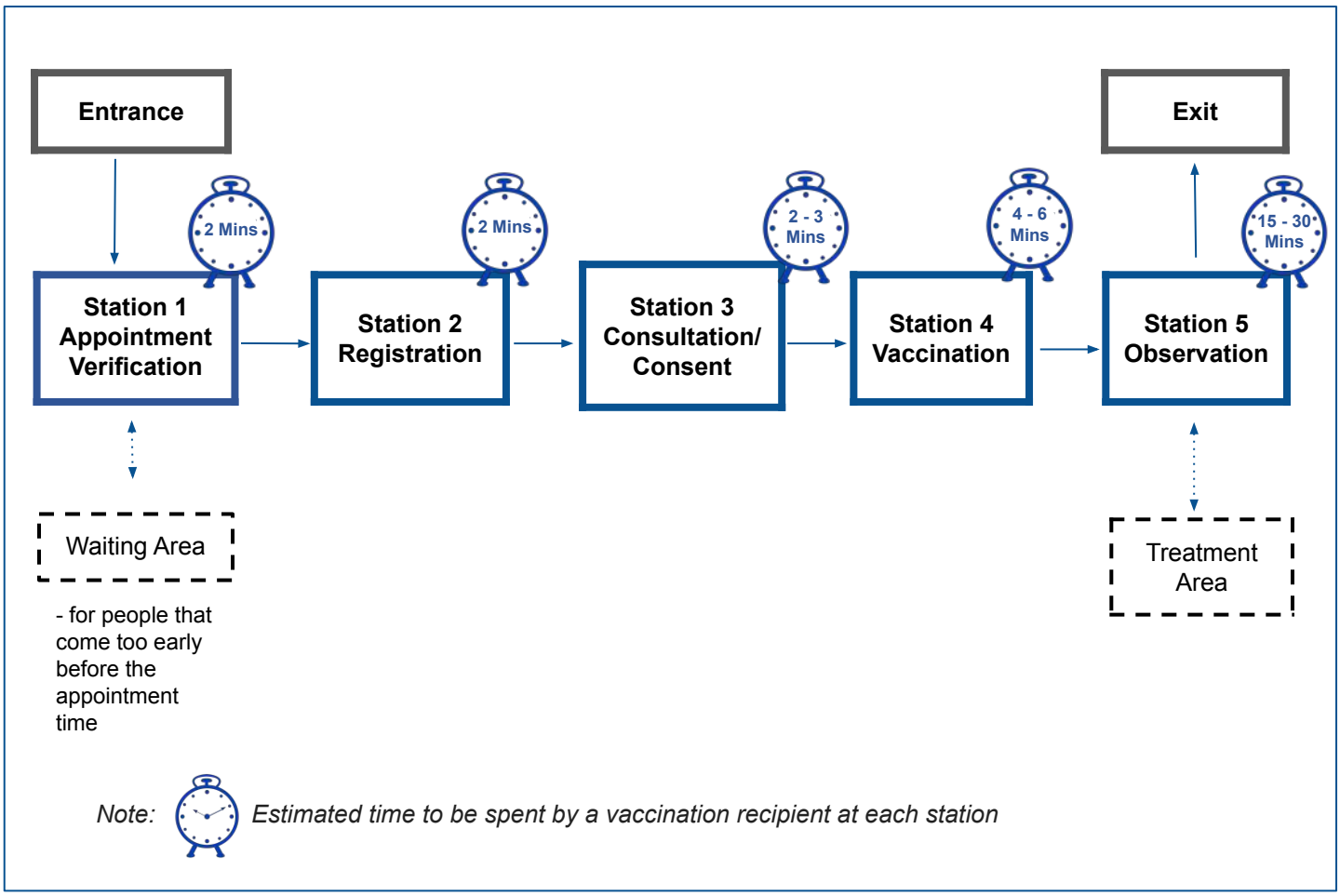
- **Left panel: simulation parameters** of a mobile VAC scenario that can be adjusted:
  - operation time
  - number of vaccination points
  - estimated injection time
  - estimated post-injection (observation) time
  - number of people arriving at a specific time delay (crowd delay)
- **Right panel**: **simulation results** (based on the simulation parameters on the left panel), which include the estimated number of vaccine recipients registered for the mobile VAC, waiting time, average/min/max number of vaccine recipients at the observation station etc., along with some graphs to visualise the statistics of the vaccination process that can be useful for identifying potential bottlenecks.



Section 3.2 : Mobile VAC Flow Guide

3.2.1 Mobile VAC Flow

A mobile VAC should have FIVE stations where the estimated total duration for vaccine recipients to complete the vaccination is between 35 to 40 minutes. The flow, details and the estimation of the duration for each station are illustrated below. The implementation of Station 1 until Station 3 may be co-located according to the logistics suitability to optimise the completion duration. The process in some stations may be conducted in an adjacent building or under a shaded area (e.g., giant tent).



Source:
Sukarelawan Wilayah Persekutuan

3.2.2 Station Guide

Station 1: Appointment Verification

This station will check the vaccine appointment for the day. Only vaccine recipient(s) with appointment(s) for the day will be allowed to proceed to Station 2 for registration.

Set-up

- Laptop/tablet with internet connectivity
- Direction signage: Station 2, Exit

Individuals requiring pre-vaccination assessment (PVA) will be instructed to provide the letter issued by their doctor.

SOP / Processes

- Check vaccine recipient's temperature and identify symptoms
- Validation of IC and appointment in MySejahtera (using the IC Reader, if available)
- Consent forms need to be filled in by the vaccine recipient, either manually or electronically
- The vaccine recipient moves to Station 2
- Reschedule appointment if the vaccine recipient has symptoms and cannot be vaccinated at that time

Manpower

- Medical : -
- Non-Medical : One person per Appointment Verification Point

Source:
Wilayah Youth Volunteer (WYVO)

Source:
Wilayah Youth Volunteer (WYVO)

Station 2: Registration

Station Guide

This station focuses on registration validation. Only a vaccine recipient that has registered will be vaccinated.

Set-up

- Laptop/tablet with internet connectivity
- Direction signage: Station 3
- Mobile VAC QR code

SOP / Processes of the vaccine recipient

- The vaccine recipient scans QR code
- Staff updates the vaccine recipient's visit status in MyVAS
- The vaccine recipient fills up vaccine card and gets a queue token
- The vaccine recipient moves to Station 3

Manpower

- Medical : -
- Non-medical : One person per Registration Point

All stations will be equipped with communication tools to aid the OKU vaccine recipients. Staff and volunteers with the relevant skill sets are best to be stationed here for duty.

Source:
Wilayah Youth Volunteer (WYVO)

Source:
Wilayah Youth Volunteer (WYVO)

Station 3: Consultation and Consent

Station Guide

At this station, the vaccine recipient can consult a doctor on their medical condition and their suitability to be vaccinated. The vaccine recipient will also sign the consent form at this station.

Set-up

- Direction signage: Station 4
- Bin/box for consent form collection

- Elevated and adjustable platforms at Station 3 for OKU vaccination
- The Consent Form for OKU can be signed by the carer

SOP / Processes

- Doctor provides consultation to the vaccine recipient
- Upon consultation, vaccine recipient signs Consent Form and submits to the doctor to be endorsed
- The vaccine recipient moves to Station 4

Manpower

- Medical : One doctor per Consultation and Consent Point
- Non-medical : One person to assist every two doctors

Source: DBKL

Station 4: Vaccination

Station Guide

The Vaccination Station is the dedicated area for the vaccine administration.

Set-up

- Area and equipment to prepare vaccine
- *Borang Daftar Nombor Siri MyVAS*
- Ambient thermometer - vaccination area must be near air-conditioned areas and cold chain to be observed always
- Direction signage: Station 5
- A large tent that covers both Station 4 (mobile vaccination vehicles) and Station 5 under a single large tent (as a precaution for rainy weather)

Elevated and adjustable platforms at Station 4 for OKU vaccination.

Some OKU vaccine recipients may need to use special rooms for privacy .

SOP / Processes

- The vaccinator prepares vaccine, which must be administered within 10 minutes of preparation
- The vaccinator explains the procedure to the vaccine recipient
- The vaccine recipient agrees and the vaccinator administer vaccine according to the vaccination SOP
- The vaccine recipient scans QR code to confirm that vaccine is administered
- The vaccine recipient moves to Station 5
- The vaccine must be restocked as required

Separate section for Vaccination Station needs to be provided for VAC that is set up at house of worship.

Manpower

- Medical : Two vaccinators per Vaccination Point (preferably one male and one female)
- Non-Medical : Two people as vaccinator assistant per Vaccination Point

Source: https://www.reuters.com/world/asia-pacific/shots-wheels-malaysia-goes-mobile-with-mass-vaccine-rollout-2021-06-08/

Source: Pejabat Daerah Muar

Station 5: Observation

Station Guide

After being vaccinated, the vaccine recipient will proceed to this station to be observed between 15 to 30 minutes to ensure they have no AEFI (adverse reaction or allergy to the vaccine).

Set-up

- Ambulance (preferably 2 units)
- Two Observation Zones based on medical conditions
  - Zone for 15 mins and 30 mins observation
- Laptop for MyVAS update
- Usage of exhaust pipe to manage pollution from vehicle
- Direction signage: Treatment, Exit

Elevated and adjustable platforms for monitoring at Station 5 for OKU observation.

Separate section for Observation Station needs to be provided for VAC that is set up at house of worship.

SOP / Processes

- Staff to inform the vaccine recipient about AEFI
- If there are any complications, the vaccine recipient will be taken to the Treatment Area
- The vaccine recipient will be given the second vaccination appointment (refer to Appendix 6) and Vaccination Certificate (only for those who have completed the full dose)

Manpower

- Medical : One medical staff
- Non-medical : One assistant

An adverse event following vaccination (AEFI) is any untoward medical occurrence which follows vaccination and does not necessarily have a causal relationship with the usage of the vaccine. The adverse event may be any unfavourable or unintended sign, abnormal laboratory finding, symptom or disease.

Source:
Facebook DBKL

If the vaccine recipient is observed to have any adverse or allergic reaction to the vaccine, the vaccine recipient will be taken to the Treatment Area for early treatment.

