SECTOR ASSESSMENT (SUMMARY): VACCINES

A. Sector Road Map

1. Sector Performance, Problems and Opportunities

1. The World Health Organization (WHO) reported a total of 254.3 million confirmed cases of coronavirus disease (COVID-19) worldwide, including 5.1 million deaths as of 17 November 2021.[1] Experts observed that the surge in the number of cases in most countries in recent months worldwide follow the spread of the highly contagious SARS-CoV-2 B.1.617.2 (Delta) variant.[2]

2. The Department of Health (DOH) confirmed local transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2 or coronavirus) that causes COVID-19 on 7 March 2020. The Philippines has now more than 2.8 million confirmed cases. It currently ranks 18th in the world and second in the Southeast Asia region after Indonesia (4.2 million cases, 143,698 deaths) in terms of cumulative cases recorded. The government first detected the Delta variant in the country in July 2021, which has become the dominant strain in the country.

3. **Top cases and deaths by region.** As of 17 November 2021, National Capital Region's (NCR) share of cases and deaths continues to be the highest in the country with 855,010 cases and 10,367 deaths, representing 30.5% and 23.3% of total cases and deaths nationwide. CALABARZON[3] is second to NCR at 493,238 cases, while Central Luzon ranks 3rd at 278,878 cases. Conversely, in terms of deaths, Central Luzon is second at 5,865, and CALABARZON ranks 3rd at 5,315 deaths. Table 1 indicates the top five regions in terms of cases and death.

Table 1: Top Cases and Deaths, By Region
(as of 17 November 2021)

Top Regions	Cases		Top Regions	Death	
	Number	%		Number	%
Philippines	**2,820,494**	-	**Philippines**	**46,117**	-
National Capital Region	858,430	30.4%	National Capital Region	10,593	23.0%
Region IV-A: CALABARZON	494,827	17.5%	Region III: Central Luzon	5,960	12.9%
Region III: Central Luzon	279,983	9.9%	Region IV-A: CALABARZON	5,410	11.7%
Region VII: Central Visayas	154,533	5.5%	Region VII: Central Visayas	5,004	10.9%
Region VI: Western Visayas	150,957	5.4%	Region VI: Western Visayas	3,372	7.3%

Sources of basic data: Department of Health. COVID-19 Tracker.

4. Since March 2020, the government has imposed community quarantine measures to slow down the spread and break the chains of community transmission through different levels of restrictions and lockdowns—national, regional, and local government. The government has continuously enhanced its capacities in testing, tracing, isolating, and treating COVID-19 cases. It has increased its licensed molecular laboratories to 268 from a total of 184 laboratories for COVID-19 testing in late 2020, thus increasing its testing capacity as well. The laboratory network has sustained a daily average of more than 50,000 tests.[4] Bed capacity of health

[1] World Health Organization (WHO). WHO Coronavirus (COVID-19) Dashboard | WHO Coronavirus (COVID-19) Dashboard With Vaccination Data.
[2] The SARS-CoV-2 B.1.617.2 (Delta) variant was first identified in India in late 2020.
[3] CALABARZON comprises Cavite, Laguna, Batangas, Rizal, and Quezon areas.
[4] WHO. 2021. *COVID-19 in the Philippines Situation Report 82*. Manila.

facilities increased, especially in NCR hospitals.[5]

5. Enhanced community quarantine measures have badly hurt the economy and adversely affected the social, family, and individual living conditions. However, efforts to ease these restrictions to open economic activities are followed by spikes in cases, especially with the rampant spread of the Delta variant. Despite the enhanced capacities of the health system to test, trace, isolate, and treat COVID-19 cases since the pandemic began, hospitals and health facilities have experienced high occupancy levels. They have been overwhelmed by the numbers of COVID-19 cases, particularly in August to September 2021 when COVID-19-dedicated isolation facilities, intensive care units, and ward beds were, on average, at 70% occupancy nationally. NCR was the most affected region with 67% of isolation beds occupied, 78% of intensive care units full, and 73% ward occupancy.[6] Public and private hospitals have also begun declaring full capacity of beds allotted to COVID-19 patients including the Philippine General Hospital, the country's major COVID-19 referral center.

