

VACCINE NEEDS ASSESSMENT

A. COVID-19 Pandemic and Emergency

1. **The global pandemic.** The coronavirus disease (COVID-19)¹ has spread rapidly from the People's Republic of China (PRC) in December 2019 to almost all countries in the world. The World Health Organization (WHO) declared the COVID-19 outbreak as a public health emergency of international concern on 30 January 2020, and as a pandemic on 12 March 2020 following local transmission outside the PRC based on criteria set out in the International Health Regulations.² The COVID-19 pandemic is far from over given the low population immunity with currently over half a million new cases and 10,000 deaths per day. COVID-19 mutations are likely to result in increased transmission in 2021. At this stage it is unknown if the pandemic will lead to herd immunity or, like influenza, will continue to mutate and cause new outbreaks.

2. As of 24 June 2021, over 179 million people have been diagnosed with COVID-19 worldwide and nearly 3.9 million have died from it.³ Considering limited testing capacity in many of the worse hit countries, the total number of infected persons is likely much higher. The infection fatality rate is estimated at 0.5%–1% and the case fatality rate is about 2%–3% in capable hospitals.⁴ Case management remains mainly symptomatic but medical staff are learning how to better manage COVID-19 patients and several medicines appear to reduce complications and speed up recovery. The rapid increase in patients overwhelmed hospitals, necessitating public measures such as social distancing, face masks, and travel restrictions.

3. The pandemic has triggered a global race in vaccine development and production. Within less than a year of the disease's emergence, the first COVID-19 vaccines have received market authorization and mass vaccination campaigns have started. As of 17 June 2021, 102 vaccine candidates are in clinical development, including 35 in Phase I trials, 28 in Phase I–II trials, 9 in Phase II trials, and 18 in Phase III trials. As of 17 June 2021, 16 vaccines are authorized by at least one national regulatory authority for public use.⁵

4. **The pandemic in Pakistan.** Pakistan reported its first COVID-19 case on 26 February 2020, and as of 24 June 2021, it had 951,865 confirmed cases with 22,108 reported deaths,⁶ and a national case fatality ratio of 4.19%.⁷ The surge since March 2021, the third wave, represents 39% of the total number of confirmed COVID-19 cases and 42% of reported deaths. The ongoing pandemic has had a considerable impact on Pakistan's health delivery system which already faced significant capacity challenges before COVID-19.

5. Some of the first COVID-19 cases in Pakistan were detected in travelers returning from Iran. Unlike other countries, Pakistan never went into a full nationwide lockdown. A partial lockdown was imposed in March 2020 and gradually eased from May 2020 onwards and replaced

¹ COVID-19 is a zoonosis caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), one of three known corona viruses mainly transmitted by respiratory droplets and contact and causes respiratory disease epidemics with or without systemic complications. Unlike its predecessors, its virulence (disease producing power) is much higher due to high capacity to transmit between humans despite much lower pathogenicity than its siblings.

² World Health Organization (WHO). 2007. *International Health Regulations (2005)*. June.

³ WHO. 2021. [WHO Coronavirus \(COVID-19\) Dashboard](#). Accessed 27 June.

⁴ WHO. 2020. [Estimating mortality from COVID-19](#). *Scientific Brief*. 4 August.

⁵ WHO. 2021. [COVID-19 vaccine tracker and landscape](#); Regulatory Affairs Professionals Society. 2021. [COVID-19 vaccine tracker](#).

⁶ World Health Organization (WHO). 2021. Pakistan COVID-19 Situation Report. 24 June. Islamabad.

⁷ Islamic Republic of Pakistan, National Command and Operation Center. 2021. [Site Report 24 June](#).

by smart lockdowns. Despite these measures, the economy has been severely impacted, while the government had to increase expenditures to manage the pandemic.

6. COVID-19 adversely impacted the economy in 2020, inverting a projected GDP growth from a pre-COVID-19 projection of 2.6% for financial year (FY) 2020 to a contraction of 0.4% in FY2020, and inflation rose from 6.8% in FY2019 to 10.7% in FY2020.⁸ Remittances increased in 2020, against the global trend, also due to diversion of remittances from informal to formal channels because of travel restrictions preventing travelers from bringing cash.⁹ Prior to COVID-19, the poverty incidence (those living below the poverty line of \$3.20 a day) was estimated at 36.4% in 2020 but is expected to increase to 39.1% under the with COVID-19 scenario.¹⁰

7. In response to the COVID-19 pandemic, the government announced a PRs1.2 trillion relief package on 24 March 2020 to provide support to low-income groups. From March–June 2020, more than 5 million people were provided a monthly stipend of PRs3,000 through the existing social protection program. In April 2020, the Prime Minister established the COVID-19 Pandemic Relief Fund. Multilateral and bilateral donors' commitments increased considerably to support the government's stabilization efforts and to mitigate the adverse impact of the COVID-19 pandemic with a \$3.4 billion for COVID-19 response by the Asian Development Bank (ADB), the Asian Infrastructure Investment Bank, the International Monetary Fund, and the World Bank,

8. Overall trends on COVID-19 deaths and cases suggests that Pakistan is currently going through a third wave. During the past two waves, the Government of Pakistan managed to effectively curtail the spread through localized lockdown measures, although data reliability remains questionable. The government COVID-19 portal provides useful information on number of cases, deaths, and tests, but there are shortcomings in the number of tests performed when compared to other countries with similar population and GDP. Despite the transparency, lack of capacity and effort imply that the data is not fully capturing the COVID-19 situation. Some cities and districts still show positivity rates over 11.5%, which is higher than the 5% benchmark of the World Health Organization (WHO).¹¹ This indicates significant under-testing and suggests that many infections may have gone undetected.