Set-up

- Treatment equipment set-up according to MOH Policy

SOP / Processes

- Vaccine recipient to be treated and observed according to treatment SOP
- Ambulance to be ready at all times in case the recipient needs to be treated at the nearest hospital

Manpower

- Medical : One to two doctors and one assistant

Images Source: VAC Klinik Kesihatan Buntong, Ipoh

Medical equipment and medicine requirement from MOH at Treatment Area

Medical Equipment

- Stethoscope
- NIBP set
- Thermometer
- PPE Set
- Face mask
- Bag valve mask
- Airway set
- Oxygen
- Pulse oximeter
- Glucometer
- Drip stand
- IV drip (0.9% sodium chloride, Hartmann's dll)
- Couch, pillow, sheet
- IV Branula, Disposable syringe, micropore dll
- PPE – Gloves, apron, face mask, etc
- Clear plastic (in case CPR is required)
- Manual external defibrillator

Medicine

- Piriton 4mg tablet
- Chlorpheniramine Maleate 10mg/ml injection
- Hydrocortisone 100mg injection
- Paracetamol 500mg tablet
- Mefenamic Acid 250mg capsule
- Maxolon 10mg tablet
- Calamine lotion
- Adrenaline 1mg/ml injection
- EpiPen (if available)
- Water for Injection 10ml

Reference :
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, Tugas dan Tanggungjawab Anggota Kesihatan, p.70

Section 4: Communication

Pre-Vaccination Communication

- An Appointment Reminder is to be sent to the vaccine recipient approaching the appointment date. The Reminder will need to emphasise that the vaccine recipient is to be at the VAC at least one hour before their appointment
- A video for vaccine recipients preparation
  - Mobile VAC process flow
  - Drive-through process flow
- Give a clear location address of the drive-through VAC to ensure patients go to the right location and are aware of the entrance and exit flow
- Remind vaccine recipient to wear suitable clothing for vaccination process. All vaccine recipients must wear a mask throughout the entire process
- Vehicles to drive-through VAC should not be tinted
- Vaccine recipient must make sure their vehicle is in working order and has a full tank of petrol/diesel or is fully charged to ensure a smooth vaccination process
- ONLY PASSENGERS riding two or four-wheel vehicles are welcomed* to the outdoor VAC (four-wheel vehicle to be a minimum of two people, maximum of four people (for 4 and 6 seater vehicle).
- Clear signage to guide vaccine recipients should be displayed

Second-dose Reminders

- Schedule the first and second dose at the same location, preferably at the same time
- Remind the vaccine recipients to check for their second dose appointment on MySejahtera

AEFI

- Inform vaccine recipients that there are three ways to report any side effects/ AEFI:
  - Inform the medical facility
  - Through MySejahtera
  - Through the NPRA ConSERF site at www.npra.gov.my

*Note: comply with the National Security Council advisory according to the vehicle's seating capacity.

All stations will be equipped with communication tools to aid the OKU vaccine recipients. Staff and volunteers with the relevant skill sets are best to be stationed here for duty.

It is not recommended for an OKU driver to receive the vaccination.

All vaccine recipients and VAC visitors should respect the rules at the VAC, including those set up at house of worship.

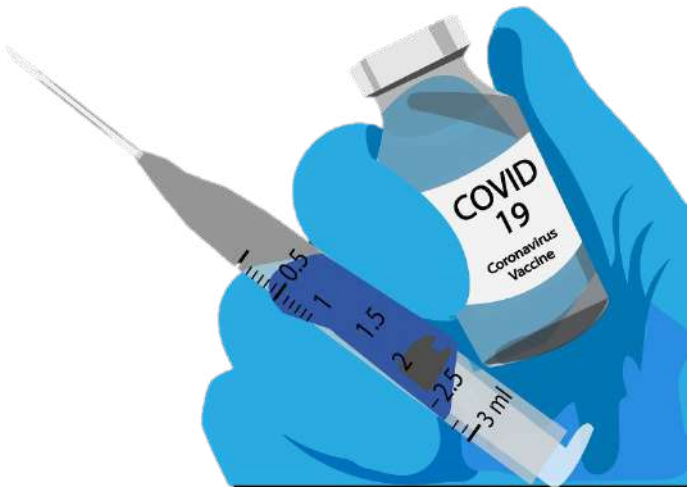
- Modest dress code
- Keep noise down
- Do not enter holy/forbidden area
- To proceed to designated area for each gender

Most commonly reported side effects:

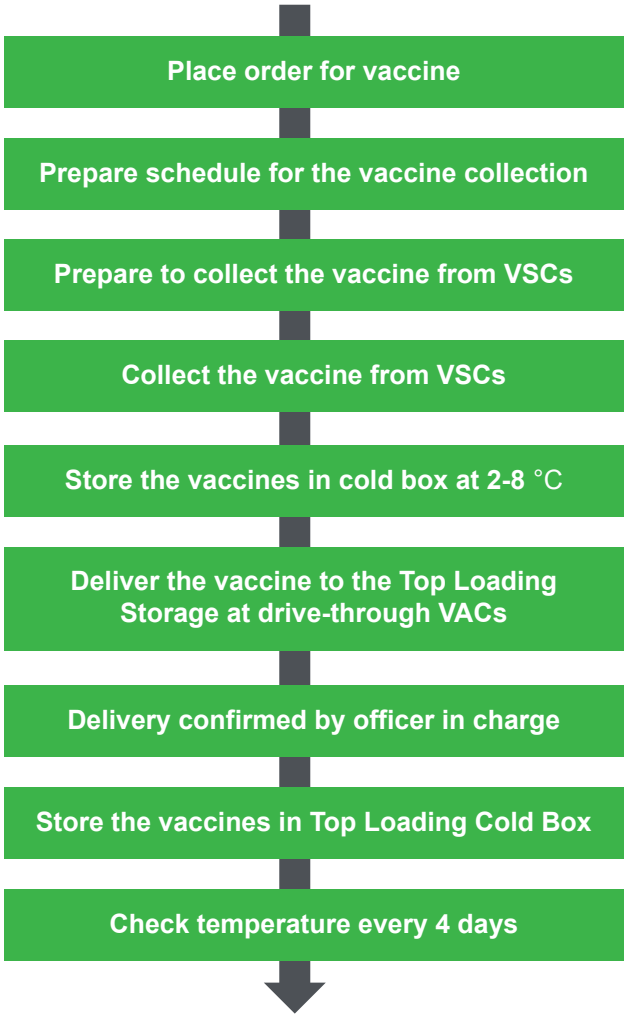
- pain/swelling/redness at the injection site
- tiredness
- headache
- chills
- joint pain
- fever
- nausea
- feeling unwell
- swelling of lymph nodes
- other side effects that may be reported from time to time

Reference :
COVID-19 Mass Vaccination Drive-Through Playbook, 2021 (Updated), p.17 National COVID-19 Immunisation Plan Book, 2021, p.18

Section 5: Vaccination Storage and Handling



Process Flow for Delivering Vaccines from Vaccine Storage Centres (VSC) to the drive-through VAC



Source: Rajah 4.1: Carta Aliran Pengambilan Vaksin Dari Pusat Vaksin, Garis Panduan Pelaksanaan Pemberian Vaksin, MOH

On-Site Vaccination Storage

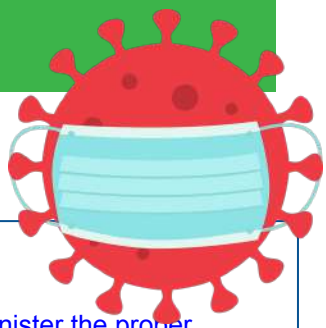
- Only authorised personnel are allowed to handle and check vaccines supply
- Record vaccine delivery
- The person in charge must not leave the vaccine cold box unattended
- Ensure cold chain is well administered
- Ensure portable freezers and refrigerated cold storage units comply with the specification and the temperature is maintained at 2-8 °C at all times
- Prepare power supply back up with generators (in case of power loss)
- Use a temperature monitoring device to monitor vaccine storage temperature
- Check expiration dates for vaccination equipment such as vaccines, diluents, needles, syringes, and alcohol wipes
- Exercise good temperature monitoring and documentation
- Make sure there is a proper ventilation system for the vaccine storage area

Reference :
COVID-19 Mass Vaccination Drive-Through Playbook, 2021 (Updated), p.21
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, p.12-

Preparation for COVID-19 Vaccination

Preparation of the vaccine cold chain for vaccination

- Make sure the number of vaccines is sufficient according to the daily list of vaccine recipients.
- Make sure the cold network system is maintained at a temperature of 2 to 8 °C.
- Remove the required vaccines from the top-loading and continue to place it in the cold box.
- Make sure the cold box storage temperature is within the ideal temperature.
- Check vaccines for batch number and expiration date (FIFO-first in first out).
- Develop a plan to finish all vaccines within five (5) days from the date received
- Make sure three cold boxes are provided for **each** vaccination point:
  - Cold box 1: Store vaccine stock
  - Cold box 2: Current use
  - Cold box 3: Ice packs



Reverse Cold Chain in the National COVID-19 Vaccination Programme

- Reverse cold chain means the return of unused vaccines into existing stock. In this case, the vaccine in the unopened vial should be re-inserted into the top-loading by adhering to the vaccine cold chain care guideline and maintaining the vaccine temperature of 2 to 8 °C throughout the reverse cold chain.

What is meant by the term five days vaccine period can be used from the date of vaccination at ULTF/Thermal Shipper?

- Vaccines that have been removed from the ULTF/Thermal Shipper should be maintained in the temperature range of 2-8 °C.
- Vaccine that are stored within the temperature range can be used for a period of five days (from the date of delivery from the ULTF/Thermal Shipper storage centre).
- After five days, the vaccine can no longer be used and should be disposed of.

Dose per vial

- Make sure to administer the proper dosage per vial to ensure optimal use of the vaccine*
- For example, if there are 30 vaccine recipients in the enrolment list, take out five vials from the vaccine top-loading storage (one vial can vaccinate six people).

Timeframe for administering a mixed vaccine

- Vaccines that have been mixed with NaCl diluent can be used within 6 hours (with a constant temperature between 2 to 8 °C).

Percentage of vaccine waste allowed

- 15%

Proper Clinical Waste Disposal

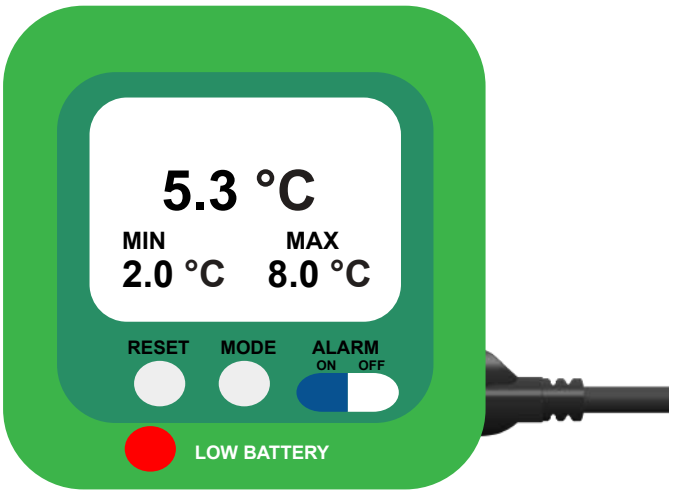
- Swabs and gloves are to be disposed into the yellow biohazard bag
- Used, empty and mixed vials, syringes and needles are to be disposed into the sharp bin
- Opened vials containing unused vaccine are required to be disposed into the sharp bin

Reference :
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, p.82-83

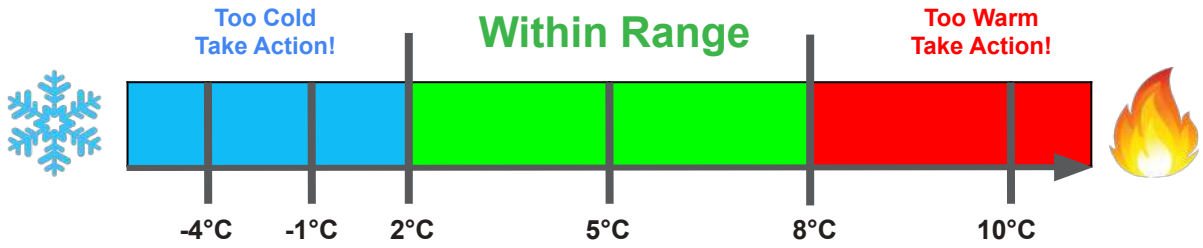
Daily Vaccination Temperature Monitoring

- Check and use the temperature chart to record temperature twice daily, make sure it is maintained at 2 to 8 °C.
- Top-loading refrigerator can be opened a maximum of two times per day.
- Make sure a sufficient amount of ice packs are available for the cold box.

