"Addressing Health Threats
in the Central Asia Regional Economic Cooperation Countries and the Caucasus
- Health Security and Health Systems Strengthening"
(CARECC-AHT)

Compilation
of COVID-19 Developments

- Deliverable 2 (contributing to Deliverable 4)

Version: September 2021

Knowledge Support Technical Assistance (KSTA 6535)

- funded through the Asian Development Bank (ADB)
- KSTA REG 54124-001

Implemented by consortium partners:

- GOPA Worldwide Consultants
- Mediconsult
- SSIL

Introduction

Background

This "Compilation of Covid-19 Developments" is being developed as part of the new initiative commencing in early 2021 - supported by the Asian Development Bank (ADB) - to address health threats in the Central Asia Regional Economic Cooperation Countries and the Caucasus (CAREC/C-AHT).

This is one of the first tools to be developed to enhance the Health Security and Health Systems Strengthening in this region, an takes account of the latest Global and Regional developments.

Design

The compilation is divided into 3 sections. The first two each comprising information that is continually being updated to show the latest developments and initiatives regarding COVID-19, as follows:

I. **COVID-19 Innovations: Global & CAREC/C**
   Focus on innovations globally and in any of the CAREC & Caucasus countries in 6 main areas, mainly following the systematic approach of the European Observatory COVID-19 Health Systems Response Monitor. Innovations from the region are highlighted in RED.
   - Preventing Transmission Innovations
   - Physical Infrastructure/ Workforce Capacity Innovations
   - Health Service Provision Innovations
   - Leadership and Policy Innovations
   - Paying for Services Innovations

II. **COVID-19 Regional Cooperation Responses**
   Focus on responses to COVID-19 between the countries of the CAREC/C region, focusing on
   - Preventing Transmission Responses
   - Physical Infrastructure/ Workforce Capacity
   - Health Service Provision Responses
   - Leadership and Policy Responses
   - Paying for Services Responses
   - Other Responses

III. **Summary of innovation and responses in CAREC countries**
   Focus on innovations and responses, divided by country.

Rapid Access to the Compilation Sections

The Table of Contents can be used to identify each section of the document.

If using the document on a computer:

- On the Table of Contents, press Ctrl (on Apple: use Cmd) and left mouse-click to immediately access the relevant section.
- Alternatively, open the "View" tab of MS Word, tick the "Navigation Pane" option and this allows rapid access to all aspects of the document by opening a Navigation column to the left of the document:

Compilation Versions

This is a constantly updating document according to the latest developments.

- Be sure to check the relevant website (to be developed) to access the latest version.

Contents

I. COVID-19 INNOVATIONS: GLOBAL AND CAREC/C 4

A. General Repositories 4

B. Specific Innovations 11

1. Preventing Transmission Innovations. 11

2. Physical Infrastructure/ Workforce Capacity Innovations 23

3. Health Service Provision Innovations 25

4. Leadership and Policy Innovations 30

5. Paying for Services Innovations 33

6. Other Innovations 34

II. COVID-19 REGIONAL COOPERATION RESPONSES 36

1. Preventing Transmission Responses 37

2. Physical Infrastructure/ Workforce (Human Resources) Capacity 39

3. Health Services Provision Responses 42

4. Leadership and Policy Responses 45

5. Paying for Services Responses 49

6. Other Responses 51

III. Covid-19 INNOVATION AND REGIONAL RESPONSES IN EACH CAREC COUNTRY PER TOPIC 53

Innovations 53

Preventing Transmission Innovations. 53

Physical Infrastructure/ Workforce Capacity Innovations 58

Health Service Provision Innovations 59

Leadership and Policy Innovations 63

Paying for Services Innovations 63

Other Innovations 63

Regional Responses 64

Preventing Transmission Responses 64

Physical Infrastructure/ Workforce (Human Resources) Capacity 66

Health Services Provision Responses 69

Leadership and Policy Responses 71

Paying for Services Responses 74

Other Responses 76

IV. INNOVATIONS PER COUNTRY 77

I. COVID-19 INNOVATIONS: GLOBAL AND CAREC/C

*section headings based on the European Observatory Covid-19 Health Systems Response Monitor

QUESTION: What databases of information exist that describe innovations globally and in any of the CAREC & Caucasus countries?

A. General Repositories

<table>
<tr><th></th><th>General Information Repositories</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: Covid-19 Health Systems Response Monitor

Link/Source: https://www.covid19healthsystem.org/mainpage.aspx;

Developer/Partners: World Health Organizations Regional Office for Europe, European Commission, European Observatory of Health Systems and Policy
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td>X</td><td></td><td></td></tr></table>
Description: The Health System Response Monitor (HSRM) has been designed in response to the COVID-19 outbreak to collect and organize up-to-date information on how countries are responding to the crisis.
Country where innovation is used: globally
Users: Who is this for? How many users? Health experts, policy makers</td><td>Global</td><td>Dec 2020</td></tr>
<tr><td>b</td><td>Title: Coronavirus Innovation Map

Link/Source: https://coronavirus.startupblink.com/

Developer/Partners: StartupBlink, Health Innovation Exchange, Moscow Agency of Innovations
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td>x</td><td>x</td><td></td></tr></table>
Description: Global map of solutions created in response to Covid-19 with rankings of top innovative locations
Country where innovation is used: worldwide
Users: Who is this for? /how many users? Database for innovators; number of users unknown</td><td>Global</td><td>Needs to be checked</td></tr>
<tr><td>c</td><td>Title: OPSI COVID-19 Innovative Response Tracker

Link/Source: https://oecd-opsi.org/covid-response/

Developer/Partners: OECD, in partnership with Horizon 2020 and The United Arab Emirate’s Mohammed Bin Rashid Centre for Government Innovation (MBRCGI)
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td>X</td><td></td><td></td></tr></table></td><td>Global</td><td>2021</td></tr>
</table>

<table>
<tr><th></th><th>General Information Repositories</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>Description: Covid-19 Innovative Response Tracker, which helps to identify responses by country, level of government involvement and issues addressed.
Country where innovation is used: globally
Users: Who is this for? How many users? Health experts, laymen</td><td></td><td></td></tr>
<tr><td>d</td><td>Title: Health Intervention Tracking for Covid-19 (HIT-COVID)

Link/Source: https://akuko.io/post/covid-intervention-tracking

Developer/Partners: Volunteers led by Johns Hopkins Bloomberg School of Public Health, Boston University School of Public Health
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td>X</td></tr>
</table>
Description: The Health Intervention Tracking for COVID-19 (HIT-COVID) is a curated and standardized global database that catalogues the implementation and relaxation of COVID-19 related public health and social measures (PHSM).
Country where innovation is used: globally
Users: Who is this for? How many users? Health experts, laymen</td><td>Global</td><td>Jan 2021; regularly updated</td></tr>
<tr><td>e</td><td>Title: OECD Policy Responses to Coronavirus/Covid-19 Crisis Response in Central Asia

Link/Source: http://www.oecd.org/coronavirus/policy-responses/covid-19-crisis-response-in-central-asia-5305f172/#figure-d1e82

Developer/Partners: European Observatory on Health Systems and Policies
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: Policy Note which reports on the latest developments in the region and looks ahead to identify the key challenges likely to be faced by the region’s policy makers in the short- to medium-term.
Country where innovation is used: Central Asian countries
Users: Who is this for? How many users? Health experts</td><td>Regional</td><td>Nov 2020</td></tr>
<tr><td>f</td><td>Title: Covid-19 Health Systems Response Monitor for each Eurasian country

Link/Source: https://covid19healthsystem.org/mainpage.aspx

Developer/Partners: European Observatory on Health Systems and Policies
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: The Covid-19 Health Systems Response Monitor contains latest information on workforce, infrastructure, testing, governance et al
Country where innovation is used: Eurasian countries
Users: Who is this for, number of users? Health experts</td><td>Regional</td><td>Winter 2020</td></tr>
</table>

<table>
<tr><th></th><th>General Information Repositories</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>h</td><td>Title: WHO Coronavirus Disease Dashboards

Link/Source: https://covid19.who.int

Developer/Partners: WHO
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>

Description: Coronavirus Statistics, total and daily confirmed cases, and deaths by country
Country where innovation is used: Globally
Users: Who is this for, number of users: Health experts</td><td>Global</td><td>Autumn 2020</td></tr>
<tr><td>j</td><td>Title: Astana Civil Service Hub – Virtual Alliance of practitioners of exchange of experience in the context of the Covid-19

Link/Source: https://www.astanacivilservicehub.org/page/covid-19

Developer/Partners: Astana Civil Service Hub; UNDP (inspired by the Agency of Civil Service Affairs of the Republic of Kazakhstan jointly with UNDP in Kazakhstan)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td>X</td><td></td><td></td></tr>
</table>

Description: Virtual platform to exchange knowledge and best practices in applying innovations and best fit solutions to respond to COVID-19.
Country where innovation is used: CIS region
Users: Who is this for? Number of users? Health experts</td><td>Regional</td><td>Summer - Autumn 2020</td></tr>
<tr><td></td><td>Title: Covid-19 Innovations Hub

Link/Source: COVID-19 Innovation Hub (covid19innovationhub.org)
Developer/Partners: powered by GLOBAL INNOVATION EXCHANGE, joint initiative of USAID, Australian Aid, Korea International Cooperation Agency, Results for Development
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td>X</td><td></td></tr>
</table>

Description: The growing list of 800+ featured innovations includes those that are ready to deploy, plus innovations that could be adapted for COVID-19 responses, or inspire new, much-needed solutions. A smaller list is identified as COVID-19 Recognized Innovations for their response efforts so others can more easily find and</td><td>Global</td><td></td></tr>
</table>

<table>
<tr><th></th><th>General Information Repositories</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>use them. The hub is showcasing COVID-19 stories about hand-picked innovations. The hub is also actively sourcing new innovations designed in response to COVID-19.
Country where innovation is used: Globally
Users: Who is this for? How many users?</td><td></td><td></td></tr>
<tr><td></td><td>Title: Health Intervention Tracking for COVID-19 (HIT-COVID)

Link/Source: https://akuko.io/post/covid-intervention-tracking

Developer/Partners: Johns Hopkins Bloomberg School of Public Health and Boston University School of Public Health
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td></td><td>X</td></tr></table>
Description: Health Intervention Tracking for COVID-19 (HIT-COVID) is a curated and standardized global database that catalogues the implementation and relaxation of COVID-19 related public health and social measures (PHSM). The tracker collects longitudinal data on 21 key public health policy categories aimed at reducing COVID-19 risk at the national and subnational levels (e.g. provinces and states) globally, such as border closures, quarantine & isolation, and school closures. Our data includes details such as the degree of policy implementation and targeted populations. The tracker team has logged over 12,000 individual public health policy interventions in over 3,500 subnational geographic areas, and we continue to maintain and adapt this living database to the changing COVID-19 landscape. Our data is regularly internally verified and audited.
Country where innovation is used: Globally: government, academia, global NGOs and civil society, and industry.
Users: Who is this for? /how many users? Health experts</td><td>Global</td><td>May 2021</td></tr>
<tr><td></td><td>Title: COVID-19 open innovation index

Link/Source: https://www.covidx.org/oi-index/

Developer/Partners: The Luminary labs
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td>X</td><td></td></tr></table>
Description: 300+ open innovation initiatives to address the coronavirus pandemic. The luminary Labs began tracking open innovation initiatives — from challenges and hackathons to open data projects and open-source hardware — that seek to address COVID-19 and the virus that causes it. A few months later, the index has grown to more than 200 initiatives sourced from our extended network.
Country where innovation is used: globally
Users: Who is this for? How many users? Innovators who want to share their ideas</td><td>Global</td><td></td></tr>
<tr><td></td><td>Title: COVID-19 Rapid Innovation Dashboard

