



## **National Deployment and Vaccination Plan (NDVP)**

**26 January 2021**

**State of Palestine**

**Ministry of Health**

**Minister's Office**



**دولة فلسطين**

**وزارة الصحة**

**مكتب الوزير**

## Letter of Endorsement

16 January 2021

Minister of Health office

Palestine

Dear COVAX Facility,

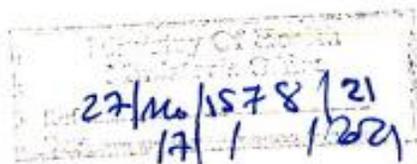
The State Of Palestine represented by Minister of health ( Dr. Mai Salem Al-Kalia) Expressed its interested in receiving vaccines through First wave of Pfizer vaccine based on the letter submitted to you officially at 11 Jan 2021 which was indorsed by WHO and UNICEF country office within the conditions listed in the letter Dated 6 Jan 2021 .

Submission of NDVP and VIRAT from the state of Palestine could be considered as a tool showing the readiness of the country hence it has been developed and jointly with WHO and UNICEF country offices.

The purpose of national deployment vaccination plan submitting is to consider Palestine in the first wave of Pfizer vaccine through COVAX Facility and the subsequent delivery of other vaccine in order to reach the 20% of the population.

**Minister of Health**

**Dr. Mai Salem Al-Kalia**



## Executive Summary

The COVID-19 vaccines aim to save lives and mitigate the impact of the pandemic on all areas of lives. This document aims to organize and enhance the readiness for the distribution of vaccines and ancillary material efficiently in a timely manner. It further aims to define and analyze all aspects of introducing the COVID-19 vaccination in the State of Palestine.

This National Vaccine Deployment Plan (NDVP) have been developed based on several existing international guidelines, particularly the Interim Guidance on developing a national deployment and vaccination plan for COVID-19 vaccines published by WHO and UNICEF<sup>1</sup>. Some information contented in this plan are subject to change due to the surrounding ambiguity in some areas of COVID-19 vaccination. Therefore, this plan is prepared based on the assumptions and the best available information at this time.

The National Coordinating Committee (NCC) established for COVID-19 vaccination by the Palestinian Authority Prime-Minister's Office and led by the Minister of Health, includes multi-sectoral government representatives, and coordinates and supervises the implementation of all activities related to the vaccination plan. Recommendation on the allocation and prioritization for COVID-19 vaccination was provided by the National Immunization Technical Advisory Group (NITAG), in accordance with the WHO strategic Advisory Group of experts on Immunization (SAGE) recommendations<sup>2</sup> and the WHO SAGE values framework<sup>3</sup>.

This plan illustrates selection of the health facilities, which will function as vaccination centers. Further, the plan illustrates strategy of the Ministry of Health (MOH) to reach the target groups at every phase of vaccination and to attain effective vaccination coverage as planned. In addition, considering the prevailing risk of COVID-19 transmission, the plan informs about the key

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<sup>1</sup> Guidance on developing a national deployment and vaccination plan for COVID-19 vaccines, Interim Guidance, 16 November 2020, WHO, UNICEF. [https://www.who.int/publications/i/item/WHO-2019-nCoV-Vaccine\\_deployment-2020.1](https://www.who.int/publications/i/item/WHO-2019-nCoV-Vaccine_deployment-2020.1) (accessed 25 January 2021).

<sup>2</sup> Roadmap for prioritizing uses of COVID-19 vaccine in the context of limited supply", version 1.1, 13 November 2020, WHO. <https://www.who.int/publications/m/item/who-sage-roadmap-for-prioritizing-uses-of-covid-19-vaccines-in-the-context-of-limited-supply>. (accessed 25 January 2021)

<sup>3</sup> WHO SAGE values framework for the allocation and prioritization of COVID-19 vaccination, 14 September 2020. WHO. <https://apps.who.int/iris/handle/10665/334299> (accessed 25 January 2021)

decisions of the MOH to ensure infection prevention and control measures and emergency contingency plans.

Awareness campaign is directed at the same target population with many principles, including to ensure the confidence of the population with the effectiveness and safety of the vaccine. For the desired level of immunity, most vaccines need two doses according to the schedule. Moreover, the vaccines' storage requirements differ according to the product; +2+8°C, -20°C and -70° to -80° C, requiring different storage conditions. Thus, the final vaccination algorithm will depend on the product used which will be reflected in the training and vaccination plans.

# 1. Introduction

The West Bank and Gaza Strip differ greatly geographically. The Gaza Strip is a coastal area, with beaches and sand dunes (up to 40 meters high); inland, parallel to the coast, a strip of fertile land makes way for a sandstone mountain ridge. About halfway, the Gaza Strip is intersected by the Wadi Gaza (Gaza River), which is only replenished with water during the rainy season in the winter (running dry for the rest of the year).

The West Bank is part of a geological formation which stretches from East Africa via the Red Sea, the Gulf of Aqaba and the Wadi Araba (Arava Valley) to Lebanon and Syria, and which is made up of a deep fault line in the earth's crust. Two mountain chains run parallel with this fault line close to the West Bank. In between lies the Jordan Valley, which is more than 20 kilometers in width (in Lebanon, the Beqaa Valley or Wadi al-Biqa is situated between the Lebanon and Anti-Lebanon Mountains). The Jordan Valley makes up about a third of the surface area of the West Bank.

The medium-high mountain chain in the West Bank can be sub-divided into three segments: the mountains of Jabal Nablus (Nablus), Jibal al-Quds and Jabal al-Khalil (Hebron). There are various medium-high mountain peaks, of which al-Arsour (in the Jibal al-Quds) is the highest at 1,016 meters. To the east, the mountain range is flanked by the Jordan Valley. Gradually declining, sloping hills stretch westwards, with terraced agriculture in many places.

The current population of the State of Palestine is 4, 976,684 equivalent to 0.07% of the total world population, ranks number 121 in the list of countries (and dependencies) by population, The population density in the State of Palestine is 847 per Km<sup>2</sup> (2,195 people per mi<sup>2</sup>). The total land area is 6,020 Km<sup>2</sup> (2,324 sq. miles), 80.0 % of the population is urban (4,083,476 people in 2020) and the median age in the State of Palestine is 20.

The first cases of the novel Coronavirus disease (COVID-19) were confirmed in the State of Palestine on 5 March 2020 and had been detected by the MOH at a hotel in the Bethlehem area, where a group of Greek tourists had visited the hotel in late February 2020, with two later diagnosed with the virus.

Up to date (25 January 2021), total number of cases in Palestine 175,416, out of this number there are 9,340 active cases, 164,109 were cured and 1,967 died. The total number of PCR tests

conducted since the beginning of pandemic 994,884. Below website shows the latest daily updates of the COVID-19 epidemiological status:

<http://site.moh.ps/index/covid19/LanguageVersion/0/Language/ar>.

Following the discovery of cases, on 6 March 2020 the State of Palestine authorities announced the lockdown in Bethlehem area for two weeks and dedicated special places for COVID-19 quarantine. Accordingly, several preventive measures were put in place at national level to contain the outbreak: risk communication and community engagement; designated quarantine and treatment facilities were set in every district; preventive and safety protocols were developed and circulated to hospitals and primary health care facilities to mitigate the risk of infection and several training program for health workers on PPEs , sampling and case definition were conducted. In addition, several lockdowns were executed at the national and sub national level according to the epidemiological situation analysis in the different geographical areas.

The Ministry of Health formed several committees with dedicated responsibilities including COVID-19 Taskforce, National epidemiological committee, COVID-19 vaccine introduction committee, health worker training committee and risk communication and community engagement committee. These committees represented different sectors and partners such as UNICEF, WHO, UNRWA, World Bank, Ministry of Education, Ministry of Religious Affairs, Ministry of Finance and Planning and Ministry of National Economy.

The responsibility of these committees includes:

- ✓ reviewing global-level information related to COVID-19 vaccines and incorporating it into the planning and preparation for COVID-19 vaccine deployment at country level
- ✓ considering the recommendation issued by the national immunization technical advisory group (NITAG) or the specific national COVID-19 vaccine technical advisory group
- ✓ defining the National deployment and vaccination plan with clear functions, responsibilities and deadlines for different stakeholders.
- ✓ aligning the NDVP to the national COVID-19 preparedness and response plan, and include an estimate of costs to facilitate budget advocacy and resource allocation
- ✓ establishing an operations process for coordination, information and communication; providing higher level authorities status reports as needed

- ✓ communicating with partners and the media and engaging with community leaders
- ✓ ensuring integration with existing immunization programmes and coordination across programmes and different sectors embedding the vaccination programme into existing health system structures
- ✓ coordinating and supporting the implementation of health services readiness and capacity assessments (at facility and community level) to identify bottlenecks and guide delivery of vaccines and other essential supplies
- ✓ Monitoring progress using methods such as a dashboard with key indicators, readiness assessment tools, etc.

In regards to COVID-19 vaccines introduction, the MOH established a vaccine introduction committee in order to follow production and availability of vaccines across the world, to develop and submit the Palestine's vaccine request to COVAX facility to procure the vaccines through it, as well a lot of different bilateral negotiations with vaccines companies to procure additional doses to cover the entire population.

Those who are most impacted by the COVID-19 outbreak in Palestine are:

- Patients in Gaza cannot be referred to specialized treatment outside Gaza due to the crossing closure.
- Patients who postponed their elective surgeries due to preparedness measures for management of COVID-19 cases.
- Similarly, people seeking outpatient support, affected by movement restrictions and health service re-prioritization.
- Pregnant and lactating women and children who might not be able to receive essential healthcare because of health service re-prioritization.
- Palestinians who are placed in quarantine facilities that may not be adequately prepared.
- The mandatory quarantine imposed by the Palestinian authorities to contain the virus, either homebased or at dedicated sites, has increased the risk of GBV including domestic violence affecting women and children, mental illness and psychosocial deterioration.

