INTEGRATING COVID-19 VACCINATION INTO THE PRIMARY HEALTH CARE NETWORK IN LEBANON

SHORT VERSION

K2P COVID-19 SERIES
The purpose of this document is to:

• Advocate for the integration of COVID-19 vaccination into the services delivered by the National Primary Health Care (PHC) network in Lebanon.

• Identify requirements for optimal integration, challenges for this undertaking, and counterstrategies to overcome challenges.

Since its onset in December 2019, the COVID-19 pandemic has spread at an alarming pace, infecting millions, straining health systems, and bringing economic activities to standstill.

Lebanon was hit hard by the COVID-19 pandemic 452,281 cases and 5,964 deaths recorded as of March 25th, 2021. The economic impact of the pandemic was further exacerbated by the worst economic crisis in Lebanon’s history with almost half of the Lebanese population falling below the poverty line.

In response to the urgent need for the importation and deployment of COVID-19 vaccines, the National Deployment and Vaccination Plan was devised to establish a national strategy for scaling up the preparedness for the roll-out of COVID-19 vaccines in Lebanon.

The first batch of Pfizer-BioNtech COVID-19 vaccines arrived on February 13, 2021 and vaccination across the country was immediately initiated the next day. On March 24th, 2021, Lebanon received the first batch of the AstraZeneca-Oxford vaccine, with 33,600 doses procured through COVAX.

Until March 26th 2021, 180,074 doses of COVID-19 vaccines have been delivered in 32 hospitals and 1 mobile clinic, with the sites distributed as evenly as possible along the Lebanese governorates.
Choice of hospitals as vaccination sites is associated with advantages and disadvantages:

**ADVANTAGES**

- The availability of large premises which enable mass vaccination in a relatively short period of time
- The availability of healthcare providers knowledgeable in COVID-19 disease and who can be trained to deliver vaccines
- The convenience of the existing infrastructure
- Public trust in hospitals and healthcare providers who were the frontline fighters in the battle against COVID-19

**DISADVANTAGES**

- Additional strain on an overstretched hospital sector
- Further financial hardships for providing a non-reimbursed service
- Diversion of resources, particularly human resources, away from their duty of managing COVID-19 patients
- Threat to equitable access to vaccination sites, particularly in remote areas

**INSTITUTIONALIZATION OF THE DELIVERY OF COVID-19 VACCINES IS A DIRE NEED THAT CAN BE ACHIEVED THROUGH THE INTEGRATION OF COVID-19 VACCINATION INTO A STRUCTURED, FORMALIZED SYSTEM, NAMELY THE NATIONAL PRIMARY HEALTH CARE NETWORK.**
BACKGROUND

OVERVIEW OF THE PRIMARY HEALTH CARE NETWORK COVERAGE AND SERVICE DELIVERY

- 245 PHC centers distributed over all governorates and built on a public-private partnership between the Ministry of Public Health (MoPH) and civil society
- PHC network caters to the needs of displaced and host communities, with 2,350,776 services delivered in 2019
- The MoPH plays a normative role and ensures equity of access, quality and affordability of services
- Among other programs, PHC network implements the Expanded Program on Immunization (EPI) which aims at reducing the risk of occurrence of vaccine-preventable diseases.
FACTORS UNDERLYING THE IMMUNIZATION SERVICE AT PHC

The following section presents the underlying arrangements at the governance, financial and delivery levels that have shaped the current PHC immunization service.

GOVERNANCE ARRANGEMENTS

• National Immunization Strategy (2017-2022) which provided the road map for the immunization program
• EPI Multi Year Plan of Action (2017-2022) which identified clear objectives and milestones for the program
• Ministerial circular 21/2019 that mandated the provision of free of charge immunization services
• Policies and procedures for immunization services delivery

FINANCING ARRANGEMENTS

• Domestic and donor budgets pooled to procure vaccines and supplies
• Patient contribution limited to a maximum of 18,000 L.L. once a pediatric consultation is needed

DELIVERY ARRANGEMENTS

• Provision of 10 antigens for vaccine preventable diseases, targeting children 0-18 years of age, with planned expansion of immunization beyond childhood by 2022
• Cold chain is maintained and monitored
• Waste resulting from immunization services is managed according to local safety regulations
• Immunization and adverse events following immunization data are collected and reported electronically using the Phenics system or the MERA application
• Quality of immunization services is assured through continuous capacity building of staff and oversight by the EPI MoPH team
There are several anticipated benefits for integrating COVID-19 vaccination into PHC, including:

- Securing equitable access to COVID-19 vaccines
- Enhancement of COVID-19 vaccination coverage
- Responding to the ongoing needs for COVID-19 vaccination
- Providing an opportunity for routine catch-up for children vaccination
- Providing an opportunity for health promotion and prevention
- Decreasing the burden on hospitals
- Making use of the available resources
- Improving public knowledge
Requirements for the Integration of COVID-19 Vaccination into PHC

Proper integration of COVID-19 vaccination into PHC necessitates both the proper use of the available resources as well as the advent of additional ones. Highlights of the requirements needed for the integration of COVID-19 vaccination into PHC is summarized below.

Physical Environment and Infrastructure
- Proximity to population centers and mass transit to secure high vaccine access and in remote peripheral areas to secure equitable access.
- Dedicated areas for screening, registration, waiting, vaccine storage, preparation, and administration, observation, emergency care, waste disposal, and other clinical services.
- Available entry and exit points, including a one-way clinic flow.
- Parking facility with easy access to individuals with mobility problems.
- Adequate heating and cooling, lighting, handwashing facilities, water and electricity supply, telephone, computer networks, and internet.
- Availability of plastic barriers, visual reminders, and cues in place.