Link/Source: https://innovation.mit.edu/c19rapidinnodash/

Developer/Partners: MIT Innovation Initiative</td><td>Global</td><td>ongoing</td></tr>
</table>

	General Information Repositories	GLOBAL or CAREC REGION	Latest Update
	Massachusetts Institute of Technology **Govt** | **Develop Partner** | **Private Sector** | **Academia** (Uni/Research) | | X **Description:** The MIT community has been activated to fight the pandemic. From ways to combat feelings of isolation to open-source ventilators **Country where innovation is used:** globally **Users: Who is this for? Number of users?** Health experts and laymen		
	Title: *A global database of public health and social measures applied during the COVID-19 pandemic* **Link/Source:** Navigate to https://www.who.int/emergencies/diseases/novel-coronavirus-2019/phsm/ and find the Dataset API link. Right click and 'Save as' to save in JSON format to your local computer. **Developer/Partners:** WHO **Govt** | **Develop Partner** | **Private Sector** | **Academia** (Uni/Research) | X | | X **Description:** The public health and social measures (PSHM) dataset is a unique collaboration between WHO and London School of Hygiene and Tropical Medicine. It aims to collate PHSM data from the main trackers, bringing them into a standard structure and coding them to a common taxonomy. Generating a dataset that is as complete as possible - for both PHSMs and countries/territories. WHO developed the taxonomy in consultation with other groups, based around existing PHSMs for other influenza like illnesses. This was then expanded to cope with PHSMs that the groups thought would be used, or were already in place. The PHSM trackers currently included are: ACAPS; Johns Hopkins University (a subset of their dataset at National and state level); University of Oxford; and US Centres for Disease Control and Prevention. Other trackers will be included. Public health and social measures (PHSMs) are measures or actions by individuals, institutions, communities, local and national governments, and international bodies to slow or stop the spread of an infectious disease, such as COVID-19. Since the start of the COVID-19 pandemic, a number of organizations have begun tracking implementation of PHSMs around the world, using different data collection methods, database designs and classification schemes. **Country where innovation is used:** globally **Users: Who is this for? Number of users?** Health experts **Lessons learned? (if in development, when expected to be ready?)**	Global	2021
	Title: *The Access to COVID-19 Tools (ACT) Accelerator* **Link/Source:** The Access to COVID-19 Tools (ACT) Accelerator (who.int) **Developer/Partners:** WHO, GAVI, CEPI, Bill and Melinda Gates Foundation, UNICEF, Wellcome, FIND, The Global Fund, Unitaid **Govt** | **Develop Partner** | **Private Sector** | **Academia** (Uni/Research) | X | | **Description:** The Access to COVID-19 Tools (ACT) Accelerator, is a groundbreaking global collaboration of Development Partners to accelerate development, production, and equitable access to COVID-19 tests, treatments, and vaccines. Launched at the end of April 2020, at an event co-hosted by the Director-General of the World Health Organization, the President of France, the President of the European Commission, and the Bill & Melinda Gates Foundation, the Access to	Global	2021

<table>
<tr><th></th><th>General Information Repositories</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>COVID-19 Tools (ACT) Accelerator brings together governments, scientists, businesses, civil society, and philanthropists and global health organizations (the Bill & Melinda Gates Foundation, CEPI, FIND, Gavi, The Global Fund, Unitaid, Wellcome, the WHO, and the World Bank). Following the ACT-Accelerator launch, UNICEF and PAHO became delivery partners for COVAX, the vaccines pillar.
These organizations have joined forces to speed up an end to the pandemic by supporting the development and equitable distribution of the tests, treatments and vaccines the world needs to reduce mortality and severe disease, restoring full societal and economic activity globally in the near term, and facilitating high-level control of COVID-19 disease in the medium term.
Country where innovation is used: globally
Users: Who is this for? International Organizations and Governments
Evidence of success?
Diagnostics Pillar – co-convened by FIND and The Global Fund: Supported the development and Emergency Use Listing of reliable antigen rapid diagnostic tests (Ag RDTs) that can be conducted outside of laboratory facilities, guaranteed access to 120 million affordable rapid diagnostic tests, and procured 65 million tests (32.3 million molecular [PCR] tests and 32.8 million Ag RDTs) for LMICs.
Therapeutics Pillar – co-convened by Unitaid and Wellcome: Tracked over 300 actionable trials, supported the identification of dexamethasone as the first life-saving therapy against COVID-19 and in less than 20 days after its identification, made 2.9m doses of dexamethasone available to LMICs. Formed the Covid-19 Oxygen Emergency Taskforce to meet the needs of more than half a million COVID-19 patients in LMICs who need oxygen treatment per day.
COVAX – co-convened by CEPI, Gavi, and WHO – in partnership with UNICEF: Secured over 2 billion doses, with the first international delivery made to Ghana 3 months after the first vaccine was administered in a high-income country, and more than 40 million doses shipped to 119 economies via the COVAX Facility.
Health Systems Connector – co-led by the World Bank, WHO, and The Global Fund – in partnership with UNICEF and the Global Financing Facility: US$ 50 million of PPE has been procured for LMICs and country readiness assessed for the deployment of COVID-19 vaccines in more than 140 countries.</td><td></td><td></td></tr>
<tr><td></td><td>Title: Data4COVID19
Link/Source: Data4COVID19
Developer/Partners: GOVLAB<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td>X</td><td></td><td></td></tr></table>Description: This Living Repository is part of a call for action to build a responsible infrastructure for data-driven pandemic response; projects can be filtered by regions (Europe and central Asia is one of them), topics and pandemic phase.
Country where innovation is used: Globally.
Users: Who is this for? Number of users? Health experts
Lessons learned? (if in development, when expected to be ready?)</td><td>Global</td><td>ongoing</td></tr>
</table>

<table>
<tr><th></th><th>General Information Repositories</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>
Title: COVID-19 government response tracker
Link/Source: https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker
Developer/Partners: Blavatnik School of Government, University of Oxford
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td>X</td></tr>
</table>
Description: The Oxford Covid-19 Government Response Tracker (OxCGRT) collects systematic information on policy measures that governments have taken to tackle COVID-19. The policy responses are tracked since 1 January 2020 and cover more than 180 countries. They are coded into 23 indicators, such as school closures, travel restrictions or vaccination policy.
Country where innovation is used: Globally.
Users: Who is this for? Number of users? Health experts, policy makers, laymen
Lessons learned? (if in development, when expected to be ready?) Lessons from more than one year of tracking policy responses have been summarized here: https://theconversation.com/what-we-learned-from-tracking-every-covid-policy-in-the-world-157721
Evidence of success? NA
</td><td>Global</td><td>Ongoing</td></tr>
<tr><td></td><td>
Title: QCovid® risk calculator
Link/Source: https://bmjsept2021.qcovid.org/
Developer/Partners: University of Oxford
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td>X</td></tr>
</table>
Description: QCovid® has been produced to provide doctors and the public with more nuanced information about risk of serious illness due to COVID-19, and to help patients and doctors reach a shared understanding of risk, within the context of individual circumstances, risk attitude and the sorts of preventative measures people can take in their daily lives.
Country where innovation is used: GB
Users: Who is this for? Number of users? Health experts and academia in GB; might be extended globally
Lessons learned: Research conducted and published in the British Medical Journal (BMJ), showed that the model performed well in predicting severe outcomes due to COVID-19 (death and hospitalisation).
</td><td>Global</td><td>June 2021</td></tr>
</table>

*based on the European Observatory Covid-19 Health Systems Response Monitor

B. Specific Innovations

1. Preventing Transmission Innovations.

This may include aspects of the following:

- Testing & Laboratory Capacity
- Monitoring & (Community) Surveillance
- Risk Stratification
- Health Communication
- Isolation & Quarantine
- Research Collaboration
- Vaccine Related Activities

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: Investments in Laboratory/TESTING

Link/Source: https://www.cdc.gov/globalhealth/healthprotection/fieldupdates/fall-2020/lab-commitments-covid.html
Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>Description: Training and Innovations in diagnostic testing, infrastructure development and other areas, LMICs are enabled to meet the challenges of Covid-19
Country where innovation is used: globally
Users: Who is this for? Number of users?
Lessons learned? (if in development, when expected to be ready?)
Evidence of success?</td><td>Global</td><td>Autumn 2020</td></tr>
<tr><td>b</td><td>Title: Innovations in Testing/TESTING

Link/Source: https://systemone.id/landing-pages/conronavirus-landingpage
Developer/Partners: SystemOne (Company)
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>Description: Tool for optimizing the communication of healthcare data in low-resource settings. Every diagnostic device testing for coronavirus in a country can be connected via cellular data network using smart 2G/3G routers, for rapid and secure data transmission.
Country where innovation is used: globally
Users: Who is this for? Number of users?
Lessons learned? (if in development, when expected to be ready?)
Evidence of success?</td><td>Global</td><td></td></tr>
</table>

	1. Preventing Transmission Innovations	Global or CAREC REGION	Latest Update
	Title: COVID-19 TEST DIRECTORY & PIPELINE**/TESTING** **Link/Source:** Test directory - FIND (finddx.org) **Developer/Partners:** FIND, FIND operates as a global health product development and delivery partnership. **Description:** This fully searchable directory currently lists all commercially available immunoassays and molecular tests for COVID-19 of which FIND is aware. Manufacturer performance data (sensitivity and specificity) are included, where known, alongside data from independent evaluations conducted by FIND, where applicable. The database will be built further, other tests will be added (which for the moment are still listed here), as well as data from independent evaluations by other entities. This project is part of the ACT-Accelerator Diagnostics Pillar. **Country where innovation is used:** **Users: Who is this for? Number of users?** 6,000+ health workers trained, 32,500+ patients enrolled in studies 50m+ **Lessons learned? (if in development, when expected to be ready?)** **Evidence of success?**	Global	2021
	Title: National Institute for Health Research (NIHR) Innovation Observatory**/TESTING** **Link/Source:** COVID-19 Updates | Innovation Observatory (nihr.ac.uk) **Developer/Partners:** National Institute for Health Research (NIHR) **Description:** This resource provides dashboards of the therapeutic interventions and diagnostic tests in clinical development for COVID-19. The information is updated regularly and has been collated via horizon-scanning of multiple sources to support the national response and effort to tackle COVID-19. Follow this link for Therapeutics: here Follow this link for Diagnostics: here Follow this link for Soft Intelligence: here **Country where innovation is used:** UK **Users: Who is this for, number of users**: The public (patients) and industries. **Lessons learned? (if in development, when expected to be ready?)** **Evidence of success? Not available**		
	Title: Contact Tracing Document Repository/MONITORING **AND SURVEILLANCE** **Link/Source:** Contact Tracing Document Repository | GOARN (who.int) **Developer/Partners:** GOARN. **Description:** Curated by GOARN Partners including UN agencies, International and national NGOs, academic institutions and consortiums, the GOARN COVID-19 Information is a public platform for access to the best resources on contract tracing in different countries.	Global	

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
	X		

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
			x

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
	X		

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>The Hub offers multidisciplinary information on COVID-19 for a variety of audiences from policy makers, to responders, to researchers, to educators, to affected communities and the general public.
Country where innovation is used: All countries.
Users: Who is this for? Number of users? Government and institutions
Lessons learned? (if in development, when expected to be ready?
Evidence of success?</td><td></td><td></td></tr>
<tr><td></td><td>Title: Number of COVID-19 in selected countries/MONITORING AND SURVEILLANCE

Link/Source: https://outbreak.info/epidemiology

Developer/Partners: Outbreak.info is a project from the Su, Wu, and Andersen labs at Scripps Research and is supported by the National Institute for Allergy and Infectious Diseases (5 U19 AI135995-02), National Center for Data to Health (5 U24 TR00230), and Centers for Disease Control and Prevention (75D30120C09795).