- Children in detention are vulnerable to infection due to confinement, and at risk of neglect and abuse due to movement restrictions affecting ability to access essential services.
- Many families already live in poverty and the consequences of COVID-19 response measures have made it even harder for them to maintain their livelihoods and income. The Palestinian Ministry of Social Development (MOSD) estimates that at least 53,000 families across the oPt have fallen into poverty in recent weeks, due to the loss of a source of income. Without sufficient social protection and continuity of protection services for these vulnerable households, families risk plunging further into poverty and exacerbating already volatile family and community situations.
- People with seeing, hearing or mobility issues, already experience difficulty in accessing services and information in the oPt, now exacerbated as they seek to protect themselves from the outbreak. Many persons with disabilities depend on services that have been suspended and families report not having enough money to stockpile the specific food and medicine
- Following the closure of education facilities in early March, 1.43 million children across Palestine need to continue distant learning and receive age appropriate, awareness-raising messages around COVID 19.

**The lessons learned from Influenza H1N1 as follow:**

- The novel H1N1 pandemic has given us a baseline against which we can measure our next pandemic response. At some point, the novel H1N1 pandemic will fizzle. The people who experienced it will move on. Organizations will shift and change as they always do. And another influenza pandemic will emerge. Will we be ready? Possibly, if we continue to share what we've learned and do something with it. Mostly likely not if apathy spreads as quickly as the H1N1 virus did
- Media coverage was uneven, often conflicting, and not reliable. The downsizing of legacy media has squeezed out many of the journalists who had a strong working knowledge of infectious diseases. Major news organizations do not see their role as mouthpieces for public health communication. And, owing to wildly fluctuating coverage of the pandemic, businesses could not rely on news media for a reality check. Worse, misinformation spread quickly through narrow social media channels.

- Local and state public health agencies struggled with the flow of vaccine. As the primary channel through which the H1N1 vaccine traveled, state and local public health agencies bore the brunt of delivery delays and a fragmented distribution system. They were also the source of information for organizations trying to access vaccines. Already stretched thin by budget cuts during the past decade, agencies were hard-pressed to keep up with the demands of dealing with a pandemic. This has been accounted for when developing this plan
- Uncertainty is a given. Everyone was taken by surprise by the virus that emerged (another H1N1 virus, not H5N1 or some other new influenza virus, and the illness that it caused in most—though not all—people it infected (similar to seasonal influenza). Flexibility and the ability to take action proportional to the risk at hand became the new gold standard. Given ongoing uncertainty, efforts to predict the pandemic's course too soon could be risky business
- supplies of surgical masks and N95 face-fitting respirators disappeared quickly. While supply chains for many critical products and services were not interrupted during the pandemic, they certainly were for critical personal protective equipment. Stockpiling paid off, though unused supplies remain an issue

## 2. Regulatory preparedness

The current reality created by the COVID-19 pandemic, requires the full preparedness of the regulatory authority and all other relevant government structures of the country for ensuring smooth and non-interrupted delivery, deployment and distribution of the COVID-19 vaccines into the country.

Palestine has established effective legislation, regulations and mechanisms for importing pharmaceutical products into the country.

1. National regulations in Palestine providing special provisions for when a vaccine product is considered automatically approved by NRA (*Palestinian drug Import and Export Department of the Ministry of Health*) if the vaccine registered in one of the following (WHO prequalified, WHO Emergency Use Listing, or third country

stringent regulatory authority), as Palestine does not have the capability to test the vaccines.

2. The Drug Import and Export Department of the Ministry of Health issues special permission for unregistered products if there is no alternative registered in the country and if this product is included in the WHO emergency list.

For ensuring import and deployment of the COVID-19 vaccines in the country, the MOH closely collaborate with UNICEF as responsible agency for transportation and clearance of the vaccine.

According to the Israeli-Palestinian Interim Agreement on the west bank and the Gaza Strip, which was signed in Washington, D.C., in September 1995 - "Donations in kind to the Palestinian Authority shall be exempted from customs and other import taxes if destined and used for defined development projects or non-commercial humanitarian purposes (annex 5).

According to UNICEF Palestine office, the 20% of the vaccine will be going through donation process since it will be supported by GAVI, so there will be vat exemption for the vaccine. For vaccine importation the following requirement is requested:

<b>Vaccines</b>		
<b>Document</b>	<b>Copy /original</b>	<b>Time required before</b>
Certificate of Analysis	copy	1 Week
Certificate of Origin	copy	1 Week
Packing list (batch number)	copy	1 Week
Free sale certificate	copy	1 Week
Proforma invoice	copy	1 Week
Airway bill	copy	48 hours

According to the existing regulations all pharmaceutical products and vaccines must be registered by the Ministry of Health. The MoH established special procedure for import and deployment and use of unregistered alternative products in the country in the emergency cases. Particularly, during the emergencies, MoH recognizes registration and market authorization of the pharmaceutical products and vaccines issued by NRAs in a number of countries (Canada, the United States of

America, Australia, Japan, the European Union, Jordan, Saudi Arabia, and the occupying country). The MoH authorizes the usage of these products in the country and issues special permission for importation and use of these products, through the Drug Import and Export Department.

There is also fast track process established by the Ministry of Health for emergency approval of vaccines within three days in case of emergencies.

Palestine receives the vaccine through the Ben Gurion airport in Tel-Aviv (Israel), which is the only international airport used for delivery of shipments to Palestine and the Israeli customs' authorities may impose restriction for vaccine importation. To avoid that, the Ministry of Health formalized coordination committee with nominated focal point and UN agencies for coordination with Israeli authorities in order to facilitate vaccine introduction and accelerate customs clearance of shipments without any delay. Several meetings were conducted and both parties agreed on all aspect regarding vaccine introduction to Palestine. All mandatory requirement for vaccine allocation to Palestine requested by COVAX Facility were signed and sent, including vaccine request form: section A and section B, regarding the *indemnify the applicable manufacturer against product liability claims associated with the use or administration of the Approved Vaccine*, which were signed by Minister of Health and Minister of Finance and shared with COVAX Facility. As of now, Palestine didn't sign any indemnity agreement with any vaccine manufacturer company, and once the MOH receives the vaccine(s) from COVAX it will be signed. Also, the MOH will be responsible for treating any adverse events following immunisation (AEFI) free of charge.

As with all others vaccines used in the National EPI program, Palestine depends on the use standard labels without the need for neither additional inserts nor translation in a language other than UN languages (Spanish, French, Arabic, English, Chinese and Russian).

### 3. Planning and coordination of the vaccine introduction

The PA Prime-Minister's Office established a national COVID-19 vaccine deployment and vaccination coordination mechanism (NCC) to facilitate the introduction and deployment of COVID-19 vaccines based on national decisions prior the vaccine deployment. The NCC is led by

the Minister of Health. This will ensure a robust, accountable and transparent decision-making structure and process at country level to assure that deployment of the COVID-19 vaccine in the country is based on epidemiological need and the international guidance currently available.

The NCC has a multisectoral representation composed of senior-level officials from relevant ministries (e.g. social welfare, pension service, women's affairs, communications, finance, transport etc.), external partners, representatives from private sector providers and civil society organizations, WHO, UNRWA and UNICEF with decision-making authority. Some proposed responsibilities of the NCC include: reviewing global-level information related to COVID-19 vaccines and incorporating it into the planning and preparation for COVID-19 vaccine deployment at country level, considering the recommendation issued by the national immunization technical advisory group (NITAG) ( Annex 2), and WHO recommendations. The National deployment and vaccination plan with clear functions in progress, responsibilities and deadlines for different stakeholders was also discussed at the NCC. The plan aligned with the national COVID-19 preparedness and response plan and include an estimate of costs to facilitate budget advocacy and resource allocation; establishing an operations process for coordination, information and communication with partners and the media; coordinating and supporting the implementation of health services readiness and capacity assessments at facility level were conducting through sizing tools and health workers' training and preparedness to receive the vaccines and other essential supplies .

The Public Health Law of the State of Palestine is the key document for implementation of the national immunization program in Palestine regulating implementation processes and responsibilities of all actors involved in the performance of immunization system.

The principal agency for making technical recommendations on the immunization program implementation including immunization schedule, immunization practices and new vaccines and technologies is the *National Immunization Advisory Technical Group (NITAG)*. The NITAG is composed by representatives of MoH, UNRWA, WHO, UNICEF, University and Medical Association of pediatricians, who together with the EPI Committee formulate and provide technical recommendations to the EPI and MoH.

The Pharmaceutical General Directorate is the principal agency for regulation and licensing of vaccines in State of Palestine. It is the policy commitment of the MoH that all licensing and registration of vaccine production and marketing should come under the single regulatory umbrella of the Pharmaceutical General Directorate (PGD) through its different divisions such as Imports and Exports Division, Drug registration department and etc.

Changes to the routine immunization schedule are technically reviewed and recommended by the EPI Committee and NITAG based on the results of systematic steps (listed below). Recommended changes are based on research evidence on disease burden, cost effectiveness, vaccine efficacy, vaccine safety or program feasibility. The final decision on the changes of existing immunization schedule and introduction of the new vaccines is made by the top management of the MoH.

Changes to the routine immunization schedule or introduction of any new vaccine in the country are technically reviewed and recommended by the EPI Committee and NITAG based on the results of systematic steps (listed below). Recommended changes are based on research evidence on disease burden, cost effectiveness, vaccine efficacy, vaccine safety or program feasibility. The final decision on the vaccine introduction of the new vaccines is made by the top management of the MoH (line deputy minister).

The process for decision making on introduction of new vaccines in the country as well as introduction of new vaccines into the national immunization schedule is made according to the following systematic steps:

1. Assessment of burden of disease (through surveillance data, research study, disease burden estimates);
2. A review of global recommendations and latest international evidence as described in the most recent WHO Position Papers on vaccine efficacy and safety;
3. Assessment of system readiness and programmatic feasibility to adopt the new vaccine into the national immunization schedule (cold chain capacity, surveillance capacity and safety requirements)
4. Assessment of costs and financing gaps, and, where possible, economic impacts, including clearance by the Ministry of Finance;

5. Preparation of an introduction plan that includes a public communication strategy, preparation of service providers and plan for post marketing surveillance.