6. **Development problem and key constraints.** The core development problem is inequitable access to quality health services including safe and effective COVID-19 vaccines and routine immunization, which perpetuates poor health outcomes, poverty, and inequality. The major constraints are: (i) inadequate supply of and delivery system for safe and effective COVID-19 vaccines to cover priority and vulnerable population; (ii) weak health financing framework and fragmented service delivery systems including surveillance to detect and swiftly respond to public health threats, immunization, and COVID-19 vaccine delivery program; (iii) inadequate supply and unreliable delivery of essential health services and goods including vaccines; and (iv) weak governance and accountability at the national and subnational levels including monitoring and evaluation for health (Problem Tree). The critical constraints of the Philippine health system and the operational capacity of its National Immunization Program (NIP) impinge on the government's national COVID-19 vaccination program. The government has been addressing the following policy and capacity issues: (i) weak enabling policy and regulatory framework, access to COVID-19 vaccines, targeting, institutional arrangements, and financing; (ii) low capacity of NIP and vaccine readiness[7] that constrain procurement and delivery system for COVID-19 vaccines; and (iii) limited capacity of multi-level cold chain system. Moreover, the pharmaceutical companies race to develop, manufacture, and supply safe and effective COVID-19 vaccines to meet global demand.

7. **Opportunities for COVID-19 vaccines procurement, delivery, and administration.** During the design phase of the COVID-19 vaccination program, the government's policy and regulatory framework was weak. The National Immunization Committee–National Immunization and Technical Advisory Group or any health technology assessment body had limited to no capacity to provide guidance and make informed decisions on NIP.[8] However, the 2019 Universal Health Care law effectively poses a legal barrier that can potentially delay the acquisition of COVID-19 swiftly; that is, regulating purchase of drugs and medicines including vaccines which have undergone Phase IV clinical trial, systematic review, and meta-analysis to be used for any population-based intervention. The *Bayanihan* 2 law relaxed the required Phase IV trials for COVID-19 vaccines (footnote 8).

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[5] DOH. 2021. *DOH Leads Ceremonial Turnover of Quezon Institute Modular Hospital, Continuously Augments NCR Hospital Capacities*. Manila.

[6] DOH. COVID-19 Tracker and COVID-19 daily case bulletin (accessed on 27 September 2021).

[7] DOH conducted COVID-19 Vaccine Introduction Readiness Assessment Tool of the United Nations Children's Fund and WHO.

[8] Republic of the Philippines. Republic Act No. 11494. 11 September 2020.

2. Government's Sector Strategy

8. **COVID-19 vaccine emergency use authorization.** The President issued Executive Order No. 121 granting the Food and Drug Administration (FDA) of the Philippines to issue emergency use authorization (EUA) for COVID-19 drugs and vaccines, which further provides that: *outside clinical trial and except in cases where a Compassionate Special Permit is issued, no unregistered COVID-19 drug and vaccine may be manufactured, sold imported, exported, distributed or transferred without an emergency use authorization (EUA)* (Section 1).[9] To date, eight COVID-19 vaccine brands have received EUAs from the Philippine FDA, and seven brands have been delivered, deployed, and administered in the country (para. 12).

9. **Updated COVID-19 vaccine allocation and prioritization framework.** With COVID-19 vaccines developed and authorized for emergency use, the government has established the policy framework for allocation and prioritization among the country's 110 million population. These include (i) target vaccination level; (ii) prioritization and how to identify target groups; and (iii) public finance and level of state financing (and local governments) to be made available to cover at least 70% of the Philippines' population. The Philippine National Deployment and Vaccination Plan for COVID-19 Vaccines published in January 2021 had set the target population, priority groups (Groups A, B, and C), and eligible population in line with the Strategic Advisory Group of Experts on Immunization guidelines and country context. On 5 February 2021, the government reclassified and expanded the priority subgroups per recommendation of the interim National Immunization and Technical Advisory Group. Between April and June 2021, the government further included eligible groups of individuals who may be covered under Priority Group A (para. 12, Table 2).