B. Health Sector and COVID-19 Vulnerability

9. **Socio-economic vulnerability.** Pakistan is classified as a lower middle-income country.¹² With a GDP per capita of \$1,383, coupled with low human capital development and reliance on the remittances, the country is exceptionally vulnerable to the shocks from the COVID-19 pandemic.¹³ The large number of Pakistani workers employed in the gulf states were a major source of remittances, and a big proportion have now returned or been laid off due to the global economic downfall. Despite being one of the few countries to not have a nationwide lockdown at any instance during the pandemic, the economy has still been hit badly due to the disproportionate impact on the numerous poor and vulnerable population groups. Current health expenditure as percentage of GDP remains at mere 3.2%, and from that only 35.5% of the health

⁸ ADB. 2020. [Country Partnership Strategy \(2021–2025\)](#). Manila.

⁹ World Bank. 2020. [Phase II: COVID-19 Crisis through a Migration Lens. Migration and Development Brief 33](#). Washington.

¹⁰ J. Bulan, et. al. 2020. "COVID-19 and Poverty: Some Scenarios." Unpublished note prepared for ADB's Economic Research and Regional Cooperation Department.

¹¹ WHO. 2020. [Public health criteria to adjust public health and social measures in the context of COVID-19: annex to considerations in adjusting public health and social measures in the context of COVID-19](#).

¹² World Economic Outlook (WEO) October 2019 (Pre-Pandemic) and October 2020, International Monetary Fund.

¹³ World Economic Outlook, International Monetary Fund, 2020.

expenditure is covered by the government while 56.2% is from out-of-pocket payments.¹⁴ A large part of the population works in the informal sector and depends on daily wage with no reserve income to manage a pandemic shock. Pakistan has made significant progress in reducing the poverty levels over the last decade, but the pandemic has put the gains at risk and consequently increase the poverty rate.

Table 1: Comparison of Key Indicators in Pakistan and LMICs

Indicator	Pakistan	LMIC	OECD
Total population (mid-year, millions)	234.0	58.6	33.3
GDP per capita (post-COVID-19)	1,194	2,200	37,976
Unemployment rate	4.7	6.2	7.4
Infant mortality (per 1,000)	55.7	36.6	6.0
Maternal mortality (per 100,000 live births)	140.0	253.0	6.3
Life expectancy at birth (years)	67.1	69.1	81.2
Hospital beds (per 1,000)	0.6	0.8	5.0
Physicians (per 1,000)	1.0	0.8	2.9
Nurses and midwives (per 1,000)	0.7	1.9	9.6
MMR immunization rate	75.0	85.1	91.3
Public expenditure on health (% of current health expenditure)	35.5	36.2	61.5
Out-of-pocket expenditure on health (% of current health expenditure)	56.2	51.2	13.7

GDP = gross domestic product; LMIC = lower middle-income country; MMR = measles, mumps, rubella; OECD = Organization for Economic Cooperation and Development.

Sources: [International Monetary Fund. World Economic Outlook](#); [World Bank](#); and [World Health Organization. Global Health Expenditure Database](#).

10. **Health services coverage.** Basic health care delivery has expanded and improved across the country, but the overall quality of health service remains low. The under-5 mortality rate fell from 108 per 1,000 live births in 2000 to 85 in 2011 and 67.2 in 2019. Similarly, maternal mortality ratio has fallen from 286 deaths per 100,000 live births in 2000 to 180 in 2011 and to 140 in 2017.¹⁵ Capacity of government and health system to effectively deal with the outbreaks has improved but many challenges remain. Pakistan has 1.0 physicians per 1,000 people, which is above the 0.8 average for LMICs, but more importantly, Pakistan faces severe shortages in number of hospital beds and nurses and midwives. Pakistan has 0.6 beds per 1,000 population compared to the average of 0.8 beds per 1,000 in LMICs and only 0.7 nurses per 1,000 compared to 1.9 in LMICs.

11. **Health sector financing.** Current health expenditure per capita was \$43 in 2018. Out-of-pocket payments account for 56% of the current health expenditure, or about \$24 per capita. Public health expenditure accounted for 35% of the current health expenditure, and about 5% of the government budget. Current health expenditure as share of GDP stood at 3.2% in 2018. From 2012 to 2018, government health expenditure increased from 2.4% to 3.2%, while remaining within the range of 2%–3% over the period of 2012–2018. Although this shows lack of health sector prioritization, COVID-19 has led to an increase in funding for health sector significantly.