The involvement of local authorities in the planning, mobilization and organization of service delivery is particularly important at all levels.

Tables 1 and 2 below present the components of vaccine introduction and responsible parties for implementation of components as well as the levels of decision making and implementation.

*Table 1: Components of Vaccine Introduction and Responsibilities at each Level*

<b>Component</b>	<b>Responsible Party</b>
Coordination and monitoring of NDVP implementation	PMO Office and the Minister of Health
Development of the NDVP	General directors of public health and PHC directorates
Elaboration of specific recommendations for NVDP thematic areas by TWG: Risk Communication, NITAG, National Committee for Vaccine Procurement	Heads of TWG with support from WHO, UNICEF
Endorsement of the NDVP	Minister of health
Procurement of Vaccines	UNICEF, Preventive medicine department
Procurement of Injection and other supplies	UNICEF/PMD <sup>4</sup>
Registration/of vaccines/injection supplies	Drug registration unit
Training	Central preventive medicine department
Supervision at the local levels	Directors of district directorate district vaccine managers
Vaccine management and logistics/central level	Central vaccine store, central preventive medicine department
Vaccine management and logistics/district levels	District vaccine managers, district preventive medicine department
Mobilization of the vaccination target groups	Central – district preventive medicine department
Assistance in service delivery at the local levels	District preventive medicine department
Service delivery through the mobile units	District preventive medicine department
Service delivery through the fixed sites	District preventive medicine department

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<sup>4</sup> Preventive Medicine Department

Demand generation/communication (at all levels)	District –central preventive medicine department, public health directorate
AEFI monitoring (at all levels)	Health facility level – health care providers District level – preventive medicine department Central level - Central preventive medicine department Global level - General director of public health directorate
Monitoring and Evaluation	PHD <sup>5</sup> , NEC <sup>6</sup>
International cooperation and coordination	General director of PHD <sup>7</sup>

Table 2: Levels of decision making and enforcement.

Level	Topics	Responsible entity (for decision making and enforcement)
<b>National</b>	<ul style="list-style-type: none"> <li>- Planning</li> <li>- Coordination</li> <li>- Budget management</li> <li>- Vaccine procurement and authorization</li> <li>- Preparation and endorsement of regulatory documents</li> <li>- Cold-chain and logistics management</li> <li>- Training and supervision</li> <li>- Communication and crisis management</li> <li>- Effective Vaccine Management (vaccine security)</li> <li>- Monitoring and Evaluation</li> </ul>	Minister of Health
<b>Regional</b>	<ul style="list-style-type: none"> <li>- Cold-chain management</li> <li>- Training and supervision</li> <li>- Crisis management</li> <li>- Monitoring and evaluation</li> </ul>	Director of primary and public health directorate
<b>District</b>	<ul style="list-style-type: none"> <li>- Planning and coordination</li> <li>- Cold-chain and logistics management</li> <li>- Training and supervision</li> <li>- Mobilization of target groups</li> <li>- Maintenance of internet access</li> <li>- Management of mobile teams</li> <li>- Crisis management</li> <li>- Reporting</li> </ul>	Directors of health directorate

<sup>5</sup> Public Health Directorate

<sup>6</sup> National Epidemiological Committee

	<ul style="list-style-type: none"> <li>- Vaccine security</li> <li>- Monitoring and evaluation</li> </ul>	
<b>Health Facility</b>	<ul style="list-style-type: none"> <li>- Planning</li> <li>- Organization and delivery of services and monitoring of service delivery</li> <li>- Mobilization of target population groups</li> <li>- Cold-chain and waste management</li> <li>- Reporting</li> <li>- Monitoring of vaccine safety</li> </ul>	Facility senior

## 4. Resources and funding

The NDVP identify what additional resources are required to implement the plan, with a costing of COVID-19 vaccine-specific interventions and a costing of shared costs with existing health system delivery mechanisms (e.g. PPE for health workers will serve more than immunization activities). therefore MoH work with the health planning department while costing the deployment plan. The Government of State of Palestine allocated 10.5 million US\$ for ensuring readiness of the country for implementation of the National Vaccine Deployment Plan

Short term planning was conducted to identify needs and resources for implementation of 20 % of population vaccination that will be received through the COVAX facility, therefore this section doesn't target the price of vaccine as it will be received as donation, while intra-country logistics (ICL) were considered, the following table show funding resources and status of the fund.

*Table 3: Financial Resources Required for COVID-19 Vaccination and Current Financing Status*

<b>Component of NDVP</b>	<b>Financial requirements are estimated</b>	<b>Total funding required</b>	<b>Source of funding</b>	<b>Current status of financing</b>
Vaccines and injection equipment/supplies	Yes	800,000 USD	vaccines are bilateral donation, injections and supplies fund will be through MOH	For vaccine: upon support release For injections and supplies fund will be through SoP
Cold chain	Not applicable, no need for additional support	Zero	Not applicable	Not applicable
Logistics	Yes	55,000 USD	MoH	Funds are allocated through the Central Budget of the SoP

Service delivery	Yes	Zero	MoH	Will be fully funded by the Government
Trainings	Yes	25,000 USD	MoH	Will be fully funded by the Government
Supervision	Yes	45,000 USD	MoH	Will be fully funded by the Government
Information systems	Yes	Zero	MoH	Will be fully funded by the Government
Demand generation	Yes	70,000 USD	MOH	Will be fully funded by the Government
Support of readiness for COVID-19 vaccination	Yes	Zero	MoH/Government	Will be fully funded by the Government

### Immunization Supplies and Injection Equipment

The financial resources required for procurement of syringes, safe boxes, personal protective equipment (surgical masks, protective shields, gloves, disposable gowns, etc.) and other consumables (alcohol pads, bandages and vaccination cards) were estimated. The total amount required for procurement and deployment of these items is 995,000 US\$, which will be fully covered through the central Government budget, since the government allocate 10.5 million for vaccines and vaccines introduction in ministers council that conducted on 1 January 2021.

### Cold chain

The most recent EVM Assessment was conducted in 2016 in State of Palestine and the full inventory of the cold-chain system was carried out over the course of the last 6 months. The capacity of the cold-chain was assessed through application of the cold-chain sizing tool developed by WHO and UNICEF. The assessment results showed that implementation of the Scenario I( positive temperature)and Scenario II(UCC) will not require additional expansion of the cold-chain capacity as the existing positive and UCC capacity of the system is sufficient for storage and distribution of vaccines. This were reflected from Palestine conduct careful assessments of the existing supply chain system to be able to identify and address gaps

The joint exercise conducted using the sizing tool revealed that:

- No gap was identified at central and district level for positive temperature (+2+8°C).
- 7,429 litters (district and central level) exists for negative temperature (-20°C) storage.
- Ultra-cold chain (-70°C) availability: 1,800 litres in West Bank and 900 litres in Gaza respectively.

For details of the results of the sizing tool, please see (Annex 5)

### **Logistics/transportation of vaccines**

Over the course of the NDVP implementation, all transportation and logistics costs will be covered by MoH through the central state budget. The total costs of transportation and logistics is 55,000 US\$.

### **Service Delivery**

COVID-19 vaccination services will be performed by the MOH staff. No additional expenditures will be related to the COVID-19 vaccination. A clear plan for staff reallocation in order to conduct vaccination activity.

### **Trainings**

The total cost of the training activities planned by the MoH within the framework of NDVP implementation, is 25,000 US\$, which will be fully covered by the MoH through the Central Government Budget.

### **Supervision**

Supervision of the NDVP implementation will be provided by the Department of Preventive Medicine at all levels, using transportation system of the MoH. costs required for implementation supervision activities and printing materials for implementation of supervision activities will be provided by the MoH. The total costs under this section is 45,000 US\$.

### **Information system**

The introduction of COVID-19 in the country will use MoH DHIS2 system, that has already been modified and adopted special module and dashboard for COVID-19. The monitoring of vaccination coverage, vaccine hesitancy as well as AEFI cases is already conducted by the existing information system and thus, is not related to the additional costs.

## Demand generation

Financial support for all demand generation activities will be provided through the MoH budget. The cost estimate for all promotional, communication, advocacy and social mobilization activities was allocated by the MoH and will amount to 70,000 US\$.

## 5. Target populations and vaccination strategies

The State of Palestine follows the WHO SAGE's policy recommendations and use available doses for target groups defined by WHO SAGE<sup>8</sup>. If 3% of vaccine received in first shipment, the priority will be given to priority health workers and part of immunocompromised who is at very high risk of COVID-19 complication. In the event that the country receives less than 3% of the COVID-19 vaccine, the MOH will target the first line health workers who working in the COVID-19 centres, respiratory triage centres and emergency departments in MOH, private and UNRWA facilities. If the country receives 20 % of the population the target group will be as the below (8).

The selection of the COVID-19 vaccination target groups was led by the MoH/NITAG and COVID-19 Vaccine Introduction Committee during its meeting on 29 December 2020, and was carried out through the extensive discussion of key decision makers and stakeholders of the country and aimed at maintaining vital health services and reduction of morbidity and mortality in high-risk population groups. The selection was based on the following critical factors:

1. International recommendations for selection (WHO- SAGE recommendations), Palestine categorized under section of community transmission scenario , so health workers specially those working with COVID-19 patients (first line) have highest priorities in vaccination followed be old ages with immunocompromised, depending on country context and committee recommendations other target groups were selected as shown in table (4)
2. Epidemiological specifics of the COVID-19 pandemic in the country;

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<sup>8</sup> Guidance on developing a national deployment and vaccination plan for COVID-19 vaccines, Interim Guidance, 16 November 2020, WHO, UNICEF. [https://www.who.int/publications/i/item/WHO-2019-nCoV-Vaccine\\_deployment-2020.1](https://www.who.int/publications/i/item/WHO-2019-nCoV-Vaccine_deployment-2020.1) (accessed 25 January 2021).