<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td>X</td><td></td></tr>
</table>

Description: Outbreak.info aggregates SARS-CoV-2 and COVID-19 information into a single site to increase their findability and reusability.
Country where innovation is used: globallly
Users: Who is this for? How many users? Health experts</td><td>Global</td><td></td></tr>
<tr><td>c</td><td>Title: SORMAS - Surveillance Outbreak Response Management and Analysis System/MONITORING AND SURVEILLANCE

Link/Source: https://sormasorg.helmholtz-hzi.de/About_SORMAS.html
Developer/Partners: Helmholtz Center for Infection Research
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td>X</td></tr>
</table>
Description: Open-source mobile eHealth System that processes disease control and outbreak management procedures in addition to surveillance and early detection of outbreaks through real-time digital surveillance including peripheral health care facilities and laboratories.
Country where innovation is used: globally
Users: Who is this for? Number of users? Health experts
Lessons learned? (if in development, when expected to be ready?)</td><td>Global</td><td>2020</td></tr>
<tr><td>d</td><td>Title: Aarogya Setu/MONITORING AND SURVEILLANCE

Link/Source: https://www.mygov.in/aarogya-setu-app/
Developer/Partners: Government of India.
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>
Description: Aarogya Setu is a COVID-19 surveillance app, which tells users the risk of getting COVID-19 by scanning a database of known cases across India, helps the user</td><td>Global</td><td>2021</td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>self-identify COVID-19 symptoms and risk profile, gives local and national COVID-19 updates, and allows e-pass integration.
Country where innovation is used: India
Users: Who is this for? Number of users? General population
Lessons learned? (if in development, when expected to be ready?)</td><td></td><td></td></tr>
<tr><td></td><td>Title: COVID-19 situation updates worldwide/MONITORING AND SURVEILLANCE

Link/Source: https://www.ecdc.europa.eu/en/covid-19

Developer/Partners: European Center for Disease Prevention and Control (ECDC)<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td></td><td></td></tr></table>
Description: Weekly reports for the COVID-19 situation in each country, in Europe and worldwide – including the number of cases and deaths reported and vaccination statistics.
Country where innovation is used: globally
Users: Who is this for? Number of users? Health experts, laymen</td><td>GLOBAL</td><td>regularly</td></tr>
<tr><td></td><td>Title: Information of the Operational Headquarters under the Cabinet of Ministers of the Republic of Azerbaijan/MONITORING AND SURVEILLANCE

Link/Source: https://nk.gov.az/az/article/1514/

Developer/Partners: Operational Headquarters under the Cabinet of Ministers of the Republic of Azerbaijan<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>
Description: Daily statistical information on the number of new COVID 19 cases, recovered and deaths. Also, since the vaccination of the population began in the country, daily updates on the number of vaccinated people in general number of vaccinated and daily numbers
Country where innovation is used: Azerbaijan
Users: Who is this for? Number of users? General population, health experts</td><td>REGIONAL</td><td>May 2021</td></tr>
<tr><td></td><td>Title: Tracing confirmed case/ MONITORING AND SURVEILLANCE

Link/Source: http://bmfw.www.gov.cn/ggjtmqjczcx/index.html

Developer/Partners: Tencent Inc.<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td>X</td><td></td><td></td></tr></table>
Description: It serves for tracing train, flight, car and liners number in and out boarders in 14 days with confirmed and suspected cases (just input name and ID number)</td><td>REGIONAL</td><td>June 2021</td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>Country where innovation is used: PRC
Users: Who is this for? Number of users?</td><td></td><td></td></tr>
<tr><td></td><td>Title: Digital Travel Record: Wechat mini program to see trips during past 14 days/MONITORING AND SURVEILLANCE

Link/Source: https://xc.caict.ac.cn

Developer/Partners: CAICT
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td>X</td><td></td><td></td></tr></table>
Description: to Confirm in last 14 days the citizens stay in safety cities in Green, other cities not in Green.
Country where innovation is used: PRC
Users: Who is this for? Number of users: patients enrolled in studies</td><td>REGIONAL</td><td>June 2021</td></tr>
<tr><td></td><td>Title: COVID Research Repository/RESEARCH COLLABORATION

Link/Source: https://www.aku.edu/mcpk/research/Pages/covid-research.aspx

Developer/Partners: Aga Khan University
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td></td><td>X</td></tr></table>
Description: Aga Khan University's Faculty of Health Sciences is at the forefront of answering critical questions and creating new knowledge about the COVID-19 outbreak in Pakistan. The repository includes a summary of different research projects related to COVID-19 that are being currently undertaken by the faculty.

Country where innovation is used: Globally

Users: Who is this for? General Public and experts

How many users? N/A</td><td>REGIONAL</td><td>June 2021</td></tr>
<tr><td></td><td>Title: Pakistan in phase III trials of Chinese vaccine/RESEARCH COLLABORATION

Link/Source: http://www.xinhuanet.com/english/2021-01/19/c_139680671.htm

Developer/Partners: Public Private Partnership
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td>X</td><td></td></tr></table>
Description: CanSinoBIO COVID-19 Vaccine Phase III Clinical Trial was launched in Pakistan for the first time ever as a Public Private Partnership. The trial is being implemented successfully and the Interim Results have been analyzed by an</td><td>REGIONAL</td><td>Jan 19, 2021</td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>international third party and found to be very effective. The vaccine has been granted EUA in China and Pakistan and in other countries on the basis of these preliminary results.
Country where innovation is used? Pakistan, Mexico, Chile, Russia, Argentina

Users: Who is this for? R&D

Number of users? 40,000 Volunteers

Lessons learned? The government needs to facilitate and encourage the international pharmaceutical community who are interested now to consider Pakistan for their Clinical Trials. The requisite regulatory framework needs to be strengthened.

Evidence of success? The Clinical trial success initiated the transfer of Vaccine Technology to Pakistan and also enabled preferential access and pricing for the finished vaccine product to Pakistan.</td><td></td><td></td></tr>
<tr><td></td><td>Title: Pakistan to locally produce China's COVID-19 vaccine Single-dose CanSino vaccine to be produced with China's help/VACCINE RELATED ACTIVITIES

Link/Source: https://www.aa.com.tr/en/asia-pacific/pakistan-to-locally-produce-chinas-covid-19-vaccine/2208705

Developer/Partners: NIH, CanSinoBIO, AJM Pharma
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td>X</td><td></td></tr></table>
Description: CanSinoBIO COVID-19 Vaccine production through shared manufacturing has been launched in Pakistan as a Public Private Partnership between the NIH, Islamabad, CanSinoBIO and AJM Pharma. The production site is the National Institute of Health.

Country where innovation is used? Pakistan

Users: Who is this for? General Public

Number of users? 1.2 million doses

Lessons learned? Pakistan is ready to enter the next level of vaccine manufacturing.

Evidence of success? The first batch of locally produced 1.2 million doses have been prepared and rolled out.</td><td>REGIONAL</td><td>Apr 14, 2021</td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>
Title: National Guideline for Surveillance of Adverse Events Following Immunization (AEFI) – COVID-19/VACCINE RELATED ACTIVITIES

Link: available

Developer/Partners: government of Pakistan, Ministry of National Health Services, Regulations and Coordination
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: The government developed an electronic system of surveillance of adverse events following immunization and is implementing it across the country in all the licensed Immunization centers. This is the first time that an advanced pharmacovigilance system has been developed for vaccination in the country.

Country where innovation is used? Pakistan

Users: Who is this for? Vaccination Centers

Number of users? More than 5 million so far.

Lessons learned? Pharmacovigilance is a neglected sector in the regulatory system and needs to be strengthened.

Evidence of success? Process is evolving and in progress.
</td><td>REGIONAL</td><td>April 23, 2021</td></tr>
<tr><td>e</td><td>
Title: WHO Information Network for Epidemics (EPI-WIN)/HEALTH COMMUNICATION

Link/Source: https://www.who.int/teams/risk-communication
Developer/Partners: World Health Organization (WHO
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>x</td><td></td><td></td></tr>
</table>
Description: A risk communication platform that provides resources and updates on the outbreak, targeting five groups: employers and workers; the health sector; the travel and tourism sector; individuals, communities, and cities; and local governments.
Country where innovation is used? worldwide
Users: Who is this for? Number of users? For everybody. Unknown.
Lessons learned? (if in development, when expected to be ready?) Weekly updates of EPI-Win provide lessons learned on Covid-19 and its management.
Evidence of success? unknown
</td><td>Global</td><td>Weekly updates</td></tr>
<tr><td></td><td>
Title: Chatbot on Facebook Messenger to combat COVID-19 misinformation/HEALTH COMMUNICATION

Link/Source: https://m.me/who
Developer/Partners: WHO
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
</td><td>Global</td><td>Regularly</td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>Description: The WHO's Health Alert interactive service can now be accessed in English, French, Spanish, and Arabic through WHO's official Facebook page by selecting "Send Message" or through the dedicated Messenger link.

Users: who is this for, number of users? General population

Country where this has been implemented: Globally</td><td></td><td></td></tr>
<tr><td>f</td><td>Title: Global mobile education campaign to contain the spread of COVID-19/HEALTH COMMUNICATION

Link/Source: https://www.realwire.com/releases/World-Health-Organization-and-Out-There-Impact-join-forces

Developer/Partners: Out there Impact, World Health Organization (WHO)<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>Description: In cooperation, the two organizations are distributing messages to more than three hundred million global citizens by early 2021 via Out There Impact's mobile engagement platform and its mobile operator partners.
Country where innovation is used: Globally
Users: Who is this for? Number of users? General population</td><td>Global</td><td>2021</td></tr>
<tr><td>g</td><td>Title: Kazakhstan Never Sleeps/HEALTH COMMUNICATION

Link/Source: https://t.me/knscovid19

Developer/Partners: https://centralasiaprogram.org/archives/18399<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td>X</td><td></td></tr></table>Description: The Telegram Channel of Physicians in Kazakhstan informs about Covid-19 related health information.
Country where innovation is used: Kazakhstan
Users: Who is this for? General population</td><td>REGIONAL</td><td>Unknown</td></tr>
<tr><td></td><td>Title: Pakistan COVID-19 Situation Report # 16/HEALTH COMMUNICATION

Link/Source: https://www.unicef.org/pakistan/media/2796/file/COVID-19%20SitRep%2016.pdf

Developer/Partners: UNICEF<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td>X</td><td></td><td></td></tr></table>Description: Overview of risk communication and community work by UNICEF, which includes coordination with various partners involved, implementing the national response through social and electronic media, data analysis, engage of religious leaders,</td><td>REGIONAL</td><td>Regularly updated</td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>reaching out to the at-risk population through community engagement, helplines, partnerships and organization of media orientation and mobilization.

Users: Who is this for? General public and stakeholders in the field.