10. **Cold chain system: storage, logistics, and training.** COVID-19 vaccines are delicate pharmaceutical products that require a stable and controlled temperature (e.g., -80 to +8˚C) from manufacturing, cross-country shipment, in-country distribution, central and subnational and/or local storage until inoculation to target individuals. Prior to the COVID-19 vaccination program, the country's cold chain system and storage had limited capacity (with 3-month stock levels) at risk of further being strained when the COVID-19 vaccines are procured, deployed, and administered.[10] The government contracted and partnered with private sector cold chain solutions to address capacity constraints in storage and logistics for COVID-19 vaccines.[11]

11. **COVID-19 vaccines secured and delivered.** The Philippines has secured a total of around 195 million COVID-19 vaccine doses, of which, 121.98 million doses have been delivered to or received by the government as of 13 November 2021—28.77 million donated by the COVID-19 Vaccines Global Access and other countries, 78.62 million procured by the national government, and 7.98 million procured by private sectors and the local government units (LGUs). Sinovac has the largest share (41.4%) delivered by vaccine brand, followed by Pfizer (27.7%), AstraZeneca (13.2%), Moderna (8.2%), Sputnik (5.9%), Janssen (2.7%), and Sinopharm (0.9%). The country has deployed at least 89.23 million to various regional warehouses, city and provincial offices, and implementing units.

12. **COVID-19 vaccination administration.** National COVID-19 Vaccination Operation Center reported that as of 10 November 2021, 2.6 million frontline healthcare workers (A1) have

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[9] Government of the Philippines. 2020. *Executive order No. 121, S. 2020*. Manila.
[10] WHO and UNICEF. 2017. *Republic of the Philippines EVM (Effective Vaccine Management Assessment)*. Geneva.
[11] Vaccines Needs Assessment (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).

been fully vaccinated, and an additional 370,549 individuals were partially vaccinated.[12] Table 2 provides a breakdown of individuals who have been vaccinated by priority subgroups (A1 to A5) under Group A.[13] Relative to the original prioritization framework, the eligible populations for these subgroups have been expanded through policy issuances.[14]

Table 2: Number of Vaccinees and Vaccine Doses Administered

Priority Group A	1st Dose	2nd Dose plus single-dose vaccine	Coverage (%)
A1: Frontline health workers and expanded population	3,015,448	2,644,899	96.49
A2: Senior Citizen	5,399,393	4,926,360	59.68
A3: Persons with comorbidities and expanded population	8,679,625	7,676,454	74.68
A4: Frontliners in essential sectors	14,356,427	10,889,268	38.48
A5: Poor population	5,502,299	3,656,943	28.32
Rest of the Adult and Pediatric Population	2,990,496	684,975	4.03
Total	**36,268,394**	**27,749,809**	

Source: Department of Health. Updates on COVID-19 Vaccines (Cumulative numbers as of 10 November 2021).

13. As of 10 November 2021, the Philippines has fully vaccinated over 30.48 million people which accounts for 27.66% of the whole population. The government needs to scale up vaccination of older persons as only 59,68% of estimated population aged 60 years and older have been fully vaccinated. Geographically, 91.10% of the estimated adult population in Metro Manila is fully vaccinated. The cities of Angeles, Baguio, Mabalacat, and San Fernando in Northern and Central Luzon; Iloilo and Mandaue in the Visayas; and Tagaytay and Tanauan in Southern Luzon have fully vaccinated more than 50% of their respective adult population. The national government needs to ramp up vaccination in several regions, particularly those where LGUs have only fully vaccinated less than 15% of their adult population. It also needs to work closely with LGUs and the private sector to increase daily vaccination jabs.

