

TERMS OF REFERENCE FOR CONSULTANTS

Table 1: Summary of Consulting Expertise and Person-months Required

Expertise	Consulting Inputs	
	Number of Positions	Total Person-months
<i>International Firm: Health Security and Health Systems Strengthening</i>		
1. Team leader (Public Health Specialist)	1	8
2. Regional Health Security Expert/Deputy Team Leader	1	8
3. Health Innovations Research Expert	1	3
4. Health Systems Strengthening Expert	1	5
5. Health Service Delivery and Quality Expert	1	5
6. Disease Surveillance and Information Systems Expert	1	4
7. National Consultants (non-key experts)	12	40.5
Subtotal	18	73.5
<i>International Firm: Digital Health</i>		
8. Digital Health Expert/Team Leader	1	8
9. Digital Health Innovations Expert	2	8
10. Telemedicine Expert/Deputy Team Leader	1	4
Subtotal	4	20
<i>International Individual consultants (intermittent)</i>		
11. Communicable Disease Control Expert	1	3
12. Behavior Change Communication Expert	1	2
13. Supply Chain Expert/Warehousing Expert	1	4
14. Health Facility Expert	1	4
15. Medicines Regulatory Expert	1	3
16. Laboratory Capacity and Diagnostics Expert	1	3
17. Social Development/Migrant Health Expert	1	2
18. Noncommunicable Disease Expert	1	2
19. Innovative Financing Expert	1	2
20. Regional Health Coordinator	1	6
21. Graphic Designer	1	2
22. Technical Writer	1	2
Subtotal	12	35
<i>National Individual Consultant (intermittent)</i>		
23. Financial Expert	1	5
<i>Resource Persons Pool</i>	TBD	6
Grand total	35	139.5

TBD = to be determined.

Source: Asian Development Bank

I. INTERNATIONAL FIRM (input-based, fixed-budget selection), Expertise: Health Security and Health Systems Strengthening

1. The Asian Development Bank (ADB) is seeking the services of an international consulting firm, university, research institution and/or an association of international firms, universities and/or research institutions, which may be nongovernment organizations, (hereinafter referred to as the “consultant”) that will manage a multidisciplinary team of international and national experts to provide capacity development, analysis and implementation support to prepare, mitigate and respond to regional health threats, including the current coronavirus disease (COVID-19) outbreak, with a view to build resilient health systems and strengthen regional and/or cross-border cooperation in Central Asia Regional Economic Cooperation (CAREC) region and the Caucasus through innovative solutions. The consultant will further support organizing workshops, study tours, simulation exercises and develop the CAREC regional health strategy and investment framework in close consultation with CAREC countries.

A. Scope of Work

2. The firm’s assignment comprises three main parts (i) research, capacity development and innovative solutions for COVID-19 and other communicable disease preparedness and response in the region, with view to strengthen health systems and health security capabilities in the longer run; (ii) strengthen regional health cooperation; and (iii) develop a CAREC health strategy towards 2030 and investment framework. The firm will closely work with the digital health firm and individual consultants under this TA. The firm will:

(i) Research, capacity development and innovative solutions for COVID-19 and other communicable disease preparedness and response

- (a) Regularly survey and analyze emerging knowledge, lessons learnt and global best practice responding to COVID-19 globally and in the region, and share knowledge with ADB and developing member countries (DMCs) in the region regularly (e.g., through webinars, newsletters, presentation material);
- (b) Regularly survey development of COVID-19 pandemic and government responses in the region, and provide data as needed, including sex-disaggregated data to examine the gendered patterns in access to COVID-19 related testing and treatment, mortality and vulnerability;
- (c) Screen innovative solutions to COVID-19 response globally;
- (d) Provide updated assessments and analysis on countries’ health systems, health security capabilities and health policies as needed, which will include assessment of differential impact of health crises, pandemics on women and other vulnerable groups including those residing in border areas;
- (e) Familiarize with ADB’s COVID-19 responses in the region and provide advice to ADB and governments in the region to ensure ADB’s COVID-19 responses contribute to sustainable and resilient health systems strengthening while improving outbreak response, pandemic preparedness and overall health security immediately and medium term;
- (f) Based on assessments and research on lessons learnt, innovations and best practices, develop and recommend innovative solutions and models to better prepare for, respond to and recover from COVID-19 and other infectious diseases (with epidemic/pandemic potential) suitable for CAREC countries and the Caucasus; keeping in mind factors such as sustainability, responsiveness to the

specific needs of women and other vulnerable groups, and longer-term health systems strengthening. Work closely with individual consultants under the TA to develop models and solutions. In consultation with countries and ADB, recommend where innovative solutions and models can be implemented and how they can be linked to ongoing and planned ADB projects. Where necessary, take into account specific requirements for fragile and conflict-affected situations. These solutions can include but are not limited to:

- (i) Provide innovative solutions for detection and case management without jeopardizing routine healthcare and essential services, taking into account decentralized and community-centered and/or home-based and cross-border care solutions to reduce burden to hospitals without adding to women's existing multiple burdens, health workforce distribution with possible cross-border exchange and support, and updating referral pathways for routine and essential services. Tailor to country-specific needs as needed;
- (ii) Identify integrated health service delivery models and innovations that can be adopted by DMCs as they prepare for future disease outbreaks. Include suggestions for cross-border service delivery models;
- (iii) Propose innovative solutions to strengthen disease surveillance including community-based surveillance programs, including in border areas to detect risky animal exposure practices; provide public information programs based on this evidence, antimicrobial resistance surveillance, and rumor surveillance and verification;
- (iv) Provide assessment of the capacity to determine cause of death, and conducting verbal autopsies, and recommend solutions for strengthening capacity on reporting cause of death data, that is sex-disaggregated, identifying and working with partners as needed;
- (g) Based on COVID-19 responses, provide recommendations for entry points for ADB to develop gender-responsive, socially inclusive health sector projects and investments with indicative budget requirements to strengthen health systems and health security preparedness, including with cross-border and regional dimension. Where suitable, these can be fed into the investment framework (see below);
- (h) Organize webinar series to disseminate research findings related to COVID-19 and discuss innovative models and solutions; and
- (i) Support preparation of knowledge products and presentation material.

(ii) Strengthen regional health cooperation

- (a) Explore opportunities for strengthening regional cooperation for health to jointly build more resilient health systems and address regional health threats, based on existing initiatives, lessons learnt from the COVID-19 pandemic, responses and solutions being developed, and results from the CAREC health scoping study;
- (b) Make recommendations to strengthen health systems with regard to improving prevention, preparedness and response to potential future disease outbreaks, especially with a focus on regional and cross-border mechanisms and services relevant for CAREC countries;
- (c) Support identification of necessary assessments in discussion with ADB, DMCs and other consultants under this TA;
- (d) Conduct necessary assessments and analyses to scope and develop select joint regional mechanisms and solutions for better provision of cross-border health services, and provide recommendations for the further harmonization of standards

and regulations working together with individual consultants as necessary. Draw on lessons from the COVID-19 pandemic and results from the CAREC health scoping study and building and leveraging on existing initiatives where appropriate. Assessments and studies may include but are not limited to:

- (i) scope and develop joint regional mechanisms, building on existing ones and those prepared in response to COVID-19 above (e.g., joint procurement during crises; regional asset management; regional surveillance systems for infectious and zoonotic diseases; stronger region-wide laboratory capacities and referral systems; joint outbreak investigation);
- (ii) examine the potential for further harmonization of standards and regulations (e.g., human and animal health management and disease control, reporting procedures);
- (iii) develop joint strategies to protect the most vulnerable residing in border areas (women, the elderly, children, persons with disabilities, and migrant and mobile populations) from disease outbreaks and improve their access to health services;
- (iv) find solutions for better provision of cross-border health services and referrals. Services may cover services for all levels of care, communicable diseases, NCDs, maternal and child health etc.
- (e) Prepare costed workplans for at least 2 socially inclusive regional mechanisms;
- (f) Review national action plans, strategies, programs and initiatives in the health sector, including the national action plans on health security on aspects of regional cooperation and make recommendations for strengthening;
- (g) Review national and subnational institutional structures and decision-making processes with regard to regional health cooperation and diplomacy as needed;
- (h) Identify best practices for regional health cooperation from other regions and recommend strategic areas requiring attention in the region;
- (i) Provide inputs to preparation of policy dialogues on regional health cooperation under CAREC;
- (j) Identify training and capacity building needs on a continuous basis and propose potential webinar series, capacity development workshops and potential study tours to provide capacity development on regional health cooperation;
- (k) Organize webinar series, and capacity development workshops related to advancing regional cooperation;
- (l) Organize and conduct simulation exercises and impact assessments, especially in cross-border areas; and
- (m) Support preparation of knowledge products and presentation material.