Lessons learned? NA</td><td></td><td></td></tr>
<tr><td></td><td>Title: The Knowledge Centre for China’s Experiences in Response to COVID-19

Link/Source: https://covid19.alliancebrh.com

Developer/Partners: Chinese government
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>
Description: The State Council Information Offices brief media and answer questions on science-based treatment.

Country where innovation is used: China

Users: Who is this for? Media officials, scientists, health professionals</td><td>REGIONAL</td><td>Regular updates</td></tr>
<tr><td></td><td>Title: emongolia web portal/HEALTH COMMUNICATION

Link/Source: https://www1.e-mongolia.mn/home

Developer/Partners: The government of Mongolia (Communication, information technology agency of the Government of Mongolia)

<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>
Description: This is a web portal which was developed by Government of Mongolia (Communication, Information and technology agency of the Government of Mongolia) to provide social services (approximately 180 types of social services) to the people of Mongolia. The web portal has COVID information section where people can get information about COVID such as symptoms, prevention and where to get service if people have symptoms and also location of COVID test and vaccine points. In addition, people can get COVID test results and COVID vaccine certificates from this web.

Country where innovation is used: Mongolia

Users: Mongolian citizens plus foreigners residing in Mongolia.</td><td>REGIONAL</td><td>Regular updates</td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>Title: Risk communication and community engagement (RCCE)/HEALTH COMMUNICATION

Link/Source: Risk communication and community engagement (RCCE) | GOARN (who.int)

Developer/Partners: WHO
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td>X</td><td></td><td></td></tr></table>Description: Offers a wide and ever-expanding collection of resources including strategy, guidance and tools that are currently available to support the COVID-19 risk communication and community engagement efforts globally.
Country where innovation is used? Globally
Users: Who is this for? Number of users? Politicians, health experts</td><td>Global</td><td>May 2021</td></tr>
<tr><td>h</td><td>Title: WHO survey to reduce Covid-19 infection at border crossings in Kyrgyzstan/RISK STRATIFICATION

Link/Source: https://www.euro.who.int/en/countries/kyrgyzstan/multimedia/photo-stories/photo-story-who-works-with-kyrgyz-authorities-to-reduce-risk-of-covid-19-infection-at-border-crossings

Developer/Partners: WHO, Ministry of Health Kyrgyzstan
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td>X</td><td></td><td></td></tr></table>Description: WHO survey on which steps are necessary to be taken to stop the spread of Covid-19 while crossing borders. The survey was conducted at 3 international airports and 4 ground crossing points in Kyrgyzstan to determine the level of implementation of prevention measures on the ground.
Country where innovation is used: Kyrgyzstan
Users: Who is this for? Politicians, health experts, scientists</td><td>Regional</td><td></td></tr>
<tr><td>i</td><td>Title: Use of delivery drones for medical and biological materials, Wuhan/China/ISOLATION AND QUARANTINE

Link/Source: https://sina.cn/Index/nav?vt=4

Developer/Partners: JD Logistics; Wuhan Renhe Station; Wuhan Ninth Hospital
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td>X</td><td></td></tr></table>Description: China has been using unmanned delivery drones to deliver medical and biological materials to hospitals around Wuhan to reduce the person-to-person contact times and freeing up other logistical resources.
Country where innovation is used: China
Users: Who is this for? General population; health workforce</td><td>REGIONAL</td><td></td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>
Title: Drone in rural area oversees people gathering/isolation/ISOLATION AND QUARANTINE

Link/Source:
https://www.bilibili.com/video/BV1R7411x7Mb?p=6&spm_id_from=pageDriver

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: During lockdown, if people gathered together, the drone will ask them to separate apart.
Country where innovation is used: All countries.
Users: Who is this for? Number of users? General population
</td><td>REGIONAL</td><td>June 2021</td></tr>
<tr><td>j</td><td>
Title: Eurasia Lab & Fellowship Program/RESEARCH COLLABORATION

Link/Source: http://iep-berlin.de/en/research/enlargement-neighbourhood-and-central-asia/eurasia-lab-fellowship-program/
Developer/Partners: Institut für Europäische Politik, supported by the Open Society Foundations
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td>X</td><td></td></tr>
</table>
Description: The program creates one major network of researchers, practitioners and activists working on Eurasia, which increases its outreach to relevant stakeholders and therefore serves as a major contact point for all actors working on Eurasia. Among other, the program organizes a workshop to discuss the implication of the Covid-19 pandemic for researchers working in and on Eurasia.
Country where innovation is used: Eurasian countries
Users: Who is this for? Health experts
</td><td>Regional</td><td>Until Mai 2021</td></tr>
<tr><td></td><td>
Title: Cochrane COVID-19 Study Register/RESEARCH COLLABORATION

Link/Source: Cochrane COVID-19 Study Register
<table>
<tr><th>Govt</th><th>Develop Part</th><th>Private Sector</th><th>Academia</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: Cochrane is an international network with headquarters in the UK. It is registered as a not-for-profit organization.
Cochrane is for anyone interested in using high-quality information to make health decisions. Whether you are a doctor or nurse, patient or career, researcher or funder, Cochrane evidence provides a powerful tool to enhance your healthcare knowledge and decision making. COVID -19 Cochrane provides systematic reviews on COVID 19 treatment, outcome, and service interventions.
Country where innovation is used. GLOBALLY
Users: who is this for, number of users? Mainly researchers, politicians
</td><td>Global</td><td>May 2021</td></tr>
</table>

<table>
<tr><th></th><th>1. Preventing Transmission Innovations</th><th>Global or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td>k</td><td>Title: Covid-19 Treatment and Vaccine Tracker/CLINICAL TRAILING OF VACCINATION

Link/Source: https://covid-19tracker.milkeninstitute.org/; https://www.covid-19vaccinetracker.org/

Developer/Partners: The US Milken Institute
<table><tr><th>Govt</th><th>Develop Part</th><th>Private Sector</th><th>Academia</th></tr><tr><td>X</td><td></td><td></td><td></td></tr></table>
Description: The tracker of the Milken Institute contains an aggregation of publicly available information from validated source on the development of treatments and vaccines.
Country where innovation is used: Globally
Users: Who is this for? Health experts</td><td>Global</td><td>2021</td></tr>
<tr><td></td><td>Title: COVID-evidence/ CLINICAL TRAILING OF VACCINATION
Link/Source: Database - List - COVID-evidence
Developer/Partners: COVID-evidence is a non-profit initiative of the Department of Clinical Research at University of Basel and the Meta-Research Innovation Center at Stanford with other international partners and collaborators.
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td></td><td>x</td></tr></table>
Description: COVID-evidence is a continuously updated database of the worldwide available evidence on interventions for COVID-19.
The database provides the information about worldwide planned, ongoing, and completed randomized controlled trials on any intervention to treat or prevent SARS-CoV-2-infections. COVID-evidence collects up-to-date trial information as well as links to original sources such as study protocol documents, registry entries, and publications. The COVID-evidence database is used to foster collaboration and evidence generation on COVID-19 such as our rapid reviews on mortality outcomes with hydroxychloroquine and chloroquine or on convalescent plasma.
Country where innovation is used? Globally, no geographic restriction
Users: Who is this for, number of users? Researchers, medical practitioners, and hospitals.
Lessons learned? (if in development, when expected to be ready?): Initially, the evidence was limited but the COVID-evidence database now focuses on reporting key characteristics of randomized controlled trials such as status, design features, the clinical question (i.e. the population, compared interventions, key outcomes), and setting.
Evidence of success? It is successful as it includes randomized controlled trials (RCTs) with no restriction on geographical regions or health care settings.</td><td>Global</td><td>April 2021</td></tr>
<tr><td></td><td>Title: Johnson & Johnson COVID-19 Efforts/CLINICAL TRAILING OF VACCINATION

Link/Source: https://www.janssen.com/covid-19-vaccine

Developer/Partners: Johnson & Johnson
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td>X</td><td></td></tr></table></td><td>Global</td><td></td></tr>
</table>

	1. Preventing Transmission Innovations	Global or CAREC REGION	Latest Update
	Description: Johnson & Johnson has been working with industry partners, governments and health authorities to help end the fast-moving COVID-19 pandemic through the development of a possible preventive vaccine candidate against SARS-CoV-2: in February 27, 2021 U.S. FDA authorizes single-dose Janssen COVID-19 vaccine for emergency use. With the help of the site, vaccine recipients and healthcare professionals can check whether the vaccine has been approved by the relevant health authority in one's country and receive relevant information regarding the vaccine. **Country where innovation is used:** worldwide **Users: Who is this for? Number of users?** Health experts		

2. Physical Infrastructure/ Workforce Capacity Innovations

This may include aspects of the following:

- Physical Infrastructure
- Workforce
- Mental Health of Workforce

<table>
<tr><th></th><th>2. Physical Infrastructure Approach</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: COVID-19 Knowledge Hub-Capacity Building and Training/PHYSICAL INFRASTRUCTURE AND WORKFORCE

Link/Source: Capacity Building and Training | GOARN (who.int)

Developer/Partners: GOARN-WHO
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: Curated by GOARN Partners including UN agencies, International and national NGOs, academic institutions and consortiums, the GOARN COVID-19 Information is a public platform for access to the best resources available to support your engagement in responding to this pandemic. It has searchable components on technical areas, type of capacity building resource, language and others.
Country where innovation is used: globally
Users: Who is this for? Health experts</td><td>Global</td><td>2021</td></tr>
<tr><td>b</td><td>Title: Support of voluntary community workers to fight Covid-19/ PHYSICAL INFRASTRUCTURE AND WORKFORCE

Link:
http://www.scio.gov.cn/ztk/dtzt/42313/43142/43148/Document/1681818/1681818.htm

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td>x</td><td></td></tr>
</table>
Description: Some 4 million community workers were working in around 650,000 urban and rural communities, monitoring the situation, taking body temperatures, screening for infection, disseminating government policies, and sanitizing neighborhoods.</td><td>REGIONAL</td><td>2020</td></tr>
</table>

<table>
<tr><th></th><th>2. Physical Infrastructure Approach</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>Couriers, sanitation workers, transport employees, media workers, volunteers, and many people from other sectors of society also devoted themselves to the fight against the epidemic.
Country where innovation is used: China
Users: Who is this for? Chinese citizens
Lessons learned? (if in development, when expected to be ready?)
Evidence of success? As of May 31 2020, 8.81 million registered volunteers across the country had participated in more than 460,000 volunteer projects, rendering a total of more than 290 million hours of voluntary service.</td><td></td><td></td></tr>
<tr><td>c</td><td>Title: China sends strongest medical force to battle virus in Wuhan/ PHYSICAL INFRASTRUCTURE AND WORKFORCE

Link/Source:
https://www.chinadaily.com.cn/a/202002/13/WS5e45203ca3101282172775fd.html

Developer/Partners:<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>Description: More than 180 teams comprised of over 20,000 medical workers have been dispatched from across the country to support Wuhan, the epicenter of the epidemic. The military also sent 2,600 more medical workers on Thursday. To treat the large number of critically ill patients in Wuhan, more than 7,000 of the health workers were trained in critical care, which should help reduce the mortality rate
Country where innovation is used: China
Users: Who is this for? Chinese patients</td><td>REGIONAL</td><td>2020</td></tr>
<tr><td></td><td>Title: Determining psychological distress among health care workers during COVID pandemic in Mongolia/MENTAL HEALTH OF WORKFORCE

Link/Source: National Mental health center of Mongolia

Developer/Partners: Centers for Disease Control and Prevention (CDC)<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td>x</td></tr></table>Description: This is a small-scale descriptive survey conducted by Mongolian National Mental health center to determine the causes, risk factors for psychological distress among health care providers who’re working on COVID-19 response. The survey was conducted among 435 health care workers in 4 referral hospitals and in 3 isolation centers.