Ideal Vaccination Handling Temperature



Vaccination Temperature Control



Vaccines should be stored at a temperature of 2 to 8 °C.
Never freeze vaccines, and report out-of-range temperatures immediately!

Images Source: VAC Klinik Kesihatan Buntong, Ipoh

Only vaccinators authorised by MOH are allowed to handle and perform vaccinations

EMERGENCY RESPONSE

- Inform pharmacy officer in-charge.
- Pharmacy officer in charge should contact the local VSCs.
- Inform the total amount of time the refrigerator temperature is not within the desired range.

Reference :
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, p.15
Temperature Monitoring Best Practices for Refrigerated Vaccine- Celsius C. Centers for Disease Control and Prevention.
https://www.cdc.gov/vaccines/hcp/admin/storage/downloads/A-vax-temp-best-practices-fridge-C.pdf

Section 6: Manpower

The COVID-19 Vaccination Team is crucial for the success of the drive-through and mobile VAC. The team will coordinate, prepare, monitor and execute the vaccination operation at the drive-through VAC and determines vaccination completion targets, operational objectives and the response strategy. A complete Operational Team consisting of medical and non-medical staff plays an important role in ensuring the day-to-day vaccination process is carried out smoothly. The team can consult and work with local CITF to ensure a centralised and smooth operational process.

The proposed composition of both teams is as follows:

COVID-19 Vaccination Team

- Coordinator
- Assistant Coordinator
- Officer for Safety and Health
- Public Information Officer
- Technical and IT
- Logistics
- Finance

Operational Team

- Medical Staff
  - Medical Officer, Nurse, Assistant Medical Officer
- Non-medical Staff
  - Volunteers for Registration, Patient Charting, Flaggers, Line Attendants, Traffic Control/Security

The following partners and their associated responsibilities are critical to the success of this effort:

- Local CITF Task Force consists of
  - Local Government
  - State Health Department
  - State Government
  - Local Law Enforcement
  - Auxiliary Resources
  - MyVAC (COVID-19 Volunteering System)

Rehab doctors, staff with sign language skills, extra volunteers to be positioned at VAC for OKU vaccine recipients

Training for Staff

- Staff should be well-informed of their responsibilities
- Training should be provided to equip personnel with the suitable competencies
- Volunteers for the drive-through VAC in your local area can be found through MyVAC. It is a centralised volunteering programme created by the Government purposely to help with the National COVID-19 Vaccination Programme. Training and allowances are provided for them.

Reference :
COVID-19 Mass Vaccination Drive-Through Playbook, 2021 (Updated), p.8
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, Tugas dan Tanggungjawab Anggota Kesihatan, p.10-11

Staff Roles and Task Delegation

Medical Officer

- Responsible for the management of the drive-through and mobile VAC (i.e., vaccine stock quantity needed and readability based on target vaccine recipients, briefing to staff)
- Ensure that all health personnel understand the work process and comply with SOPs regarding vaccination
- Treat vaccine recipients in case of side effects
- Advice vaccine recipients about the risk of side effects after vaccination during observation
- Provide a referral for the hospital in case of an AEFI emergency, if further treatment is required at a hospital

Nurse

- Provide a list of recipient names based on the daily vaccination target
- Ensure all disposable equipment and supplies are adequate before vaccination begins
- Collect the vaccination consent form before the vaccination session begins
- Provide attachments of vaccine information to vehicles
- Provide vaccination according to the work process that has been described
- Ensure adherence to vaccine cold network vehicle practices
- Estimate the availability of vaccines required at the facility level
- Record the receipt and use of vaccines at the facility level
- Ensure that vaccine wastage in VAC is kept to a minimum according to the type of vaccine
- Supervise vaccination by medical/ dental graduates, nurse trainees and Assistant Medical Officers if necessary

Assistant Medical Officer/ Pharmacist

- Provide treatment in case of side effects after vaccination during observation
- Make a referral to the Medical Officer in case of emergency regarding side effects after vaccination
- Report side effects after vaccination
- Administer vaccinations, if needed
- Make an appointment for the upcoming visit and record it on the vaccination card

Non-Medical Staff (Volunteers (Flaggers, Line Attendants, Traffic Control/Security))

- Control visitors/vehicles that fail entrance filtering
- Assist during registration prior to vaccination
- Assist in distributing vaccine acceptance forms and vaccine information
- Assist in providing information related to vaccination
- Help point in the direction of the vaccine injection site
- Traffic control
- Monitor security
- Assist in the daily garbage disposal and keeping the area clean

Certified staff (e.g., occupational therapist, rehab doctors) will be assigned to support mental illness/autism vaccine recipients. Staff and volunteers should be trained in sign language to be positioned at VAC for OKU vaccine recipients.

Reference :
Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan, Edisi 1 Februari 2021, Tugas dan Tanggungjawab Anggota Kesihatan, p.10-11

Section 7: Contingency Plan

A Contingency Plan allows VACs to be prepared for any adverse or risks. The possibilities are as follows:

1. Insufficient vaccines
    - Reschedule appointment
    - Contact nearest VSCs to check for supplies
2. No shows
    - Give vaccine to those who are around the drive-through VAC
3. IT System Failure
    - Record in MyVAS will be uploaded when the internet is available (must be before 12.00 noon)
    - Standby manual registration and record-keeping
    - Print vaccine recipients line-listing as a backup of internet and power supply.
    - If vaccine recipients do not have MySejahtera/unable to scan vaccine code, update the vaccination code in MYVas based on the station
    - Prepare a list of line-listing backup record in a Spreadsheet software (e.g., Excel)
4. Internet Connection Failure
    - All area should be covered with six router for the best coverage. For the blindspot wifi area, additional wifi extenders should be installed
    - Prepare additional 4G modem routers that are sufficient to cover the working area
    - In case there is no internet connection, users will have 2-3 minutes downtime to switch to the backup 4G modem routers
5. Weather Condition/Weather Mitigation
    - Educate personnel about the symptoms of cold and heat stress, how to prevent it and what to do to help those who are affected
    - Create a roster to avoid long hours without breaks
    - Remind staff to stay hydrated and provide sufficient drinking water supply
    - Provide additional canopies for shelter
    - Provide tent shelter at designated locations
    - Provide umbrellas, raincoats, boots for staff
    - Allow for a temporary break if a heavy downfall occurs
6. Vehicle Related Issue Breakdown (For Drive-Through VAC)
    - Breakdown - Engage a tow truck to be on standby for vehicles that break down
    - Prepare designated parking spot for further action
    - Usage of exhaust pipe to manage pollution from vehicle

Section 8: Application for Outdoor VAC Operation

Organisations that are interested to apply to operate a Vaccination Administration Centre (VAC) will need to send an application by mail or e-mail to the COVID-19 Immunisation Task Force (CITF).

Address:
Ketua Sekretariat, Pasukan Petugas Khas Program Imunisasi Covid-19 Kebangsaan, Aras 3, Blok F1, 62000 Putrajaya, Wilayah Persekutuan Putrajaya. (U.p : Pn. Ruziah Shafie)

Email: pmt-citf@mosti.gov.my and copy to norleen6052@gmail.com; chuayw@mohr.gov.my; ammielyya@akademisains.gov.my; syafiq@akademisains.gov.my

All application need to reach CITF at least two (2) weeks before the planned date of the operation. The application will then be evaluated by **Jawatankuasa Pembukaan Pusat Pemberian Vaksin (PPV) Program Imunisasi Covid-19 Kebangsaan.** Your organisation will be contacted for a presentation based on your application.

Please submit your application along with the following documents:

1. Filled VAC Requirement Checklist
2. Filled Checklist based on your preferred mode (drive through or mobile)

VAC Requirement Checklist

Organiser

- [ ] Objective is defined
- [ ] Vaccination operation for Corporate Service Responsibility (CSR) will be referred to the Ministry of Health
- [ ] Vaccination operation under private organisation will be managed by Protect Health
- [ ] Funding is borned by the organiser
- [ ] Coordination with strategic partner

Training and Certification

- [ ] Medical officers completed the one (1) day of online training
- [ ] Training participants have been certified by the Ministry of Health

Manpower

- [ ] Medical manpower have been identified
- [ ] Non-medical manpower have been identified

Assets and Support

- [ ] Complete list of equipment have been identified
- [ ] Logistics flow have been identified
- [ ] Station layout and traffic flow have been identified, refer appendix as reference (please attach the planned layout along with the application)

Processes and set up

- [ ] VAC are in the range of 15-30 minutes drive to hospital/medical centres
- [ ] Ample space for each station/points
- [ ] Sufficient space for Station 5: Observation to minimise congestion
- [ ] Sensory/calm rooms
- [ ] OKU toilets

Capabilities and Range

- [ ] The amount of vaccine recipient and vaccine doses administered have been precisely identified
- [ ] Capable to store and prepare the vaccine for the entire operation

Drive-Through VAC Requirement Checklist

☐ Station 1

- Appointment Verification signage
- Temperature thermometer
- COVID-19 Vaccination Administration Consent Form
- ID Card reader
- Volunteer officer
- Traffic officer

☐ Station 2

- Registration Station signage
- PPV QR code signage
- Laptop
- MyVAS system and VMS system
- Recipient vaccination card
- Printed list of names as backup
- Volunteer officer
- Traffic officer
- Stationary (Pen/ClipBoard)

☐ Station 3

- Verification and Consultation signage
- Stationary and doctor’s verification stamp
- Box for consent form storage
- Medical officer - Doctor
- Volunteer officer
- Traffic officer

☐ Station 4

- Vaccination signage
- Trolleys for vaccination equipments
- Vaccination equipments
- MyVAS number registration form
- Vaccine Cold Box
- Medical Officer - Two vaccinators
- Volunteer officer
- Traffic officer

☐ Station 5

- Observation Signage
- Volunteer officer
- Traffic officer
- Stationary
- AEFI reminders flyers

☐ Treatment Area

- Ambulance
- Medical equipment and medicine

Mobile VAC Requirement Checklist

☐ Station 1

- Appointment Verification signage
- Temperature thermometer
- COVID-19 Vaccination Administration Consent Form
- ID card reader
- Volunteer officers
- Traffic officers

☐ Station 2

- Registration Station Signage
- PPV QR code signage
- Laptop
- MyVAS system and VMS system
- Recipient's vaccination card
- Printed list of names as backup
- Volunteer officers
- Traffic officers
- Stationary (Pen/ClipBoard)
- Wheelchair

☐ Station 3

- Verification and Consultation signage
- Stationary and doctor's verification stamp
- Box for consent form storage and stationery
- Medical officer - Doctor
- Volunteer officers
- Traffic officers

☐ Station 4

- Vaccination signage
- Trolleys for vaccination equipments
- Vaccination equipment
- MyVAS numbebox
- Medical officer - 2 vaccinators
- Volunteer officers
- Traffic officers

☐ Station 5

- Observation signage
- Volunteer officers
- Traffic officers
- Stationary
- AEFI reminders flyers