3. Recommendations provided by the National Immunization Technical Advisory Group;

During development of this NDVP, the MoH considered following important aspects:

- Tentative timeline of COVID-19 vaccine delivery to the country;
- Type(s) of vaccine(s) deployed by the government; and
- Number of vaccine doses allocated by COVAX facility to the country.

According to the information available at the development of this plan, the number of doses provided to the country by the COVAX facility in 2021 will be sufficient for vaccinating the priority target groups in the country, accounting for approximately 20% of total population of the country.

At the same time, government undertakes efforts to secure additional doses of vaccines through the parallel, or bi-lateral agreements with the third parties. In case successful negotiations on securing vaccines through the bi-lateral agreements, the government will modify this NDVP and reflect bi-lateral agreements in the NDVP.

*Table 4: Target Groups of Population, their size and phases of coverage*

<i>Implementation Phase</i>	<i>Target Population (in order of priority)</i>	<i>Number of individuals to be vaccinated</i>	<i>Priority targeted delivery strategy for this population</i>	<i>Total cumulative % of vaccines as a percentage of population</i>
I	Front line health workers	12,753	Fixed site, mobile	0.25%
II	Health workers	87,247	Fixed site, mobile	1.75%
II	Immunocompromised individuals	370,000	Fixed site, mobile	7%
II	Elderly, 60+ age group	350,000	Fixed site, mobile	7%
II	School employees	100,000	Fixed site, mobile	2%
II	Police, security staff	100,000	Fixed site, mobile	2%
	<b>Total</b>	<b>1,020,000</b>		<b>20%</b>

Immunization of the 20% of population targeted in 2021 will require significant increase of service delivery capacity of the national immunization system. Today, the system administers approximately 2,800,000 immunizations (1.1 million oral vaccinations and 1.7 million injections) per year. The COVID-19 immunization will require additional 2.0 million vaccinations. Considering that the routine immunization activities will be uninterruptedly conducted in the country, total number of immunizations in 2021 will equal to 4.5 million. According to the decision of MoH, the immunization of COVID-19 vaccine will be conducted through 96 vaccination centers: 45 in the West Bank and 51 in the Gaza Strip, where services will be provided by a total of 3,700 immunization service providers, including immunization specific and non-specific medical staff: doctors, nurses and administrative staff employed by the MoH. As the following:

*Table 5. COVID-19 vaccination points in Palestine*

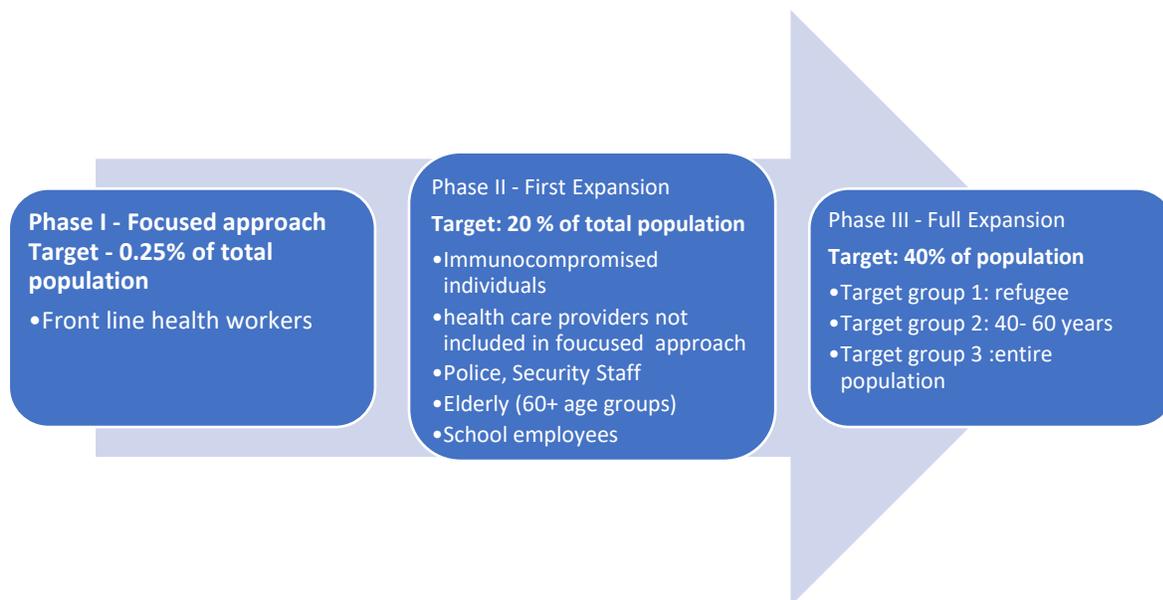
Number of vaccination members	Vaccination team	Number of localities	Target population	Total population	Vaccination center	District
70	14	13	31413	52,355	3	Jericho
110	22	16	41069	68,449	3	Salfeet
160	32	41	117205	195,341	3	Tulkarem
60	12	32	71425	119,042	3	Qalqiliya
740	148	155	465026	775,043	12	Hebron
170	34	48	137930	229,884	4	Bethlehem
200	40	43	244652	407,753	3	Nablus
70	14	15	66658	111,096	2	Jerusalem
50	10	14	38704	64,507	2	Tubas
320	64	96	247112	411,854	6	Ramallah
250	50	78	199230	332,050	4	Jenin
1500	300	29	1,399,575	2,332,626	51	Gaza
<b>3700</b>	<b>740</b>	<b>580</b>	<b>3,059,999</b>	<b>5,100,00</b>	<b>96</b>	<b>Total</b>

To increase the existing capacity and use the available staff efficiently, the MoH defined a three-phase approach for vaccination expansion strategy where:

- 1<sup>st</sup> implementation phase – “focused approach” will be devoted to immunization of the front-line service providers, including in UNRWA health facilities,

- 2<sup>nd</sup> implementation phase – “First Extension Phase” – will be devoted to immunization of the second priority group, which will consist of health service providers not included in the target group of the first phase, immunocompromised individuals, police and security staff, school teachers and staff and 60+ age group individuals, including in UNRWA facilities and Palestine refugees;
- 3<sup>rd</sup> implementation phase – “Full Extension Phase” – will be devoted to the vaccination of target population groups that have not been targeted during the first two phases of immunization, such as refugees which compose around 40 % from Palestinian population, 40-60 years old age groups, entire population, depending on the epidemiology of COVID-19, including those who are UNRWA refugees.

*Figure 1: COVID-19 Vaccination Phases and Target Groups*



- At the first phase of NDVP implementation, COVID-19 vaccination of the first priority group (front-line health workers) will be conducted through 96 health facilities.
- During the phase II, where NDVP considers use of the vaccines that are stored at +2+8°C, the mobile units will be established. The primary objective of the mobile units will be vaccination of target population groups in the hard-to-reach geographic locations, such as in Area C. In total, the MoH will establish nine mobile units for service delivery to the hard-to-reach groups in 8 districts of the country. The mobile units will include a PHC

doctor, nurse and driver. Detailed plan for 96 vaccination centers geographical distribution and target population for each center, health care providers and administrative personal were distributed to all districts (available in Arabic version, English version upon request)

The strategy of COVID-19 vaccination also considers use of the different types of vaccines:

- Complex vaccines requiring Ultra Cold-Chain capacity ( $-70^{\circ}\text{C}$  and  $-80^{\circ}\text{C}$ ) in the first phase of NDVP implementation
- Vaccines requiring positive storage conditions i.e. cold chain capacity at  $+2$   $+8^{\circ}\text{C}$ .

For planning purposes, it was determined that the volume of vaccines requiring UCC temperature conditions would not exceed the number of doses, needed to cover 0.25% or 3% of the population.

Therefore, during the first phase of the COVID-19 vaccination, MOH will target front line health service providers, working at the COVID centers, triage sections and emergency departments in both private, UNRWA and government facilities, who account for approximately 0.25% of total population of the country. This target group will be vaccinated with Pfizer vaccine.

In case of Pfizer vaccine use, the vaccine will be distributed from two central vaccine stores: in the West Bank and in the Gaza Strip, on a weekly basis to the district according to the numbers of persons register on the website to receive the vaccine

This decision is based on the specifics of (a) vaccine packaging, (195 5-dose vials per package, i.e. total 975 doses per package) and (b) temperature requirements ( $-70^{\circ}\text{C}$  or  $-80^{\circ}\text{C}$ ). According to the specific requirements for storage and administration, the vaccines must be used within a maximum of 5 days after withdrawal of vaccines from the Ultra Cold-Chain. Therefore, the service delivery points will be supplied on a weekly basis with 975 doses, which will require health facility to mobilize and vaccinate at least 230-240 individuals per day, which in turn will require health facility to mobilize 4-5 service provider teams for implementation of necessary vaccination sessions.

The mobilization of the population groups for immunization will be carried out by the local health facility managers under the monitoring and supervision provided by the District Preventive Medicine Department of the MoH.

Due to the complexity of the task, the immunization sessions will be carried out based on the specific immunization plans (or micro-plans) developed for particular districts and facilities in advance.

During the second and third phases of vaccination – “First Expansion Phase” and “full expansion Phase”, the NDVP considers use of vaccines that require positive storage capacity (similar to the majority of routine immunization vaccines), and vaccine management and service delivery that are similar to the routine immunization activities. Therefore, these phases of COVID-19 vaccination will be implemented through the routine immunization mechanisms using the fixed immunization sites. In the hard to reach areas, such as the Area C and Bedouin communities, the MOH will also use the outreach mobile vaccination teams.