(iii) CAREC health strategy towards 2030 and investment framework (2022-2026)

- (a) Based on assessments (including assessments from individual consultants), national plans and existing agreements and CAREC scoping study, a gender-sensitive CAREC regional health strategy will be developed outlining common goals, shared health challenges and priorities for cooperation. The strategy will address the main regional threats in the fields of EIDs, zoonotic diseases, and noncommunicable diseases (NCDs), and cross-sectoral issues of migration, agriculture, trade, and climate change, including their gender-differentiated effects; and propose gender sensitive approaches. It will support establishment and formalization of a Working Group on Health (WGH) under the CAREC institutional framework;

- (b) Develop a regional investment framework for a period from 2022–2026 with project proposals to complement the strategy. This will entail preparation of prioritized investment cases, including public-private partnerships, with indicative budgets, cost-benefit analyses, recommendations for including gender elements, and various assessments already carried out;
- (c) Organize a series of consultation meetings and future and foresight exercises in preparation of the strategy and investment framework to be held with national and provincial governments, development partners, civil society, private sector and local communities, including women;
- (d) Prepare criteria for the selection and prioritization of projects for the investment framework. The criteria should be guided by the findings and recommendations of the assessments and analyses as well as country consultations;
- (e) Prepare at least two project concepts with rationale, indicative budget and financing options, including public-private partnerships;
- (f) Explore strategic regional partnerships that will further allow to pool resources more efficiently, build on existing initiatives and implement activities proposed in the strategy; and
- (g) Work closely with other consultants under technical assistance (TA).

B. Key Expertise Required

3. The consultant shall be an internationally reputable firm, university and/or research institution with at least 10 years of relevant experience in the subject areas of expertise. These include health systems strengthening, health security, communicable diseases prevention and control, health sector reforms, and health policy. The consultant should have experience working in the health sector with governments in the CAREC region and the Caucasus. Joint ventures to ensure the entire region is covered are encouraged. Relevant experience working with ADB and/or other multilateral institutions on similar assignments will be considered an advantage.

4. The consultant will determine the number, nature and inputs of experts deemed necessary to effectively and successfully achieve and deliver the scope of work listed in this terms of reference. At least, the key experts and non-key experts listed below are required for this consultancy assignment (roles may be combined). The consultant can determine additional key experts and non-key experts in accordance with their proposed approach and methodology. These may include international and national experts in private sector participation, innovative financing, gender, community outreach and behavior change communication, and institutional development.

B.1. International Consultants (Key Experts)

B.1.1. Team Leader (Public Health Specialist, 8 person-months)

5. The team leader should have a post-graduate degree in public health, medicine, health policy, health economics or a related field. At least 15 years of experience in the health sector in the region with experience in communicable disease control and health systems strengthening. S/he should have in-depth knowledge of health systems in the Central, West and East Asia region and demonstrated experience in working with governments in the region. Good working knowledge of the differential impacts of health pandemics, crises on specific groups of people, especially the vulnerable groups—women, elderly, children, and differently abled persons will be an advantage. Good working relationships with international organizations working in the region

are preferred. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Overall management of the consultant team by supervising them to implement the project smoothly, taking necessary actions to solve problems, and ensuring quality and timeliness of TA implementation;
- (ii) Maintain close communication with ADB project officers in Social Sector Division (CWSS), and resident missions, and liaise with governments, and other development partners involved in the health sector in the region;
- (iii) Establish and implement reporting systems and procedures for management, monitoring, and responding to implementation challenges;
- (iv) Develop an overall workplan through a bottom-up approach and regularly revisit and revise together with ADB project officers;
- (v) Coordinate timely input and phasing of international and national specialists' inputs as per implementation plan and ensure quality of all outputs provided;
- (vi) Build good working relationships with other consultants under this TA to jointly prepare innovative approaches, conduct assessments, develop strategy and investment framework, and hold capacity development and consultation activities to ensure smooth delivery of outputs;
- (vii) Underpin all activities with best practice leadership, management, organization and people development, and change management strategies, and ensure gender mainstreaming and social inclusion underpin all activities;
- (viii) Provide technical expertise to ADB and government counterparts as required;
- (ix) Provide advice to ADB and governments in the region to ensure ADB's COVID-19 responses contribute to sustainable health system's strengthening while improving outbreak response, pandemic preparedness and overall health security immediately and medium term with innovative solutions;
- (x) Oversee development of innovative solutions and models, ensure quality and closely coordinate with other consultants under this TA;
- (xi) Oversee preparation of assessments and studies to strengthen regional cooperation including costed workplans;
- (xii) Provide inputs to preparation of policy dialogues on regional health cooperation under CAREC;
- (xiii) Lead development of the CAREC health strategy, investment framework and project concepts and closely coordinate with all consultants under this TA;
- (xiv) Prepare outline and propose plan for consultation with different stakeholders on preparation of CAREC strategy and investment framework to be discussed with DMCs;
- (xv) Support establishment of working group for health under CAREC and make recommendations to ensure sustainability;
- (xvi) Oversee overall organization of webinar series, capacity development workshops, consultations with government and other stakeholders and propose study tours;
- (xvii) Seek synergies between ADB health and health-related projects, programs and technical assistances (TAs) in countries in the region as needed;
- (xviii) Compile quarterly progress reports and regular communication with ADB project officers;
- (xix) Engage in public communication activities to respond, promote and disseminate information and progress reports;
- (xx) Coordinate and support ADB and government counterparts in conducting regular and special review missions;
- (xxi) Provide leadership in responding to emergency or crisis management.

B.1.2. Regional Health Security Expert and Deputy Team Leader (8 person-months)

6. The regional health security expert is expected to have a postgraduate degree in public health, epidemiology, medicine, health policy or related field. The expert is expected to have at least 10 years of experience working on infectious disease prevention, preparedness, response and recovery with a focus on health systems capacities. S/he will have at least 7 years of experience working with governments, and international organizations, preferably in Asia and the Pacific. Experience in strengthening regional cooperation, joint regional mechanisms and knowledge sharing for health security is preferred. Good working knowledge of the differential impacts of health pandemics, crises on specific groups of people, especially women and vulnerable groups (elderly, children, and differently abled persons), are considered an advantage. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Compile lessons learnt from the COVID-19 outbreak including on differential responses/ health support for men and women and other vulnerable groups;
- (ii) Assess which aspects of pandemic response require regional cooperation;
- (iii) Explore opportunities for strengthening regional cooperation for health to jointly build more resilient health systems and address regional health threats, based on lessons learnt from the COVID-19 pandemic and results from the CAREC health scoping study, by conducting assessments and analysis and developing solutions. Explore to what extent existing initiatives can be leveraged and strengthened;
- (iv) Make recommendations to strengthen health systems with regard to improving prevention, preparedness and response to potential future disease outbreaks, especially with a focus on regional and cross-border mechanisms and services relevant for CAREC countries;
- (v) Develop solutions for improving provision of cross-border health services and referrals together with service delivery expert and identify specific border areas where cross-border services could be strengthened;
- (vi) Make recommendations on how countries could increase implementation of selected International Health Regulations (IHR) core capacities including regional collaboration;
- (vii) Make recommendations to strengthen rapid response teams and rapid response systems (emergency coordination centers, and laboratory capacity) including points of entry and propose trainings needed;
- (viii) Identify selected border-crossing points that are particularly vulnerable to disease outbreaks and transmissibility of infectious diseases and formulate recommendations on how to improve health security at the border, including joint outbreak investigations, and which standard protocols to implement in case of outbreaks or pandemics;
- (ix) Identify possibilities to strengthen cross-sector collaboration for regional health security including between human, animal and environment sectors and work with surveillance expert to propose how regional surveillance systems for infectious and zoonotic diseases could be strengthened;
- (x) Support individual supply chain management expert to provide assessments and propose mechanisms to improve regional supply chains, and asset management and scope possibility for joint procurement in the region, especially during public health emergencies;