C. COVID-19 Vaccination Plans

12. Introducing COVID-19 vaccines require key national decisions to be made regarding vaccine deployment and rollout. In Pakistan, a robust, accountable, and transparent decision-making structure and process at federal and provincial level has been established. This system assures that deployment of the COVID-19 vaccination in Pakistan is based on epidemiological

¹⁴ WHO. Global Health Expenditure Database.

¹⁵ World Bank. World Development Indicators.

evidence, assessed through rigorous scientific review by considering population safety and ensuring equitable distribution. A cabinet committee has been constituted to supervise and oversee the COVID-19 vaccine deployment and to take all necessary decisions related to administration and management under the direct guidance from the Prime Minister.

13. Through the National Deployment and Vaccination Plan (NDVP) for 2021 the government aims to protect vulnerable groups, interrupt transmission of COVID-19, protect critical social and routine health services, create and maintain effective stakeholder communication during planning and vaccine administration process, and ensure high level of awareness of population and regular monitoring of the process.

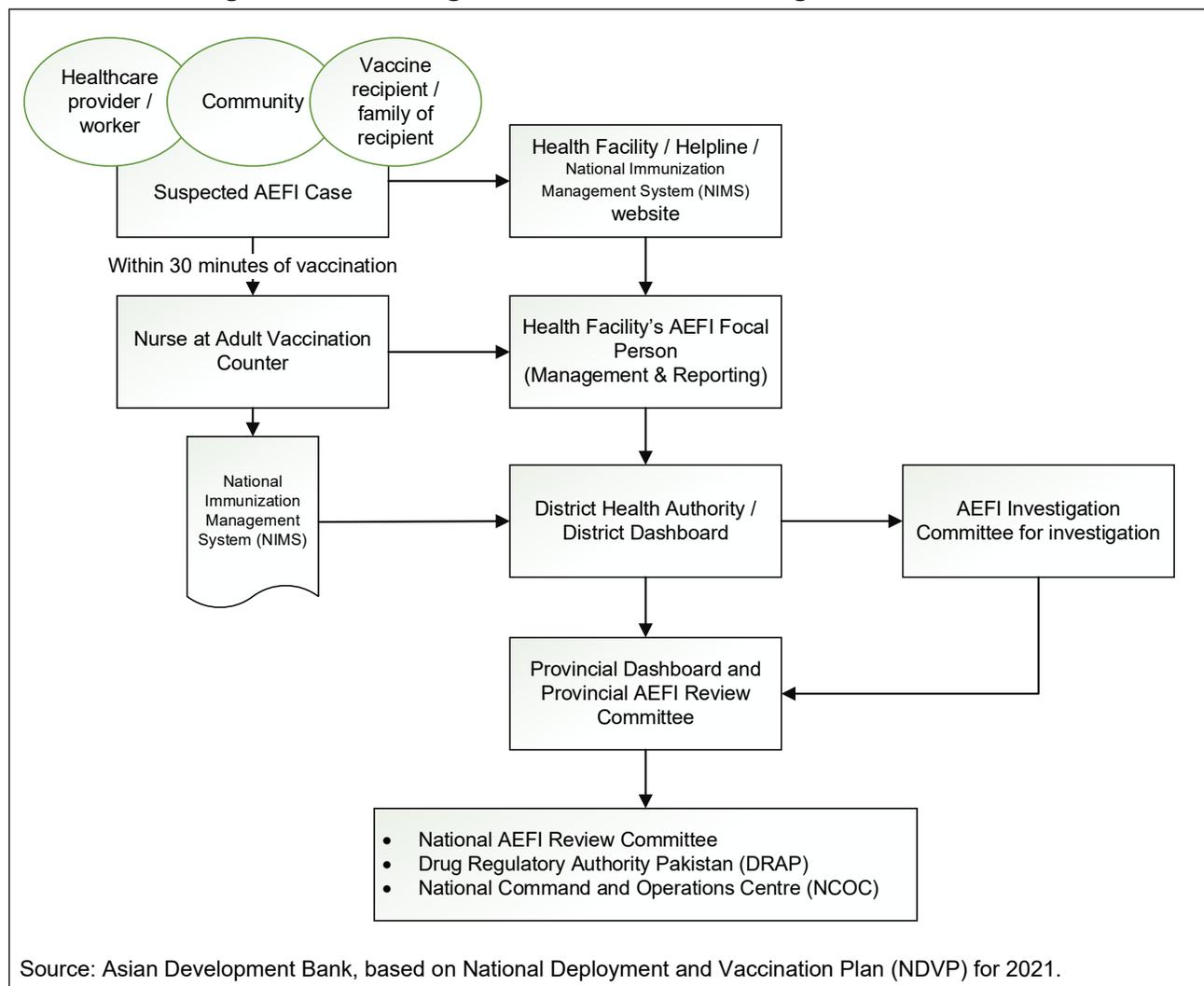
14. The Cabinet has exempted the COVID-19 vaccine procurement from the Public Procurement Regulatory Authority rules 2004. The Cabinet constituted a sub-committee of cabinet for the procurement of COVID-19 vaccines in terms of Rule 17 (2), of Rules of Business 1973. Under the direction of the NCOC, a dedicated National Vaccine Task Force was set up with two sub-committees: (i) Inter-Ministerial Committee for COVID-19 Vaccine and (ii) Technical Committee for COVID-19 Vaccine. The technical committee is responsible for evaluating the vaccines, reviewing the development of the global vaccine situation, and formulating Pakistan-specific guidelines for COVID-19 vaccines based on global best practices. The task force is further supported by a vaccine negotiating team. Direct negotiations for bilateral deals with vaccine manufacturers are led by NDMA as part of the procurement committee. Procurement of vaccine through COVAX Facility and / or through UNICEF will be led by MONHSR&C. Fiduciary responsibility for the procurement of eligible vaccines will remain with MONHSR&C.

