

## SECTOR ASSESSMENT (SUMMARY): HEALTH

### A. Sector Road Map

#### 1. Sector Performance, Problems and Opportunities

1. **Health status and patterns of disease.** Cambodia is a lower middle-income country in Southeast Asia, with an estimated population of 16.7 million in 2020, 20% of which live in urban areas.<sup>1</sup> During 2005–2018, the health of the people in Cambodia improved significantly, as evidenced by outcomes on the following key national indicators: life expectancy, maternal mortality ratio, infant mortality rate, and under-five mortality rate. Despite these gains, Cambodia falls behind health outcomes for the region as a whole (Table 1). Communicable, maternal, perinatal, and nutritional conditions continue to be associated with high levels of morbidity and mortality, accounting for 26% of all deaths in 2019.<sup>2</sup> Significant disparities in health outcomes exist across socio-economic groups.<sup>3</sup> Cambodia also faces a growing burden from noncommunicable diseases, which accounted for 64% of all deaths in 2016, the remaining 10% being attributable to injuries.

**Table 1: Selected Health Indicators**

National health indicators	Cambodia				CLMV	ASEAN
	2005	2010	2015	2018	2015	2015
Life expectancy at birth, male (years)	60.7	64.3	66.5	67.5	-	-
Life expectancy at birth, female (years)	65.3	68.6	70.6	71.9	-	-
Mortality rate, infant (per 1,000 live births)	52.9	37.4	27.2	22.8	25.0	20.0
Mortality rate, under-5 (per 1,000 live births)	64.8	44.0	31.6	26.6	35.0	26.0
Maternal mortality ratio (modelled estimate, per 100,000 live births)	351.0	248.0	178.0	-	197.0	125.0
Incidence of tuberculosis per 100,000	510.0	438.0	366.0	287.0	59.0	152.0

ASEAN = Association of Southeast Asian Nations; CLMV = Cambodia, Lao People's Democratic Republic, Myanmar, and Viet Nam.

Source: Asian Development Bank; ASEAN. [ASEAN Statistical Report on Millennium Development Goals 2017](#); World Bank. [World Development Indicators](#) (accessed 30 August 2021).

2. **Health service coverage and quality.** The public health network in Cambodia comprises more than 1,400 health facilities, including (i) 9 national hospitals in Phnom Penh providing high-level tertiary care; (ii) 24 provincial and 92 district referral hospitals providing clinical services at three levels;<sup>4</sup> and (iii) 1,229 health centers, providing primary health and basic clinical services.<sup>5</sup> Over 8,400 formal private providers operate in Cambodia. A network of volunteer community health workers provides a link between the public health system and community.<sup>6</sup> Nongovernment organizations support provision of basic social services, often in remote areas.

<sup>1</sup> World Bank. [World Development Indicators](#) (accessed 25 August 2021).

<sup>2</sup> [Institute for Health Metrics and Evaluation](#) (accessed 25 August 2021).

<sup>3</sup> For example, under-five mortality is three times higher for households in the poorest population quintile compared to households in the wealthiest Organisation for Economic Co-operation and Development and World Health Organization. 2018. *Health at a glance Asia/Pacific. Measuring progress towards universal health coverage*. Paris.

<sup>4</sup> Hospitals are designated a Complementary Package of Activities (CPA) level, ranging from CPA1 to CPA3. The CPA level defines the number and composition of staff, number of beds, standard drug kit, standard medical equipment, and clinical activities to be delivered. CPA-3 is the highest level.

<sup>5</sup> Ministry of Health (MOH). 2021. *National Deployment and Vaccination Plan For COVID-19 Vaccines – National Immunization Program*.

<sup>6</sup> K. Ozano et al. 2018. [Improving local health through community health workers in Cambodia: challenges and solutions](#). *Human Resources for Health*. 16(1):2.