☐ Treatment Area

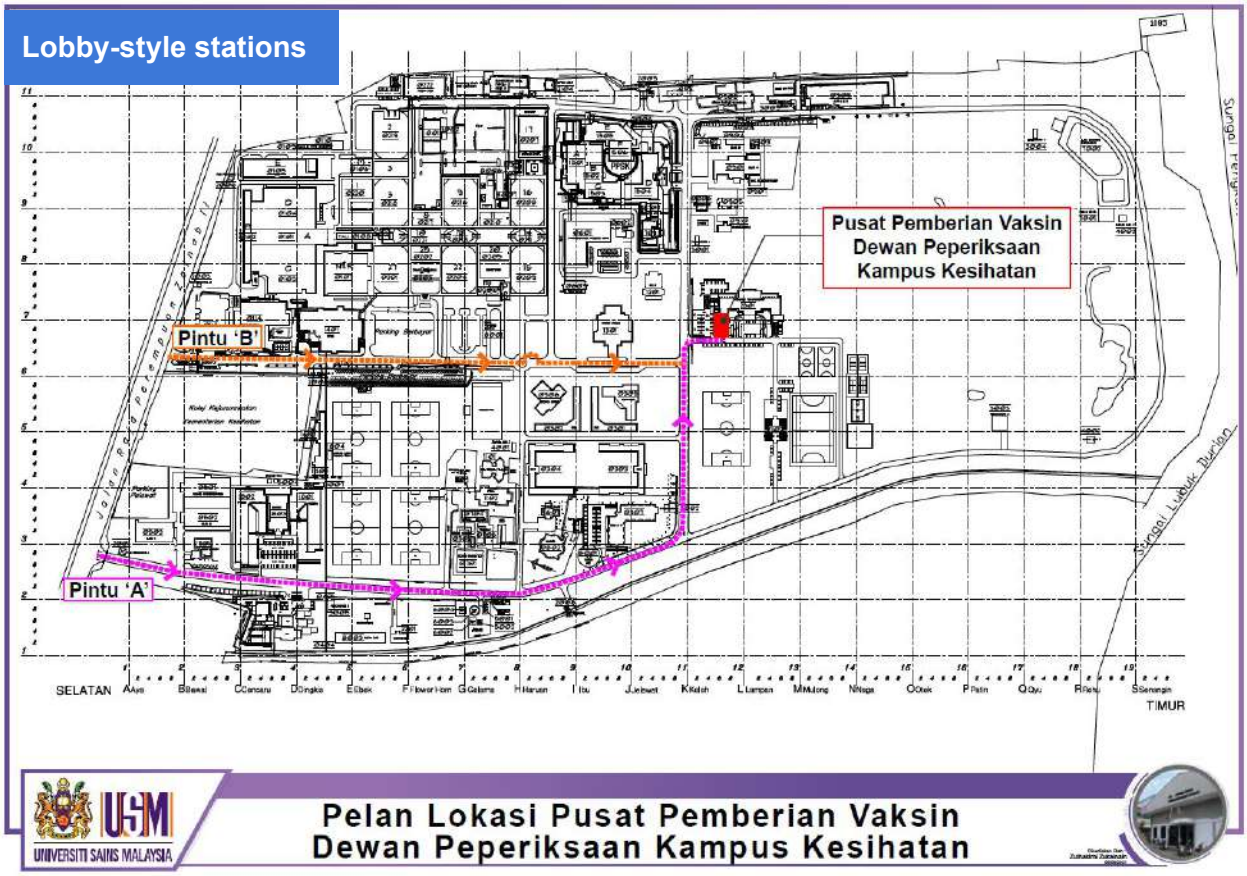
- Ambulances
- Medical equipment and medicine

APPENDIX

PILOT PROJECT 1

Location	Hospital USM, Kubang Kerian

Lobby-style stations



Some pictures from the implementation are as below:

Flow plan and information contributed by:
Designer Team, Unit Pembangunan Kampus Kesihatan - HUSM

PILOT PROJECT 2

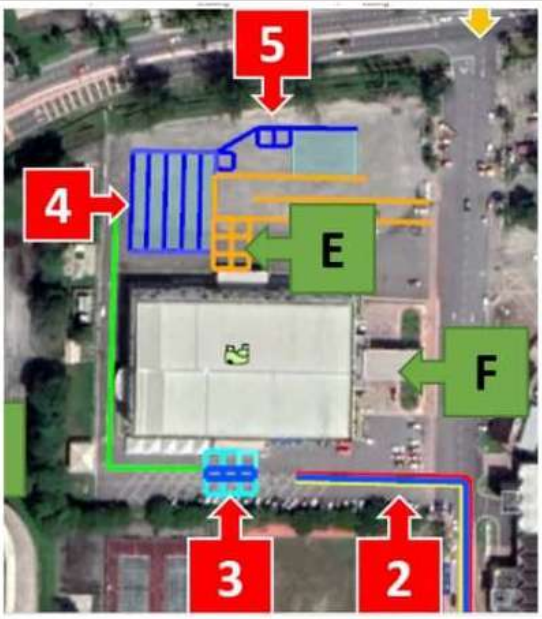
Location	Stadium Indera Mulia, Ipoh

Tent-style stations

PELAN LALULINTAS

A	Pintu Masuk Drive-Tru (DT) DOS2
B	Pintu Keluar DOS1 & Drive-Tru DOS2, Pintu Masuk DOS 1
C	Alternatif Parking Petugas
D	Parking Penerima vaksin DOS 1
E	Ruang Menuggu & Pickup Wheel Chair
F	PPV Stadium Indera Mulia (SIM) - DOS 1
1	DT Checkpoint 1 : Semakan
2	CP 2 : No Giliran, Kad Vaksin
3	CP 3 : Pendaftaran, Cucuk Vaksin
4	CP 4 : Observation Area
5	CP 5 : Pertanyaan & Pemeriksaan Akhir
-----	*Car Queue line* 1 = 290m (1000') = 100 *Car*
-----	*Car Queue line* 2 = 460m (1500') = 150 *Car*
-----	*Car Queue line* 3 = 790m (2500') = 250 *Car*
-----	*Car Queue line* 4 = 120m (440') = 44 *Car*
-----	*Car Queue line* 5 = 30m (120') = 6 *Car*

STADIUM AREA



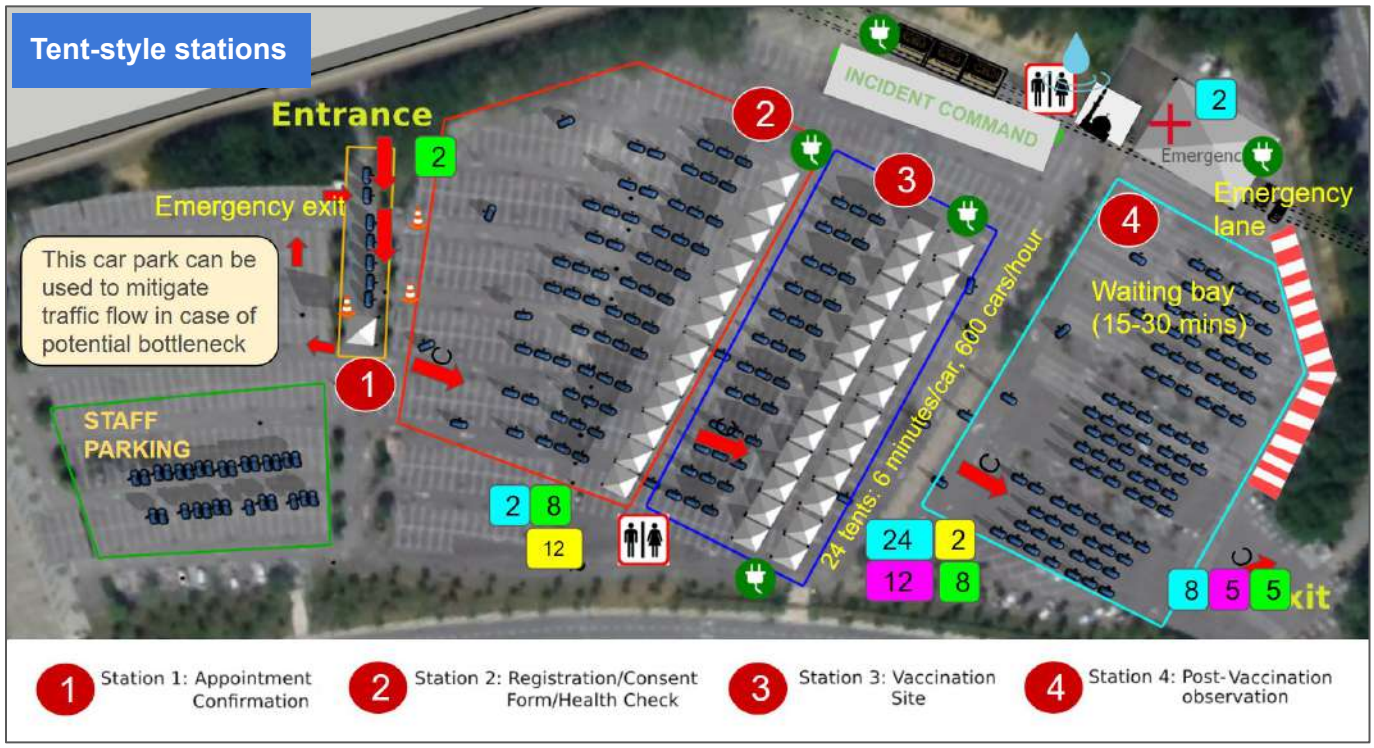
1	DT Checkpoint 1 : Semakan
2	CP 2 : No Giliran, Kad Vaksin
3	CP 3 : Pendaftaran, Cucuk Vaksin
4	CP 4 : Observation Area
5	CP 5 : Pertanyaan & Pemeriksaan Akhir

OBSERVATION AREA

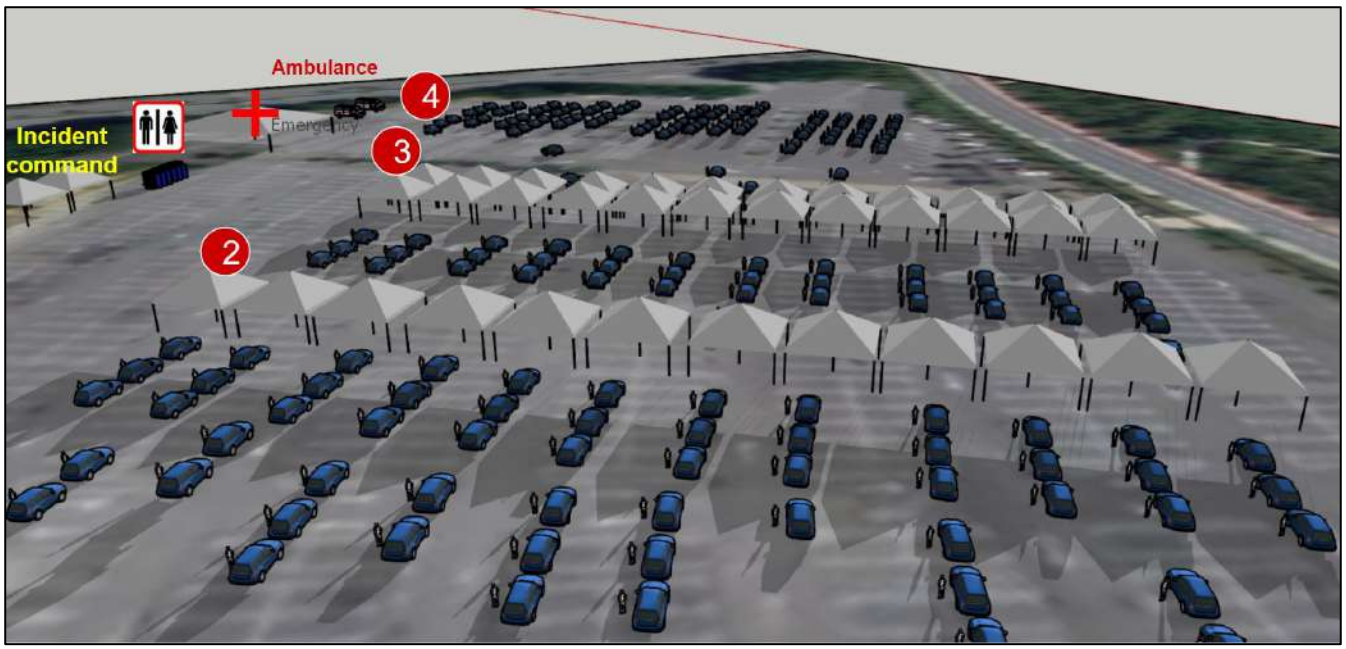
Flow plan contributed by:
Stadium Indera Mulia Vaccination Team