15. The MONHSR&C and EPI have developed the NDVP, the Vaccination Introduction Readiness Assessment Tool/ Vaccine Readiness Assessment Framework, COVID-19 Costing Tool and other planning, monitoring, and reporting tools for COVID-19 vaccination. The MONHSR&C and Federal EPI have developed vaccine-specific draft guidelines for Sinopharm, AstraZeneca, Sinovac, Sputnik and CanSino Bio. In addition, guidelines for COVID-19 vaccination counters have also been developed.

16. Besides these committees, a Development Partners Coordination Committee (DPCC) comprising ADB; Federal EPI; Foreign, Commonwealth and Development Office; Gavi, the Vaccine Alliance (Gavi); WHO; the World Bank; UNICEF; USAID and other partners has been constituted for wider participation of all national and international stakeholders to take timely decision and oversee the preparedness of vaccine deployment and identify additional resources to meet the increased operational costs. The DPCC provides technical support to the provinces to ensure effective micro-planning, assessment of cold chain needs, development of training guidelines and standard operating procedures (SOPs), vaccine specific guidelines and SOPs, development of adverse events following immunization (AEFI) protocols, and development of communication plans.

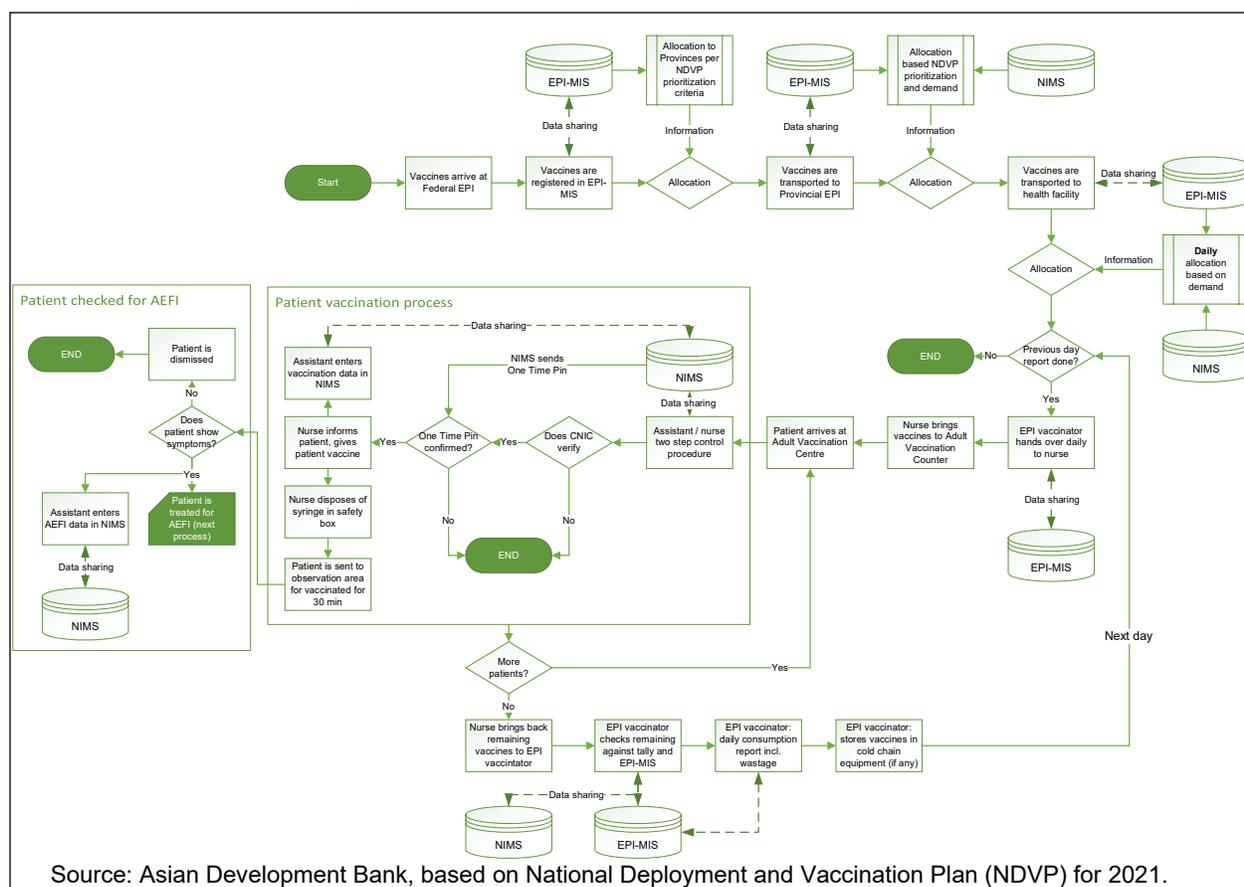
17. As shown in Figure 1, the COVID-19 vaccine rollout is vigilantly monitored in terms of AEFIs. The pharmaco-vigilance section of the Drug Regulatory Authority of Pakistan (DRAP) has also been revitalized and it has made connections with national and provincial focal points. The rapid response teams will conduct case response activities. All major AEFIs will be investigated by investigation committee notified by the District Health Authorities.