- (xi) Identify government agencies that require capacity development on health security and risk mitigation in critical borders areas that are sensitive to vulnerable population groups;
- (xii) Make recommendations for strengthening region-wide laboratory capacities and referral systems working closely with the individual laboratory expert;
- (xiii) Review health sector and health-related national action plans, strategies, programs and initiatives with regard to aspects of regional cooperation, including the national action plans on health security and create an overview and repository with recommendations for strengthening;
- (xiv) Review national and subnational institutional structures and decision-making processes with regard to regional health cooperation and diplomacy;
- (xv) Participate in relevant coordination meetings organized by ADB, other institutions and governments, relevant to ADB's health initiatives;
- (xvi) Provide inputs to preparation of policy dialogues on regional health cooperation under CAREC;
- (xvii) Provide inputs to the development of the CAREC health strategy and investment framework particularly with regard to regional health security;
- (xviii) Identify potential partnerships in the region and identify potential future roles and responsibilities;
- (xix) Provide a regional perspective and seek synergies between ADB health and health-related projects, programs and TAs in countries in the region;
- (xx) Provide lessons learnt and best practices on regional cooperation for health from other regions as needed;
- (xxi) Facilitate information exchange and sharing key results among countries in the region;
- (xxii) Prepare and conduct simulation exercises and trainings for addressing both communicable diseases and NCDs;
- (xxiii) Contribute to preparing material, provide inputs and/or act as resource person during webinars, workshops and consultations as needed;
- (xxiv) Contribute to reports, prepare communication material and high-quality presentation material; and
- (xxv) Prepare knowledge products and contents for blogs and Development Asia (DevAsia).

B.1.3. Health Innovations Research Expert (3 person-months)

7. Post-graduate degree in public health, health policy/planning, or a related field. At least 4 years of experience in working in public health, preferably in countries in the Central, West and East Asia region. Demonstrated work experience in research and analysis of health systems in the Central and West Asia region is preferred. Experience in the analysis of responsiveness to specific needs of women and vulnerable groups (elderly, differently abled persons, and children) is an advantage. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Provide rapid analysis and gather information on health systems, health sector reforms and capacity to respond to infectious disease outbreaks, including COVID-19 in countries in the region. Analysis shall include components of health systems and specific health sector reforms to respond to infectious disease outbreaks, that address needs of women and other vulnerable groups;
- (ii) Produce briefs and summaries of analysis as needed;

- (iii) Conduct desk reviews and proactively reach out to partners, ADB project units and consultants as needed to gather information and material;
- (iv) Regularly survey and analyze emerging knowledge, lessons learnt and global best practice responding to COVID-19 and share knowledge with ADB and DMCs regularly;
- (v) Regularly survey and analyze development of COVID-19 pandemic in the region, and provide data as needed, including sex-disaggregated data to examine the gendered patterns in access to COVID-19 related testing and treatment, mortality and vulnerability;
- (vi) Survey and analyze COVID-19 government responses in the region, including differential responses to health care needs of men and women and vulnerable groups;
- (vii) Monitor and compile regional health cooperation initiatives and activities in the region in response to COVID-19;
- (viii) Research, compile and provide updates on COVID-19 related evidence-based innovative interventions and best practices globally, including innovative measures to address specific needs of women and other vulnerable groups which countries in the region can explore;
- (ix) Monitor latest research on linkages between COVID-19 and NCDs and innovations related to health promotion and suggest potential training needs;
- (x) Support providing assessment of recommendations for national as well regional and cross-border solutions;
- (xi) Provide inputs to the development of the CAREC health strategy and investment framework;
- (xii) Contribute to preparing material, provide inputs and/or act as resource person during webinars, workshops and consultations as needed;
- (xiii) Build good working relationships with different consultants and work together with all consultants under this TA;
- (xiv) Contribute to reports, prepare communication material and high-quality presentation material.
- (xv) Prepare knowledge products and contents for blogs and DevAsia.

B.1.4. Health Systems Strengthening Expert (5 person-months)

8. Post-graduate degree in public health, health policy/planning, or a related field. At least 8 years of experience in working on health systems strengthening, preferably in countries in the Central, West and East Asia region. Demonstrated work experience advising governments in the region and in designing and implementing health sector projects funded by bi/multilateral organizations are considered a must. Good working knowledge of the differential impacts of health pandemics, crises on specific groups of people, especially women and vulnerable groups (elderly, children, and differently abled persons), are considered an advantage. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Provide rapid analysis and information on health systems including components of health systems and specific health sector reforms that address needs of women and other vulnerable groups in the region in oral and/or written form as needed;
- (ii) Provide operationalizable recommendations to ADB project officers and governments in the region on how immediate COVID-19 interventions can contribute to strengthening health systems in the longer run. Analysis should be

provided across all six health systems building blocks (access to medicines, health service delivery, health financing, human resources, information systems) and their interaction as needed and include analysis of specific interventions for women and other vulnerable groups;

- (iii) Identify opportunities for cross-sector collaboration as needed;
- (iv) Provide recommendations for national as well regional and cross-border solutions;
- (v) Build good working relationships with different consultants and work together with all consultants under this TA;
- (vi) Propose solutions for case management for COVID-19 and other potential future communicable diseases, including health workforce distribution with possible cross-border features such as exchange;
- (vii) Provide inputs to the development of the CAREC health strategy and investment framework;
- (viii) Contribute to preparing material, provide inputs and/or act as resource person during webinars, workshops and consultations as needed;
- (ix) Contribute to reports, prepare communication material and high-quality presentation material.
- (x) Prepare knowledge products and contents for blogs and DevAsia.

B.1.5. Health Service Delivery and Quality Expert (5 person-months)

9. A post-graduate degree in public health, health care management, health policy/planning, or a related field. At least 8 years of experience working on health sector, preferably in countries in the Central, West and East Asia region. Demonstrated experience working with governments and bi-/multilateral organizations on health service delivery and/or health sector reforms. Previous work experience in designing and implementing health sector projects is an advantage. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Provide rapid analysis and summaries of health service delivery and quality, and organization of hospitals, facilities and other health service providers including specific services for women and other vulnerable groups to determine capacity (e.g., human resources, facility infrastructure, equipment);
- (ii) Prepare plans, guidelines and advice on how to manage potential case surge, including isolation, drawing on available health intelligence;
- (iii) Support recommendations for innovative solutions for detection, treatment and case management without jeopardizing routine healthcare and essential services, taking into account:
 - (a) decentralized and community-centered/home-based care solutions to reduce burden to hospitals without adding to women's existing multiple burdens
 - (b) health workforce distribution with possible cross-border exchange and support
 - (c) measures to guarantee continuous provision of routine and essential health services, including sexual and reproductive health services, medical attention for victims of gender-based violence (GBV), management of NCD and preventive services such as vaccinations, for example through updating referral pathways; remote services for NCD management for COVID-19 high risk groups;

- (iv) Support the identification of integrated health service delivery models and innovations that can be adopted by DMCs as they prepare for future disease outbreaks. Include suggestions for cross-border service delivery models;
- (v) Provide recommendations on improving quality of care in critical and emergency care settings;
- (vi) Assess service and facility readiness for disease outbreaks in border areas as needed;
- (vii) Identify border areas with facilities shared by communities living in border areas and propose recommendations for cross-border referral models;
- (viii) Find solutions for better provision of cross-border health services and referrals. Services may cover services for all levels of care, communicable diseases, NCDs, maternal and child health etc.
- (ix) Support developing joint strategies to protect the most vulnerable residing in border areas (women, the elderly, children, persons with disabilities, and migrant and mobile populations) from disease outbreaks and improve their access to health services, working with individual experts (e.g. migrant health, gender);
- (x) Provide inputs to the development of the CAREC health strategy and investment framework;
- (xi) Contribute to preparing material, provide inputs and/or act as resource person during webinars, workshops and consultations as needed;
- (xii) Contribute to reports, prepare communication material and high-quality presentation material;
- (xiii) Prepare knowledge products and contents for blogs and DevAsia.