Supplies
- Adequate availability of medical equipment and other supplies such as PPE, emergency medical kits, thermometers, stethoscopes, and sanitation supplies.
- Key documents for clinic function, including vaccine information sheet, immunization record, incident report, and adverse event following immunization form.

Cold chain management
- Refrigerators (2°C - 8°C) with freezer compartments (-20°C or -70°C depending on type of vaccine procured and local needs) and opaque containers to store vaccine syringes, with the ability for temperature monitoring.

Workforce Requirements
- Establishment of a staffing plan and identifying functional roles and responsibilities, with scalable plans based on the expected number of people to be vaccinated.
Training
PHC centers staff must have appropriate training and qualifications in topics including:
- COVID-19 vaccine storage, handling, preparation, and administration
- Cardiopulmonary resuscitation and basic life support
- Vaccination documentation
- Infection control practices
- COVID-19 vaccines related topics

Policies, Procedures, Protocols, and Pathways
Regulations should be available to guide the following areas of practice:
- Receipt, storage and handling, and safe disposal of vaccines
- Response to temperature breaches and vaccine expiry
- Screening and referral of patients who display symptoms of COVID-19 or who develop serious adverse reactions
- Screening process for vaccine contraindications and for receipt of previous doses of COVID-19 vaccines or other vaccines
- Safety protocols such as management of anaphylaxis, infection prevention and control, physical distancing, incident reporting, needle stick injuries, and reporting of vaccination errors
- Documentation of the vaccination process and adverse events occurrence
- Post-vaccination patient education including information about adverse events and scheduling a second vaccination appointment

Technology and Record Keeping
- IT support for recording and documenting vaccine stock, registration, scheduling, screening for eligibility, side effects, and providing vaccine information
- Connectivity for data integration into the national booking and vaccination record system (link the existent health information system to the national registration platform to allow registration and follow up of vaccinated individuals)
- Ensure the proper integration of the IMPACT COVID-19 vaccination platform with the existing vaccination registries (Phenics and MERA) to accommodate the registration of COVID-19 vaccination and adverse events following immunization (AEFI) reporting

Waste disposal
- Facilities for waste disposal, including sharps and unused vaccines

Financing
- Support PHC centers with operational cost incurred due to vaccine delivery and increased needs for staffing, trainings, supplies, and extended working hours

Public information and communication
- Communicating consistently, transparently, empathetically and proactively about uncertainty, risks and vaccine availability will contribute to building trust

Community Engagement
- Harnessing social influences especially from people who are particularly trusted by and identified with members of relevant communities
IMPLEMENTATION CONSIDERATIONS

Extrapolating from the experience with other vaccines and from COVID-19 vaccine rollout in hospitals in Lebanon, challenges related to vaccine delivery, infrastructure, equipment, information technology, health professionals’ knowledge and practice, and public attitude are anticipated while evidence-based counterstrategies have been identified.

MOVING FORWARD

Focusing on primary health care as a foundation of response and recovery will help minimize discrepancies in vaccine access and therefore mitigate some of the inequalities arising from COVID-19. Despite years of underinvestment, the unparalleled experience in the delivery of routine immunisations places primary care in a strong position to respond to the prompt needs of COVID-19 vaccination. Support and enablement remain vital for the integration of COVID-19 vaccination into PHC. This can be realized through:
LEGISLATORS

- Select PHC centers for piloting COVID-19 vaccines deployment, taking into account the available resources and equity of distribution, with step-wise increase in deployment sites based on need.
- Negotiate with COVAX and pharmaceutical companies to secure continuous and sufficient supply of COVID-19 vaccines to cover the needs of the Lebanese population, irrespective of nationality.
- Set in place the needed regulatory procedures for proper and equitable distribution of COVID-19 vaccines, whilst authorization of vaccine importation by the private sector.
- Secure the needed policies, procedures, protocols, and pathways needed for optimal and safe deployment of COVID-19 vaccines at the level of PHC centers.
- Apply a system for close monitoring of the COVID-19 vaccine deployment process that includes the number of doses delivered, data on beneficiaries, and adverse events.
- Penalize the illegitimate delivery or utility of COVID-19 vaccines at PHC centers, including bypass of priority groups.

FUNDERS

- Secure the needed funds for providing COVID-19 vaccines sufficient to cover the local needs.
- Respond to the emerging costs due to the increased need for staff, equipment, trainings, and other needs that will ensue with COVID-19 deployment at PHC centers.

PRIMARY HEALTH CARE CENTERS

- Publicize and advertise for the free availability of COVID-19 vaccines at PHC centers.
- Provide education for enhancing public knowledge on COVID-19 vaccines.
- Comply with set regulations for safe COVID-19 vaccines deployment, including proper vaccine preparation, monitoring of cold chain and AEFI, and disposal of vaccine-related wastes.
- Provide continuous needs assessment and feedback on the deployment process.
- Maintain up-to-date knowledge of health professionals on new data related to COVID-19 vaccines.
- While delivering COVID-19 vaccines, seize the opportunity for providing other health promotion and prevention services.
AUTHORS
Nadeen Hilal, Rima Shaya, Randa Hamadeh, Clara Abou Samra, Fadi El-Jardali

ACKNOWLEDGEMENT
The authors would like to thank Ms. Diana Jamal and Ms. Nour Ataya for document review, and Ms. Rayane Nasreddine for the Arabic translation.

CITATION

This advocacy document is the result of collaborative efforts between the Primary Health Care Department at the Lebanese Ministry of Public Health and the Knowledge to Policy (K2P) center at the American University of Beirut. This joint work constitutes a continuum of a previous advocacy document titled ‘Prioritizing Primary Health Care in Lebanon: A Call for action

This product was developed as an activity conducted during the practicum of Ms. Rima Shaya at K2P center, in fulfillment of the degree requirements of Masters of Public Health