Figure 1: Monitoring Adverse Events Following Immunization



18. The NDVP clearly outlines the roles and responsibility within the COVID-19 vaccination program. Deployment of vaccines up to health facility level will be executed through EPI Supply Chain Management System. To prevent disruption of ongoing pediatric immunization programs at EPI sites, vaccination will take place at 2,823 COVID-19 vaccination counters, including 24 mass vaccination centers, established at the health facility level. Vaccination will be performed by trained nurses with an assistant for identity check and data entry. As shown in Figure 2, the NDVP has detailed procedures on supply chain management and health care waste management, vaccine safety monitoring, immunization monitoring system, disease surveillance, community engagement and communication plan.

Figure 2: Detailed Procedure for Vaccination



19. Vaccine hesitancy remains a concern. A recent survey showed that up 47% of the Pakistani population believed the pandemic was fake while 30% thought that vaccines are generally little or completely ineffective. To counter the vaccine hesitancy, an appeal on the safety of the family can be made as the institution of family is more important than politics, friends, leisure time, work, and religion. The NDVP foresees in a risk communication and community engagement (RCCE) plan, including an operational plan outline that has been developed with the assistance of UNICEF, to help overcome vaccine hesitancy and create demand for vaccination, for instance by engaging religious and community leaders to take ownership of the pandemic and vaccine acceptance and involving civil society organizations, non-governmental organizations and local health and social staff. As an essential principle of RCCE, the communication strategies are based on dynamic social listening and vaccine-acceptance surveys. RCCE relies on 5 main platforms to improve vaccine uptake and public perception: mass/digital media, community engagement, social listening, health education, and helplines. To ensure communication is effective, messaging and information content is tailored to each participant group.¹⁶

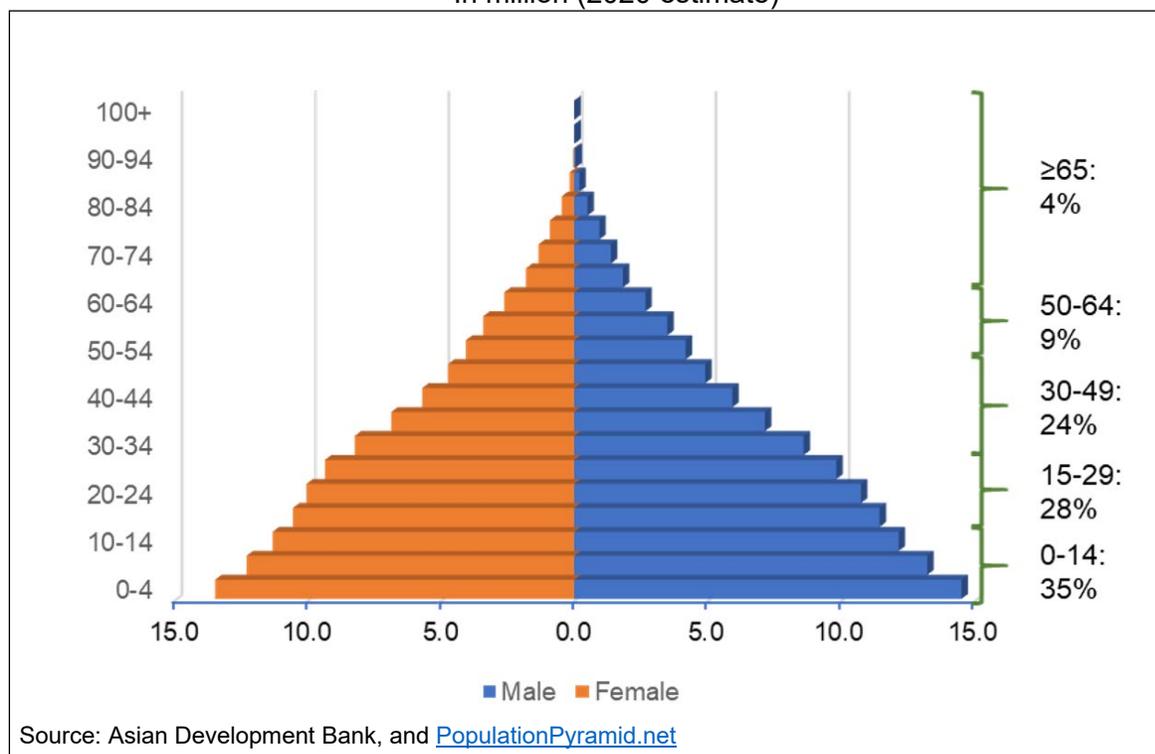
20. For provincial coordination, the National Command Operation Center has agreed on certain set of responsibilities for EPI and health department to work collectively in the planning and introduction phase of COVID-19 vaccine. There is consensus that the EPI vaccinators would not be engaged in vaccinating the adult population as they have a large cohort of children under 2 years to immunize and the routine vaccination process has already suffered during the initial