B.1.6. Disease Surveillance and Information Systems Expert (4 person-months)

10. A post-graduate degree in public health, epidemiology, communicable diseases, medicine or health policy/planning. At least 5 years of experience in the health sector relating to surveillance response systems management and reporting, and laboratory services, preferably in countries in the Central, West and East Asia region. Knowledge of leveraging digital technology for surveillance is a must. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Review rapid response systems and make recommendations to strengthen rapid response teams and rapid response systems (e.g., emergency coordination centers);
- (ii) Review surveillance information systems and provide recommendations for strengthening monitoring of surveillance and response systems;
- (iii) Identify critical border areas vulnerable to disease outbreaks and suggest how to strengthen surveillance capacity at sub-national level;
- (iv) Review and make recommendations on harmonizing regional reporting procedures for notifiable communicable diseases;
- (v) Review outbreak and reporting procedures at major hospitals in critical border areas as needed;
- (vi) Make recommendations on strengthening point-of-entry screening and quarantine capacity at land border entry points and quarantine centers as needed;
- (vii) Make recommendations for strengthening national and regional surveillance across vertical diseases programs and human and animal health sectors as needed;

- (viii) Make recommendations on how to better link laboratories with surveillance and response systems as needed;
- (ix) Make recommendations on harmonizing reporting procedures for notifiable communicable diseases including strengthening sex-disaggregated data;
- (x) Identify outbreak reporting in major hospitals in border areas and make suggestions for improvement;
- (xi) Propose community-based surveillance programs, especially in border areas, including detection of risky animal exposure practices, practices that increase risk of anti-microbial resistance, rumor surveillance and verification;
- (xii) Work closely with the firm providing digital health services to identify need and use cases for digital tools, support customizing tools and advising on how they could be used after the current outbreak;
- (xiii) Provide sex-disaggregated data, guidelines and information to ensure digital tools are based on current surveillance and response practices;
- (xiv) Provide inputs to the development of the CAREC health strategy and investment framework;
- (xv) Contribute to preparing material, provide inputs and/or act as resource person during webinars, workshops and consultations as needed;
- (xvi) Contribute to reports, prepare communication material and high-quality presentation material; and
- (xvii) Prepare knowledge products and contents for blogs and DevAsia.

B.2. National Consultants (Non-key experts)

B.2.1. National Public Health Experts (national, 40.5 person-months, intermittent, 3.5 months in each country, 2 months in Armenia)

11. National public health experts shall be made available across 12 countries to support all members of the firm's team including the digital health firm and individual consultants under this TA. The national consultants will (i) support coordination and policy dialogues with governments and development partners; (ii) provide updates on COVID-19 situation, responses and plans and share regularly; (iii) gather information on government needs and required supplies; (iv) research and provide information and sex-disaggregated data on the country's health systems and performance; (v) collect relevant documents such as policies, guidelines and regulations; (vi) support assessments, (vii) support organization of workshops, consultations, study tours, (viii) identify existing health-related government policies, action plans and initiatives with regional aspects that can be strengthened, and (ix) support gathering information for the regional health strategy and investment framework.

II. INTERNATIONAL FIRM (output-based, fixed-budget selection), Expertise: Digital Health

12. ADB is seeking the services of an international consulting firm (hereinafter referred to as the "consultant") that will manage a multidisciplinary team of international and national experts to support ADB's policy dialogues with developing member countries with regard to piloting innovative digital health solutions and to support development of pilot projects or advise on integration of digital technology in ADB's proposed and ongoing projects.

A. Scope of Work

13. The consultant shall be an internationally reputable firm, university and/or research institution with at least 10 years of relevant experience in the subject areas of expertise. These include digital transformation of public health institutions (incl. PPPs and SOEs), experience in consulting, knowledge of standard digital health frameworks and concepts, of sensitive data (privacy and security), human-centered and user experience design. The consultant should have experience working in the health sector (incl. communicable disease prevention and control) with governments in CAREC countries and the Caucasus. Relevant experience working with ADB and/or other multilateral institutions on similar assignments will be considered an advantage.

14. The firm will be assigned to (i) support ADB's digital health policy dialogue with DMCs in the health sector, identifying priority needs and use cases related to COVID-19 and other communicable diseases response and preparedness; (ii) scan for and regularly document innovative and sustainable digital health solutions as well as open innovation challenges which are responsive to the DMC's priority use cases; (iii) rapidly assess the current digital health and health surveillance landscape as well as digital health capacity in the countries; (iv) assess suitability of the pre-identified solutions according to the context, identifying requirements for adaptation, customization, and preconditions for deployment (e.g., human resources, infrastructure, systems) and considering resources available for piloting and implementation; (v) support DMCs to prepare and evaluate proposals for open innovation challenges; and (vi) support identification and preparation of pilot projects and relevant documentation.

15. Potential use cases and solutions to be scoped should include:

- (i) Early warning systems, disease surveillance, patient risk identification, as well as case detection, monitoring/tracking and case management tools with data visualization capability, that is sex-disaggregated, to be used by a wide variety of users (incl. frontline health workers, facility managers and decision-makers). Solutions explored shall include open source and off-the-shelf solutions that are ready-to-deploy in response to the COVID-19 pandemic. Solutions with geo-enabling features, following single-entry-multiple-use principle, and that can be connected, i.e., are interoperable, to countries' existing health information systems and registries would be preferred solutions. Solutions explored may include commercial as well as open source solutions;
- (ii) Solutions that provide digital advisory services on COVID-19 or psychosocial support services for citizens and/or health workers. This could include solutions to support health promotion including NCD prevention, helplines for GBV reporting/referrals, and promotion of healthy lifestyles. Depending on context, these may be packages such as website features, mobile health (mHealth) applications, chatbots, phone hotlines, interactive voice response (IVR) or unstructured supplementary service data (USSD) solutions;
- (iii) Asset/logistics management information systems, that can track availability, distribution, validity and storage status and flow data of supplies or equipment. Solutions that can be linked with digital early warning, disease surveillance, and case management tools and/or applications shall be recommended as well to enable countries do quick needs assessment and distribution of critical supplies to where urgent needs are during outbreaks. Solutions suggested may include using and deploying options such as barcoding, quick response (QR) coding, radio frequency identification (RFID), or other sensors to track supplies or equipment;

- (iv) Telemedicine solutions, to promote remote clinical care and treatment, including for intensive care unit (ICU) expert support (e.g., to connect experts across hospitals). Solutions should include those that allow for immediate customization and deployment for the COVID-19 context, keeping in mind subsequent adoption to other application areas. Solutions may be piloted selected countries, but should be capable of being conceptualized and customized in Russian language for potential adaptation in different countries in the region (multilingual option to be built in). Partnerships with regional telecommunications and internet service providers should be explored and sought to support strengthening systems and infrastructure for telemedicine services (hardware and software);
 - (v) Laboratory information systems, which could be linked with other information systems; and
 - (vi) National and/or regional solutions to enable eLearning for frontline health workers, facility managers, and policy-makers, and solutions for exchange of regional knowledge and best practices in Russian language. Solutions explored shall include digital platforms, applications, and systems that could be accessed through the web, tablets or mobile phones. Where possible solutions and training material already available may be explored for translation into Russian language.
16. Other key factors to consider with respect to exploring and proposing solutions shall be:
- (i) Include options that are ready-to-deploy and only require minimal customization to provide timely response to the current COVID-19 pandemic;
 - (ii) Solutions which have sustainable use beyond the current pandemic to strengthen countries' health systems, surveillance and response capacity for potential future outbreaks or other justified use cases;
 - (iii) Include a mix of low-cost and high-end solutions, proprietary and open source solutions;
 - (iv) Consider tried and tested solutions that are already being implemented;
 - (v) Consider an upgrade and extension of existing legacy systems in the concerned DMCs;
 - (vi) Include solutions that may be either region-wide or national in scope;
 - (vii) Potential for positively impacting inclusion and gender equality, and capacity to produce sex-disaggregated data and address specific needs of women and other vulnerable groups;
 - (viii) Consider life cycle cost-effectiveness;
 - (ix) Interoperable with existing systems and datasets (this shall be ensured through collaboration with the Standards and Interoperability Lab, Asia);
 - (x) Ease of deployment in the institutional and cultural context of CAREC countries and the Caucasus. This will contribute to the sustainability of ADB's support.
17. In a first step, the consultant will prepare a repository of solutions as well as of relevant open innovation challenges (recent past, present and pipeline) that could serve as a funnel for interesting innovations. Collaboration with ADB's Innovation Hub will be sought. The consultant will provide a curated "solution repository", identifying promising digital health solutions grouped by priority use cases. Information should include lessons learnt (if available), links to case studies or other documentation and evidence of success. A sample cost estimate, deployment timeline and roll-out preconditions should provide a quick perspective on the potential for piloting.
18. An initial round of policy dialogues with selected governments in the region will be held to identify digitalization needs and issues as well as active and planned digital health initiatives. The

firm will work with the health security and health systems strengthening firm to scope the health sector context in countries as needed to identify entry points for digital health solutions. In the context of these dialogues, the consultant will:

- (i) Assist in the preparation of policy dialogues and participate to help identify the priority digital health needs and issues (“use cases”) as well as entry points. Such needs assessments will also cover scanning existing initiatives to avoid duplication with other donors or propose collaboration;
- (ii) Undertake rapid assessments of the digital health and data landscape, including the availability of sex-disaggregated data, as well as digital health capacity using frameworks such as the Health ICT Governance and Architecture Framework (HIGAF) 2.0;
- (iii) Review of existing (legacy) health information systems to explore, if they could be upgraded in response to the identified use cases;
- (iv) Evaluate capacity in countries to prepare and evaluate proposals for technology challenges and make recommendations to strengthen capacity; and
- (v) Work closely with the health systems/regional health security firm, other individual consultants and government counterparts to undertake the assessment and review as needed.