3. In 2015, Cambodia had 8.0 hospital beds per 10,000 persons, with a bed occupancy rate of at least 87%.<sup>7</sup> Bed utilization is highest at national and provincial hospitals, where demand can exceed bed capacity, while at district level, utilization of health facilities remains low. Coverage for essential services, including noncommunicable diseases, is limited.<sup>8</sup> Public sector health services are constrained by limited diagnostic capacity, insufficient supply of medicines and health commodities, and understaffing (footnote 8). In 2014, Cambodia had 0.1 doctors per 1,000 people, compared to 1.2 on average in a lower middle-income country, and 1.0 nurses per 1,000 people (footnote 3). While 52% of health staff are female, 84% of management roles are filled by men, with women occupying lower-level positions. In a global ranking of health care access and quality in 2017, Cambodia was positioned in the bottom eight, or second worst in Southeast Asia.<sup>9</sup>

4. **National health expenditure.** In 2016, health expenditure in Cambodia was \$1,207 million. The government expenditure accounted for 22.3%, equivalent to 1.3% of gross domestic product, or just \$18 per capita.<sup>10</sup> The balance is derived from out-of-pocket (OOP) expenditure (60.4%), development partner financing (16.6%), and health insurance (0.8%). In 2017 the government issued a National Social Protection Policy Framework, with a vision to expand coverage and increase coherence between social assistance, social insurance, and labour market schemes. A Health Equity Fund (HEF) covering approximately 3 million people guarantees poor households' access to primary care and hospital services with no OOP expenses. Other health financing schemes include community-based health insurance for the informal sector, social health insurance for civil servants, and insurance for private sector employees. Together, these cover 30% of the population.<sup>11</sup> Despite these schemes, utilization of public sector health services remains low due to perceptions of poor quality.<sup>12</sup> Around 75% of sick persons initiate care in the private sector, accounting for the high level of OOP payments.<sup>13</sup> In 2016, 3.7% of households nationally experienced catastrophic health expenditure.<sup>14</sup> Households in the lowest two income quintiles were more vulnerable to OOP spending.<sup>15</sup>

5. **Coronavirus disease (COVID-19).** The World Health Organization (WHO) declared the COVID-19 outbreak a public health emergency of international concern on 30 January 2020. As of 2 September 2021, WHO reported that COVID-19 has infected over 218.2 million people and caused over 4.5 million deaths globally. Cambodia has recorded 93,510 confirmed cases of COVID-19, with 1,916 deaths.<sup>16</sup> Despite Cambodia's success in keeping confirmed COVID-19 cases low throughout 2020, the country has experienced a wave in new infections since early 2021. An outbreak that commenced 20 February 2021 has resulted in a surge of new infections and sustained community transmission. Cambodia's highly mobile population is a driver of

<sup>7</sup> Government of Cambodia, Ministry of Health (MOH). 2016. [Health Strategic Plan 2016-2020: Quality, Effective and Equitable Health Services](#). Phnom Penh.

<sup>8</sup> World Health Organization (WHO). 2018. [UHC and SDG Country Profile 2018: Cambodia](#). Geneva.

<sup>9</sup> *The Lancet*. 2017. Healthcare Access and Quality Index based on mortality from causes amenable to personal health care in 195 countries and territories, 1990–2015: a novel analysis from the Global Burden of Disease Study 2015. 390 (10091). pp. 231–266.

<sup>10</sup> WHO. 2019. [Cambodia National Health Accounts \(2012–2016\): Health Expenditure Report](#). Manila. This allocation excludes private sector allocations. In 2020, the health budget (current and capital) was 519 million.

<sup>11</sup> R. Kolesar. 2019. *Comparing Social Health Protection Schemes in Cambodia*. Washington, DC: Palladium, Health Policy Plus.

<sup>12</sup> B. Jacobs et al. 2018. Making free public healthcare attractive: optimizing health equity funds in Cambodia. *International Journal for Equity in Health*. 17(1): 88. pp. 1–11

<sup>13</sup> P. Annear et al. 2019. [Protecting the poor? Impact of the national health equity fund on utilization of government health services in Cambodia, 2006–2013](#). *BMJ Global Health* 2019;4:3001679.

<sup>14</sup> Defined as out-of-pocket payments for health care exceeding 40% of a household's capacity to pay.

<sup>15</sup> WHO. 2019. [Financial Health Protection in Cambodia \(2009–2016\): Analysis of Data from the Cambodia Socioeconomic Survey](#). Manila.

<sup>16</sup> WHO. [Coronavirus Disease \(COVID-19\) Dashboard](#) (accessed 3 September 2021).