CASE STUDY I: STADIUM VEHICLE PARK

Proposed Drive-Through VAC Layout | Stadium Bukit Jalil carpark



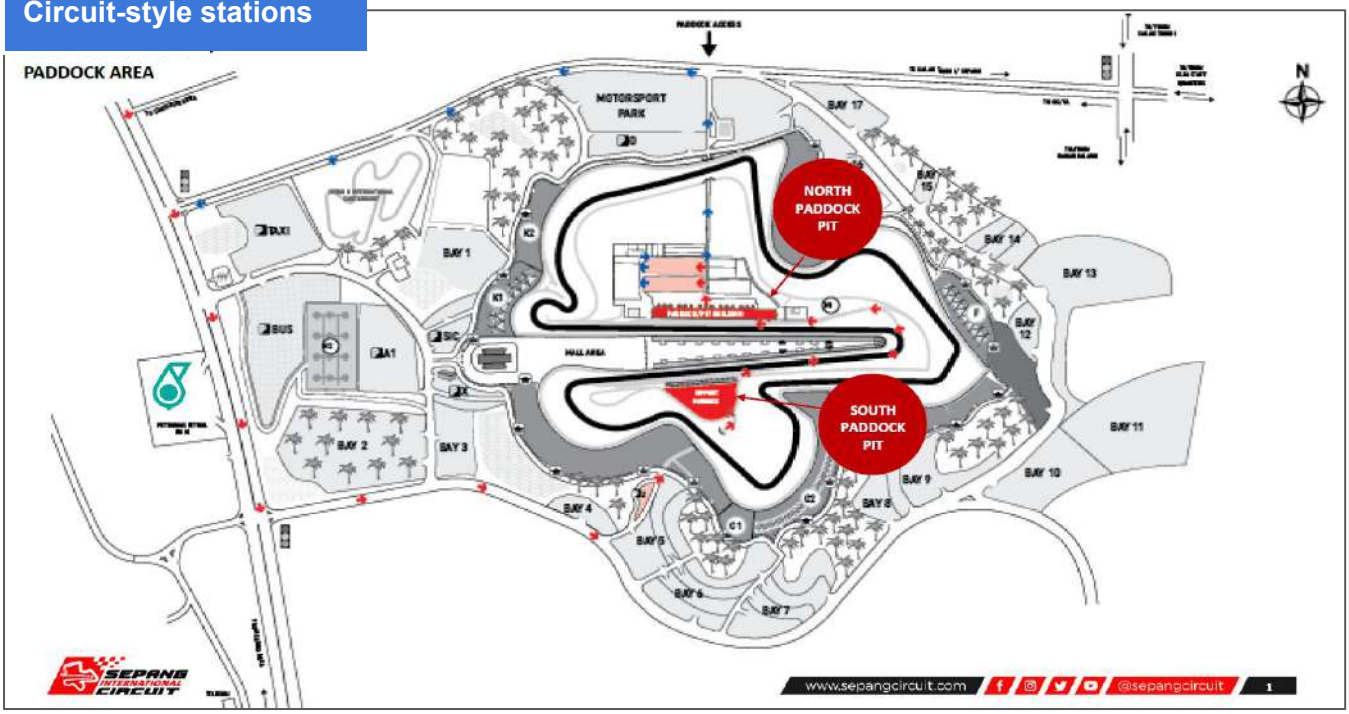
3D Simulation of the Proposed Drive-Through VAC Layout:



CASE STUDY II: CIRCUIT

Proposed Drive-Through VAC Layout | Sepang International Circuit

Circuit-style stations



Example of Station Flow::

1. **Checkpoint 1 (PX) : Appointment check**

2. **Checkpoint 2 (PZ) : Registration**

3. **Checkpoint 3 (South Paddock Pits) : Consultation**

   a. The vehicles queue in the holding area behind the pits
   b. Once a pit is vacant, the vehicle can go into the respective pits
   c. Consultation with doctor and consent form to be handed over

4. **Checkpoint 4 (North Paddock Pits) : Vaccination**

   a. The vehicles queue at the pit entrance
   b. Once a pit is vacant, the vehicle can go into the respective pits
   c. Vaccination will be administered while the vaccine recipient remains in the vehicle

5. **Checkpoint 5 (P1/P2) : Observation**

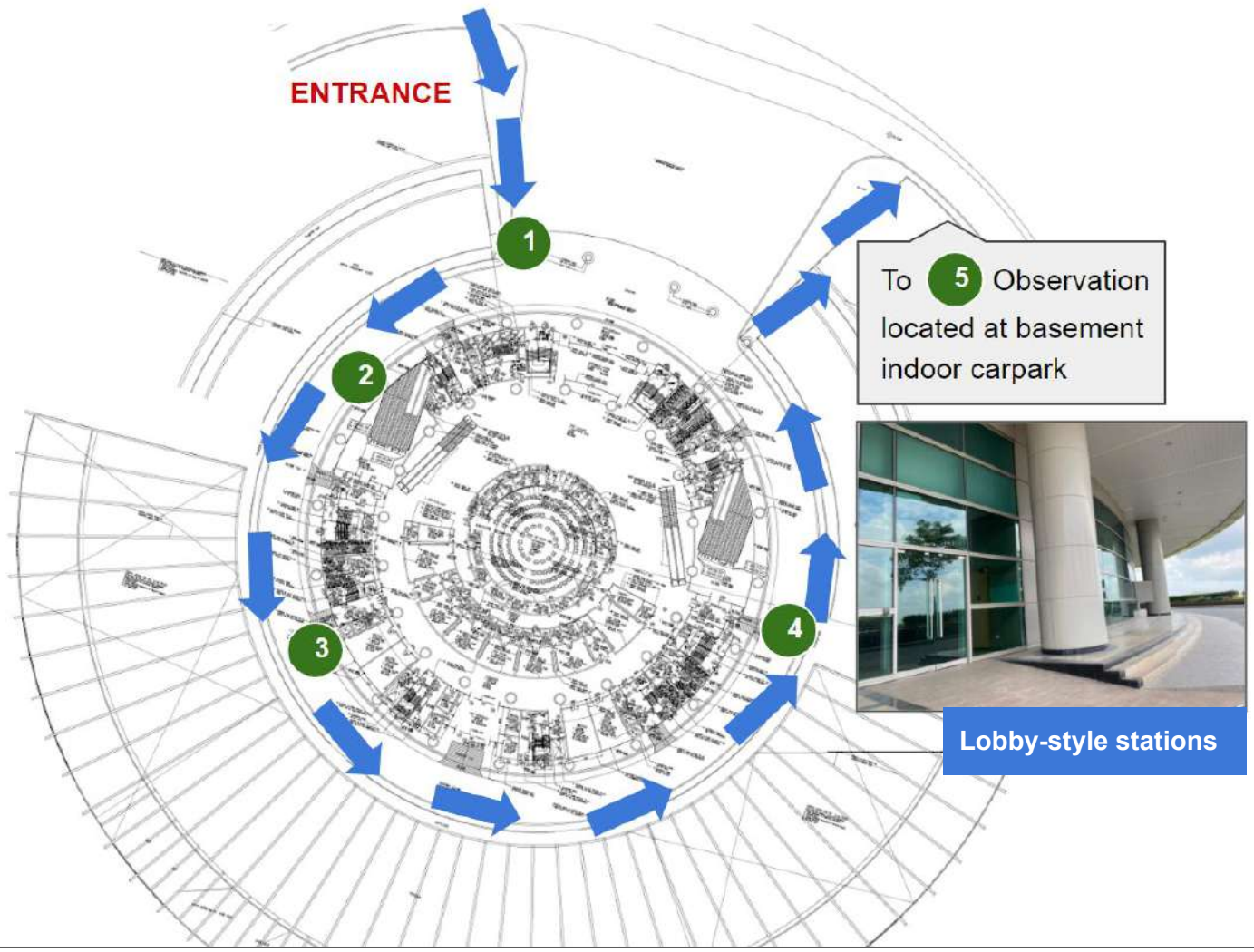
   a. The vaccine recipient proceeds to P1 or P2 parking area to be observed for 15-30 minutes

6. **Treatment: Medical Centre**

   a. In the case of a patient registers an AEFI, they will be escorted from P1/P2 to the Medical Centre for immediate action.

CASE STUDY III: CONVENTION CENTRE

Proposed Drive-Through VAC Layout | **Putrajaya International Convention Centre**