19. Based on policy dialogues, assessment of country context and scoping of available solutions and relevant open innovation challenges, the consultant shall recommend which of the identified solutions would be suitable for pilots under the TA or could be deployed through proposed and existing projects (including emergency assistance projects). This includes a consideration of timelines, available resources, critical success factors and a prioritization according to a set of transparent selection criteria to be developed. The consultants will further build capacity and support countries to craft “challenge statements” that can be picked up through open innovation challenges, facilitating contact with the organizers. The consultant shall further propose potential collaborations with partners including local and international private sector/start-ups in deploying solutions for implementation through the TA, pilots or ADB projects. Collaboration with ADB’s Venture’s initiative shall be explored. The consultant will:

- (i) Propose suitable solutions based on policy dialogues and assessed country context and existing systems with clear pros and cons;
- (ii) Scrutinize the suitability of the proposed solution(s) against the existing context;
- (iii) Assess hardware availability and requirements, and human resources for telemedicine solutions as needed;
- (iv) Identify potential for country-specific or regional collaboration with partners including private sector to mobilize additional resources;
- (v) Assess scalability, sustainability and cost efficiency of the proposed solutions using, for example, the ADB’s Digital Health Impact Framework;
- (vi) Assess and recommend training needs for health workers, policy-makers and IT staff that will use the tools, including trainings on sex-disaggregated data collection, reporting and analysis;
- (vii) Identify clear requirements for smooth adaptation, customization, and preconditions for deployment (e.g., human resources, infrastructure, systems) considering resources available;
- (viii) Work with ADB’s Standards and Interoperability Lab (SIL-Asia), for trainings and other activities with regard to assessing and strengthening health standards and interoperability;

- (ix) Prepare cost estimates (deployment cost and cost of ownership) and deployment timelines in a given context to help project officers and governments to make suitable choices within available resources;
- (x) Draft criteria for pilot selection and provide recommendations to ADB on which pilots/solutions to prioritize nationally and/or regionally, noting resource and time constraints as well as other considerations listed above;
- (xi) Build capacity and support DMCs to prepare and evaluate proposals for open innovation challenges; and
- (xii) Propose recommendations for further investment opportunities through existing or future regional or national ADB projects, including emergency assistance loans/grants.

20. The solutions proposed for piloting and implementation need to integrate into the digital landscape, digital health enterprise architecture and add value to existing health system procedures and processes to ensure sustainability and support strengthening countries' health systems. Prevailing legislation, policies, standards, regulations and World Health Organization (WHO) guidance including protection of privacy rights needs to be taken into consideration as well.

21. The consultant needs to demonstrate awareness of the political, social and cultural context. At the same time, solutions shall be ambitious in boosting capabilities and leveraging cutting-edge technologies, approaches and data sources including those that are sex-disaggregated. Ensuring the sustainability in this context refers to the ease of maintenance, upgrading and integration with existing and future systems—hence the preference for open source solutions and priority of capacity development.

22. The consultant will further support ADB in preparing and implementing pilot projects. To this end, the consultant will:

- (i) Prepare pilot projects and where applicable necessary concept notes, outlining scope, implementation details, timelines and costs;
- (ii) Ensure all pilots are scalable and sustainable, integrate into the digital health and data landscape, and add value to existing health system. Clearly identify potential future uses for solutions beyond the COVID-19 pandemic;
- (iii) Scope partnership opportunities for collaboration with other development partners and private sector entities (in-kind and financial contributions) which would augment the impact or enlarge the scope of the pilot projects;
- (iv) Evolve partnership ideas into workable collaboration arrangements, including the role of the partners, their contributions, external communication, etc.;
- (v) Where necessary, prepare tender documents, including business and technical requirements and costing of solutions including implementation and ongoing costs (can include consulting services as well). Prepare clear selection criteria for Request for Proposal (RFP) documents;
- (vi) Provide oversight of pilot projects, ensure the active engagement of pilot partners, support troubleshooting and recommend improvements to ensure smooth implementation; and
- (vii) Provide evaluation of pilots after 1 year.

B. Key Expertise Required

23. The consultant will determine the number, nature and inputs of experts deemed necessary to effectively and successfully achieve and deliver the outputs listed in this terms of reference. At least, the key experts listed below are required for this consultancy assignment (roles may be combined). The consultant can determine additional key experts and non-key experts in accordance with their proposed approach and methodology. At least one of the key experts should be native Russian speaker.

B.1. Digital Health Expert and/or Team Leader (8 person-months)

24. A post-graduate degree in health information systems, public health, computer science, or related field. At least 10 years of experience in digital health implementation in developing countries, preferably in the Central, West and East Asia region. Excellent written and oral communication skills in English. Basic knowledge of Russian is an advantage. The team leader will be responsible for delivering on the scope of work in a timely manner.

- (i) The team leader will be responsible for the overall management of the consultant team by supervising them to implement the project smoothly, taking necessary actions to solve problems, and ensuring quality and timeliness of TA implementation;
- (ii) Maintain close communication with ADB project officers in CWSS, and liaise with governments in the region, and other development partners involved in the health sector in the region;
- (iii) Establish and implement reporting systems and procedures for management, monitoring, and responding to implementation challenges;
- (iv) Develop the overall annual workplan through a bottom-up approach;
- (v) Coordinate timely input and phasing of international and national specialists' inputs as per implementation plan and ensure quality of all outputs provided;
- (vi) Build good working relationships with other consultants under this technical assistance to jointly prepare innovative approaches and ensure smooth delivery of outputs;
- (vii) Underpin all activities with best practice leadership, management, organization and people development, and change management strategies, and ensure gender mainstreaming and social inclusion underpin all activities;
- (viii) Communicate bottlenecks with proposed solutions for resolving them early on;
- (ix) Provide technical expertise to ADB and government counterparts as required;
- (x) Provide overview, insights and analysis of latest digital technology applied to COVID-19 response globally, including with regard to above mentioned use cases. Guide team to prepare and update curated repository of solutions in a timely fashion;
- (xi) Support policy dialogue with countries on digital health tools and telemedicine needs for COVID-19 response and future needs based on knowledge of global digital innovation and best practices for COVID-19 response and country's digital health systems;
- (xii) Guide team to prepare framework for assessing current digital health and data landscape and systems, and lead preparation of assessments through literature review and policy dialogue with government counterparts as needed.

- (xiii) Closely work together with the regional health security and health systems strengthening firm to gather background information on countries' health and surveillance systems to ensure tools proposed are suitable for the health system, including clinical and surveillance practices as needed;
- (xiv) Provide recommendations to ADB on digital technology, ADB could pilot and/or implement through projects at national or regional level given resource and time constraints and other considerations listed above;
- (xv) Prepare selected and prioritized pilot projects and concept notes, outlining scope, implementation details, timelines and costs. Ensure all pilots are scalable and sustainable, integrate into the digital health and data landscape, and add value to existing health system. Clearly identify potential future uses for solutions beyond the COVID-19 pandemic.
- (xvi) Where necessary, prepare tender documents, including business and technical requirements and costing of solutions including implementation and ongoing costs (can include consulting services as well). Prepare clear selection criteria for Request for Proposal (RFP) documents;
- (xvii) Provide oversight of pilot projects, support troubleshooting and recommend improvements to ensure smooth implementation;
- (xviii) Provide evaluation of pilots after 1 year;
- (xix) Prepare recommendations for further investment opportunities through ADB projects;
- (xx) Provide strategic advice on potential collaborations including with private sector to tap into further resources;
- (xxi) Provide strategic advice on how to leverage open innovation challenges and how to build capacity to participate in open innovation challenges;
- (xxii) Compile quarterly progress reports and regular communications with ADB project officers;
- (xxiii) Engage in public communication activities to respond, promote and disseminate information and progress reports;
- (xxiv) Coordinate and support ADB and government counterparts in conducting regular and special review missions; and
- (xxv) Provide leadership in responding to emergency or crisis management.