COVID-19 spread. Up to 4.1 million people per year migrating internally create conditions for the viruses spread. WHO has highlighted the risk of silent transmission, with 66% of cases in current outbreak asymptomatic, 22% symptomatic and 12% unknown.<sup>17</sup> In 2021, the Ministry of Health (MOH) incorporated the roll-out of COVID-19 vaccination as a key pillar of the country's response.<sup>18</sup> However, variants of the virus may impede the efficacy of vaccination as a control strategy. The COVID-19 outbreak creates challenges for the health sector, including the availability of surge staff, participation of health staff in professional development, and delivery of outreach-based activities.

**6. Health system capacity to respond to public health threats.** Despite marked improvements in the capacity of Cambodia's health system to prevent, detect, and respond to communicable disease threats over the past 5 years, an ongoing need for investment remains. MOH's National Work Plan to Achieve International Health Regulations (IHR) Core Capacities<sup>19</sup> provides a roadmap for these investments. In 2020, MOH assessed Cambodia's compliance with core health system capacity requirements of the IHR<sup>20</sup> as 50%.<sup>21</sup> Cambodia scores below average on the Global Health Security Index, including deficiencies across the dimensions of, surveillance and response (including risk communications), laboratory, infection prevention and control (IPC), and health service provision.<sup>22</sup>

**7. Surveillance and response systems.** The increase in COVID-19 cases and related community transmission has highlighted deficiencies in Cambodia's surveillance and response capacities. The absence of an integrated approach for outbreak management at national and provincial levels is a barrier to effective management of larger outbreaks. Weak data management and analysis capabilities impede timely information sharing and data driven interventions. With cases recorded in all 24 provinces there is an urgent need to build provincial capabilities for testing, contact tracing, and quarantine. The MOH policy for home-management of asymptomatic and mild COVID-19 cases to free-up hospital beds increases the need for robust tracing and case management systems. Weak capacity for risk assessment and risk communication has hampered community adoption of risk reduction practices.

**8. Laboratory and IPC.** Laboratory and IPC in eight provincial hospitals and 73 district referral hospitals not supported under the original project is in urgent need of upgrading. Assessments found inadequate and outdated laboratory equipment for diagnosis and clinical management, including for COVID-19 comorbidities. Of these hospitals, 62 require renovation of laboratory rooms. Supplies of antigen-detecting rapid diagnostic tests for COVID-19 are insufficient to support contact tracing efforts. Equipment for IPC, including autoclaves, washing machines, and waste management systems, requires replacement.

**9. Health service provision.** Provincial hospitals nationwide lack equipment and appropriately trained personnel for clinical management of severe COVID-19 cases. Cambodia's treatment guidelines for COVID-19 indicate oxygen therapy be administered for moderate, severe, and critically ill patients. The MOH's oxygen baseline assessment found no provincial hospitals had capacity to manage five or more critical COVID-19 cases.<sup>23</sup> Non-invasive ventilation requires

<sup>17</sup> WHO. 2021. [Cambodia Coronavirus Disease 2019 \(COVID-19\) Situation Report #42](#). Geneva.

<sup>18</sup> Ministry of Health. 2021. *National Deployment and Vaccination Plan For COVID-19 Vaccines*. Phnom Penh.

<sup>19</sup> Government of Cambodia. 2016. *Cambodian National Work Plan for Emerging Diseases and Public Health Emergencies to Achieve IHR Core Capacities 2016–2020*. Phnom Penh

<sup>20</sup> WHO. 2016. *International Health Regulations (2005)*. Third Edition. Geneva.

<sup>21</sup> WHO. [Electronic State Parties Self-Assessment Annual Reporting](#) (accessed 28 April 2021).

<sup>22</sup> Johns Hopkins Center for Health Security. [Global Health Security Index \(accessed 26 July 2021\)](#).

<sup>23</sup> MOH. (Draft). *Analysis Of Oxygen Capacity For Public Health System In Cambodia*. 2021

a high level of oxygen supply and hospital's over-reliance on private sector oxygen providers was identified as a constraint.<sup>24</sup> The oxygen baseline assessment also found that hospitals lack clinical equipment to administer oxygen therapy, including: (i) pulse oximeters, needed for diagnosis of COVID-19 severity and clinical management of oxygen therapy, (ii) intubation sets and accessories for oxygen regulation, and (iii) equipment for non-invasive ventilation, such as high flow nasal cannulas. A shortage of ambulances impedes timely transfer of critically ill COVID-19 patients. The limited capacity of health care workers to diagnose and treat patients requiring oxygen therapy is a further constraint.