14. **Expansion of the national COVID-19 vaccination coverage and booster doses against COVID-19.** The government continuously reviews the priority clusters for COVID-19 vaccination. The Philippine National Deployment and Vaccination Plan for COVID-19 Vaccines prioritized vaccinating up to 70 million Filipinos aged 18 years and above in 2021 and all Filipinos by 2023. Ongoing policy discussions consider possibly adding booster shots and inoculating minors aged 12–17 years (estimated at 12.7 million). On 28 September 2021, the government initiated the inoculation of all eligible adult population starting October 2021. The national prioritization framework will still be observed. The DOH has started vaccination of children aged 12–17 beginning 15 October 2021 using Pfizer and Moderna vaccines,[15] prioritizing those with co-morbidities who will also be added to the A3 priority group.[16] By 3 November 2021, it expanded this to cover all children aged 12–17 years.

15. Overall, the COVID-19 vaccination program has achieved important gains, met key milestones, and learned lessons since it started on 1 March 2021. It has been confronted with institutional constraints affecting the country's health system including the NIP, which operates under a multi-level government structure. The challenges of COVID-19 are being addressed at different levels: policy and regulatory framework, institutional and financing arrangements,

[12] WHO. 2021. *Philippine Coronavirus Disease 2019 (COVID-19) Situation Report No. 85*. Manila.
[13] To date, Janssen developed by Johnson&Johnson is the only single-dose COVID-19 vaccine approved for use and administration in the Philippines.
[14] Country National Vaccination Prioritization and Allocation Plan (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).
[15] To date, these two COVID-19 vaccine brands have received FDA approval for use among adolescents.
[16] CNN Philippines. 2021. *PH to start COVID-19 vaccination for minors aged 12-17 with health risks*. 29 September.

service delivery, monitoring, and accountability. The vaccination policy and regulatory framework continue to evolve. The program requires continued institutional and capacity development support including from the Asian Development Bank (ADB) to ensure access to safe and effective vaccines, and efficient delivery to target populations. The delivery and monitoring systems of the vaccination program need to be strengthened.

B. Major Development Partners: Strategic Foci and Key Activities

16. Major development partners support the government's COVID-19 health response and vaccination program (Table 3). These include WHO, the United Nations Children's Fund (UNICEF), ADB, Asian infrastructure Investment Bank (AIIB), the World Bank, Japan International Cooperation Agency (JICA), and United States Agency for International Development (USAID).

Table 3: Major Development Partners

Development Partner	Project Name (and Type of official development assistance, e.g., Loan, Grant)	Duration	Amount ($ million)
ADB	COVID-19 Active Response and Expenditure Support Program (Loan)	2020	1,500.0
	Health System Enhancement to Address and Limit COVID-19 (Loan)	2020–2023	125.0
	COVID-19 Emergency Response (Grant)	2020	3.0
	Implementing a Rapid Emergency Supplies Provision Assistance to Design a Sustainable Solution for COVID-19 Impact Areas in the National Capital Region, through Public Private Collaboration (Technical Assistance)	2020–2021	5.0
	Second Health System Enhancement to Address and Limit COVID-19 under the Asia-Pacific Vaccine Access Facility (Loan)	2021–2023	400.0
	Build Universal Health Care Program - Subprogram 1 (Programmatic Policy-based Loan)	2021–2023	600.0
AIIB	Second Health System Enhancement to Address and Limit COVID-19 under the Asia-Pacific Vaccine Access Facility (Loan cofinancing with ADB)	2021–2023	300.0
JICA	Support through co-organizing the Asia Pacific Action Alliance on Human Resources for Health webinars	Not applicable	Not applicable
UNICEF	Part of UNICEF technical assistance as stated in its Country Program Document	2019–2023	No available information
USAID	Support provided through the Reach Health project funded by a USAID grant	2018–2022	No available information
World Bank	Philippines COVID-19 Emergency Response Project (Loan)	2020–2023	100.0
	Additional financing to Philippines COVID-19 Emergency Response Project (Loan)		500.0
WHO	Part of WHO country cooperation strategy's technical assistance support	2017–2022	No available information

ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, COVID-19 = coronavirus disease, JICA = Japan International Cooperation Agency, UNICEF = United Nations Children's Fund, USAID = United States Agency for International Development, WHO = World Health Organization.
Source: ADB.