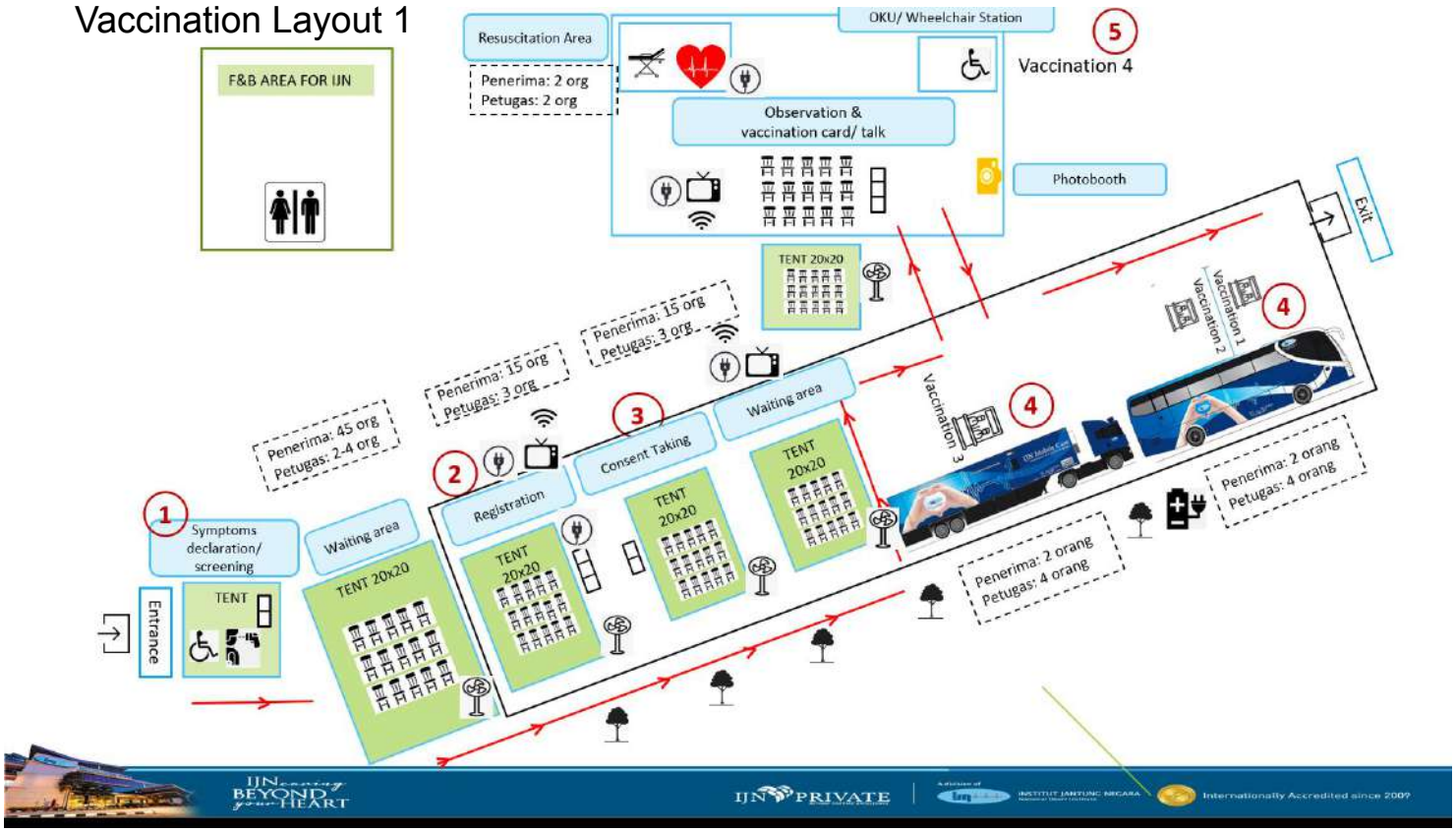


Station 1	Appointment Checking
Station 2	Registration (MyVAS)
Station 3	Consultation/Consent
Station 4	Vaccination
Station 5	Observation
Station 6	Treatment

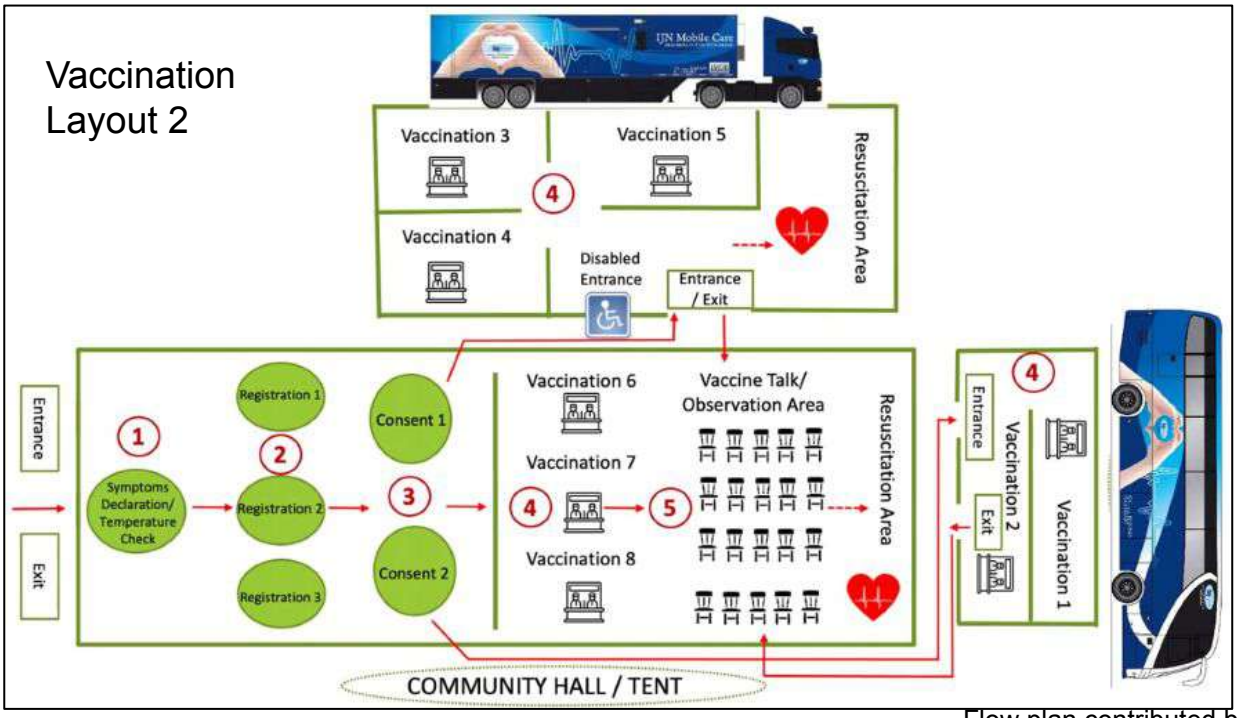
CASE STUDY IV: MOBILE VAC

Proposed Mobile VAC Layout | INSTITUT JANTUNG NEGARA (IJN)

Vaccination Layout 1



Vaccination Layout 2



Flow plan contributed by:
Institute Jantung Negara (IJN)

Appendix 6

Drive-Through Flow Guide

ENTRANCE
DRIVE THROUGH PPV

Vaccine recipient arrives

Coordination Centre?

EXIT
DRIVE THROUGH PPV

Vaccine recipient exit

STATION 1
APPOINTMENT CHECKING

- Appointment / Temperature Verification
- Scan MySejahtera
- Exit if no appointment (can pass through only if there is available slot (no show))
- Reschedule a new appointment if have any symptom(s) and exit

STATION 2
REGISTRATION

- The vaccine recipient scans QR code. A staff updates the vaccine recipient's visit status in MyVAS
- The vaccine recipient fills up vaccination cards and gets a queue token
- The staff marks vehicle to manage the queuing lane
- The vaccine recipient moves to Station 3

STATION 3
CONSULTATION/CONSENT

- The doctor moves around to consult the vaccine recipient
- The vaccine recipient remains in their vehicle
- The doctor provides consultation to the vaccine recipient
- Upon consultation, the vaccine recipient signs consent form and submits to the doctor to be endorsed
- The vaccine recipient moves to Station 4

STATION 4
VACCINATION

- The vaccine recipient remains in their vehicle
- A vaccinator prepares the vaccine
- The vaccinator explains the procedure to the vaccine recipient
- The vaccinator administers the vaccine according to SOP
- The vaccine recipient scans QR code to confirm that the vaccine is administered
- The vaccine recipient moves to Station 5

STATION 5
OBSERVATION

- One doctor observes eight vehicles
- Vehicles will be assigned according to the observation zone
- The vaccine recipients are advised to always unlock their vehicles and unwind the window
- The vaccine recipient to honk and activate the emergency sign should any problem(s) arise
- Vehicle's engine must be switched off (to be decided based on the weather)
- If there is any complications, the vaccine recipient will move to the Treatment Area
- Schedule the second drive-through vaccination appointment to the vaccine recipient

WAITING AREA
DRIVE THROUGH PPV

Vehicle that arrives within 1 hour before the appointment time will have to wait here

TROUBLESHOOT LANE
DRIVE THROUGH PPV

To support vaccine recipient with problems such as undisclosed medical conditions, wrong appointment date, etc.

TREATMENT AREA

- Vaccine recipient to be treated and observed according to treatment SOP
- Ambulance to be on standby

SIGNAGE EXAMPLE

Signage should be clear and easy to read and can be customised according to the suitability of the drive-through VAC.

Lindung Diri
Lindung Semua

INSTITUT JANTUNG NEGARA

JADUAL PERJALANAN VAKSINASI COVID-19

KAUNTER 1: SARINGAN KESIHATAN

1. Pemeriksaan suhu.
2. Pengisytiharan kesihatan.
3. Borang persetujuan (2 salinan).
4. Saringan.

Kawasan Menunggu bagi Pendaftaran
Sila duduk

KAUNTER 2: PENDAFTARAN

1. Imbas MySejahtera.
2. Sahkan My Kad dengan MyVAS.

Kawasan Menunggu bagi Persetujuan
Sila duduk

KAUNTER 3: KONSULTASI & KEBENARAN

1. Kaunseling oleh doktor.
2. Tandatangan borang persetujuan.

Kawasan Menunggu bagi Vaksinasi
Sila duduk

KAUNTER 4: PEMBERIAN VAKSIN

1. Pemberian vaksin.
2. Imbas MySejahtera.

MASA DIVAKSIN:

MASA PEMERHATIAN TAMAT:

DIVAKSIN OLEH :

Nama _____

Tandatangan _____

Tarikh _____

KAUNTER 5: PERMERHATIAN, TEMUJANJI / KAD VAKSINASI

1. Masa pemerhatian tamat.
2. Lengkapkan MyVAS.
3. Kad vaksinasi.
4. Pemberian tarikh dos kedua.
5. Keluar & sesi bergambar.

Sila angkat tangan jika anda memerlukan bantuan.

Sila pakai topeng muka sepanjang masa.

Sila amalkan penjarakan fizikal.