Users: who is this for, number of users? The survey findings are relevant for health managers and health administrators, decision makers for creating and maintaining mental health wellbeing of health workforce during crisis situations such as COVID pandemic.

Country where this has been implemented: Mongolia

Effect on health system resilience: strong</td><td>REGIONAL</td><td>2020</td></tr>
</table>

	2. Physical Infrastructure Approach	GLOBAL or CAREC REGION	Latest Update
	Title: Guidelines for Adult Vaccination Counters (AVCs) in Pakistan**/PHYSICAL INFRASTRUCTURE DEVELOPMENT** **Link/Source:** https://www.nih.org.pk/wp-content/uploads/2021/01/20210128-Guidelines-for-Adult-Vaccination-Counters-in-Pakistan_5701.pdf **Developer/Partners:** NIH, Islamabad **Govt** | **Develop Partner** | **Private Sector** | **Academia** (Uni/Research) X | | | **Description:** In Pakistan, COVID-19 vaccination is being carried out through Adult Vaccination Counters (AVCs). As per the national decision, vaccine administration is the responsibility of the respective provincial health departments through AVCs in health facilities (tertiary, secondary level and few primary- RHCs) only. Currently 582 AVCs have been designated for COVID-19 vaccination. Every AVC must have a computer, printer, android phone, internet connectivity and consistent power supply to facilitate uninterrupted vaccination process. **Country where innovation is used:** Pakistan **Users: Who is this for?** Vaccination Center Management **Lessons learned?** Such guidelines should have been in place for the routine vaccination in health centers. **Evidence of success?** The document is used during the preparation of the licensing of the centers and also during routine work.	REGIONAL	Jan 28, 2021

3. Health Service Provision Innovations

This may include aspects of the following:

- Planning Services
- Managing Essential (non-COVID) Services
- Managing (COVID) Cases
- Community Engagement

	3. Health Service Provision Innovations	GLOBAL or CAREC REGION	Latest Update
a	**Title:** Covid-19 Essential Supplies Forecasting Tool**/PLANNING SERVICES** **Link/Source:** https://www.who.int/publications/m/item/covid-19-essential-supplies-forecasting-tool **Developer/Partners:** WHO **Govt** | **Develop Partner** | **Private Sector** | **Academia** (Uni/Research) | | | **Description:** The tool can be used to forecast essential supplies: it includes estimation of personal protective equipment, diagnostic equipment, biomedical	Global	August 2020

<table>
<tr><th></th><th>3. Health Service Provision Innovations</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>equipment for case management, essential drugs for supportive care, and consumable medical supplies.
Country where innovation is used: Globally
Users: Who is this for? Health experts</td><td></td><td></td></tr>
<tr><td>b</td><td>Title: Covid-19 Emergency Supply Chain Support/PLANNING SERVICES

Link/Source: https://scoutbee.com/coronavirus-supply-chain-support/; https://scoutbee.com/#
Developer/Partners: Scoutbee
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td>X</td><td></td></tr></table>
Description: Rapidly searches for emergency suppliers of critical and scarce items such as surgical masks, protective suits, cotton swabs, and more. Supports nongovernment organizations, public bodies, local and national governments, and health-care providers with urgent pharmaceutical or medical sourcing needs.
Country where innovation is used: Globally
Users: Who is this for? Health experts</td><td>Global</td><td>Free version ran out in May 2020</td></tr>
<tr><td>c</td><td>Title: Supply Chain Maps for Pandemic-Fighting Products/PLANNING SERVICES

Link/Source: http://adb-staging.coriolis.systems/#/

Developer/Partners: Asian Development Bank (ADB), Coriolis Technologies, sponsored by Australian Aid
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td>X</td><td>X</td><td></td></tr></table>Description: Compilation of maps which provide banks, investors, governments, and health care professionals with the information they need to ensure companies involved in manufacturing and distributing goods critical to fighting the coronavirus disease (COVID-19) have nothing stopping them from ramping up supplies as fast as possible and getting them to where they are needed.
Country where innovation is used: Globally
Users: who is this for? Health experts, governments</td><td>Global</td><td>Late 2020</td></tr>
<tr><td></td><td>Title: Fangcang Shelter Hospitals/PLANNING SERVICES

Link/Source: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30864-3/fulltext

Developer/Partners: Chinese government
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td></td><td></td></tr></table></td><td>REGIONAL</td><td>2020</td></tr>
</table>

<table>
<tr><th></th><th>3. Health Service Provision Innovations</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>Description: During the fight against COVID-19, temporary treatment centers, or Fangcang Shelter Hospitals, provided beds to admit all confirmed cases. They were built within three weeks to isolate, treat, and triage patients with mild to moderate COVID-19.
Country where innovation is used: China
Users: Who is this for? Chinese citizens</td><td></td><td></td></tr>
<tr><td></td><td>Title: Pakistan develops NIMS to manage COVID-19 vaccine supply/PLANNING SERVICES

Link/Source: https://www.brecorder.com/news/40045867

Developer/Partners: NOCN, NADRA, NITB
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td>X</td><td></td></tr></table>
Description: To manage the supply of coronavirus vaccine, Pakistan has developed the National Immunization Management System (NIMS). The system developed by the National Command and Operation Centre (NCOC) would ensure efficient supply chain management and administration of COVID-19 vaccine in the country. The initiative had been taken in collaboration with Ministry of Health, National Database Registration Authority (NADRA) and National Information Technology Board (NITB), it was told in an NCOC meeting on Wednesday.
Country where innovation is used? Pakistan
Users: Who is this for, number of users? Government and its partners.
Lessons learned? The system is working smoothly.
Evidence of success? It is successful as the national vaccination roll-out is proceeding smoothly across the country using this system and is being appreciated by the public.</td><td>REGIONAL</td><td>Dec 30, 2020</td></tr>
<tr><td></td><td>Title: Telemedicine expanded to rural areas/MANAGING CASES

Link/Source: Telemedicine expanded to rural areas

Developer/Partners: Chinese government
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td></td><td>x</td></tr></table>
Description: The China-Japan Friendship Hospital undertook functions for the National Telemedicine and Connected Health Center. It provided long-distance diagnoses for severe COVID-19 cases in Wuhan, capital of Hubei province and played a key role in patients' treatment and recovery.
The government indicated to extend telemedicine coverage to all poor counties, connect long-distance diagnostic services to villages equipped to handle them and offer individuals and households access to online lessons about basic healthcare and home management of chronic disease.
Country where innovation is used? China
Users: Who is this for, number of users? Chinese population</td><td>REGIONAL</td><td>2020</td></tr>
</table>

<table>
<tr><th></th><th>3. Health Service Provision Innovations</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>
Title: How telemedicine is helping in the fight against COVID-19 (and why it should be here to stay)/MANAGING CASES

Link/Source:
https://www.pk.undp.org/content/pakistan/en/home/blog/2020/how-telemedicine-is-helping-in-the-fight-against-covid-19--and-w.html

Developer/Partners: UNDP, Sehat Kahani (health tech social enterprise with a network of 27 e-clinics across Pakistan)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>x</td><td>x</td><td></td></tr>
</table>
Description: Patients in Pakistan were scared to visit hospitals to avoid COVID exposure. Elderly, pregnant women, and patients with pre-existing health conditions were at higher risk. During the pandemic, telemedicine was playing a pivotal role in acting as an enabler to help many patients in need. The United Nations Development Programme (UNDP) Pakistan partnered with Sehat Kahani to connect patients to qualified doctors via a telemedicine based mobile and web solution. Physicians and specialists of Pakistani origin could be consulted though “Yaran-e-watan”, a telemedicine platform. More than 30 consultants trained in pulmonology and critical care joined the application. It was freely accessible for all patients.
Country where innovation is used: Pakistan
Users: General Public
Lessons learned? Widespread use of tele-medicine during the pandemic has proved to be an effective, user-friendly tool for both, physicians, and patients.
</td><td>REGIONAL</td><td>Jan 2021</td></tr>
<tr><td></td><td>
Title: National Command and Operations Center/MANAGING CASES

Link/Source: https://ncoc.gov.pk/govt-initiatives.php

Developer/Partners: Government of Pakistan
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: The National Command and Operations Center is the nerve center of the national COVID-19 response. The NCOC has introduced several IT based initiatives to help the public gain better access to COVID-19 related services offered by the government. The IT initiatives includes Apps related to SOPs Violation registry, Smart Lockdowns, Resource management System, Pak Neghayban App, an Integrated Disease Information management System, an Educational Institute Management System, a national Helpline, a Telehealth Portal (1166), an Isolation Hospital & Infection treatment center, Community Mobilization, a PM relief Fund, WeCare, Tiger Force, Ehsas programme, Yaran-e-watan.
Users: who is this for, number of users? General Public
Country where this has been implemented: Pakistan
Effect on health system resilience: The system absorbed this new technology quite seamlessly.
Lessons learned/Evidence of success: There is a huge potential for IT technology use in the medical healthcare sector in the country.
</td><td>REGIONAL</td><td>Regularly updated</td></tr>
</table>

<table>
<tr><th></th><th>3. Health Service Provision Innovations</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>
Title: Overview of Isolation and Quarantine facilities in Pakistan/MANAGING CASES

Link/Source: https://covid.gov.pk/facilities/List%20of%20Province-wise%20COVID-19%20Quarantine%20Facilities%20Pakistan.pdf

Developer/Partners: Government of Pakistan
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: The government established a nationwide network of Isolation and Quarantine facilities across the country in various large public facilities and private buildings and equipped them accordingly to prepare for any large-scale eventuality.
Country where innovation is used: Pakistan
Users: Who is this for? General Public
Number of users? unknown
Lessons learned? Contingency plans for creation of such facilities should be developed which can be used to prepare such centers at short notice in case of need.
Evidence of success? Development of these facilities were well publicized in the national media and received appreciation from the public. The sites developed were used to a limited extent especially in the start of the pandemic.
</td><td>REGIONAL</td><td>2021</td></tr>
</table>

4. Leadership and Policy Innovations

This may include aspects of the following:

- Policy Capacity/Task Force Approach
- Systematic Capacity Approach
- Key Measures (Lockdowns etc.)
- Creation of Transition Plans
- Communication Strategy
- Responding to vulnerable groups

<table>
<tr><th></th><th>4. Leadership and Policy Innovations</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: Centralizing Governance/Policy Capacity/TASK FORCE APPROACH

Link/Source: https://analysis.covid19healthsystem.org/index.php/2020/04/19/how-are-countries-centralizing-governance-and-at-what-stage-are-they-doing-it/

Developer/Partners: Covid-19 Health Systems Response Monitor
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: The analysis gives an overview on how countries have centralized governance and at what stage they have done it, including use and existence of (pre-existing) emergency plans.
Country where innovation is used? Globally
Users: who is this for? Health experts</td><td>Global</td><td>April 2020</td></tr>
<tr><td>b</td><td>Title: Checklist to help policymakers systematically approach transition decisions/Policy Capacity/TASK FORCE APPROACH