The immunization, including of the health workers, will be voluntary. The person eligible for immunization will be provided complete information about risks and benefits of vaccination and the informed consent must be provided and signed by vaccine

During implementation of all three phases of COVID-19 vaccination, the special attention will be paid to and efforts undertaken to ensure infection prevention and control (IPC) measures. The IPC protocol is already in place and special section for COVID-19 vaccination was added to the protocol. The health care providers also received a number of training at national and health care facility levels and there is an IPC focal point at each district to monitor adherence to the protocol through regular supervision visits to vaccination site. Managers of immunization at district level asked to ensure adequate access to IPC supplies and equipment, e.g. PPE, masks, alcohol rub or hand washing stations with soap and clean water, to enable health workers to adhere to IPC measures during vaccination session. These preventative measures, intended for the health workforce, would include appropriate hand hygiene - hand washing or use of alcohol-based hand sanitizer, appropriate use of personal protective equipment (PPE), including medical masks, etc, ensuring there is no shared equipment or that adequate cleaning is occurring between recipients. Adequate physical distancing during immunization sessions and in waiting areas will be the most important issue that all health care providers are asked to care about. From the beginning of COVID outbreak health care providers received training IPC measures, including standard precautions and risk assessments, knowing when and how to use PPE, and understanding modes of transmission of disease. Refreshment training were conducted during training session for

adapted protocol for COVID-19 vaccination. All IPC measures will be funded by the MOH and local health budgets.

### **Immunization services in fixed site – detailed IPC Actions**

#### **❖ For vaccinators and health workers**

- ✓ Do not come to work if having symptoms compatible with respiratory illness; these are symptoms consistent with the surveillance definition of a severe acute respiratory illness.
- ✓ Adhere to national guidance and protocols for IPC measures and use recommended personal protective equipment in line with national policy
- ✓ Perform a risk assessment before every patient interaction
- ✓ Perform hand hygiene before/after each recipient using soap and water or with a hand sanitizer that contains 60 - 80% alcohol
- ✓ Clean and disinfect environmental surfaces often, including table tops, chairs, light switches
- ✓ Ensure the availability of hand sanitizer or a hand washing station with soap and water for use by recipients and companions at the entrance of vaccination sites and health facilities.
- ✓ Strictly adhere to safe waste management protocol for discarded PPE

#### **❖ During screening**

- ✓ Always maintain at least a 1-meter distance between the screener and recipients/companion.

#### **❖ During all sessions**

- ✓ Conduct sessions in well-ventilated areas or outdoor spaces if possible. A well-ventilated area is one that can be achieved through open windows and natural ventilation. The recirculation of indoor air through the use of fans, air-conditioning units is to be avoided.
- ✓ Minimise wait times as much as possible
- ✓ Limit number of individuals present at immunization visit to avoid crowded wait rooms; hold smaller sessions at more frequent intervals; schedule immunization appointments
- ✓ Bundle immunization with other health services to limit visits to the health centre

#### **❖ For recipients**

- ✓ Limit the number of family members accompanying the person to be vaccinated (one companion)
- ✓ Always maintain at least a 1-meter distance between the screener and recipients/companion.

## **Immunization services in fixed site – PPE equipment**

### **❖ Medical masks recommendation**

- ✓ Health workers should wear masks in areas with COVID-19 transmission and use for the duration of the immunization session. The mask can be replaced when damaged, contaminated or damp.
- ✓ In areas with clusters of cases, health workers may consider wearing masks
- ✓ In areas where the surveillance systems are weak, health workers should consider wearing masks
- ✓ If during screening, a 1-meter distance cannot be assured between recipient and the health worker, the health worker should wear a mask
- ✓ Any recipient identified with respiratory symptoms should be given a mask and removed from common waiting areas.

### **❖ Gloves recommendation**

- ✓ Not routinely required. Use only if direct contact with blood and body fluids, non-intact skin is anticipated, as indicated by risk-assessment per recipient
- ✓ If gloves are used, then they must be changed between every recipient and disposed in a bin with a lid, followed by proper hand hygiene.

### **❖ Gowns**

- ✓ Not routinely required. Use only if there is risk of splashes (of body fluids or droplets) onto the health care worker's body, as indicated by risk-assessment per recipient

### **❖ Eye Protection**

- ✓ Unlikely. Only if risk of splashes from droplets or body fluids into the eyes, as indicated by risk assessment per individual. Consider for oral vaccinations when self-administration is not possible.

## **Immunization services in outreach – IPC Actions**

### **❖ For vaccinators and health workers**

- ✓ Do not come to work if having symptoms compatible with respiratory illness; these are symptoms consistent with the surveillance definition of a severe acute respiratory illness.
- ✓ Adhere to national guidance and protocols for IPC measures and use recommended personal protective equipment in line with national policy
- ✓ Perform a risk assessment before every patient interaction

- ✓ Perform hand hygiene before/after each recipient using soap and water or with a hand sanitizer that contains 60 - 80% alcohol
- ✓ Clean and disinfect environmental surfaces often, including vaccine carriers and transported materials
- ❖ **During screening**
- ❖ Always maintain at least a 1-meter distance between the screener and recipients/companion.
- ❖ **At outreach posts**
- ✓ Conduct sessions in well-ventilated areas or outdoor spaces if possible
- ✓ Minimise wait times as much as possible
- ✓ Limit number of individuals present at outreach post to avoid crowds
- ❖ **For recipients**
- ✓ Limit the number of family members accompanying the person to be vaccinated (one companion)
- ✓ Always maintain at least a 1-meter distance between the screener and recipients/companion.

### **Immunization services in outreach – PPE equipment**

- ❖ **Medical masks**
- ✓ Health workers should wear masks in areas with COVID-19 transmission and use for the duration of the immunization session. The mask can be replaced when damaged, contaminated or damp.
- ✓ In areas with clusters of cases, health workers may consider wearing masks
- ✓ In areas where the surveillance systems are weak, health workers should consider wearing masks
- ✓ If during screening, 1 meter distance cannot be assured between recipient and the health worker, the health worker should wear a mask
- ✓ Any recipient identified with respiratory symptoms should be given a mask and removed from common waiting areas.
- ❖ **Gloves**
- ✓ Not routinely required. Use only if direct contact with blood and body fluids, non-intact skin is anticipated, as indicated by risk-assessment per recipient. Should be brought in IPC kit for outreach as a precaution.

- ✓ If gloves are used, then they must be changed between every recipient and disposed in a bin with a lid, followed by proper hand hygiene
- ❖ **Gowns**
  - ✓ Not routinely required. Use only if there is risk of splashes (of body fluids or droplets) onto the health care worker's body, as indicated by risk-assessment per recipient
- ❖ **Eye Protection**
  - ✓ Unlikely. Only if risk of splashes from droplets or body fluids into the eyes, as indicated by risk assessment per individual. Consider for oral vaccinations when self-administration is not possible. Should be brought in IPC kit for outreach as precaution.

## 6. Supply chain management and health care waste management

Based on the current information shared by the manufacturers, it is assumed that most vaccines will be stored at +2°C to +8°C, with exceptions that some vaccines that would require ultra-cold chain (UCC) equipment (-70°C) and -20°C freezers. The most recent Effective Vaccine Management (EVM) Assessment was conducted in 2016 in State of Palestine and the full inventory of the cold-chain system was carried out over the course of the last 6 months. Prior to vaccine introduction, Palestine in collaboration with UNICEF, also conducted a careful assessment of the existing supply chain system to be able to identify and address gaps.

A joint exercise conducted using the sizing tool revealed that:

- ✓ No gaps were identify at central and district level for positive temperature (+2+8°C).
- ✓ 7,429 liters (district and central level) available in negative temperature (-20°C).
- ❖ Ultra-cold chain (-70°C) availability: 1,800 liters in the West Bank and,900 liters in the Gaza Strip respectively.

A number of instruments for recording temperature were in use: 3 daily manual temperature recording form, Log Tags supported with a dial thermometer, freeze tag and data logger fixed in all WICR, this data logger had 4 sensors fixed in walk-in cold room (WICR) corner for best monitoring of room temperature. Furthermore, data logger connected with store keepers phone, additional 2 respondent phone in order to send email and text SMS in case of temperature increase

or decrease. Central preventive medicine department had account to access all WICR temperature in all district for farther supervision and follow up.

To ensure successful COVID-19 deployment operation, Palestine implemented the following measures:

- ✓ Standard operating procedures (SOPs) communicated to all levels of the supply chain managers including three vaccine temperature regimen handling - (available upon request and will be shared in English version upon request)
- ✓ Conducted a training (TOT) to all district vaccine managers and storekeepers (N=50), as well as the training to all health care providers at health facility level, noted that specific vaccine instruction will be disseminated upon deciding which kind of vaccine will be received.
- ✓ Cold chain capacity gaps were identified, including the surge capacity were studied at all level and different scenarios put in place to deal with this gaps, mainly in -20°C temperature put in place including freezers reallocation and or increase frequency of vaccine delivery taking into consideration logistics including vehicles and cold boxes temperature monitoring device availability .
- ✓ Data recording and reporting mechanism for vaccines and cold chain equipment will use the same system used for other vaccine which is in place , supervisors at district level will adherence to cold chain practice including log tag ,freeze tag, data logger, temperature chart and vaccine shipment cards.
- ✓ Prior to vaccine arrival, all staff responsible for storing, handling, transporting and tracking the movement of the vaccines properly briefed on the deployment plan and trained on the relevant guidelines, SOPs, including on IPC and managing UCC equipment.
- ✓ Dry storage capacity was studied and recorded.
- ✓ Potential sources of additional capacity from private sector sources for reallocation of additional UCC from university and private laboratory were discussed and the relevant costs were done in advance prior to vaccine arrival.
- ✓ Distribution plan for vaccines and ancillary supplies such as syringes, safety boxes, vaccine carriers, cooling packs, data collection forms including AEFI , emergency kits and PPE based on the target population were done . Printing material sent to company in order to

finalize then distribution take place. In regards to syringes stock availability recorded for each type of vaccine, the distribution of the syringes will take place when type of vaccine confirmed. Bilateral agreements with medical supplies company in Palestine were done in case of any emergency shortage of ancillary supplies

- ✓ security arrangements with ministry of interior were discussed to assure vaccination and staff safety, in both vaccines centers and during vaccine transportation including allocation of security staff at all level even through vaccine transportation.