B.2. Digital Health Innovations Expert (8 person-months, 2 persons)

25. A post-graduate degree in health information systems, public health, computer science, or related field. At least 4 years of experience in digital health implementation in developing countries, preferably in the Central, West and East Asia region. Knowledge of communicable disease control and surveillance is an advantage. Excellent written and oral communication skills in English. Basic knowledge of Russian is an advantage. Tasks include:

- (i) Support overall implementation of the work program as outlined in the scope of work under guidance from the team leader;
- (ii) Research, compile and provide updates on COVID-19 related innovative digital interventions and best practices (public and private sector) globally, including for the above use cases and including innovative measures to address specific needs of women and other vulnerable groups which countries in the region could explore;

- (iii) Explore eLearning solutions and training material already available that could potentially be translated into Russian language;
- (iv) Research suitable open innovation challenges;
- (v) Support compiling curated repository;
- (vi) Gather information through research and provide rapid analyses of digital health and data landscape based on pertinent frameworks such as HIGAF 2.0;
- (vii) Support assessments of suitability of solutions in a given context by understanding existing and future digital health architecture options;
- (viii) Assess training needs for implementing prioritized digital health solutions; and
- (ix) Support preparation of pilot projects including necessary documents such as concept notes, tender documents, including business and technical requirements, costing of solutions, and deployment schedules;
- (x) Support oversight, monitoring and evaluation of pilot projects.

B.3. Telemedicine Expert and/or Deputy Team Leader (4 person-months)

26. A post-graduate degree in health information systems, public health, computer science, or related field. At least 7 years of experience in digital health implementation in developing countries, preferably in the Central, West and East Asia region. Excellent written and oral communication skills in English. Basic knowledge of Russian is an advantage. Tasks include:

- (i) Provide information and analysis on telemedicine use cases for COVID-19 response, including for ICU support, with recommendations for other future application areas to strengthen health service delivery, especially remote clinical care and treatment in remote and rural areas (incl. border areas);
- (ii) Support identification of potential pilots for telemedicine;
- (iii) Explore potential conceptualization and customization of pilots in Russian language for potential adaptation in different countries in the region (multilingual option to be built in);
- (iv) Provide recommendations for a regional approach to telemedicine through exploring and supporting collaboration with regional telecommunications and internet service providers to support strengthening systems and infrastructure for telemedicine services (hardware and software);
- (v) Assess existing hardware and hardware needs;
- (vi) Assess training needs for implementing telemedicine solutions;
- (xi) Support preparation of pilot projects or telemedicine implementations under the TA including necessary documents such as tender documents, including business and technical requirements, costing of solutions, deployment schedules.

Table 2: Key Tasks and Deliverables

No	Task/Report	Submission date from date of contract signing
1	Initial version of solution repository containing a first set of curated and evaluated solutions (to be updated and expanded regularly in response to policy dialogues and new innovations) and relevant open innovation challenges.	Within 2 weeks
3	Briefing note with potential use cases related to COVID-19 and other communicable diseases response and preparedness to guide first round of policy dialogues.	Within 2 weeks

No	Task/Report	Submission date from date of contract signing
2	Initial recommendations for solutions and suitable open innovation challenges after policy dialogues based on needs and country context. Include clear guidance on which solutions are suitable for piloting or project investments. Indicate potential opportunities for collaboration and partnership. Propose how to build capacity for open innovation challenges and craft challenge statements.	Within 4 weeks
3	Recommendations for solutions and suitable open innovation challenges after further policy dialogues based on needs and country context. Include clear guidance on which solutions are suitable for piloting or project investments. Indicate potential opportunities for collaboration and partnership.	Within 6 weeks
4	Implementation plans of selected and prioritized pilot projects with costing and clear plan for scaling and sustainability based on countries/ health system.	Within 8 weeks
5	Prepare necessary tender documents for pilots	Within 10 weeks
6	Support evaluation of bids	Within 13 weeks
7	Support ongoing policy dialogue (e.g., inputs to briefing notes, minutes, etc.)	As required
8	Support documentation and communications (e.g., draft news updates, blogs, social media posts, etc.)	As required
9	Updated solution repository	Quarterly
10	Report on backstopping pilots	Quarterly
11	Evaluation of pilots with recommendations for scaling	1 year

Source: Asian Development Bank

III. INTERNATIONAL INDIVIDUAL CONSULTANTS

A. Communicable Disease Control Expert (international, 3 person-months, intermittent)

27. Graduate degree in epidemiology, public health or related field. At least 10 years of experience in communicable disease control. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Tasks include:

- (i) Provide technical expertise and advice on strengthening countries' capacity in communicable disease control (CDC) and prevention, especially on the current COVID-19 outbreak and other emerging and infectious diseases;
- (ii) Work with health facility expert and health systems strengthening and digital health firms to prepare plans, guidelines and advice on how to manage potential case surge, including isolation, drawing on available health intelligence. Provide advice on how to build capacity for case management during disease outbreaks, and how it can be handled rapidly;
- (iii) Provide knowledge and expertise on communicable disease control and lessons learnt and best practices globally;
- (iv) Propose solutions to tackle potential case surge such as taking into account decentralized and community-centered care solutions that consider the differential needs of women and men and other vulnerable groups to reduce burden to

- hospitals without adding to women's existing multiple burdens; health workforce distribution with possible cross-border exchange;
- (v) Review infection prevention and control guidelines in facilities and make recommendations for updates, drawing from international best practices including new insights from the current COVID-19 outbreak;
 - (vi) Propose gender-sensitive community-based CDC that considers needs of vulnerable groups especially in critical border areas in the region with a focus on control of emerging and infectious diseases;
 - (vii) Contribute to preparing material, provide inputs and/or act as resource person during webinars, workshops and consultations as needed; and
 - (viii) Contribute to reports, knowledge products, prepare communication material and high-quality presentation material.

B. Behavior Change Communication Expert (international, 2 person-months, intermittent)

28. Post-graduate degree in social sciences, communications, behavioral sciences, or a related field. A minimum of 5 to 10 years of professional experience in preparing and implementing behavior change & communication (BCC) programs or advising on behavior change interventions in at least three developing countries; experience with campaigns related to health, especially communicable disease is preferred. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Provide overview of ongoing risk communication activities in the region and identify funding gaps;
- (ii) Scan global COVID-19 communication initiatives and provide advice on innovative solutions and partnerships for risk communication in the region;
- (iii) Prepare gender-sensitive and socially inclusive regional risk communication and community engagement guidance note in close coordination with UN agencies such as WHO. If available, help improve and disseminate guidance;
- (iv) Ensure risk communication strategy provides guidance on engaging with vulnerable communities, elderly, women, migrants, and differently abled persons in ways they can understand (e.g., radio and local languages) and highlight specific risks affecting these groups;
- (v) Support countries in preparing gender-sensitive and socially inclusive risk communication and community engagement strategies;
- (vi) Propose ways technology can be leveraged for risk communication;
- (vii) Propose ways in which community-based groups can be mobilized for risk communication;
- (viii) Propose messages and communication to prevent gender-based violence (GBV) such as healthy conflict resolution, healthy parenting, stress and anger management and other awareness campaigns and information on where to seek help and services in cases of GBV;
- (ix) Support governments to choose and prepare suitable gender-sensitive and socially inclusive risk communication strategies, various effective channels to communicate with the public, and identify segments of the population most at risk and how to reach them effectively;
- (x) Support preparation of gender-sensitive and socially inclusive BCC materials with visuals, effective messages, social media contents as needed and work closely

with technical agencies such as WHO and United Nations Children's Fund (UNICEF).

- (xi) Prepare gender-sensitive and socially inclusive materials and advice countries on how to counter false information, myths and rumors about COVID-19 including prevention and treatment, which could potentially lead to harm the public's health and mitigate "infodemic" guided by WHO leadership and advice.
- (xii) Support countries in communication through existing communication networks such as media, newspapers, radio, TV stations.
- (xiii) Contribute to reports, knowledge products, prepare communication material and high-quality presentation material.