¹⁶ Central Asia Regional Economic Cooperation (CAREC) Institute. Analysis of Public Attitudes towards COVID-19 Vaccination in CAREC. April 2021.

lock down. In this regard, MONHSR&C has worked closely with the provinces over the assigned roles and responsibilities.

21. Pakistan ranks among the youngest countries in the world by demographics, which is also reflected in the lower rate of COVID-19 deaths, as younger people are less likely to have severe disease or die.¹⁷ Pakistan's approximate population is 234 million people, this includes population below 18 (49.2%) which currently are not planned to be vaccinated. The target is to vaccinate all adults, which is approximately 119 million, in 2021–2022.

Figure 3: Pakistan Population
In million (2020 estimate)



22. The program aims to vaccinate about 119 million people in 5 stages during 2021–2022, of which 70% in 2021. Vaccination takes place in stages starting with the frontline healthcare workers, followed by the remaining healthcare workers, and the elderly by decreasing age group while prioritizing those with co-morbidities. In addition, marginalized groups such as refugees and internally displaced persons are also prioritized. A closely coordinated technical working group has been constituted to plan and coordinate the vaccination of refugees in Pakistan.

23. In addition to health workers and the elderly population, marginalized groups such as refugees and internally displaced persons (IDPs) are also being prioritized.¹⁸ An age-based prioritization of population for COVID-19 vaccination is planned for refugees and IDPs similar to the host population. This approach is adopted to ensure an equity-based prioritization of the population. According to United Nations High Commissioner for Refugees (UNHCR), to date, out of 90 countries currently developing national COVID-19 vaccination strategies, 51%–57% have

¹⁷ [Risk for COVID-19 Infection, Hospitalization, and Death By Age Group](#), Centers for Diseases Control and Prevention.

¹⁸ For registered and unregistered.

included refugees in their vaccination plans. Pakistan is among these countries who have included refugees and IDPs in their prioritized population for COVID-19 vaccination. The delivery and administration of the vaccines to refugees and other people in UNHCR care is coordinated by MONHSR&C in close collaboration with the Ministry of States and Frontier Region, WHO and UNHCR. Negotiations between national, international organizations and civil society partners are already under way to formulate strategies to support these efforts.

24. According to recent statistics from UNHCR, there are roughly 1.4 million registered refugees in Pakistan. There are also roughly 500,000 unregistered refugees with no proof of registration (PoR) card. Similarly, there are significant number of Pakistani citizens without computerized National Identify Card (CNIC). Refugees without any documentation and Pakistani citizens without a CNIC are among the most vulnerable groups, therefore, the Government of Pakistan plans to include the unregistered population in the COVID-19 vaccination process. Refugees with no PoR card and Pakistani citizens with no CNIC will be facilitated in producing a duly stamped and verified proof of residence by their respective District Administration/Elected Legislators/Area Councilor. This document will be considered sufficient to access COVID-19 vaccination.

25. Under the guidance of the Cabinet Committees and other national committees for COVID-19 vaccination, the MONHSR&C is working on a multi-pronged strategy. The first pillar is vaccine supply from the COVID-19 Vaccines Global Access Facility Advanced Market Commitment (COVAX AMC),¹⁹ one of the four pillars of the Access to COVID-19 Tools Accelerator²⁰ under WHO,²¹ which is provided free of charge for up to 20% of Pakistan's population. The second pillar concerns bilateral agreements with manufacturers to directly procure doses of safe and effective vaccines. In this regard, the Prime Minister of Pakistan has already approved domestic financing of \$280 million to procure vaccines. Negotiations are underway with multiple manufacturers and suppliers. The government is committed to ensuring transparency in all procurement procedures following the Public Procurement Regulatory Authority guidelines for such procurements. The third pillar is procurement of vaccine through the COVAX Facility.²² The government is also encouraging the private sector to acquire vaccines to further increase access. In this context, various scenarios are being considered to vaccinate prioritized population groups and accordingly costing has been undertaken.

26. Prior to vaccination, registration on National Database & Registration Authority's (NADRA's) National Immunization Management System (NIMS) is used to register and schedule COVID-19 vaccination based on the prioritization phases. Vaccine availability also plays a vital role in terms of deciding when to open registration for a targeted age group. Age-based vaccination is being carried out in descending order.