Link/Source: https://apps.who.int/iris/bitstream/handle/10665/336284/Eurohealth-26-2-93-98-eng.pdf
Developer/Partners: Eurohealth 2020; 26(2).
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: The authors of the article “In and out of lockdowns, and what is a lockdown anyway? Policy issues in transition” have put together a checklist to help policymakers approach transition decisions in times of crisis.
Country where innovation is used? Globally
Users: who is this for? Health experts, politicians</td><td>Global</td><td>2020</td></tr>
<tr><td></td><td>Title: The Oxford Covid-19 Government Response Tracker (OxCGRT)/SYSTEMATIC CAPACITY APPROACH
Link/Source: https://www.bsg.ox.ac.uk/covidtracker

Developer/Partners: Blavatnik School of Government, University of Oxford
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td>x</td></tr>
</table>
Description: The Oxford Covid-19 Government Policy Response Tracker (OxCGRT) collects systematic information on which governments have taken which measures, and when. This can help decision-makers and citizens understand governmental responses in a consistent way, aiding efforts to fight the pandemic. The OxCGRT systematically collects information on several different</td><td>Global</td><td></td></tr>
</table>

<table>
<tr><th></th><th>4. Leadership and Policy Innovations</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td></td><td>common policy responses governments have taken, records these policies on a scale to reflect the extent of government action, and aggregates these scores into a suite of policy indices.
OxCGRT collects publicly available information on 20 indicators of government response. This information is collected by a team of over 200 volunteers from the Oxford community and is updated continuously.
It also includes statistics on the number of reported Covid-19 cases and deaths in each country.
Full descriptions of the policy indicators and their meaning can be found in codebook. More detailed guidance about the codebook and how to interpret the indicators, can be seen at coding interpretation guide. This ensures consistency, and standardizes coding across the database.
Eight of the policy indicators (C1-C8) record information on containment and closure policies, such as school closures and restrictions in movement. Four of the indicators (E1-E4) record economic policies such as income support to citizens or provision of foreign aid. And eight indicators (H1-H7) record health system policies such as the Covid-19 testing regime or emergency investments into healthcare.
From 1 January 2020, the data capture government policies related to closure and containment, health and economic policy for more than 180 countries, plus several countries' subnational jurisdictions.
Country where innovation is used? Globally.
Users: Researchers—In addition to decision-makers and publics—to make sense of the effects of governments' responses to COVID-19 across different populations and contexts, as well as what leads governments to adopt different policies.
Lessons learned? They learned to add a new indicator, H8 Protection of elderly people to the datasets. Prior to 25 April 2020, the OxCGRT had a structure of 13 indicators. Now it has 20.
Evidence of success? The database has global coverage, enables comparable within- and across-country analysis, is consistently updated and expanded, is publicly available, is built with a team of coders with contextual expertise in the respective countries in which they focus, and has a systematic panel data structure that has enabled merging with other databases and quantitative analysis.</td><td></td><td></td></tr>
<tr><td></td><td>Title: COVID-19 Business Impact Center

Link/Source: Health Care Management and Policy | Coronavirus (COVID-19) | Baker Library | Bloomberg Center | Harvard Business School (hbs.edu)

Developer/Partners: University of Harvard
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td>x</td></tr>
</table>
Description: Covers topics of interest to health policy makers (e.g., public health officials) and managers (e.g., CEOs, chiefs of hospitals, insurers, etc.). What leadership and management lessons can be applied to managing the health crisis? What are the responses? What's working? What's not?
Country where innovation is used: USA and globally
Users: Who is this for?
Lessons learned? (if in development, when expected to be ready?)
Evidence of success? Not evaluated</td><td>Global</td><td></td></tr>
</table>

<table>
<tr><th></th><th>4. Leadership and Policy Innovations</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td>c</td><td>Title: Covid-19 Pandemic and Central Asia: Crisis Management, Economic Impact, and Social Transformation/SYSTEMATIC CAPACITY APPROACH

Link/Source: https://centralasiaprogram.org/archives/18786

Developer/Partners: The George Washington University, Central Asia Program (CAP)
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td></td><td></td><td>X</td></tr></table>Description: The paper gives an overview of the consequences of the pandemic on Central Asian countries and its social, political, and economic impact.
Country where innovation is used: Central Asia
Users: Who is this for? Health experts from Central Asian countries</td><td>Regional</td><td>2021</td></tr>
<tr><td>d</td><td>Title: The Inno4Kg challenge, Kyrgyzstan/SYSTEMATIC CAPACITY APPROACH

Link/Source:
https://www.kg.undp.org/content/kyrgyzstan/en/home/presscenter/pressreleases/2020/04/undp-calls-on-kyrgyz-innovators-to-crack-covid-19-with-novel-sol.html

Developer/Partners UNDP, High Technology Park of the Kyrgyz Republic, State Agency on ICT of Kyrgyzstan:
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td>X</td><td>X</td><td></td></tr></table>Description: The contest “Inno4Kg-Innovation for Kyrgyzstan” was expected to generate speedy, diverse, and effective solutions designed to tackle the effects of the coronavirus pandemic and address the acute needs of the vulnerable populations (see further results of the contest!). The Inno4Kg challenge is part of the joint humanitarian response under the Disaster Response Coordination Unit (DRCU) which was activated on 16 March 2020 following the request of the Government of Kyrgyzstan to assist COVID-19 emergency preparedness and response and set a stage for early recovery.
Country where innovation is used: Kyrgyzstan
Users: Who is this for? Health experts, general public</td><td>Regional</td><td>Took place in April 2020</td></tr>
<tr><td>e</td><td>Title: E-System for Permits and Monitoring during Quarantine Regime/Azerbaijan/KEY MEASURES

Link/Source: www.icaze.e-gov.az

Developer/Partners: e-GOV Development Center under the State Agency for Public Service and Social Innovations under the President of the Republic of Azerbaijan, Ministry of Internal Affairs, Azerbaijan
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td></td><td></td></tr></table>Description: The E-System for Permits and Monitoring during Quarantine Regime is based on one channel for obtaining permits and monitoring during the Implementation of the Special Quarantine Regime, and another channel which provides sms permission for citizens due to daily needs and necessary cases.
Country where innovation is used: Azerbaijan</td><td>Regional</td><td></td></tr>
</table>

	4. Leadership and Policy Innovations	GLOBAL or CAREC REGION	Latest Update
	Users: Who is this for? General public		

5. Paying for Services Innovations

This may include aspects of the following:

- Health Financing
- Coverage (incl Social Protection)

<table>
<tr><th></th><th>5. Paying for Services Innovations</th><th>GLOBAL or CAREC REGION</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: Strengthening the health financing response to Covid-19 in Europe/HEALTH FINANCING

Link/Source: https://apps.who.int/iris/bitstream/handle/10665/336346/WHO-EURO-2020-1343-41093-55822-eng.pdf?sequence=1&isAllowed=y :

Developer/Partners: WHO Barcelona Office
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: The paper sets out the key health financing actions countries in Europe can take to reduce the adverse effects of the COVID-19 pandemic as part of a broader health system response.
Country where innovation is used? European countries
Users: who is this for? Health experts</td><td>Global</td><td>2020</td></tr>
<tr><td>b</td><td>Title: Budgetary Mechanisms in countries highly affected by Covid-19/HEALTH FINANCING

Link/Source: https://www.who.int/teams/health-systems-governance-and-financing/covid-19

Developer/Partners: World Health Organization (WHO), Health Financing Team
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: The paper offers a rapid scan of budgetary mechanisms in highly affected countries, just as China, UK, Germany, France).
Country where innovation is used? Globally
Users: who is this for? Health experts, politicians</td><td>Global</td><td>March 2020</td></tr>
</table>

	5. Paying for Services Innovations	GLOBAL or CAREC REGION	Latest Update
	Title: The COVID-19 Health Funding Tracker**/HEALTH FINANCING** **Link/Source:** The COVID-19 Health Funding Tracker (eiu.com) **Developer/Partners:** Welcome, synthesizes global, health-related funding efforts, from pledge to disbursement. **Govt** | **Develop Partner** | **Private Sector** | **Academia** (Uni/Research) | | X | | | **Description:** It tracks the flow of money towards development, production and equitable access to new COVID-19 diagnostics, therapeutics and vaccines, including those under the Access to COVID-19 Tools (ACT) Accelerator initiative, and relevant funding for health systems. **Country where innovation is used?** Globally **Users: who is this for, number of users?** All governments and international organizations.	Global	
	Title: Budgetary Mechanisms in countries highly affected by Covid-19**/HEALTH FINANCING** **Link/Source:** https://www.who.int/teams/health-systems-governance-and-financing/covid-19 **Developer/Partners:** World Health Organization (WHO), Health Financing Team **Govt** | **Develop Partner** | **Private Sector** | **Academia** (Uni/Research) | | X | | | **Description:** The paper offers a rapid scan of budgetary mechanisms in highly affected countries, just as China, UK, Germany, France). **Country where innovation is used?** NA **Users: who is this for, number of users?** Politicians, decision makers in government	Global	March 2020

6. Other Innovations

Innovations that cannot be easily put into any of the categories above.

	6. Other Responses	GLOBAL or CAREC REGION	Latest Update
a	**Title**: Internet firms provide aid for merchants **Link/Source**: http://subsites.chinadaily.com.cn/bjzpark/2020-02/18/c_460928.htm **Developer/Partners:** internet companies **Govt** | **Develop Partner** | **Private Sector** | **Academia** (Uni/Research) | | | x | |	REGIONAL	April 2020

	6. Other Responses	GLOBAL or CAREC REGION	Latest Update
	Description: Measures include expense reduction, financial and logistics support, data flow information sharing and health protection. Chinese internet companies (Jingdong, Alibaba, Meituan…) are reducing or scrapping commission fees, extending payment deadlines and providing loans with low interest rates for merchants on their platforms to help the latter alleviate pressure caused by the difficult situation resulting from the novel coronavirus outbreak. **Users: who is this for, number of users?** Chinese citizens **Country where this has been implemented**: China		

II. COVID-19 REGIONAL COOPERATION RESPONSES

(CAREC & CAUCASUS COUNTRIES)

Main question to be answered:

What have been the responses between any CAREC and Caucasus countries to COVID-19? (Regional Cooperation Responses)

Categories to be considered:

1. Preventing Transmission
2. Physical Infrastructure/ Workforce (Human Resources) Capacity
3. Provision of Health Services
4. Leadership and Policy Responses
5. Paying for Services Responses
6. Other responses

Cross Cutting Themes (to be considered for each category)

Health Technology	(eg digital health such as e-health passports, point of entry approaches)
Cross-sector elements	(eg migration, foreign policy, climate change, trade)
Vulnerable groups	(eg elderly, women, children, and persons with disabilities & communities residing in border areas)

1. Preventing Transmission Responses

This may include aspects of the following:

- Testing & Laboratory Capacity e.g. if countries sent samples across borders
- Surveillance Responses eg sharing information
- Health Communication eg shared key messages between countries, or in cross-border areas
- Isolation & Quarantine eg joint agreements, clear & accessible guidelines for travelers
- Research Collaboration e.g. for studying effect of testing or quarantine or vaccines
- Vaccine Related Activities e.g. cross-border collaboration/joint statements/ joint regional policies, research, joint procurement/manufacturing initiatives

<table>
<tr><th></th><th>Regional Cooperation Responses
Preventing Transmission
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: Eurasia Lab & Fellowship Program/TESTING

Link/Source: http://iep-berlin.de/en/research/enlargement-neighbourhood-and-central-asia/eurasia-lab-fellowship-program/

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: The Eurasia Lab & Fellowship Program creates one major network of researchers, practitioners and activists working on Eurasia. The program should increase its outreach to relevant stakeholders and therefore serve as a major contact point for all actors working on Eurasia. Among other, the program organizes a workshop to discuss the implication of the Covid-19 pandemic for researchers working in and on Eurasia.
Users: who is this for? Researchers, practitioners, and activists working on Eurasia.</td><td>REGION</td><td>September 2021</td></tr>
<tr><td>b</td><td>Title: Central Asia Field Epidemiology and Laboratory Training Program (FELTP)/TESTING

Link/Source: https://www.usaid.gov/node/50656

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: Formed in 1997, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) is the global network of 75 Field Epidemiology Training Programs strengthening public health systems across more than 100 countries. Some CAREC countries (Azerbaijan, Georgia, Ukraine, and in Afghanistan, Kazakhstan, Kyrgyzstan, Pakistan, and Uzbekistan) have implemented the Central Asia Field Epidemiology and Laboratory Training Program (FELTP), which is supported by the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). FELTP is a two-year training and service project designed for health professionals in entry and mid-level positions to build skills in applied epidemiology, surveillance, and enhanced public-health practice.