C. Supply Chain Expert/Warehousing Expert (international, 4 person-months, intermittent)

29. Post-graduate degree in business administration, logistics, or a related field. At least 10 years of experience in forecasting and supply chain management in the health sector, preferably in countries in the Central, West and East Asia region. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Assess forecasting, warehousing, asset management and stockpiling capacity in countries in the region and recommend regional approach for improvements;
- (ii) Propose recommendations for improving operating procedures for asset registration and custody, including expediting processes for emergency supply for COVID-19;
- (iii) Assess asset and logistics management information systems and propose improvements;
- (iv) Propose innovative solutions such as barcoding to improve asset registration and management with a view to improve preventive maintenance;
- (v) Develop tracking system for procured items to ensure they are allocated to where the biggest needs are;
- (vi) Assess country and regional transportation logistics for distribution of equipment and medicines including for COVID-19 emergency supplies;
- (vii) Propose recommendations for transportation logistics for distribution of equipment and supplies, especially COVID-19 emergency supplies, including to remote and rural areas;
- (viii) Provide assessments and propose mechanisms to improve regional supply chains, and asset management and scope possibility for joint procurement in the region, especially during public health emergencies;
- (ix) Make recommendations for enhanced pooled procurement of medicines and medical supplies to ease for outbreak and pandemic relevant supply shortages in health facilities and ensure distribution of goods based on need;
- (x) Provide other recommendations on supply chain and asset management in the health sector as needed;
- (xi) Ensure digital enabled smooth procurement, transportation and distribution for any hardware required in close communication with ADB's project officers, procurement specialists and government counterparts;
- (xii) Contribute to preparing material, providing inputs and/or act as resource person during webinars, workshops and consultations as needed; and
- (xiii) Contribute to reports, knowledge products, prepare communication material and high-quality presentation material.

D. Health Facility Expert (international, 4 person-months, intermittent)

32. A post-graduate degree in public health, health care management, health policy/planning, or a related field. At least 8 years of experience working on health sector, preferably in countries in the Central, West and East Asia region. Demonstrated experience working with governments and bi-/multilateral organizations on health service delivery and/or health sector reforms. Previous work experience in designing and implementing health sector projects is an advantage. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Provide rapid health facility assessments to determine facility capacity and readiness (e.g., human resources, facility infrastructure, equipment, women's needs and access) especially in border areas;
- (ii) Work closely with the firm providing digital health services to identify facilities where the tools such as telemedicine could be useful, identify trainings needed, support customizing tools and advising on how they could be used after the current outbreak;
- (iii) Provide information and data necessary to customize digital tools and telemedicine to countries health service delivery systems and facilities;
- (iv) Provide assessments of health facilities (e.g., infrastructure, management, equipment, quality, accessibility etc.) at different levels of care, including facilities for specific needs of women, older persons and other vulnerable groups, including in border areas and make recommendations for improvements with a view to tackle current COVID-19 pandemic and better manage potential future communicable disease outbreaks;
- (v) Support in preparing plans, guidelines and advice on how to manage potential case surge, including isolation, drawing on available health intelligence;
- (vi) Determine existing ICU facilities, their distribution and quality and provide recommendations how to upgrade them if deemed necessary;
- (vii) Assess capacity of facilities to absorb particular types of equipment, including those in remote border areas.
- (viii) Provide recommendations for facility upgrading especially in border areas. Provide concrete lists of facilities that require upgrading and type of upgrading as needed, including upgrading that meet needs of women and other vulnerable groups;
- (ix) In recommendations for upgrading needs, incorporate recommendations for quality improvement, universal access, climate change adaptation and mitigation measures, high level digital technology including mobile technology (m-Health), and "green" features in the design of facilities, other health infrastructure and the health services delivery in general;
- (x) Make recommendations to improve universal access to health facilities to improve persons with disability, older persons, etc.; and
- (xi) Contribute to reports, prepare communication material and high-quality presentation material.

E. Medicines Regulatory Expert (international, 3 person-months, intermittent)

33. Post-graduate degree in medicine, pharmacy, public health, or a related field. A minimum of 10 years of professional experience in working with drug regulatory agencies in developing countries and providing capacity development. Experience working with international organizations and regional experience in Asia and the Pacific preferred. Excellent written and oral

communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Work closely with the Food and Drug Administration (FDA) agencies in CAREC countries and the Caucasus on strengthening pharmaceutical regulations and standards and the use of internationally available drug registration to facilitate approval of essential medicines and vaccinations critical to the control and prevention of spread of infectious diseases, including the current COVID-19 pandemic;
- (ii) Provide technical support to FDAs to build capacity to obtain accreditation in relation to pharmaceutical standards and regulation;
- (iii) Assess regulatory management information systems and provide technical support on strengthening integrated regulatory information systems;
- (iv) Support FDAs on developing reliance policies, strengthening post-market surveillance, and exploring development of regional post market surveillance information exchange platform;
- (v) Explore opportunities and provide recommendations for potential regional collaborations on COVID-19 research and vaccines development;
- (vi) Coordinate closely with relevant partners such as WHO and GAVI, the Vaccine Alliance (formerly the Global Alliance for Vaccines and Immunisation) and suggest potential areas for collaboration;
- (vii) Participate in regional consultations for wider dissemination of good practices on regulatory process;
- (viii) Provide inputs to the development of the CAREC health strategy and investment framework particularly on aspects related to medicines regulation as needed;
- (ix) Contribute to preparing material and/or act as resource person during webinars, workshops and consultations as needed, and
- (x) Contribute to reports, knowledge products, prepare communication material and high-quality presentation material.

F. Laboratory Capacity and Diagnostics Expert (international, 3 person-months, intermittent)

34. A post-graduate degree in public health, health policy/planning, or a related field. At least 8 years of experience working on health sector, preferably in countries in the Central, West and East Asia region. Demonstrated experience working with governments and bi-/multilateral organizations. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Assess current testing capacities and policies in response to COVID-19;
- (ii) Provide support to strengthen testing in response to COVID-19 as needed;
- (iii) Provide recommendations on strengthening laboratory capacities, including strengthening of regional and/or national reference laboratories and networks;
- (iv) Support assessments of national and regional laboratory capacity, including quality, infrastructure and equipment, biosafety and biosecurity as needed and provide recommendations for improvements;
- (v) Provide support to strengthening laboratory standards and guidelines, including on quality, biosafety and biosecurity;
- (vi) Scope possibilities for regional cooperation on laboratory diagnostics;
- (vii) Provide laboratory human resources gap analysis and training needs assessments. Provide concrete recommendations for training laboratory

- professionals and other human resources including through joint regional approaches;
- (viii) Assess laboratory information systems and provide technical support on strengthening laboratory information systems, including needed linkages with other information systems;
 - (ix) Propose potential partnerships and opportunities for collaboration with technical agencies, development partners, research institutes and private sector in the region;
 - (x) Contribute to preparing material and/or act as resource person during webinars, workshops and consultations as needed, and
 - (xi) Contribute to reports, knowledge products, prepare communication material and high-quality presentation material.

G. Social Development/Migrant Health Expert (international, 2 person-months)

35. A degree in social sciences, public health, social anthropology or related field. At least 8 years of experience working on migrant health, preferably with regional experience in the Central, West and East Asia region. Demonstrated experience working with governments and bi-/multilateral organizations. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Prepare an assessment of migration patterns, migrant's access to health services and occupational health in the CAREC region;
- (ii) Identify subnational regions and cross-border areas with a high incidence of migrant workers (sending and receiving) and propose further research in those areas on migrant workers' and mobile populations' health status and their access to health services;
- (iii) Review pertinent bilateral and regional policies and agreements on migrant workers and their access to health care;
- (iv) Provide assessments on access to health services of most vulnerable residing in border areas including women, elderly, children, differently abled persons, migrant and mobile populations, including impact assessments of the COVID-19 pandemic on their health status and access to services;
- (v) Develop national and cross-border strategies to protect the most vulnerable residing in border areas including women, elderly, children, differently-abled persons, migrant and mobile populations from disease outbreaks and improve their access to health services for discussion with countries in the region;
- (vi) Provide inputs to the development of the CAREC health strategy and investment framework particularly on aspects related to health of migrant and mobile populations, women, elderly, children, and differently abled persons;
- (vii) Identify and support developing collaborations with technical agencies on this topic in the region;
- (viii) Work closely with other experts under this TA including the gender expert;
- (ix) Contribute to preparing material and/or act as resource person during webinars, workshops and consultations as needed;
- (x) Contribute to reports, knowledge products, prepare communication material and high-quality presentation material.