## 2. Government Sector Strategy

10. The MOH prepares five-year strategic plans that set out the government's overall strategy for the health sector. The most recent five-year plan covering 2016–2020, was focused on improving the coverage, quality, and equity of public and private sector health services. The plan emphasized health systems strengthening across five pillars: (i) health system financing, (ii) health workforce development, (iii) health infrastructure development, (iv) health information systems, and (v) essential support systems.<sup>25</sup> The fourth Health Strategic Plan 2021–2025, which is under development in consultation with a broad range of government, non-government and development partner stakeholders from the health and non-health sectors, will continue to build on these five pillars.

11. Alongside the Health Strategic Plan, a series of sub-sector plans guide the health sector's operations. In response to the escalating global COVID-19 outbreak, MOH issued the Response Plan for COVID-19 (March 2020–February 2021).<sup>26</sup> Aligned with WHO's Strategic Preparedness and Response Plan for COVID-19, the MOH's Response Plan prioritized nine focus areas for health system strengthening specific to COVID-19 readiness.<sup>27</sup> The MOH is preparing the next phase of the COVID-19 Response Plan. In 2021, MOH incorporated COVID-19 vaccination as a key pillar of the country's response, with a vaccination strategy set out in the Master Plan for COVID-19 Vaccination Deployment.<sup>28</sup>

12. The MOH strategy for emerging public health threats more broadly is guided by its commitments under the IHR (footnote 20). Cambodia conducts annual self-assessments of progress towards the 13 IHR core capacities using the WHO State Party self-assessment tool (footnote 21). The Cambodian National Work Plan for Emerging Diseases and Public Health Emergencies to Achieve IHR Core Capacities is a living document that sets out MOH strategic priorities (footnote 19). The Asia Pacific Strategy for Emerging Diseases provides a strategic roadmap to support country progress towards achieving the IHR core capacities.<sup>29</sup>

<sup>24</sup> Seventy-two percent of provincial and district referral hospitals source oxygen from suppliers in their provinces. The remaining use suppliers in Phnom Penh and neighboring provinces.

<sup>25</sup> Government of Cambodia. 2016. *Health Strategic Plan 2016-2020 "Quality, Effective and Equitable Health Services"*. Phnom Penh.

<sup>26</sup> MOH. *Cambodia Response Plan for COVID-19 – March 2020 to February 2021*. Phnom Penh.

<sup>27</sup> WHO. 2020. [2019 Novel Coronavirus \(2019 nCoV\): Strategic Preparedness and Response Plan. Geneva](#). The focus areas are: (i) Incident management and planning; (ii) surveillance and risk assessment; (iii) laboratory; (iv) clinical management and health care services; (v) infection prevention and control; (vi) non-pharmaceutical public health measures; (vii) risk communication; (viii) points of entry; and (ix) operational logistics.

<sup>28</sup> Ministry of Health. 31 March 2021. *Master Plan for COVID-19 Vaccine Deployment*. Phnom Penh.

<sup>29</sup> WHO. 2017. [Asia Pacific Strategy for Emerging Diseases and Public Health Emergencies](#). Manila.



## **B. Major Development Partners: Strategic foci and Key Activities**

13. Development partners have actively supported the governments' response to COVID-19, both through new financing commitments and reprogramming of existing initiatives across multiple sectors to address the health, social and economic impacts of the pandemic. Development partners supporting the health sector's response to COVID-19 include the Asian Development Bank (ADB), the Clinton Health Access Initiative (CHAI), the Government of Australia (GOA), The Global Fund; the Government of Korea (GOK), the Japan International Cooperation Agency (JICA), Gavi the Vaccine Alliance (GAVI), the United Nations Children's Fund (UNICEF), United Nations Office for Project Services (UNOPS), WHO, and the World Bank.