### **Transportation**

- ✓ Transportation of vaccines from the port of entry (Tel-Aviv) to the central warehouse in Nablus and Gaza strip will be carried by the contractor company.
- ✓ Further distribution of the vaccines from the central to the district warehouses will be performed by the MoH. The distribution of vaccines from central to the district level is carried out 4 times per years. During the transportation conditioned ice packs are used, For vaccines required +2+8°C temperature regimen and monthly for vaccines requiring -20°C regimen
- ✓ The distribution of vaccines from the district warehouses to the health facilities will be distributed at daily basis for vaccination centers according to the number of persons who register at MOH web site designated for covid vaccine , any unused vaccination vials will be returned to the district store at the end of the session.

### **❖ For COVID-19 vaccine requiring ultra-cold chain (UCC) storage temperature**

Five ultra-cold chain freezers (-70°C) are available in Palestine: three in the West Bank in central vaccine store with net capacity of 1,800 litres and two in the Gaza Strip with total net capacity 900 litres. Five stand-by electrical generators are in place. In addition, bilateral agreements were concluded with the private sector and universities to reallocate their five UCC devices to become under MOH control in case of any needs. For temperature monitoring, staff will undertake three temperature recordings per day using digital screen fixed on freezers and temperature chart special for ultra-cold chain monitoring.

SOPs were in place for storekeepers to handle the vaccines. For dry ice, cryogenic gloves and dry ice boxes availability, MOH receive 100 boxes. Five dry ice generators are available from an internal company, each producing up to 10-15 kg of dry ice per hour.

In case, the vaccine allocated for Palestine would require an ultra-cold chain capacity, the delivery strategy from the central store to the district level will be in weekly basis. The amount of vaccines that will be sent to the district will depend on the number of persons register on the web site that developed for COVID-19 vaccination. Any unused vials at the end of the session will be returned to the district store level for proper management.

*Stock Management managers TOR:*

- Recording the available quantities of each type of vaccine in every warehouse or health center periodically and continuously.
- Inventory control and follow up on vaccines' expiry dates.
- Coordination for the allocation of the proper second dose of the vaccine for everyone.
- Estimating the need to request additional vaccine doses.
- Estimating the vaccine usage in each vaccination center.
- Determining the need to reinforce health centers with additional staff.
- Reverse logistics.

**Periodic actions:**

- Daily completion of the Stock Card recording of all vaccine movements.
- Daily stock count post vaccination
- Spot checks conducted by supervisors at national and governorate's level.

**Good Distribution Practice (GDP)**

When first receiving the vaccines, the team should ensure the following

- Always check the tracking of temperature and ensure adequate storage
- Ensure all vaccines are received at a required temperature.
- The vaccines were transported by refrigerated vehicles designated for this.
- Ensure the presence of a Waybill
- The recipient signs the receipt after cross-checking the quantity contained in the statement with the actual quantity.
- Conduct a physical examination of the received vaccines for quality control purposes, ensuring the absence of damages; a leakage, the absence of a sticker with basic information (such as the type of vaccine, expiry date, manufacturing batch number) and other quality control parameters.
- The vaccine is stored in the appropriate cold chains and according to the appropriate temperature, as soon as it is received.

### **Waste management:**

The medical waste management for routine immunization and supplemental immunization activity (SIAs) is carried out according to the SOPs developed and institutionalized by EPI. The medical waste management related to the COVID-19 vaccination will be organized and carried out according to the existing procedures and SOPs.

The volume and weight of the waste will be estimated after the final decision on the type of vaccines that will be used for COVID-19 vaccination.

### **Responsible bodies**

- Ministry of Health
- Ministry of Environment.
- Licensed private waste disposal companies
- Vaccination centers

\*waste management protocol (See Annexes).

## 8. Human resources management and training

Since the beginning of COVID-19 pandemic, several trainings were conducted at all level including primary health care staff at district, facility level and hospitals. Different topics were covered, including infection prevention control, practical session on the use of PPEs, contact tracing, surveillance, laboratory diagnostics and case management.

In early January 2021, the Central Preventive Medicine Department conducted a TOT in 3 days – one day for each group - for vaccines managers at district level discussed several topic including COVID-19 vaccine introduction, different scenario of COVID-19 vaccine storage management including at +2+8°C, -20°C, -70°C, AEFI strategy and forms to be used were discussed, safety injection, anaphylactic shock management and infection prevention control sessions.

District vaccine managers started training of health care providers at health facility level using the same material discussed during TOT. A total of 3,700 health care providers received the training. In each district 2 health care providers received training on supervision during vaccination sessions, each district asked to prepare reports about the numbers of vaccinators, drivers, emergency kit needs, vaccine and clinical waste handlers , cold boxes, etc. in order to identify any gaps at district level.

The Ministry of Health has developed a plan to initiate a COVID-19 vaccination, which contains the following elements:

### A- Preparing vaccination centers:

- Identify vaccination centers in each district
- Provide vaccination centers with first aid emergency kit and requirements
- Coordination with Palestinian Red Crescent and medical military services, each vaccination centers will be provided with an ambulance for use in emergency situation
- Coordination with other ministries in order to provide each district with additional 3 cars for administrative use

### B- Health care providers (HCP):

- Detection the number of HCP for each vaccination centers include the following: two administrative personnel, two nurses, one doctor. The centers will work in two shifts.
- Coordinate with other ministries to provide each district with 3 administrative personal to help the health directorate in vaccine registration

C- Training:

- TOT at central level for preventive medicine departments team cascaded at district level
- Training at districts level to target health care providers at health facility level (number 2,200 in West Bank, 1,500 Gaza strip). A joint MoH-WHO monitoring and supervision is in place to ensure training activities are completed in line with the agreed training plan and curriculum
- Coordinate with a local health NGO “Juzoor” training center to conduct basic life support training sessions for all health care providers elaborated in vaccination clinic. Further, the MOH will provide emergency kit to all clinics designated for COVID-19 vaccination. Each kit contains a laryngoscope, AMBU bag, endotracheal tubes (various sizes), Oxygen cylinder and drugs for treatment of anaphylaxis, such as the Adrenaline, etc.

D- Nominate focal point in each district for coordination in case of emergency and to communicate with central preventive medicine department.

E- Required preparation:

- ✓ Prepare emergency kit in each center
- ✓ Provide each center with all documents needed as the following:
  - Pre vaccination and consent form
  - Registration form
  - AEFI form
  - Information sheet about vaccine for patient
  - Reporting form
  - Vaccination cards

❖ Note : introduction plan of COVID -19 vaccination, planning, distribution of HCP, forms and nominated centers are available in annex 8.

Table 6. Training content and target audiences

Training	Training content	Number of trainees	Duration of module
Immunization in practice	- Administration of vaccination	2,200 West Bank 1,500 Gaza Strip	4-6 hours
	- Vaccine specific characteristics		
	- Contraindications		
	- Storage requirements		
Cold-chain and logistics	- Data recording/paper based or electronic	2,200 in West Bank and 1,500 in Gaza Strip	2-3 hours
	- Vaccine transportation and storage requirements		
	- Stock management		
AEFI surveillance	- Medical Waste Management	40	2-4 hours
	- AEFI and vaccine related reactions		
	- Reactions related to the quality of vaccines		
Communication and crisis communication	- Reactions related to the so called program errors (errors in administration of vaccines)	50 managers	4-6 hours
	- Registration, notification, investigation		
	- Acceptance of vaccines		
	- Interpersonal Communication for Immunization (IPC)		
	- Development and distribution of the advocacy and behavior change messages		
- Communication with the Anti-Vaccination groups			
- Disinformation			
- Social media inclusion and interaction			

- Main principles and risk communication in management of public health programs
- Advocacy and behavior change related to vaccination
- Communication with media

Organization of service delivery	- Planning, mobilization of target groups, performance of mobile groups, monitoring and evaluation	35 HCW of mobile vaccination teams	4 -6 hours
Immunization safety	- AEFI and AEFI surveillance	50 managers	2 hours

**Training needs assessment**

Area	Change/action	Responsible	Status
Regulatory environment	Not applicable as PA doesn't have NRA	MoH	Not applicable
Trainings	On the modules indicated above	MoH	completed
Training material	Development of materials required	MoH/Preventive Medicine Department	completed
E-system	Allocation of web portal for organizing on-line training courses	MoH/Preventive Medicine Department	Not applicable
Costing of capacity building activities	Costing of the training sessions required	MoH/Preventive medicine Department	Completed

## 9. Vaccine acceptance and uptake (demand)

Decades of experience and available evidence related to the introduction of the new vaccines has proved that clear and effective communication is essential for the successful implementation of the COVID-19 vaccination program, which should be initiated before vaccines become available.

Supportive environment, social impact and motivation are the three critical factors which along with the public awareness have major impact on acceptance of vaccine by the target population groups, and therefore, need to be considered for better understanding of the context of the country and identification of the most effective strategies for introduction.

Increasing confidence in the vaccine among the general population and the immunization target groups and dispelling the misinformation surrounding the vaccine, is important to ensure high vaccine uptake. In turn, the successful COVID-19 vaccination program can potentially lead to the significant improvement of the uptake of routine immunization vaccines and achievement of target coverage rates in the coming years.

In the State of Palestine, implementation of demand generation activities is led by the National Health Education and Promotion Committee for COVID-19 vaccination, created and officially endorsed by the Ministry of Health. The Committee was established in close cooperation of the MoH and professional health associations including teachers of medical and paramedical colleges. The National Health Education and Promotion Committee for COVID-19 elaborated goals and objectives of demand generation strategy aiming at increase of uptake of COVID-19 vaccines by the immunization target groups.

