

1. Pillar 1: Leadership and Human Resource Capacity

60. **Key challenges.** The current pandemic revealed critical gaps and challenges in many CAREC countries where there has been an uncoordinated response. Countries lacked a permanent rapid response team structure, had weak and poorly integrated systems for cross-sector information exchange, lacked strategic emergency risk assessment, and had insufficient emergency preparedness capacity at public health centers and at the hospital level (footnote 28). Coordination of regional health threats is thus key to reducing the impact of epidemiological crises since viruses do not halt at national borders. Reducing the speed of the rate of epidemic or pandemic propagation buys time for health systems to prepare; avoids unmanageable surges of patients; and allows available resources, such as in intensive care, to operate at efficient occupancy rates—thus saving lives.

61. Coordination leading to cooperation among CAREC countries has already happened sporadically during the COVID-19 crisis. The PRC, for example, supported many other CAREC countries with knowledge transfer and technology.⁶³ Kazakhstan helped Tajikistan facilitate the transport of goods and assisted Tajik citizens travel back to their home country. Uzbekistan supported Tajikistan and the Kyrgyz Republic in the delivery of PPEs (footnote 63). While communication approaches focused mainly on broadcast and media, risk communication and community engagement (RCCE) were not rapidly applied in most CAREC countries. Mongolia and the PRC placed a clear focus on keeping the public informed through daily updates to the nation and via text messages.⁶⁴ However, comprehensive risk communication was not yet in place.

62. Investments in human resource development are required to better meet the needs of CAREC countries in the health sector in terms of numbers of medical personnel, their knowledge, and their skills mix. To address human resource capacity gaps, efforts have been made by development partners in the region such as WHO and UN agencies, the World Bank, and the European Union (EU), which can be used as a foundation for further work. This will require the cooperation of development partners on shared priorities to build the capacity of the public health workforce. This includes a needs assessment about workforce gaps and training priorities to help inform decisions for workforce development, as well as promoting essential crosscutting skills to complement public health workers' discipline-specific skills.⁶⁵

63. Training of other clinical personnel is also needed. This may include doctors, nurses, and relevant ancillary staff. Topics may focus on health security measures and up-to-date methods for the prevention of spread and management of cases. Special attention needs to be paid to female health workers, who often predominate lower ranks of the health workforce and thus are more prone to risks such as infection. Regional cooperation could be useful in sharing best practices in terms of training modules at the undergraduate or postgraduate level, including continuous professional development, and in developing regional e-learning courses on specific skills needed in the region. While planning and implementing the respective training programs in CAREC countries, careful consideration should be given to the regional context and dynamics, such as doctors' and patients' mobility across borders to access specialized medical services in neighboring countries, as well as availability of relevant institutions with advanced-level expertise that can serve as regional hubs for training of clinical personnel and public health professionals.

⁶³ Caspian Policy Center. 2020. *The Caspian Region and the U.S. Engagement During and After the COVID-19 Crisis*. Washington, DC.

⁶⁴ Prevent Pandemics. 2020. *COVID-19 in Mongolia*; R. Horton. 2020. COVID-19: What Have We Learned So Far? *The Lancet*. 396 (10265). p. 1789.

⁶⁵ Centers for Disease Control and Prevention (CDC). 2021. *Action Plan Public Health Workforce Development*.

64. Of particular importance to improving detection of infectious diseases are effective laboratory practices that produce accurate results. This depends on continuous supervision and medical education for mid-level health personnel, as well as for doctors, and updating and upgrading skills and procedural competencies in a coordinated way to ensure unified testing results. Existing regional initiatives (e.g., WHO/Europe PIP PC, and the Better Labs for Better Health initiative) and advanced-level laboratories (e.g., the Richard G. Lugar Center for Public Health Research in Georgia and the Public Health Research Laboratory in Kazakhstan) can provide further leadership and guidance for improving the skills of the laboratory workforce in the region.⁶⁶

65. **Proposed actions.** Pillar 1 will focus on strengthening leadership and human resource capacity through promotion of a more coordinated response to emergency public health threats and support of workforce skills. Main areas of intervention may include the following:

- (i) Improving interministerial and intersectoral coordination and governance in the CAREC region, including regional dialogue mechanisms; mapping the status quo of IHR; and knowledge and experience sharing among countries in the CAREC region.
- (ii) Strengthening the technical capacity of policymakers, public health managers, and planners, as well as epidemiologists and data scientists in health policy; planning, managing, and implementing effective and gender-sensitive measures to respond to public health threats and emergencies, including the COVID-19 pandemic; enhancing resilience and pandemic preparedness through regional capacity building and knowledge sharing opportunities and platforms; and improving the leadership and governance skills of health policymakers regarding health emergencies.
- (iii) Establishing and strengthening emergency operations centers (EOCs) in close collaboration with IHR focal points in member countries, providing a central location from which to coordinate data collection and response to public health threats at the national level, and supporting exchange and networking among regional EOCs to strengthen the coordinated response.⁶⁷
- (iv) Strengthening joint outbreak response among CAREC countries; supporting them in carrying out health emergency drills and cooperation; and exploring cooperation with CAREC countries on core capacity building at points of entry under International Health Regulations (2005).
- (v) Improving the distribution of the health workforce in CAREC countries (e.g., by preparing capacity development plans for rural areas).
- (vi) Strengthening the knowledge and skills of the public health and epidemiological workforce (male and female), including mid-level health professionals (e.g., lab-technicians), through regional webinars; and recommending skills-focused, continuous medical training modules specifically targeting laboratory operations and methods, laboratory quality assurance and quality control, laboratory biosafety, and evidence base for epidemic countermeasures to control and contain key regional health threats.
- (vii) Improving technical skills for early warning, alert, and response in emergencies; supporting CAREC member countries in the development of field-based tools (includes online, desktop, and mobile application that can be rapidly configured and deployed); and conducting training programs that include female participants.
- (viii) Further exploring of options and possible piloting to implement pandemic risk financing.

⁶⁶ World Health Organization. 2018. *Better Labs for Better Health: Strengthening Laboratory Systems in WHO European Region*. Geneva; CDC. 2019. *Georgia: A Neutral Hub Brings Disease Detectives Together*; Global Biodefense. 2014. *BSL 3 Research Laboratory Opens in Kazakhstan*.

⁶⁷ Center for Strategic and International Studies. *Polio Emergency Operations Centers*. <https://www.csis.org/features/polio-emergency-operations-centers> (accessed July 2021).

- (ix) Improving research and appropriate best practice results on communicable and noncommunicable diseases, especially from within the region, promoted through relevant regional research training opportunities, including study reports and webinars, provided by regional and international agencies.

2. Pillar 2: Technical Preparedness

66. **Key challenges.** There is a need to improve coordinated response through regional alignment in planning and implementing measures in response to public health threats, including the current COVID-19 pandemic. During emergencies, existing national public health surveillance systems may be underperforming, disrupted, or nonexistent, or they may become overwhelmed without an early warning system to detect and react rapidly to suspected disease outbreaks. Evidence from national data shows vast differences in how many tests are conducted per 100,000 people across CAREC member countries, as well as vast differences in national capacity for polymerase chain reaction (PCR) testing and ability to keep surveillance testing capacity in line with escalating pandemic developments. National results from PCR testing show how the daily rate of positive tests runs high, up to and above 20% to 30% in episodes during the past years in several CAREC countries.⁶⁸ Increase in the daily rate of positive tests shows that the reported number of confirmed cases only represents a minor proportion of the total number infected, and consequently, there is a need to expand testing. WHO recommends testing volumes to be expanded, so daily rates of positive tests will not exceed 5%.

67. Given the high rate of positive PCR tests, only a small portion of infected are caught by the surveillance sampling and testing. That leaves a huge proportion of the pandemic undetected. This makes calculations of needed healthcare resources

from surveillance data impossible. Differences in proportion of infections detected and several other complications due to significant inter- and intra-country differences in surveillance sampling, principles for selection of cases to test, and choice of methods for analysis make comparisons of epidemiological statistics between CAREC countries difficult. Therefore, a data- and facts-driven coordinated action to control, mitigate, and contain the pandemic becomes very hard to formulate across CAREC countries.

68. A regionally synchronized planning and operation of surveillance, using the same methods for sampling and analysis, would thus be very helpful in enabling a regional “joint grip” on the extent of the COVID-19 challenge. Such a joint regional approach, with comparable data from countries, would help decision makers choose approaches to reduce risk from further spread of the disease. Cross-country access to and sharing of quality data is a critical prerequisite for guiding a coordinated response. This requires the development of proper data sharing platforms and data visualization tools, as well as supporting the respective capacity-building efforts.

69. Sufficient laboratory infrastructure is a critical element of enhanced surveillance and overall health systems capacity, particularly during pandemic threats. The COVID-19 pandemic revealed the need for a surge capacity plan by establishing decentralized testing capacity in subnational laboratories under the supervision of the national reference laboratory, if available.⁶⁹ This is illustrated by the WHO-recommended goal to stem epidemic spread by increasing the number of sampling and testing to keep the daily positive test rates below 2%. Using experience and statistical data from CAREC countries from the past year, planning for better surge capacity preparedness can be achieved.

⁶⁸ Our World in Data. ourworldindata.org (accessed 21 September 2021).

⁶⁹ World Health Organization. 2020. *Laboratory Testing Strategy Recommendations for COVID-19*.