14. From February 2020, during the initial phase of the pandemic, development partners focused support around MOH's Response Plan for COVID-19 (footnote 26). The one-year plan prioritized nine focus areas for health system strengthening specific to COVID-19 readiness (footnote 27). The COVID-19 Active Response and Expenditure Support (CARES) Program under the Countercyclical Support Facility COVID-19 Pandemic Option of ADB provided \$250 million in budget support to the government's overall COVID-19 response, including \$60 million to MOH for key components of the Response Plan.<sup>30</sup> The World Bank provided an additional \$34 million in financing.<sup>31</sup> In 2021, development partners including ADB, UNICEF, GOA, CHAI, and WHO have focused efforts towards vaccine procurement and roll-out in line with the government's strategies (footnotes 5 and 28).

15. A group of development partners including ADB, CHAI, the Global Fund, UNOPS, and WHO are coordinating to support investment for health service delivery, with a specific focus on oxygen supply and oxygen therapy in the country. The UNOPS is procuring and installing oxygen plants with support from the Government of Japan (ten national and provincial hospitals) and WHO (one national hospital). The Government's submission to the Global Fund COVID-19 Response Mechanism (C19 RM), includes investment for oxygen therapy equipment and clinical training.

16. Other development partners support health service delivery. JICA is financing the construction of facilities and the installation of medical equipment in three hospitals in Siem Riep. The Government of Japan is further supporting the procurement of 100 ambulances for allocation across the country. The World Bank, GOA, and GOK are preparing phase 2 of the Cambodia Health Equity and Quality Improvement Project (H-EQIP II). The H-EQIP II project includes support for upgrading of provincial and district referral hospitals in-line with the facilities designated Complementary Package of Services level (footnote 4).

## **C. Institutional Arrangements and Processes for Development Coordination**

17. The Technical Working Group for Health (TWGH), co-chaired by MOH and WHO, is the formal coordination mechanism between development partners and the Cambodia health sector. This multi-stakeholder platform provides a forum for dialogue on policy, strategy, and programming within the sector. The TWGH plays a central role coordinating development partner support to the sector's COVID-19 response. Above the TWGH, the Inter-Ministerial Committee to Combat COVID-19 chaired by the Health Minister, leads the government's overall COVID-19

<sup>30</sup> ADB. [Cambodia: COVID-19 Active Response and Expenditure Support Program](#).

<sup>31</sup> Includes: World Bank. [Cambodia COVID-19 Emergency Response Project](#) (\$20 million in new financing); and World Bank. [Cambodia Health Equity and Quality Improvement Project](#) (\$14 million reprogrammed).

response. A number of working groups convene on specific topics. The Department of Hospital Services leads the Oxygen Therapy Working Group with key development partners. The National Immunization Program (NIP) chairs a technical group comprised of NIP, WHO, UNICEF, and CHAI to work on operational aspects relating to Cambodia's immunization program. In addition to these formal mechanisms, development partners convene on an informal basis.