Users: who is this for? Central Asian countries and its health workforce in the field of epidemiology and public health</td><td>REGION</td><td></td></tr>
</table>

<table>
<tr><th></th><th>Regional Cooperation Responses
Preventing Transmission
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C
COUNTRIES
INVOLVED</th><th>Latest
Update</th></tr>
<tr><td></td><td>Country where this has been implemented: Azerbaijan, Georgia, Ukraine, Afghanistan, Kazakhstan, Kyrgyzstan, Pakistan, Uzbekistan</td><td></td><td></td></tr>
<tr><td></td><td>SCO: Overview of Advanced Measures Taken by SCO Member States to Counter the Spread of COVID-19

Link/Source: http://eng.sectsco.org/documents/

Developer/Partners: SCO member states
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td></td><td></td></tr></table>
Description: Presented are the measures taken by the SCO member states to counter the spread of COVID-19 to accumulate the most effective practices and positive experience. Information on the SCO member states is presented in accordance with the following sections: ensuring coordination and planning of actions at the country level; informing the public about the risks; providing surveillance, organizing rapid response teams (RRT) and investigating cases of COVID-19 infection; control at points of entry into the country; organization of the work of national laboratories; prevention of infection of medical workers and uninfected citizens; organization of medical care for patients with COVID-19; logistic support for operational measures.
Users: who is this for? Health experts from SCO States</td><td>Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Russian Federation, the Republic of Tajikistan, the Republic of Uzbekistan</td><td></td></tr>
<tr><td></td><td>Title: NIH obtains formal approval from regulatory body for Phase III clinical trial of Covid-19 vaccine/VACCINE RELATED ACTIVITIES, RESEARCH COLLABORATION

Link/Source: https://www.dawn.com/news/1574929

Developer/Partners: NIH Pakistan, CanSinoBio (China-based vaccine developer), Beijing Institute of Biotechnology
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td>X</td><td>X</td></tr></table>
Description: A Phase III COVID Vaccine Global Clinical Trial was launched from Pakistan in August 2020. The first ever such clinical trial in Pakistan has opened the doors of international clinical trials in the country. This scientific collaboration with China will go a long way building the capacity of the local experts and institutions in this hitherto untapped potential of scientific research and foreign exchange earning sector.
Users: who is this for, number of users? Pakistani experts
Country where this has been implemented: Pakistan
Effect on health system resilience: The system has benefitted due to emphasis on quality, documentation, M&E etc. involved in the Clinical Trial process.
Lessons learned, evidence of success: The national health sector has immense potential to conduct clinical trials to generate national evidence, improve the medical system and generate foreign investments without a single penny investment from the government.</td><td>CHINA; PAKISTAN</td><td>Aug 2020</td></tr>
</table>

2. Physical Infrastructure/ Workforce (Human Resources) Capacity

This may include aspects of the following:

- Physical Infrastructure (Buildings & Equipment) e.g., sharing/donating equipment, access to certain health facilities for patients across borders
- Workforce capacity e.g., sharing of health staff esp. in Intensive Care Units
- Capacity Building e.g., training provided from one country to another
- Telemedicine e.g. using telemedicine and virtual care for remote treatments (video telemedicine visits)
- Strengthening mental Health of Workforce

<table>
<tr><th></th><th>Regional Cooperation Responses
Physical Infrastructure/ Workforce Capacity
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td></td><td>Title: Video Diagnosis Conference of TCM experts with SCO countries' experts/CAPACITY BUILDING

Link/Source: http://www.gov.cn/xinwen/2020-05/10/content_5510327.htm#1; http://eng.sectsco.org/about_sco/

Developer/Partners:
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>
Description: tele-diagnosis during video conference with Shanghai Cooperation Organization (SCO) member countries to cope with COVID-19
Country where innovation is used: SCO countries
Users: Who is this for? Citizens of SCO countries</td><td>PRC
Kazakhstan
Kyrgyzstan
Pakistan
Tajikistan
Uzbekistan</td><td>2020</td></tr>
<tr><td></td><td>Title: Pakistan to begin local vaccine production from May/CAPACITY BUILDING

Link/Source: https://www.thenews.com.pk/latest/827439-pakistan-to-begin-local-vaccine-production-from-may

Developer/Partners: NIH Pakistan, CanSinoBIO
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td>x</td><td></td></tr></table>
Description: The National Institute of Health has initiated 'Shared Manufacturing' of CanSinoBIO COVID vaccine in its Sera Laboratory with the technical assistance of the CanSinoBIO experts through Public Private Partnership. The Chinese experts are building the capacity of the NIH experts to not only produce the COVID vaccine in the NIH facility but also other essential vaccines. Earlier the NIH facilities were under-utilized and used for only vaccine filling and labeling and that too for a limited extent only.
Users: who is this for? Pakistani public
Country where this has been implemented: Pakistan
Effect on health system resilience: Reliance to be reduced on vaccine access through expensive imports and international grants.
Lessons learned/Evidence of success: National vaccine security can best be ensured through developing the local vaccine manufacturing sector.</td><td>CHINA; PAKISTAN</td><td>27 Jul, 2020</td></tr>
</table>

<table>
<tr><th></th><th>Regional Cooperation Responses
Physical Infrastructure/ Workforce Capacity
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td></td><td>Title: Chinese experts join Azerbaijan virus battle/WORKFORCE CAPACITY

Link/Source
https://www.chinadaily.com.cn/a/202008/06/WS5f2b76e9a31083481725e9ce.html

Developer/Partners:<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>Description: A group of Chinese medical experts supported medical doctors in Azerbaijan in fighting against the coronavirus. The Chinese experts used the opportunity to learn more about the pandemic conditions in Azerbaijan, shared COVID-19 treatment experience with their counterparts in the country, and promoted bilateral cooperation in medical and healthcare matters.
Users: who is this for, number of users? Patients in Azerbaijan
Country where this has been implemented: Azerbaijan</td><td>China, Azerbaijan</td><td>2020</td></tr>
<tr><td></td><td>Title: China, Azerbaijan jointly fight the outbreak/PHYSICAL INFRASTRUCTURE

Link/Source:
https://global.chinadaily.com.cn/a/202004/17/WS5e98e61fa3105d50a3d16c94.html

Developer/Partners:<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td>X</td></tr></table>Description: Local authorities and public organizations in Azerbaijan, including the Sumgait Executive Authority, Nizami Ganjavi International Center and the Heydar Aliyev Foundation have supplied face masks, gloves and other necessary medical equipment to China. Also, as an expression of friendship, China provided Azerbaijan with 5,000 test kits.
Users: who is this for, number of users? Citizens of Azerbaijan, citizens of China
Country where this has been implemented: China and Azerbaijan</td><td>China/Azerbaijan</td><td>2020</td></tr>
<tr><td></td><td>Title: China and Pakistan joined hands to fight coronavirus/PHYSICAL INFRASTRUCTURE

Link/Source:
https://www.chinadaily.com.cn/a/202005/18/WS5ec220d0a310a8b2411567de.html

Developer/Partners:<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>Description: The Chinese medical teams provided logistical support to Pakistan since the global pandemic started in late February or early March 2020. The Senate of Pakistan passed a resolution unanimously on February 10 to express solidarity with China over the fight against the COVID-19 outbreak. Taking note of China's strong support and timely assistance to Pakistan during the current COVID-19 crisis, the Senate, Pakistan's upper house of parliament, expressed its deep appreciation to</td><td>China, Pakistan</td><td></td></tr>
</table>

<table>
<tr><th></th><th>Regional Cooperation Responses
Physical Infrastructure/ Workforce Capacity
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td></td><td>the Chinese government and the Chinese people for their unflinching role as all-weather friends of Pakistan. The cooperation between both countries has continued in every field.

Users: who is this for, number of users? Citizens of Pakistan
Country where this has been implemented: Support for Pakistan</td><td></td><td></td></tr>
<tr><td></td><td>Title: Builders of Silk Road of health/PHYSICAL INFRASTRUCTURE

Link/Source
https://www.chinadaily.com.cn/a/202010/14/WS5f863c0ea31024ad0ba7e79f.html

Developer/Partners:<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>
Description: When the pandemic broke out in China in January, the Kazakh government and social forces provided China with anti-pandemic supplies such as masks and medicines through various channels. After the virus hit Kazakhstan in March, China donated a large quantity of medicines, masks, ventilators and other medical materials. Within its capacity, China will continue to assist Kazakhstan in the anti-virus fight, including assisting it with the procurement of medical materials, expert training, experience sharing and medicine development. China will also accelerate the establishment of an information notification mechanism for major pandemic diseases.
Users: who is this for, number of users? Citizens from China and Kazakhstan
Country where this has been implemented: China and Kazakhstan</td><td>China, Kazakhstan</td><td>2020</td></tr>
<tr><td></td><td>Title: Immigration Bureau: cooperate with boarder countries to control and prevent COVID-19 /ISOLATION AND QUARANTINE

Link/Source https://www.sohu.com/a/391708941_120229638

Developer/Partners:<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>
Description: China Immigration Bureau introduced the cooperation across the border in fighting COVID-19: 1) Set up information exchange system: 200 meetings to exchange information across the boards by online audio or video communication, on cases, customs and anti-coronavirus measures etc. 2) jointly checked and exams for passengers and vehicles with the same control measures;3) Reinforce patrol; 4) Regular exchange on lessons learnt and experience acquired to improve the preventative knowledge and monitoring procedures to curb the spread across the boarders

Users: who is this for, number of users? Border countries of China
Country where this has been implemented: Borders countries of China</td><td>Afghanistan, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Tajikistan</td><td>2020</td></tr>
</table>

3. Health Services Provision Responses

This may include aspects of the following:

- Planning & Managing Services e.g., shared experience or training of managers
- Health facility management of COVID patient-care services e.g., any support from 1 country to another
- Health facility management of (non-COVID) essential patient-care services e.g., any support from 1 country to another.