¹⁹ The COVID-19 Vaccines Advance Market Commitment (COVAX AMC) was launched by GAVI in June 2020. It is an innovative financing instrument that aims to support the participation of 92 low- and middle-income economies in the COVAX Facility which enables them to access donor-funded doses of safe and effective COVID-19 vaccines. Together with support for country readiness and delivery, the AMC will ensure that the most vulnerable in all countries can be protected in the short term, regardless of income level. S. Berkley. 2020. [The Gavi COVAX AMC Explained](#). Gavi. n.d.

²⁰ Launched in April 2020, the Access to COVID-19 Tools (ACT) Accelerator, is a groundbreaking global collaboration to accelerate development, production, and equitable access to COVID-19 tests, treatments, and vaccines. It is organized into four pillars of work: diagnostics, treatment (therapeutics), vaccines and health system strengthening. WHO. [COVAX](#); Each pillar is vital to the overall effort and involves innovation and collaboration. WHO. [The Access to COVID-19 Tools \(ACT\) Accelerator](#).

²¹ The Coalition for Epidemic Preparedness Innovations, Gavi, WHO, and the World Bank.

²² COVID-19 vaccines procured through the COVAX Facility are not free of charge, but because of the nature of the pooled procurement a global fair allocation plan, may be cheaper than direct procurement from manufacturers.

27. As of 24 June 2021, 5 vaccines are approved for emergency use by DRAP in Pakistan: AstraZeneca, Sputnik V, Sinopharm, CanSino Bio, Sinovac and PakVac, which is locally bottled in license and with bulk materials from CanSino Bio. As of 26 June 2021, 14.2 million persons had been vaccinated, 2.7 million of them fully. As of 16 June 2021, among those not engaged as healthcare workers, women constitute 35% of the partially vaccinated and 36% of the fully vaccinated people. Negotiations are underway with multiple manufacturers and suppliers. As of 24 June 2021, only 50,000 doses of Sputnik V vaccine have been imported commercially, with a vaccination price of 12,268 Pakistani rupees for a pack of 2 doses set by the Honorable Sindh High Court.²³ Reportedly the vaccines were in high demand by young people not yet allowed free vaccination.

Table 2: Vaccines Received as of 15 June 2021

Vaccine Name	Doses Received (Million)
Sinopharm (donation)	2.72
Sinopharm	4.00
Cansino	0.93
Sinovac	5.50
AstraZeneca (COVAX)	1.24
Pfizer (COVAX)	0.10
PakVac	0.12
Public Sector Total	14.61
Private Sector	0.05
Total (Public + Private)	14.66

Source: Ministry of National Health Services, Regulations & Coordination.

D. International and Development Partners Response

28. A Development Partners Coordination Committee comprising of ADB, FCDO, Federal EPI, Gavi, UNICEF, USAID, WHO, the World Bank, and other partners have been constituted by the Government of Pakistan for wider participation of all national and international stakeholders and vaccine experts to take timely decision and oversee the preparedness process of vaccine deployment and look for additional resource mobilization meet the upcoming operational cost.

29. Through the NDVP, the government aims to help vaccinate the eligible population—defined as the total population minus children under 18 years of age—resulting in about 51% of Pakistan's people (119 million) being vaccinated, of which 70% in 2021. It is a phased approach, prioritizing frontline health care workers before other health workers; the elderly, including marginalized groups such as refugees and internally displaced persons; and younger people with comorbidities. The cost for implementing the NDVP for 2021 is estimated at \$1,950 million. ADB's support will complement the support of other development partners to support procurement, transportation of vaccines and capacity strengthening of MONHSR&C and EPI. Vaccines procured by the Government of Pakistan and through ADB, COVAX AMC, the World Bank and the Islamic Development Bank will vaccinate 35% of the population. COVID-19 vaccines for 20% of the total country population will be financed by COVAX AMC and are valued at \$1,048 million. A World Bank loan of \$153.0 million has been restructured for the purchase of COVID-19 vaccines, including \$150 million for the purchase of vaccines and \$3 million for operational costs. The Islamic Development Bank (IsDB) has offered to MONHSR&C to restructure the allocated \$70 million loan for procurement and deployment of COVID-19 vaccine. The three institutions' COVID-19 vaccine procurement projects complement each other and will be coordinated from a single project management unit (PMU).

²³ S. Hassan. 2021. [Young Pakistanis rush to purchase Russian vaccine as private sales open](#). *Reuters*. 5 April.

Table 3: Financing for National Deployment and Vaccination Plan for 2021–2022

	Population (millions)	Doses (millions)	Unit cost	Total cost, vaccine (millions)	Operational costs	Total costs (millions)
PRC (donation)	0.81	1.70	10.00	17.00		17.00
GOP	6.79	14.30	11.56	159.00	2.81	161.81
Private sector	0.02	0.05				
COVAX (Donation)	45.40	95.40	11.00	1,048.00		1,048.00
World Bank	6.49	13.64	11.00	150.00	3.00	153.00
ADB	20.87	43.82	11.00	482.00	18.00	500.00
IsDB	2.60	5.45	11.00	60.00	10.00	70.00
Total available for 2021	82.98	174.36		1,916.00	33.81	1,949.81
Required for 2021 (70% of adults, 83 million adults)	83.00	174.30		1,916.00	33.81	1,949.81
Gap for 2021 (70% of adults, 83 million adults)	0.02	(0.06)				
Total required for 2021- 2022 (100% of adults, 119 million adults)	119.00	249.90	11.00	2,749.00	44.00	2,792.90
Gap for 2022 (100% of adults, 119million adults)	36.00	75.60	11.00	833.00	10.19	843.09

ADB = Asian Development Bank, COVAX = COVID-19 Vaccines Global Access, GOP = Government of Pakistan, IsDB = Islamic Development Bank, PRC = People's Republic of China.