#### **D. ADB experience and assistance program**

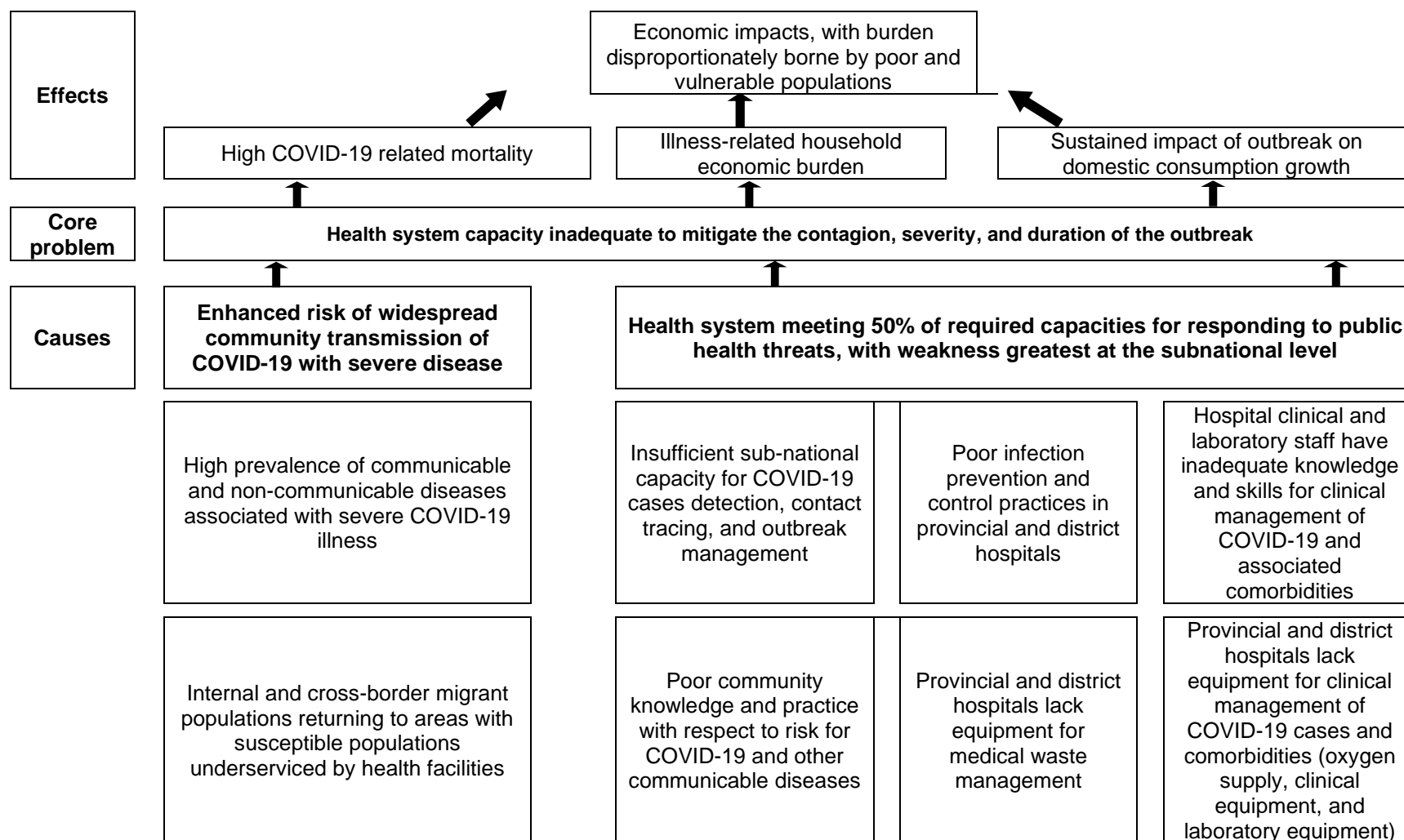
18. Since 2011, ADB's support to Cambodia's MOH under its regional communicable disease control projects has been a driver of improvements in public health system capacity for preventing, detecting, and responding to communicable disease threats. These achievements demonstrate ADB's comparative advantage in delivering targeted support for responding to emerging health threats at the regional, national, and subnational levels. Leveraging this advantage, the government has requested ADB's support to scale-up the health sector's response to COVID-19. The CARES Program included \$60 million in budget support towards the MOH's COVID-19 Response Plan (footnotes 26 and 30). The Cambodia Rapid Immunization Support Project provides \$95 in ADB financing for procurement of COVID-19 vaccines and related international logistics.<sup>32</sup> ADB has further financed a series of technical assistance to the government and the MOH.<sup>33</sup> The proposed additional financing project will further strengthen health system capacity to address the COVID-19 threat, contributing to the resumption of economic and social activity and COVID-19 recovery.

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<sup>32</sup> [ADB. Forthcoming. Cambodia Rapid Immunization Support Project. Manila.](#)

<sup>33</sup> ADB has (i) procured \$1.61 million worth of personal protective equipment for health facilities under [TA 9950-REG: Regional Support to Address the Outbreak of Coronavirus Disease 2019 and Potential Outbreaks of Other Communicable Diseases](#); (ii) allocated \$0.1 million to develop a mobile application for dissemination of health information during the pandemic under [TA 9571-REG: Strengthening Regional Health Cooperation in the Greater Mekong Subregion](#); and (iii) allocated \$0.22 million for the development of digital technology for hospital management information systems and health information dissemination with a specific focus on migrant populations under [Regional: Support for Human and Social Development in Southeast Asia](#).

### Problem Tree for Health



COVID-19 = coronavirus disease.  
Source: Asian Development Bank.