National health education and promotion committee for COVID-19 disease and vaccination officially endorsed by the Minister of Health in strong cooperation with UNICEF, WHO, UNRWA, health associations including medical, nursing, laboratory and university teachers of medical and paramedical college. The main objectives of this committee include:

- ✓ Generate demand for COVID-19 vaccine and encourage uptake by eligible population.
- ✓ Build community trust and confidence around vaccine.
- ✓ Address public concerns regarding vaccine hesitancy and mistrust.
- ✓ Encourage people to continue behaviors to prevent COVID-19 infection

Many meetings were conducted discussing health promotion issues including sharing health promotion regarding infection prevention and vaccination through social media, local TV and radio. Agreement with health associations to increase knowledge of its affiliates about the importance of vaccination, since health care providers play a major role in the formulation of a positive attitude of the population in general.

❖ Note : link to the Shooting Clips in social media and TV available upon request.

The National Health Education and Promotion Committee for COVID-19 elaborated goals and objectives of demand generation strategy aiming at increase of uptake of COVID-19 vaccines by the immunization target groups.

### Goal

The goal of the demand generation interventions is to “Increase confidence in and acceptance of COVID-19 vaccine among the immunization target population groups and generate sufficient demand for COVID-19 vaccination”.

For achieving this goal, Palestine utilizes following approaches: advocacy, communication, social mobilization, risk and security issues, community involvement, training and crisis communication.

### Objectives and term of reference

- Mobilize and engage key partners and the communities;
- Facilitate dialogue with internal and external partners regarding the implementation of the COVID-19 vaccine program to understand their key approaches and needs
- Ensure mobilization of all media sources, through effective media information, mobilization, and advocacy
- Develop and implement a crisis communication action plan;
- Prepare daily / weekly dashboards / develop a standard form on the number of people vaccinated daily
- Develop a detailed technical guide for vaccination with COVID-19 vaccine and effective communication on COVID-19 vaccination issues and conduct training of the local health

service providers – managers, health personnel of the local health facilities and other local stakeholders;

- Regularly provide updated information to the public on the development, authorization, introduction, distribution and use of COVID-19 vaccines, using a strictly defined communication hierarchy
- Ensure public confidence in the safety, efficacy and introduction of the COVID-19 vaccine;
- Disseminate active, timely, accessible and effective messages on community consolidation, expectations management, public health, safety;
- Mobilize the target population groups of COVID-19 vaccination and maintain effective communication for both - first and second dose vaccination invitations;
- Plan and implement specific corrective measures for addressing the disinformation;
- Monitor, oversee and assess impact of the strategy implementation process

### Target groups

1. Parties (key stakeholders) involved in introduction of COVID-19 vaccine
  - TWGs and committees working in different areas of COVID-19 response;
  - NITAG members
  - The Ministry of Health and the Central, Regional and district Preventive Medicine Departments of the MoH
    - Local and international partner organizations: (WHO, UNICEF, UNRWA, WB, national NGOs (if relevant) and etc.)
2. Health service providers and health personnel (entire health sector)
3. Representatives of the high risk groups
  - Front line health workers;
  - Immunocompromised individuals;
  - 60+ age groups;

- Police, Security Staff
  - Staff of Schools
4. Key stakeholders/opinion makers/influencers
- Civil society
  - Scientists and academia
  - Non-government organizations
  - Business sector representatives
5. Mass- and social-media representatives, Minister of Health conducted a virtual meeting with 30 media influencers on 15 January 2021 including :
- Central and regional TV channels
  - Radio
  - Printing media
  - Social media groups and “influencers”
    - MoH
    - Social Networks: Facebook, Instagram, twitter

### Strategic directions

International experience and research confirm that only informing or individual interventions are not sufficient in overcoming vaccination barriers and that different strategies and approaches need to be integrated and combined. For example, interventions for defaulter tracking and instructions, train health care workers, and build trust in them. Involvement of volunteers (eg students, public servants) for social mobilization of the target contingent and physical mobilization (bringing) for vaccination is another interventions proved to be effective in the different countries and environments.

The Communication Action Plan developed by the MoH in consultation with partners, (annex 9) based on four interrelated strategic elements of an integrated approach to vaccine demand:

1. Social listening, media inclusion and management of misinformation

- Listening to the target population groups, collection of social data for development of the targeted communication strategies;
  - Creating a supportive and transparent information environment and neutralizing misinformation through social listening and evaluation to plan further interventions
2. Risk communication and community inclusion
    - Increase trust and acceptance of vaccines through the involvement of civil society
  3. Strengthening capacity of health specialists
    - Increase the awareness and knowledge of medical staff about COVID-19 vaccination as the first target group of vaccination, a reliable source of information, an influential person and a vaccinator; Interpersonal communication skills of the target population and the community should be strengthened
  4. Crisis communication

The crisis preparedness and response (including responding to any COVID-19 vaccine related event) will be primarily handled by the Palestinian Authority's Ministry of Health, which has nominated the Minister of Health and several high-level spokespeople to address crisis communication issues (including adverse events following immunization). It will be supported with information from WHO and UNICEF. In addition, the MoH and WHO have partnered with one of Palestine's largest Health NGO's (PMRS) to train media, spokespeople, key partners (such as health partners in the Health Cluster) and social mobilisers to support vaccine uptake, respond to misinformation and vaccine-related adverse events and PMRS will establish channels of communication with these groups to support any crisis response and keep all those involved up to date. This training and crisis communication mechanism will be rolled out in all governorates in the West Bank and the Gaza Strip, under the leadership of the MoH with support from WHO and UNICEF.

- ❖ Note: the information flow will follow the Ministry of Health organizational structure (See Annex 11).

## Implementation phases and priority interventions

Use of timely notifications for the current phase of the COVID-19 vaccination program.

- Before beginning of vaccination
- Vaccine availability is limited to the pre-defined population groups (Phase #1- 0.25% of total population)
- Vaccine availability is increasing for critical population groups and the general population (Phase 2 - 17% of the total population)
- The vaccine is widely available (Phase 3 - 40% of the total population)

### Expected challenges and rumors

- Will the vaccine prevent infection, or will it prevent transmission?
- Will the vaccine be taken in one dose or in several doses?
- How effective is the vaccine, and the duration of immunity?
- The most prominent misleading rumors about the COVID-19 vaccine and suggestions to deal with it
  - Belief in conspiracy theory (political and economic conspiracies to eliminate third world countries)
  - Fear of a change in genes.
  - Fear of being tracked by the manufacturers of this vaccine.
  - Fears that the vaccine is not safe and that it will cause death after several years
  - Hostility towards major pharmaceutical companies

### Suggestions for dealing with these misleading rumors

1. Focusing on the positive issues, which include self-preservation, national unity, fighting the common enemy, defeating the virus, patriotism, and freedom.

2. Disregarding negative topics that include fear, mistrust, division, impulsivity, misinformation, confusion, and conspiracy theories.
3. Focusing on defeating the disease and its risks to the population in addition to focusing on the vaccine itself and that it is optimal. Thus, the person will go to take the vaccine because he is aware of the dangers of the disease and also because of his belief in the effectiveness of the vaccine itself.
4. Recalling the previous vaccinations and the great role they played in saving lives, such as smallpox eradication, polio, whooping cough, measles vaccination and many other vaccines.
5. Issuance a vaccination certificate for all vaccinated individuals which will aid him/her in accessing activities restricted by the epidemic, such as sporting events, concerts, face-to-face business activities, exhibitions, flights and public transportation

## **9. Vaccine safety monitoring and management of AEFI and injection safety**

Many COVID-19 vaccines may involve multiple vaccine presentations, from different manufacturers, potentially being delivered through different vaccine delivery platforms simultaneously in Palestine. As some of the potential vaccine products use new technologies never before licensed, against a novel target pathogen with many unknowns, in settings with varying capacities to identify, report, investigate, analyze, determine the cause of and respond to AEFI, the MOH established a robust AEFI monitoring systems that include the following elements based on adaptation of available WHO guidance:

- 1- A COVID 19 vaccination form should be filled by the vaccinator prior to vaccination in vaccination site, which explores co-morbidities, past medical history, past allergy, past surgical history, use of medication, pregnancy and lactation status for female and previous diagnosis with COVID-19;
- 2- Registration form that should be filled by vaccinator at vaccination site stating the items for example age, sex, name, ID, etc. Annex 4)
- 3- Line listing form (AEFI) for COVID-19 (Annex 4)

- 4- The AEFI investigation form (Annex 4) will be filled for each patient developing AEFI that identified through follow up wither immediately at vaccination site or through routine follow up for those patients at district level through telephone.

Data analysis interpretation will be conducted in daily basis in order to identify any possible causality between AEFI and specific vaccine and the batch number. The completed forms will be send using the immediate notification channel. Zero AEFI reporting form also requested to be filled from all vaccination sites.

Regarding anaphylactic shock management protocol (Annex 3), training session had taken place for health care personal working in COVID19 vaccination centres. All vaccination centres were equipped with emergency kit containing all the needs of medication or equipment to perform advance cardiac life support; as well flow chart will be fixed in all vaccination sites for management protocol in case of anaphylactic shock (Annex 3). Furthermore, all vaccination sites will have access to ambulance services for patient transportation with clear target site were the patients should be referred and with whom should be coordinate in the referral hospital for proper arrangement

Note: all AEFI form adopted from WHO web site, please see (Annex 12).

The MOH conducted a training session to ensure real-time monitoring, knowledge sharing and communication mechanisms to warrant that any safety concern can be identified early and investigated in a timely manner, safeguarding the health of target populations and, ultimately, maintain trust in the immunization programmes and the health systems. For more information regarding training material please see (Annex 7)

Vaccine safety monitoring will be the responsibility between directorate manager, preventive medicine department doctors in each district. In addition to the general routine passive surveillance (spontaneous reporting) approaches of vaccine pharmacovigilance.