Source: National Development and Vaccination Plan.

Table 4: Development Partners Financing National Deployment and Vaccination Plan 2021

Activity	ADB	World Bank	IsDB	Total
Vaccine Procurement	482,000,000	150,000,000	60,000,000	692,000,000
Transportation & Distribution	10,742,522		3,677,419	14,419,941
Procurement of Ancillary Goods	4,694,133	709,677	2,914,271	8,318,082
Miscellaneous	1,183,204	1,410,806	2,010,017	4,604,027
Contingency	600,000	90,000	300,000	990,000
Human Resource	484,065	400,742		884,806
Logistics			567,871	567,871
Risk Communication		257,484	124,706	382,190
Training		258	328,297	328,555
Printing	238,012			238,012
Evaluation	58,065	60,000		118,065
M&E Visits		12,903	77,419	90,323
IT		30,516		30,516
Meeting		27,613		27,613
Total	500,000,000	153,000,000	70,000,000	723,000,000

ADB = Asian Development Bank, IsDB = Islamic Development Bank.

Source: Ministry of National Health Services, Regulations & Coordination.

E. ADB Assessment and Response

30. The proposed project is part of ADB's holistic support to the COVID-19 pandemic response in Pakistan to mitigate the adverse health, social, and economic impacts of the crisis, while targeting vulnerable population and ensuring gender equity. The support for procurement, deployment and administration of vaccines through the proposed project is coupled with the upgrading and expansion of medical treatment of COVID-19 cases through the Emergency Assistance Loan,²⁴ of which \$103 million (including cofinancing of \$20 million from the French

²⁴ ADB. 2020. [Emergency Assistance for Fighting the COVID-19 Pandemic](#). Manila.

Development Agency, Agence Française de Développement) is for the health sector, and mitigating the negative economic and social impact of the pandemic through government budget support and cash transfers for poor families through the \$500 million COVID-19 Active Response and Expenditure Support program.²⁵ Quick response for medical supplies was provided through the Asia Pacific Disaster Relief Fund.²⁶ Capacity building and due diligence are organized through regional and national technical assistance projects.²⁷ To further enhance future resilience of Pakistan to epidemics and pandemics, ADB is looking into supporting quality vaccine production capacity in Pakistan's private sector.

31. The Government of Pakistan formally requested ADB for COVID-19 vaccination support on 15 February 2021 and support its implementation of NVDP. The proposed project would include \$482 million on vaccine procurement; and \$18 million on ancillary goods and services, training, cold chain management, monitoring and evaluation, healthcare waste management and communication programs.

32. The project will vaccinate target population against COVID-19 through deployment of vaccines to Pakistan in an expedited manner, to mitigate negative health, social, and economic effects of COVID-19. It aims to vaccinate priority populations safely against COVID-19 and procure and deliver the vaccine to designated points. The project is aligned with ADB's Strategy 2030 for the health sector and helping countries to achieve Universal Health Coverage. It also aligns with ADB's Country Partnership Strategy, 2021–2025 for Pakistan under the strategic pillar "building resilience by strengthening human capital and social protection".²⁸

33. ADB financing will support procurement of approximately 39.83 million doses, which will be sufficient to vaccinate 18.11 million people (assuming unit price per dose of \$11, 10% wastage rate and 10% for contingencies). The current plan is to procure the vaccines through direct contracting with manufacturers and/or via the COVAX Facility and/or directly engaging UNICEF.

34. ADB financing will support strengthening of the capacity of MONHSR&C and Federal and Provincial EPI staff and consultants to support procurement and delivery of the COVID-19 vaccines effectively and efficiently. The support will include trainings, cold chain management, healthcare waste management, sex and age disaggregated monitoring and evaluation, and culturally appropriate and gender-sensitive administration of vaccines. The Federal EPI will be supported with gender monitoring and evaluation, environment and communication consultants and national staff for monitoring at the provincial level.

²⁵ ADB. 2020. [COVID-19 Active Response and Expenditure Support Program](#). Manila.

²⁶ ADB. 2020. [COVID-19 Emergency Response](#). Manila.

²⁷ ADB. 2020. [Addressing Health Threats in Central Asia Regional Economic Cooperation Countries and the Caucasus](#). Manila; ADB. 2020. [Regional Support to Address the Outbreak of Coronavirus Disease 2019 and Potential Outbreaks of Other Communicable Diseases](#). Manila; ADB.2020. [National Disaster Risk Management Fund](#). Manila; and ADB. 2017. [Preparing Health Sector Assessment](#). Manila.

²⁸ ADB. 2020. [Country Partnership Strategy \(2021–2025\)](#). Manila.