C. Institutional Arrangements and Processes for Development Coordination

17. The Inter-Agency Task Force for the Management of Emerging Infectious Diseases (chaired by the DOH Secretary) and its COVID-19 Vaccine Cluster (headed by a vaccine czar) lead the task groups,[17] the relevant government instrumentalities and the private sector, and

[17] Task groups cover vaccine selection and evaluation, diplomatic engagement and negotiation, procurement and

the government's overall efforts to access COVID-19 vaccines and implement the national COVID-19 vaccination program. The National Vaccination Operations Center keeps track of day-to-day vaccine deliveries, vaccine administration in line with the COVID-19 vaccination plan, and vaccine inventory. There are effective coordination mechanisms among development partners on COVID-19 vaccination. ADB has provided technical assistance to the DOH and the National Task Force against COVID-19. This includes enhancing DOH's vaccine communications and health promotion strategies, and the National Task Force against COVID-19 vaccine-related messages, specifically in vaccine allocation, and distribution coordination.

18. The DOH's Bureau of International Health Cooperation organizes monthly health partners' meetings with several development partners, including WHO, UNICEF, ADB, AIIB, the World Bank, JICA, USAID, the Australian Government Department of Foreign Affairs and Trade and Expert-Import Bank of Korea. The regular meetings among development partners allow for coordinating work on various aspects of accessing and delivering safe and effective COVID-19 vaccines. USAID coordinates weekly technical meetings on the Philippines' COVID-19 response including discussions on vaccine rollout (logistics, information, communication) with USAID, ADB, WHO, and UNICEF. ADB, AIIB and the World Bank meet bi-weekly to coordinate vaccine financing and procurement issues.

D. ADB Experience and Assistance Program

19. ADB assisted the government in strengthening primary health care services through the Women's Health and Safe Motherhood Project in 1994–2002 and the Integrated Community Health Project in 1995–2005. In 2004, ADB approved the Health Sector Development Program to support implementation of the 1999 Health Sector Reform Agenda. ADB's Credit for Better Health Care Project in 2009–2013 helped to upgrade health services of local government units and facilitate private sector participation in health care.[18] The lessons underscore the need to (i) consider the decentralized health system and its institutional arrangements for local health service delivery; and (ii) strengthen public financial management and governance.

20. ADB, under its COVID-19 Active Response and Expenditure Support program, approved a $1.5 billion countercyclical support for the Philippines on 23 April 2020 to help the government mitigate the severe health, social, and economic impacts of COVID-19.[19] ADB continues to support the sector in addressing COVID-19 through a $125 million loan for Health System Enhancement to Address and Limit COVID-19 project, a $3.0 million grant for COVID-19 Emergency Response, and a $5.0 million technical assistance for rapid emergency supplies provision.[20] ADB is also supporting the government implement the Universal Health Care law through policy reforms to strengthen health financing, integrated service delivery, information management and performance accountability.[21]

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finance, vaccine cold chain and logistics, COVID-19 immunization program, and demand generation and communications.