Printed vaccination cards that will be provided to the vaccine will contain the phone number of district doctors, the vaccinee will be asked to inform those doctors if any AEFI developed. A dashboard that is used in routine immunization will be used for COVID-19 vaccination AEFI reporting. Nominated health care providers were trained to monitor the web site and generate

reports for health directorate then this reports will be shared to the central level for farther analyses and sharing with WHO. Nominated doctors in each hospital including government, UNRWA and private hospitals were trained to report any case admitted to the hospital after immunization. The MOH has a committee to investigate any serious adverse events following immunization and generate the report to high level management in order to communicate the event with WHO.

Monitoring and addressing media concerns regarding AEFI will be the responsibility of health education and promotion committee, the general directors of primary health care and public health will be the only responsible person to communicating with media in case of AEFI developed with public concern. Case-based AEFI reporting, with particular attention to the brand name of the vaccine and the manufacturer along with details such as batch numbers and documentation of dates, were developed and disseminated with primary health care directorate. Quality surveillance in terms of timeliness and completeness for reporting, investigation, analyses and causality assessment were discussed in training sessions.

To decrease human error during vaccination session, refreshment training of health care providers on safety injection were conducted, as well as the needs of syringes and safety box discussed using different vaccine scenario. Proper disposal of medical waste were discussed and will follow national plan for medical waste handling, taking in consideration the huge amount of medical waste the will be produced. Vaccinators asked to perform hand hygiene after each recipient with soap and water or hand sanitizer containing 60–80% alcohol to prevent the spread of COVID-19.

The Causality assessment of an adverse event following immunization (AEFI) will be conducted based on WHO guideline:

[https://www.who.int/vaccine\\_safety/publications/CausalityAssessmentAEFI\\_EN.pdf?ua=1](https://www.who.int/vaccine_safety/publications/CausalityAssessmentAEFI_EN.pdf?ua=1))

## 10. Immunization monitoring system

Palestine developed a national policy to prioritize risk groups and settings based on the WHO SAGE road map recommendations as shown in section 4 (Target groups and vaccination strategy). In order to monitor the vaccination process, MOH developed a number of indicators (see below) to measure equitable uptake and coverage over time by geography, population groups, and risk groups. MOH developed list of target population at each district with stratification of each group

within the district in order to be able to calculate coverage progress in each group within the district.

The MOH printed a personal vaccination certificate for any health, occupational, educational and travel purposes, as well all registration documents were printed and distributed to the vaccination centres, to ensure easy monitor, follow up and review. To reduce the incidence of dropouts, each vaccinee will receive vaccination card that contain the date for the second vaccination dose. Next visit will be scheduled in software system in order to send text message for vaccine before the next visit.

The MoH starts to adapt vaccination dashboard that is already used to monitor EPI in Palestine will be developed for covid-19 vaccination to provide insights into a variety of programmatic aspects in addition to vaccination data, and to serve as a useful communication and visual tool. Including vaccine uptake and coverage by geography, population groups, and risk groups, over time series, AEFI and surveillance (cases and deaths). Please find Screenshot for website under development in (Annex 4).

The vaccine logistics will be routinely monitored by the representatives of the Central and District Preventive Medicine Department at the time of delivery of the vaccines at the storage points. At the service delivery points monitoring will be conducted by health facility seniors and representatives of the preventive medicine department – prior to the delivery of vaccines to the vaccination sites, as well as during the vaccination process. The monitoring will include assessment of the capacity of the vaccination site for service delivery and logistics. At this stage the monitoring of the logistics and service delivery will be carried out at least once per Day and upon recipient of vaccine at each level .

A computerized system in place which is supported by an Oracle software for stocks management at WB and GS , formal advanced notification process which advices receiving stores of the time of delivery/collection and Stock management tools were available at the CVS including ledgers and delivery notes which serve as issue vouchers in addition to the electronic stock management tool

The following indicators will deployed to monitor the progress based on the WHO-recommended indicators :

- ✓ Vaccine uptake
- ✓ Vaccination coverage by each target group and geographical location
- ✓ Wastage
- ✓ % of AEFI

## 11. COVID-19 surveillance

Since 2017 MoH build local capacity in DHIS2. The team is now able to configure, customize, and build health systems based on DHIS2 technology in response to local health needs, with minimal external support. This capacity was demonstrated with the outbreak of the COVID-19 virus in Palestine. Recognizing the urgency of the situation, the team quickly took action, and within a week, successfully developed the COVID-19 surveillance package inspired by existing work of the global DHIS2 community. The Palestinian team built the system to incorporate both MoH needs and WHO standards for tracking information at the case level, and created dashboards with country-specific indicators.

The surveillance system is being used by MoH health workers to input important data related to reported cases of COVID-19 throughout the country in order to track cases. The system adopted WHO-recommended COVID-19 case definitions, as well as MoH and WHO case reporting information, including:

- Socio-demographic information
- Occupation and animal contacts
- Source and method of infection
- Clinical course and pictures, including signs and symptoms
- Co-morbidity and underlying health conditions
- Exposure and travel information prior to the onset of symptoms
- Lab test results
- Health outcomes

The system was built to address four case management criteria:

- Reporting for suspected COVID-19 cases
- Cases of home and institutional quarantine (monitoring of health status for 14 days)
- Hospital isolation cases
- Confirmed case reports

The MOH has trained focal points in each district to use the system. These focal points are responsible for collecting data, following up on and documenting cases, and monitoring cases in quarantine and isolation. The Minister of Health and the Prime Minister also have access to the system.

The software is able to provide real-time analyses and generate needed statistics and indicators required for follow-up and monitoring the containment or spread of the outbreak. Statistics generated by the system illustrate the characteristics and classification of cases, whether confirmed or suspected, as well as health outcomes (recovered, stable, or deceased), in addition to other WHO and health system indicators. Over 70 indicators are generated by the system and are presented in the dashboard as tables, graphs, and GIS maps. This information will support decision-making regarding preventive and corrective procedures. As the COVID-19 situation in the country is still ongoing and largely uncertain, the MoH and the Palestinian National Institute of Public Health (PNIPH) will continue to adjust the system to benefit the health sector and support the government in its efforts to address the crisis.

COVID-19 diagnostic centres, provided with case definition case that adhered to WHO definition to collect high quality and reliable data on all cases, this will help to understand the impact of the vaccine on the severity of disease. The age group and target populations identified within the COVID-19 centres to ensure that surveillance covers those groups targeted by vaccination.

Data elements that will be collected through surveillance system to evaluate the vaccine effectiveness and sharing with WHO will be as the following:

- ✓ age/date of birth;

- ✓ place of residence;
- ✓ sex;
- ✓ severity of disease hospitalization,
- ✓ intensive care unit (ICU) admission,
- ✓ oxygen requirement,
- ✓ ventilatory support,
- ✓ extracorporeal membrane oxygenation;
- ✓ COVID-19 treatments provided (e.g. dexamethasone, COVID-19 antibodies, etc.);
- ✓ co-morbidities;
- ✓ laboratory testing related data (type of test, test results, date of test);
- ✓ prior history of COVID-19 prior to this and date of last positive tests.
- ✓ Has the person received the COVID-19 vaccine (yes, no, unknown)?
- ✓ If yes, what are the brands/dates of vaccine

The trainings conducted within the framework of this NDVP included up-to-date information on standard case identification, COVID-19 and AEFI notification responsibilities, vaccination registration, reporting format and timing for service providers and public health professionals.

## **12.Evaluation of COVID-19 vaccine introduction:**

Following the COVID-19 vaccine introduction into a routine immunization program, a post introduction vaccine evaluation will be conducted to evaluate the impact of the vaccine introduction on the country immunization programme and to rapidly identify problems needing correction as vaccination expands in country.

Studies to measure the impact of COVID-19 vaccines in the population, that is the reduction in disease incidence, or reduction in disease severity or longevity will be conducted in health worker specific evaluation, an older population evaluation, or at national level the final decision will be formulate later on .

The evaluation of the COVID-19 vaccine introduction will be based on the WHO methodology for post-evaluation introduction.

The post-introduction evaluation will aim at following objectives:

- to identify possible errors in introduction of the vaccine;
- correct the identified errors through design of appropriate interventions and implement corrective measures.
- assess the overall impact of COVID-19 vaccine introduction on immunization program; and
- develop lessons learnt for future vaccine introduction.

### **Evaluation methodology**

The evaluation will include field visits to regional and district public health centers and health care facilities, interviews with immunization program staff and health workers, observations of immunization sessions and vaccine storage facilities and practices, as well as interviews with caregivers of vaccination target individuals. The evaluators will use standardized WHO questionnaires adapted to the context of the State of Palestine.

Discussion within the MoH, PNIPH and with academic institutions on conducting the vaccine effectiveness studies are ongoing and will be finalized shortly.

### **Preparatory activities:**

Following activities will be carried out for preparation of the post-introduction evaluation:

1. Selection of districts for evaluation: 16 districts will be visited during the implementation of PIE;
2. Establishment of the evaluation teams: in total 4 (four) teams will be established. Each evaluation team will include 2 experts.
3. Provide
4. comments to evaluation questionnaires.
5. Develop a budget for the evaluation:
  - Coffee breaks and lunches for training on day 1 and meeting on day 6

- Travel to Ramallah to participate in training and meeting; field visits costs (ticket costs, cars rent, fuel, per-diem for evaluators and drivers)
  - Interpretation and translation costs for international expert.
6. Assist in arranging transportation for evaluation teams and their accommodation in the field

**Annexes:**

<https://onedrive.live.com/?authkey=%21AO1%2Dr6TElq5VfsU&id=BD83EAE875C46606%211106&cid=BD83EAE875C46606>

- 1- Medical waste management protocol.
- 2- NITAG meeting minutes.
- 3- Anaphylaxis shock management protocol.
- 4- Screenshot of COVID vaccination portal.
- 5- Agreement of Vaccine importation. (Cogat).
- 6- Cold Chain Sizing tool.
- 7- Training Material.
- 8- COVID-19 Vaccination centres.
- 9- Communication and crises management plan.
- 10- Registration of new drug products protocol.
- 11- Ministry of health hierarchy.
- 12- Adverse event Following immunization forms (AEFI).