H. Non-communicable Diseases Expert (international, 2 person-months)

36. A degree in public health, medicine, epidemiology or related field. At least 8 years of experience working on addressing non-communicable diseases, preferably with regional experience in the Central, West and East Asia region. Demonstrated experience working with governments and bi-/multilateral organizations. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Monitor latest research and provide analysis on the linkages between NCDs and COVID-19 and other communicable diseases;
- (ii) Provide inputs on safeguarding essential NCD-related service delivery during pandemic
- (iii) Provide analysis on the incidence and prevalence of NCDs and related risk factors in the region as needed;
- (iv) Provide analyses and recommendations on strengthening regional cooperation and harmonization to tackle NCDs and risk factors, working closely together with other experts to ensure health systems strengthening approach;
- (v) Propose regional prevention and health promotion programs, particularly in border areas;
- (vi) Support experts working on innovative cross-border service delivery models with regard to NCD prevention and treatment;
- (vii) Provide inputs on digital technology related to NCD prevention, treatment and management as needed;
- (viii) Provide inputs to the development of the CAREC health strategy and investment framework particularly on aspects related to NCDs and its risk factors;
- (ix) Contribute to preparing material and/or act as resource person during webinars, workshops and consultations as needed;
- (x) Contribute to reports, knowledge products, prepare communication material and high-quality presentation material.

I. Innovative Financing Expert (international, 2 person-months)

37. A degree in public health, business administration, development policy, political science, social development, or related field preferably with regional experience in the Central, West and East Asia region. Demonstrated experience working with governments and bi-/multilateral organizations. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Provide financial assessments and analysis and develop innovative regional financing models for health in the CAREC region;
- (ii) Work with consultants under the TA to support assessments and solutions for regional cooperation with innovative financing models;
- (iii) Provide inputs to the development of the CAREC health strategy and investment framework particularly on aspects related innovative financing models;
- (iv) Identify potential and work partners for collaboration on innovative financing models;
- (v) Support preparation of investment pipeline and project concepts;
- (vi) Contribute to preparing material and/or act as resource person during webinars, workshops and consultations as needed;

- (vii) Contribute to reports, knowledge products, prepare communication material and high-quality presentation material.

J. Regional Health Coordinator (international, 6 person-months)

38. A degree in public health, business administration, development policy, political science, social development, or related field preferably with regional experience in the Central, West and East Asia region. Demonstrated experience working with governments and bi/multilateral organizations. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Oversee TA activities in the region and provide quarterly updates on progress;
- (ii) Support effective dissemination of TA activities and results;
- (iii) Support coordination and organization of working group on health including organization and logistics of meetings, workshops and training activities, conferences with support from technical experts;
- (iv) Support working group in preparing workplan and organizing meetings;
- (v) Ensure coordination of activities of the working group with other ADB projects and TAs, development partners, ADB departments and resident missions working on health;
- (vi) Participate in relevant regional and country level meetings and network events as needed;
- (vii) Assist to identify partnerships and collaborations relevant for areas supported by the TA;
- (viii) Closely coordinate with ADB project officers, and resident missions;
- (ix) Provide inputs to the development of the CAREC health strategy and investment framework particularly on aspects related to NCDs and its risk factors;
- (x) Contribute to preparing material and/or act as resource person during webinars, workshops and consultations as needed;
- (xi) Review and contribute to reports, knowledge products, prepare communication material and high-quality presentation material; and
- (xii) Provide support to DMCs, working group on health and ADB as necessary.

K. Graphic Designer (international, 2 person-months, intermittent)

35. A degree in graphic design, communications or related field. At least 10 years of technical expertise in visual design which include the use of graphics software applications to create visual design elements for publication, presentation, website and other multimedia forms. S/he must have the ability to conceive and design visual concepts to best convey messages to different target audiences using color, typesetting, images, and illustration or photography. S/he has extensive experience working with ADB and is preferably based in Manila, Philippines. Experience working in the health sector is preferred. Specific tasks include:

- (i) Prepare visual material on the objectives, plans and activities of the overall TA and the TA's interim and final project outputs and results;
- (ii) Develop one master presentation with key facts about the TA, which will be updated continuously;
- (iii) Provide support identifying regional and DMC initiatives under the TA, especially innovative features, lessons learnt, successes and ADB's value addition, that could

- be visualized and propose ways to communicate them to different types of audiences;
- (iv) Highlight regional and health systems strengthening features in the visual material;
 - (v) Prepare presentation material, infographics, storyboards on activities and outputs of the TA and topics related to the TA;
 - (vi) The consultant will support the design of communication material, issue briefs and knowledge products related to this TA;
 - (vii) Draft infographics, which summarize the state of play of innovation in selected sectors and DMCs;
 - (viii) Ensure that visual communication products are in line with the directions of the executive producer;
 - (ix) Work together with the technical writer;
 - (x) Communicate with relevant ADB departments such as the Department of Communications in finalizing visuals and knowledge products;
 - (xi) Support facilitation of translations of visuals; and
 - (xii) Support facilitation of workshops as graphic recorder, if needed.

L. Technical Writer (international, 2 person-months, intermittent)

36. A bachelor's degree in communications, mass media, journalism, public relations or related field. Master's degree preferred. At least 10 years of relevant professional experience. Experience working in health sector and in development preferred. Excellent written and oral communication skills in English. Working knowledge of Russian is an advantage. Specific tasks include:

- (i) Together with ADB project officers and ADB consultants, write and edit about TA activities, outputs, results lessons learnt, and success stories;
- (ii) Provide strategic communications advice as needed, on how to best package the TA's success stories and results into communication materials that clearly show ADB's and partners in the health sector in the CAREC countries and the Caucasus region's value added in COVID-19 response, and how the TA results can contribute to ADB's business operations in the region;
- (iii) Closely work with graphic designer as needed, to make issue briefs, summaries and other written materials visually appealing; and
- (iv) Manage inputs from different stakeholder in completing knowledge products, briefs, reports and other communication material.

IV. NATIONAL INDIVIDUAL CONSULTANT

A. Financial Expert (national, 5 person-months, intermittent)

37. Qualified certified public accountant (CPA) or chartered accountant (CA) from an International Federation of Accountants (IFAC) member institution with a minimum of seven years of experience in accounting, budgeting and project appraisal, along with experience generating reports and knowledge products in financial management related areas. The finance support expert will be responsible for maintaining the TA's financial management systems, ensuring control and timely disbursements of funds to consultants, workshop participants and other service providers. S/he will provide administrative support to the individual consultants to be recruited under the TA. S/he will report directly to CWSS and be based in Manila. Specific tasks include:

- (i) Monitor and support managing overall TA budget and disbursements;
- (ii) Support monitoring and managing contracts and communicating with consultants under the TA;
- (iii) Administer and process claims submitted by individual consultants;
- (iv) Monitor consultants' compliance with project reporting requirements;
- (v) Assist in the planning and organizing of activities to support regional level knowledge sharing workshops, study tours, conferences, meetings and seminars. This includes (a) coordinating with resident missions, (b) preparing and sending invitation to participants, (c) disseminating meetings and workshop outputs, and (d) arranging with service providers for the provision of workshop venue, logistics and accommodation for participants;
- (vi) Assist in preparing briefing notes and presentation materials for workshops, conferences, meetings and seminars;
- (vii) Prepare budget estimates for workshops, conferences, meetings and seminars;
- (viii) Prepare requests for cash advances for workshops, conferences, meeting and seminars, and ensure that cash advances are fully liquidated;
- (ix) Arrange payments to workshop service providers and participants (i.e., distribute per diem and reimburse participants of other allowable expense during workshops ad meetings);
- (x) Prepare reports on TA disbursements;
- (xi) Provide administrative and logistical support for missions, including preparation of requests for mission concurrence, mission scheduling, coordination with government and partner agencies, and participation in missions as required;
- (xii) Manage documentation and maintain project records;
- (xiii) Perform any other duties as required including document review and preparation of correspondence;
- (xiv) Arrange and closely monitor the ADB processes for the timely publication of knowledge products to be produced under the TA;
- (xv) Perform other procurement, disbursement and administrative related tasks;
- (xvi) Ensure timely closure of TA accounts; and
- (xvii) Provide other support to DMCs and ADB as necessary.

V. RESOURCE PERSONS POOL (6 person-months)

38. A pool of resource persons will be made available to hire experts flexibly based on needs identified during TA implementation. Expertise can cover but is not limited to infection prevention and control, biomedical engineers, gender specialist, innovative financing, social protection, biomedical engineer, monitoring and evaluation, biomedical waste, innovations and foresight, human resource capacity, environmental health, and legal expertise. The gender specialist will (i) conduct an orientation on the implementation of tasks related to gender actions, (ii) provide technical advice to the sector experts on issues related to implementation of gender actions, (iii) review outputs, documents that include studies, assessments, and documentation of results of gender-related actions/ tasks.