KEMENTERIAN KESIHATAN MALAYSIA

PROTECTHEALTH

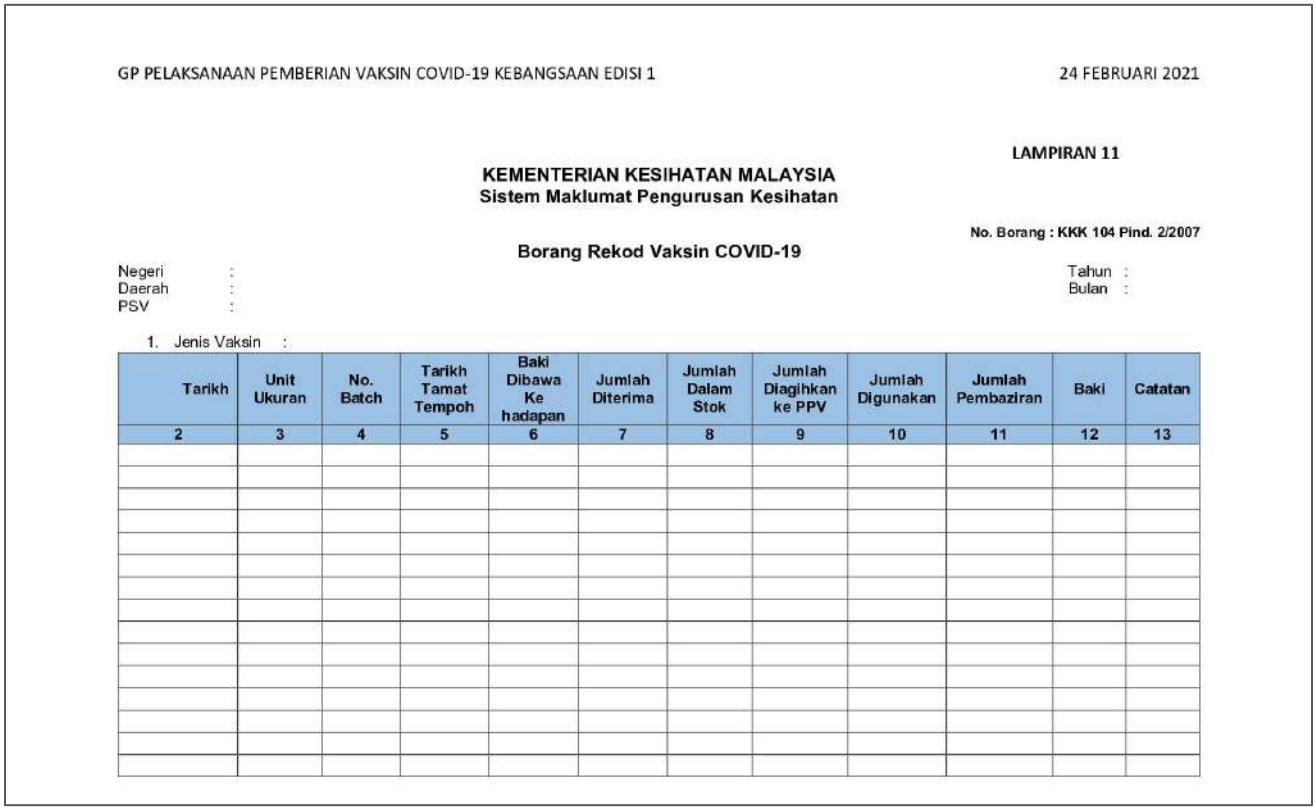
#staysafewithIJN

Akreditasi Antarabangsa sejak 2009

Saya YAKIN IJN

Vaccine Record Form

Medical Staff to fill the vaccination record form to record the daily vaccination usage and report to MOH.



GP PELAKSANAAN PEMBERIAN VAKSIN COVID-19 KEBANGSAAN EDISI 1 — 24 FEBRUARI 2021

LAMPIRAN 11

KEMENTERIAN KESIHATAN MALAYSIA
Sistem Maklumat Pengurusan Kesihatan

No. Borang : KKK 104 Pind. 2/2007

Borang Rekod Vaksin COVID-19

Negeri :
Daerah :
PSV :

Tahun :
Bulan :

1. Jenis Vaksin :

Tarikh	Unit Ukuran	No. Batch	Tarikh Tamat Tempoh	Baki Dibawa Ke hadapan	Jumlah Diterima	Jumlah Dalam Stok	Jumlah Diagihkan ke PPV	Jumlah Digunakan	Jumlah Pembaziran	Baki	Catatan
2	3	4	5	6	7	8	9	10	11	12	13

Vaccination Card

- The card will be issued to certify that vaccination is administered
- The vaccine recipient shall fill in the information required on the vaccination card
- The medical staff shall fill in the second dose appointment date

KAD VAKSINASI COVID-19

NAMA	
NO. KAD PENGENALAN	

Telah menerima suntikan vaksin COVID-19 jenis

Tarikh Temujanji Dos 2

	DOS 1	DOS 2
Tarikh Penerimaan		
Fasiliti Pemberian Vaksin		
No. Kumpulan (Batch No.)		
Tarikh Luput		

TINDAKAN PERLU DIAMBIL SEKIRANYA ANDA MENGALAMI REAKSI SELEPAS TERIMA VAKSIN COVID-19

Sakit dan merah di tempat suntikan Demam, menggigil, sakit kepala, otot atau sendi	Anda boleh mengambil Paracetamol sekiranya perlu
Berasa letih	Anda perlu berehat
Bengkak kelenjar	Akan sembuh dalam beberapa hari
Tanda-tanda reaksi teruk yang mungkin berlaku: • Kesukaran bernafas • Pembengkakan muka dan tekak anda • Denyutan jantung yang cepat • Ruam teruk di seluruh badan anda • Rasa lemah dan pening	Dapatkan rawatan segera di hospital atau klinik yang berhampiran

Sila laporkan kesan sampingan selepas menerima vaksin COVID-19 melalui aplikasi MySejahtera atau segera maklum kepada klinik atau hospital yang terdekat untuk mendapatkan rawatan.
Anda juga boleh membuat laporan secara atas talian di laman sesawang : www.npra.gov.my

Vaccine Consent Form

Saya telah membaca/ dibacakan tentang maklumat vaksin COVID-19 serta tujuan dan kaedah pemberian suntikan vaksin tersebut seperti mana di helaian Maklumat Vaksin COVID-19 bagi Penerima Vaksin.

Dengan ini, saya memahami bahawa:

1. pengambilan vaksin COVID-19 ini mungkin akan menimbulkan reaksi serta kesan sampingan seperti yang dinyatakan di dalam maklumat vaksin;

2. saya bertanggungjawab ke atas risiko yang mungkin berlaku akibat keputusan / tindakan saya ini kerana manfaat vaksin adalah jauh lebih baik daripada kesan sampingannya;

3. vaksin ini tidak memberi jaminan sepenuhnya kepada saya daripada tidak mendapat jangkitan COVID-19 pada masa akan datang;

4. dengan menandatangani persetujuan menerima vaksin COVID-19 ini, saya bersetuju dengan rela hati untuk melengkapkan jumlah pengambilan dos vaksin seperti yang dijadualkan.

Sila lengkapkan persetujuan di bawah (yang mana berkaitan):

- Saya, …….. No.K.P/Polis/Tentera…….. ***BERSETUJU / TIDAK BERSETUJU** mendapatkan suntikan Vaksin COVID-19 …… untuk ***diri saya.**

- Saya, …….. No.K.P/Polis/Tentera…….. ***BERSETUJU / TIDAK BERSETUJU** mendapatkan suntikan Vaksin COVID-19 …… untuk ***ibu bapa / *orang di bawah jagaan saya** bernama …….. No. K.P/ Polis/ Tentera ……..

Tandatangan penerima / waris		**Tandatangan Saksi**	
Nama	:	Nama	:
No. Kad Pengenalan	:	No.Kad Pengenalan	:
Tarikh	:	Tarikh	:

**potong yang tidak berkenaan*

Nota penting: Rujuk maklumat lanjut mengenai Vaksin COVID-19 di helaian Maklumat Vaksin COVID-19 bagi Penerima Vaksin.

Terima kasih atas kerjasama yang diberi. Sila kembalikan borang ini kepada pihak klinik.

Pre-Vaccination Assessment Form

The Medical Staff in Station 3 is required to do a screening of the vaccine recipient before they proceed to Station 4

KEMENTERIAN KESIHATAN MALAYSIA

Slip "Penilaian Kesesuaian Menerima Vaksin COVID-19 Bagi Pesakit Dengan Masalah Kesihatan Tertentu"

Hospital/Institusi/ Klinik: _____

Nama Pesakit: _____

No. Kad Pengenalan: _____

No. Telefon: _____

Wad / Klinik Pakar: _____

1. Penilaian telah dilakukan kepada pesakit seperti butiran di atas dan mendapati pesakit *(sila tandakan √ pada ruang yang berkenaan)*:

	Boleh menerima vaksin COVID-19 pada masa ini.
	Pemberian vaksin COVID-19 perlu ditangguhkan. Namun boleh menerima vaksin COVID-19 pada tarikh akan datang iaitu selepas (masukkan tarikh) _____
	Tidak boleh menerima vaksin COVID-19 (*absolute contraindication*)

2. Bagi pesakit yang boleh menerima vaksin COVID-19, pesakit ini disarankan untuk menerima vaksin di *(sila tandakan √ pada ruang yang berkenaan)*:

	Hospital / Institusi _____
	Fasiliti kesihatan/ pusat imunisasi yang berhampiran dengan tempat tinggal

3. Langkah tambahan (cth: Pesakit perlu pemantauan lebih panjang setelah menerima imunisasi)

_____

4. Hasil penilaian ini sah sehingga: _____

Pakar / Pegawai Perubatan yang menjalankan penilaian:

Tandatangan:

Nama dan Cop:

Tarikh penilaian:

Sila bawa bersama Slip ini ke Pusat Pemberian Vaksin untuk ditunjukkan kepada pegawai bertugas di Stesen 3.

21

COVID-19 AEFI FORM

Form to fill in supposed the vaccine recipient has AEFI on site.

BORANG PEMANTAUAN KESAN SAMPINGAN RINGAN SELEPAS PELALIAN
(Untuk Diisi Oleh Penerima Vaksin/Waris)

Pindaan-3

Pada kebiasaannya suntikan vaksin tidak menyebabkan kesan sampingan. Walaubagaimanapun sekiranya anda atau orang yang berada di bawah jagaan anda mengalami kesan sampingan selepas mendapat suntikan pelalian sila isi borang ini dan kembalikan kepada kakitangan institusi kesihatan tempat vaksin diterima.

Nama klinik/sekolah/lain-lain tempat dimana vaksin diterima: .....

1. Maklumat Penerima Vaksin : -
   a) Nama : .....
   b) Umur : ..... c) Jantina : ☐ Lelaki ☐ Perempuan
   e) No. Tel : .....
   f) Bangsa: Melayu ☐ India ☐ Cina ☐ Lain-lain, nyatakan: .....
   d) Alamat rumah : .....
2. Tarikh suntikan diterima : .....
3. Bahagian badan dimana vaksin disuntik : .....
4. Kesan Sampingan yang dialami : -

(Tempoh masa diantara vaksin diterima dan kesan sampingan berlaku adalah penting untuk diisi)

Kesan Sampingan	Tandakan √ jika berkaitan	Tempoh masa diantara vaksin diterima dan kesan sampingan berlaku (*potong yang tidak berkaitan)
a. Kesan pada tempat suntikan :		
i) Bengkak	☐	.....minit/jam /hari *
ii) Sakit	☐	.....minit/jam /hari *
iii) Kegatalan	☐	.....minit/jam /hari *
iv) Merah pada tempat suntikan	☐	.....minit/jam /hari *
v) Lain-lain(nyatakan).....	☐	.....minit/jam /hari *
b. Demam	☐	.....minit/jam /hari *
c. Kesan alahan/ruam/gatal*	☐	.....minit/jam /hari *
d. Sakit otot/badan*	☐	.....minit/jam /hari *
e. Lesu badan	☐	.....minit/jam /hari *
f. Sakit kepala	☐	.....minit/jam /hari *
g. Pening kepala / loya / muntah*	☐	.....minit/jam /hari *
h. Lemah tangan / kaki*	☐	.....minit/jam/hari/minggu*
i. Lain-lain(nyatakan).....	☐	.....minit/jam /hari *

5. Adakah penerima vaksin menerima sebarang rawatan di klinik/hospital untuk kesan sampingan yang dialami?
   ☐ Ya ☐ Tidak
6. Adakah kesan sampingan tersebut dapat diatasi atau pulih? : ☐ Ya ☐ Tidak

Sekiranya berlaku kesan sampingan yang serius, sila rujuk ke hospital/klinik yang berdekatan dengan segera.
Segala maklumat yang dikemukakan adalah sulit dan hanya akan digunakan untuk tujuan memantau kesan sampingan selepas pelalian sahaja.