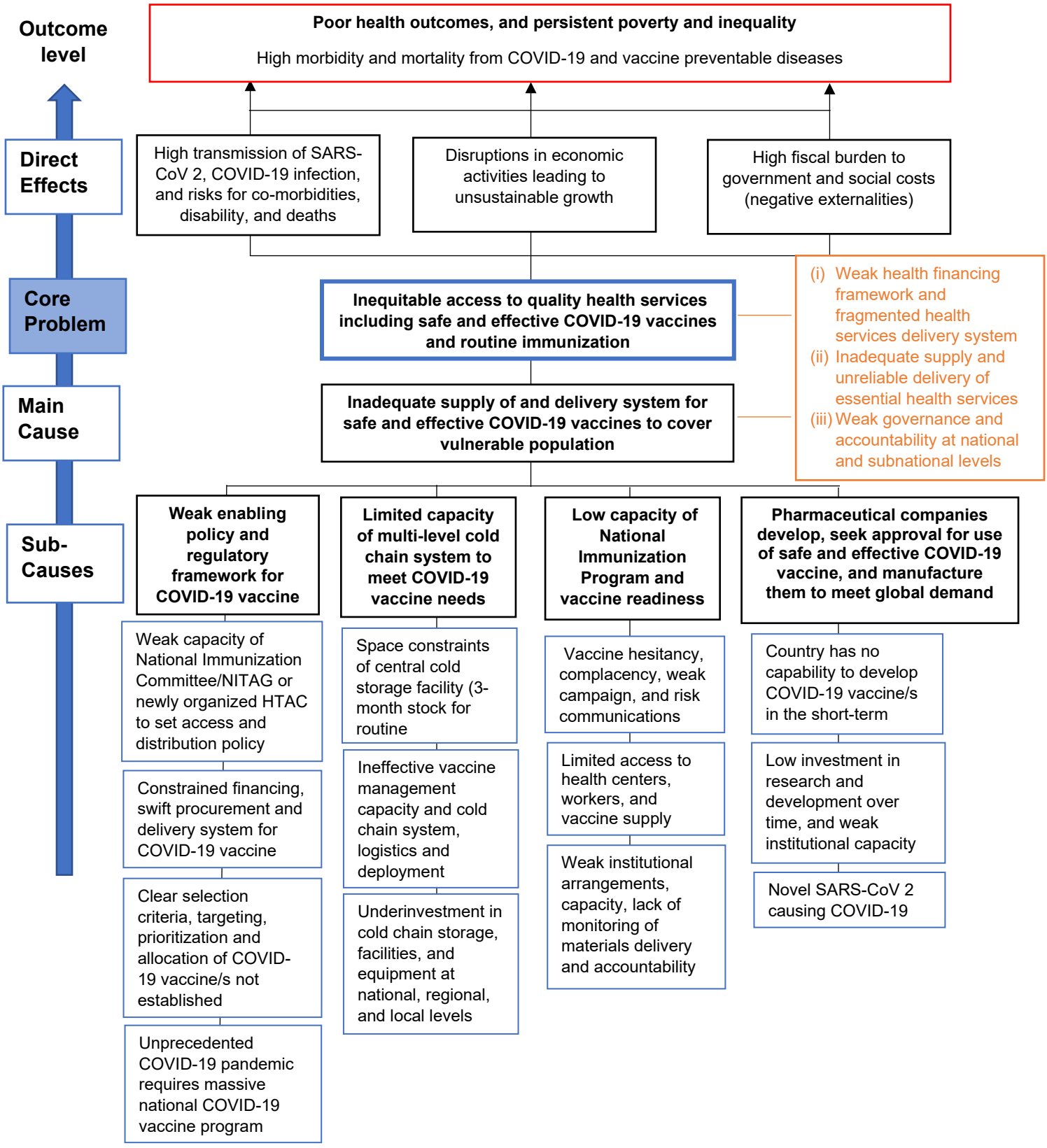
[18] ADB. Philippines: Women's Health & Safe Motherhood Project; ADB. Philippines: Integrated Community Health Services Project; ADB. Philippines: Health Sector Development Program; and ADB. Philippines: Credit for Better Health Care Project.

[19] ADB. 2020. *Philippines: COVID-19 Active Response and Expenditure Support Program*. Manila.

[20] ADB. Philippines: Health System Enhancement to Address and Limit COVID-19; ADB. Philippines: COVID-19 Emergency Response; and ADB. Philippines: Implementing a Rapid Emergency Supplies Provision Assistance to Design a Sustainable Solution for COVID-19 Impact Areas in the National Capital Region, through Public Private Collaboration.

[21] ADB. 2021. *Proposed Build Universal Health Care Program.* Manila.

Problem Tree for COVID-19 Vaccines Delivery and National Immunization Program



COVID-19 = coronavirus disease, HTAC = Health Technology Assessment Council, NITAG = National Immunization and Technical Advisory Group, SARS-CoV 2 = severe acute respiratory syndrome coronavirus 2.
Source: Asian Development Bank.