Untuk Diisi Kakitangan Kesihatan

i. **Maklumat vaksin digunakan :**

a) Jenis vaksin :
- ☐ Human Papillomavirus (HPV), Dos: pertama/ kedua/ ketiga*
- ☐ Diphtheria/ Tetanus/ Pertussis, Dos : pertama/ kedua/ ketiga/ booster*
- ☐ Diphtheria/ Tetanus/ Pertussis/ Poliomyelitis/ Hib, Dos : pertama / kedua / ketiga / booster*
- ☐ MMR, Dos : pertama/ kedua*
- ☐ Hepatitis B, Dos : pertama/ kedua/ ketiga*
- ☐ Lain-lain vaksin (sila nyatakan : .....)

b) Jenama vaksin : .....
c) No. kelompok : .....
d) Tarikh luput: .....

ii. **Maklumat Kakitangan Kesihatan Yang Memberi Vaksin :-**

a) Nama : .....
b) Cop/Alamat tempat bertugas: .....
c) No. telefon : .....
d) Tarikh laporan : .....

Bagi kesan sampingan yang serius, anggota kesihatan perlu mengisi Borang Pelaporan Kesan Advers Ubat dan merujuk kepada Garispanduan Farmakovigilans Keselamatan Vaksin di Malaysia.

Sila majukan borang yang telah diisi dan sebarang pertanyaan atau aduan ke Biro Pengawalan Farmaseutikal Kebangsaan di talian 03-78835400 atau Faks 03-79567151

Download form here
https://www.npra.gov.my/easyarticles/images/users/1108/ADR%20form/BORANG-PEMANTAUAN-KESAN-ADVERS-RINGAN-SUSULAN-IMUNISASI-pindaan-5.pdf

COVID-19 AEFI FORM

Form to fill in supposed the vaccine recipient has AEFI on site.

REPORT ON SUSPECTED ADVERSE DRUG REACTIONS

NATIONAL CENTRE FOR ADVERSE DRUG REACTIONS MONITORING

Email: fv@bpfk.gov.my Website: portal.bpfk.gov.my Tel: 03-7883 5550 Fax: 03-7956 7151

(Please report **all** suspected adverse drug reactions including those for vaccines, cosmetics and traditional products. Do not hesitate to report if some details are not known. **Mandatory fields** are marked with *, but please give as much other information as you can. Identities of Reporter, Patient and Institution will remain **Confidential**.)

REPORT No. *(for official use only)*: .....

PATIENT INFORMATION

I.C. No. / R/N / Initials | *Age | *Gender *(please tick)* Male ☐ Female ☐ | Wt (kg) | *Ethnic Group | *Please tick (if applicable):* ☐ Initial Report ☐ Follow-up Report

***ADVERSE REACTION DESCRIPTION** (inc. sequence of adverse events, details of rechallenge, interactions)

Time to onset of reaction : ☐ mins/ hours/ days/ months/ years *(please circle)* | Date start of reaction : ☐ | Date end of reaction : ☐

Reaction subsided after stopping drug / reducing dose : Yes ☐ No ☐ Unknown ☐ *N/A (drug continued) ☐

Reaction reappeared after reintroducing drug : Yes ☐ No ☐ Unknown ☐ *N/A (not reintroduced) ☐

Extent of reaction : Mild ☐ Moderate ☐ Severe ☐

Seriousness of reaction : Life threatening ☐ | Caused or prolonged hospitalisation ☐ | Caused disability or incapacity ☐ | Caused birth defect ☐ | *N/A (not serious) ☐

Treatment of adverse reaction & action taken :

Outcome : Recovered fully ☐ | Recovering ☐ | Not recovered ☐ | Unknown ☐ | Fatal ☐ | Date & Cause of death: .....

Drug-Reaction Relationship : Certain ☐ | Probable ☐ | Possible ☐ | Unlikely ☐ | Unclassifiable ☐

***Suspected Drug :** **N/A: Not applicable*

Product / Generic Name	Dose & Frequency Given	MAL and Batch No.	Therapy Dates		Indication
			Start	Stop	

Concomitant Drug *(please state 'NIL' if none)* :

Product / Generic Name	Dose & Frequency Given	MAL and Batch No.	Therapy Dates		Indication
			Start	Stop	

(Please attach additional sheets if necessary)

Relevant Investigations / Laboratory Data	Relevant Medical History (e.g.: hepatic / renal dysfunction, allergies, pregnancy status, etc)

Reporter Details

*Name : | *Institution Name & Address :

Designation : | *Tel No :

*Email Address : | Date of Report : | Signature : rev11/2019

Submission of a report does not constitute an admission that medical personnel or the products caused or contributed to the reaction. *Thank you for reporting.*

ADR Reporting Guide

Before submitting your ADR report, do check if you have inserted the following information.
Please try to fill every section in the ADR form overleaf, stating **'none / nil' if applicable. A complete report is a useful report.*

NO.	IMPORTANT POINTS TO NOTE
1	**Definitions:** **(i) Time to onset of reaction**: time interval between first dose (initiation) of the drug until first sign of the ADR. **(ii) Initial report:** First submission of report to NPRA of a particular patient involving a particular ADR. **(iii) Follow-up report:** Submission of further reports related to the same case to inform of additional information not mentioned previously or which occurred after the initial report. Please mention the date of initial report for reference.
2	Please specify any previous history of **allergy** (including drugs, food, etc.).
3	Include information on any **concomitant medications** or **underlying illnesses**? *(Please state 'nil' if none)* • Date started and stopped for each medication • Please state 'cont' for any medication still continued after the ADR
4	Please state the specific **indication** of the suspected drug (e.g.: '*pneumonia due to S. Pneumoniae*' - not 'infection' or 'antibiotic').
5	If the ADR reappeared after reintroducing drug (**rechallenge**), please describe the rechallenge fully (dose given, timing, brand used, etc.) under section 'Adverse Reaction Description'.
6	Please specify if any **treatment** was given for the ADR, or if the suspected drug was stopped, what **alternative drug** was started and how the patient responded.
7	Please include the latest / current **outcome** of the patient *(e.g. recovered fully, not recovered)*. • If possible, follow-up the patient periodically until the final outcome is known. • A follow-up report may be sent in to update on the final outcome of the patient.
8	**Skin reactions**: Please describe the specific type and location of the skin reaction. *(Use the Cutaneous ADR form and guide available on **www.npra.gov.my**)*
9	Do keep your own record of details enabling you to **contact** the patient or trace the case notes later on if necessary *(e.g. IC number, patient name and phone number)*.

*Please refer to our website for additional guidance on ADR Reporting, or contact us at **fv@npra.gov.my** if you have any queries.*

Lipat di sini

Lipat di sini

Laporan Kesan Advers Ubat

Bahagian Regulatori Farmasi Negara (NPRA)
Kementerian Kesihatan Malaysia

PUSAT PEMONITORAN KESAN ADVERS UBAT KEBANGSAAN

BAHAGIAN REGULATORI FARMASI NEGARA

LOT 36, JALAN UNIVERSITI

46200 PETALING JAYA

SELANGOR

REFERENCES

References List

1. COVID-19 Mass Vaccination Drive-Through Playbook
https://uchealth-wp-uploads.s3.amazonaws.com/wp-content/uploads/2021/02/12100214/UCHealth-COVID-19-Mass-Vaccination-Drive-Through-Playbook-FINAL-2-12-21.pdf

2. Data and strategies documentation at Drive-Through VAC, USM Health Campus provided by HUSM

3. Data, document samples and strategies documentation at VAC Stadium Indera Mulia, Ipoh provided by the State Management

4. Putrajaya International Convention Centre (PICC) G Floor Layout, provided by management team.

5. Sepang International Circuit (SIC) layout provided by the management team.

6. Bukit Jalil Stadium car park layout provided by the management team.

7. Drive Thru COVID-19 Screening: What You Need to Know, Tent Craft
https://www.tentcraft.com/blog/post/drive-thru-covid-19-screening-what-you-need-to-know

8. *Hospital Canselor Tuanku Muhriz UKM tawar PPV secara pandu lalu video*, Buletin Bernama
https://www.youtube.com/watch?v=ahgVQd4I9S0

9. Garis Panduan Pelaksanaan Pemberian Vaksin COVID-19 untuk Anggota Kesihatan

10. National COVID-19 Immunisation Programme Book
https://www.vaksincovid.gov.my/pdf/Program_Imunisasi_COVID-19_Kebangsaan_Versi_Bahasa_Inggeris.pdf

11. Centers for Disease Control and Prevention
https://www.cdc.gov/vaccines/hcp/admin/storage/downloads/A-vax-temp-best-practices-fridge-C.pdf

Acknowledgement

The Academy of Sciences Malaysia (ASM) Data Scientists have identified and created this guideline with the collaboration from state-level COVID-19 vaccination Task Force (CITF) and supervision from the national CITF to ensure a process that maximises the safety, convenience and efficiency of a drive-through VAC.

We aim to help organisations that are interested to **organise a drive-through and mobile VAC with a good flow using existing tools and resources.** We would like to thank the following organisations and individuals for their support in sharing data as well as for their contribution to the development of the guideline:

Dr Rokiah Mohd
Timbalan Pengarah (Kesihatan Keluarga), Bahagian Pembangunan Kesihatan Keluarga, KKM

Dr Nazrila Hairizan Nasir
Timbalan Pengarah (Kesihatan Primer), Bahagian Pembangunan Kesihatan Keluarga, KKM

Dr Kawselyah Juval
Ketua Unit Akses & Ekuiti, Bahagian Pembangunan Kesihatan Keluarga, KKM

Dr Salimah Othman
Pakar Perubatan Kesihatan Awam, Bahagian Pembangunan Kesihatan Keluarga, KKM

Komander Muhammad Zaki Abdul Aziz
Tentera Laut Diraja Malaysia (TLDM), Majlis Keselamatan Negara (MKN)

Professor Dato' Ahmad Sukari Halim
Pengarah, HUSM

Professor Dr Mohd Imran Yusof
Timbalan Pengarah (Operasi), HUSM

Acknowledgement

Ministry of Health Malaysia (MOH)

COVID-19 Vaccination Task Force (CITF)

Majlis Keselamatan Negara (MKN)

COVID-19 Vaccination Team, PPV Stadium Indera Mulia, Ipoh, Perak

Hospital Universiti Sains Malaysia (HUSM), Kubang Kerian
COVID-19 Vaccination Team HUSM
Designer team, Unit Pembangunan Kampus Kesihatan HUSM
MPRC Team, HUSM

Institut Jantung Negara (IJN)

COVID-19 Vaccination Team Hospital UiTM

OKU Sentral

Putrajaya International Convention Centre (PICC)

Bukit Jalil Stadium

Sepang International Circuit (SIC)

ASM Management Team

Hazami Habib
Chief Executive Officer

Syazwani Abu Bakar
Editor

Mohamad Haziq Rosli
Graphic Designer

Ammielyya Jusnieza Ahmad Jafri
Analyst

Nur Hanisah Ismail
Executive

Muhammad Syafiq Mohamad Shafiee
Assistant Analyst

ASM Data Scientists Team

Associate Professor Ts Dr Nurfadhlina Mohd Sharef
Universiti Putra Malaysia

Dr Wong Lai Kuan
Multimedia University Malaysia

Associate Professor Ts Dr Ting Choo Yee
Multimedia University Malaysia

Associate Professor Dr Razali Yaakob
Universiti Putra Malaysia

Dr Abdul Rafiez Abdul Raziff
Veritas University College

Dr Muhammad Syafiq Mohd Pozi
Universiti Utara Malaysia

Hidaayah Abu

Nurul Huda Abdul Rahman