<table>
<tr><th></th><th>Regional Cooperation Responses
Provision of Health Services
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: WHO European Center for Primary Health Care, Almaty/PLANNING SERVICES

Link/Source: https://www.euro.who.int/en/about-us/organization/office-locations/who-european-centre-for-primary-health-care,-almaty,-kazakhstan

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: Provision of technical support to strengthen the delivery of services that are based on a primary health care approach. Focus on the integration of primary care with public health, hospitals, and the social sector.
Users: who is this for? Health workforce in Kazakhstan
Country where this has been implemented: WHO member countries, hosted by government of Kazakhstan.</td><td>REGION</td><td></td></tr>
<tr><td>b</td><td>Title: Humanitarian aid from Uzbekistan to Tajikistan (Ru version)/HEALTH FACILITY MANAGEMENT

Link/Source:
https://cis.minsk.by/news/14769/uzbekistan_napravil_v_tadzhikistan_ocherednuju_partiju_gumpomoschi

Developer/Partners: The government of the Republic of Uzbekistan
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: A freight train with another consignment of humanitarian aid arrived in the neighboring republic. The train departed from the Surkhandarya region to Dushanbe, delivering a large consignment of medical products, protective equipment and food products, including a thousand tons of flour.
Also, in early May, Uzbek doctors were sent to the Sughd region of Tajikistan to help colleagues overcome the spread of coronavirus in the country. The team was headed by the Honored Doctor of Uzbekistan Nematjon Ibragimov. The medical staff also included an epidemiologist, virologist and two anesthesiologists. They held a series of scientific conferences, shared their experience of overcoming the epidemiological crisis in Uzbekistan, talked about measures to prevent the spread of COVID-19. Uzbekistan also helped Tajikistan build a mobile hospital in Dushanbe.
Users: who is this for? Healthcare workforce, public of Tajikistan</td><td>Uzbekistan/Tajikistan</td><td></td></tr>
</table>

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<tr><th></th><th>Regional Cooperation Responses
Provision of Health Services
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C
COUNTRIES
INVOLVED</th><th>Latest
Updat
e</th></tr>
<tr><td></td><td>Title: Uzbekistan built a medical complex in the south of Tajikistan/HEALTH FACILITY MANAGEMENT

Link/Source:
https://cis.minsk.by/news/18137/uzbekistan_postroil_na_juge_tadzhikistana_medicinskij_kompleks#

Developer/Partners:
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td></td><td></td></tr></table>
Description: Construction of a modern medical complex in Kubodiyon in the south of Tajikistan, with an additional receiving-distributor for patients with COVID-19, it is ready to receive patients. The equipment, as well as the construction of the complex, was carried out by Uzbekistan through financing from Uzbekneftegaz, a source in the Tajik government told Asia-Plus.
The construction of the center is one of the projects of the Uzbek authorities approved during the visit of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to Dushanbe in March 2018. In addition, within the framework of the agreements, with the financing of Uzbekistan in the Spitamen district of Sogd in September 2020, a new school for 630 students was commissioned. In response, the Tajik authorities announced that they would build a school for 640 students in Samarkand and a kindergarten in the Fergana region. The corresponding order was signed by the President of Tajikistan Emomali Rahmon in March 2018.
Users: who is this for? Tajik and Uzbek public
Country where this has been implemented: Uzbekistan and Tajikistan.</td><td>Uzbekistan, Tajikistan</td><td>2020</td></tr>
<tr><td></td><td>Title: Coronavirus in Pakistan: China builds makeshift hospital to treat patients/HEALTH FACITLIY MANAGEMENT

Link/Source https://www.businesstoday.in/current/economy-politics/coronavirus-in-pakistan-china-builds-makeshift-hospital-to-treat-patients/story/399730.html

Developer/Partners: Chinese government, government of Pakistan
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>x</td><td></td><td></td><td></td></tr></table>
Description: China provided support to Pakistan to manage the COVID-19 pandemic by providing PPE, laboratory equipment etc., and support in building health care facilities.
Users: who is this for, number of users? General Public
Country where this has been implemented: Pakistan
Effect on health system resilience: Strengthened the government efforts to streamline its defenses against the COVID pandemic.
Lessons learned/Evidence of success: Local capacity and resources for disaster management needs to be developed and strengthened.</td><td>CHINA; PAKISTAN</td><td>Mar
2020</td></tr>
</table>

	Regional Cooperation Responses **Provision of Health Services** *(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)*	**CAREC/C COUNTRIES INVOLVED**	**Latest Update**
	Title: TAJIK MIGRANTS RETURN HOME**/PATIENT CARE SERVICES** **Link/Source**: https://www.usaid.gov/tajikistan/program-updates/aug-2020-tajik-migrants-return-home **Developer/Partners:** USAID, International Organization for Migration **Description**: In June 2020, USAID in partnership with the International Organization for Migration, assisted more than 600 Tajik migrants stranded at the Kazakh Uzbek border to safely return home. The returning labor migrants, including women, children, and students, made the 180-km journey by bus from the Zhibek Zholi border point in Kazakhstan, through Uzbekistan to Tajikistan. This movement of migrants was closely coordinated with the governments of Kazakhstan, Uzbekistan, and Tajikistan. **Users: who is this for?** Migrants from Tajikistan	Uzbekistan, Kazakhstan, Tajikistan	

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)
X	X		

4. Leadership and Policy Responses

This may include aspects of the following:

- Policy Responses between countries e.g., joint statements and declarations, joint strategies,
- Key Measures e.g., coordination of lockdowns, travel restrictions/bridges
- Communication Strategy e.g., shared between countries
- Specific policy for responding to vulnerable groups e.g., policy for elderly, women, children, and persons with disabilities & communities residing in border areas.

<table>
<tr><th></th><th>Regional Cooperation Responses
Leadership and Policy Responses
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/ C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: United Nations Special Programme for Economies of Central Asia (SPECA)/POLICY CAPACITY

Link/Source: https://www.unescap.org/events/2020speca-ef

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: Development of ideas for coordinated actions by Governments, the United Nations and other relevant stakeholders to respond to the socioeconomic impacts of COVID-19.
Users: who is this for? Health experts and politicians from participating countries
Country where this has been implemented: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, under the chairmanship of Kyrgyzstan; representatives of United Nations agencies and programmes, relevant international and regional organizations, international financial institutions and donors.</td><td>Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan</td><td></td></tr>
<tr><td>b</td><td>Title: WHO Hub in Kyrgyzstan and Georgia to boost Covid-19 response in the region/POLICY CAPACITY

Link/Source: https://www.euro.who.int/en/health-topics/Health-systems/pages/news/news/2020/12/who-hubs-pool-resources-in-the-european-region-to-boost-covid-19-response

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>
Description: The hubs' knowledge ensures that WHO guidelines and tools are optimized according to each country's socioeconomic reality and needs. On-the-ground scientific assessments assist countries in developing their health systems and improving emergency preparedness, as well as promoting intensive and fit-for-purpose activities in every aspect of public health.
Users: who is this for, number of users? Healthcare professionals in the region
Country where this has been implemented: WHO/Europe in Kyrgyzstan, Georgia, and Serbia
Effect on health system resilience: strong
Lesson learned/evidence of success: In the Central Asia Hub, Kyrgyzstan successfully presented its evidence-based preparedness and response plan to international partners via the hub platform, following an assessment by experts in emergencies. This ability to mobilize resources helped other countries gain support from regional partners, allowing them to improve surge capacity and provide equipment and training for their health workforce.</td><td>REGION</td><td></td></tr>
</table>

<table>
<tr><th></th><th>Regional Cooperation Responses
Leadership and Policy Responses
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/ C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td>c</td><td>Title: OECD Eurasia Week/POLICY CAPACITY

Link/Source: https://www.oecd.org/eurasia-week/

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: During the meeting, several high-level policy dialogue discussions to share best practices and experiences in addressing common challenges in the region take place (policy change and competitiveness, economic diversification, and sustainable development).
Users: who is this for? Health professionals, politicians from participating countries
Country where this has been implemented: 13 countries - Mongolia, Republic of Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Afghanistan, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan</td><td>Mongolia, Tajikistan, Turkmenistan, Uzbekistan, Afghanistan, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan</td><td></td></tr>
<tr><td></td><td>Title: The Central Asian Leadership Program of education for sustainable development (CALPESD)/LEADERSHIP AND POLICY RESPONSES

Link/Source The Central Asian Leadership Program of Education for Sustainable Development (CALPESD) (carececo.org)

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: Develop leadership cadre in the region
Users: who is this for, number of users? Politicians
Country where this has been implemented: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan,</td><td>Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Afghanistan</td><td></td></tr>
<tr><td></td><td>Title: CIS draft Statement of the heads of state on cooperation in the field of biological safety/POLICY RESPONSES

Link/Source:
https://cis.minsk.by/news/18718/v_sng_razrabatyvaetsja_proekt_zajavlenija_glav_gosudarstv_o_sotrudnichestve_v_oblasti_obespechenija_biologicheskoj_bezopasnosti

Developer/Partners: Rospotrebnadzor, Russia Federation
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: The Coordinating Council on the Problems of Sanitary Protection of the Territories of the CIS Member States provides organization and maintenance of the functioning of the system of interstate information exchange about emergencies in the field of public health of a sanitary and epidemiological</td><td>Republic of Azerbaijan, the Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Kyrgyz</td><td></td></tr>
</table>

<table>
<tr><th></th><th>Regional Cooperation Responses
Leadership and Policy Responses
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/ C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td></td><td>nature; assistance in the implementation in the CIS space of the International Health Regulations (2005). In the period 2000–2020 constant active work was carried out to ensure the regulatory and methodological base in the field of sanitary protection of the territories of the CIS member states, epidemiological surveillance of especially dangerous infectious diseases, and ensuring biological safety. In recent years, the Coordinating Council has been actively increasing its efforts to further develop international cooperation, strengthen scientific and practical interaction, pool the efforts of the CIS countries in the implementation of the International Health Regulations (2005), ensure the sanitary and epidemiological well-being of the population and biological safety.
In 2020, six extraordinary meetings of the Coordination Council were held in the format of a videoconference to exchange practical experience and up-to-date information on measures to combat the new coronavirus infection. The meetings were held on March 19, April 21, June 1, August 5, September 25, December 21, 2020. They were attended by members of the Coordination Council and representatives of relevant departments and organizations from the Republic of Azerbaijan, the Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Moldova, the Russian Federation, the Republic of Tajikistan and the Republic of Uzbekistan.
Users: who is this for, number of users? CIS members: Republic of Azerbaijan, the Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Moldova, the Russian Federation, the Republic of Tajikistan and the Republic of Uzbekistan.
Country where this has been implemented: CIS members</td><td>Republic, the Republic of Moldova, the Russian Federation, the Republic of Tajikistan and the Republic of Uzbekistan</td><td></td></tr>
<tr><td></td><td>Title: Comprehensive plan of measures in the field of health care and sanitary and epidemiological well-being of the population to prevent the spread of coronavirus infection COVID-19 and other infectious diseases in the territories of the member states of the Eurasian Economic Union/POLICY RESPONSES

Link/Source: https://docs.eaeunion.org/docs/ru-ru/01426846/err_20072020_16

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td></td><td></td></tr></table>
Description: On July 20, 2020, the Order of the Eurasian Intergovernmental Council of July 17, 2020 No. 16 "On a comprehensive plan of measures in the field of health care and sanitary and epidemiological well-being of the population to prevent the spread of coronavirus infection COVID-19 and other infectious diseases in the territories of the member states of the Eurasian Economic Union " was published. This plan includes the exchange of information on the epidemiological situation, conducting joint exercises to develop responses to outbreaks of infectious diseases, conducting joint research to develop vaccines and diagnostic test systems.
Users: who is this for, number of users? Eurasian Economic Union
Country where this has been implemented: Republic of Armenia, Republic of Belarus, Republic of Kazakhstan, Republic of Kyrgyzstan, Russian Federation</td><td>Republic of Armenia, Republic of Belarus, Republic of Kazakhstan, Republic of Kyrgyzstan, Russian Federation</td><td>2020</td></tr>
<tr><td></td><td>Title: One region, one health: Preparing Central Asia for future pandemics/LEADERSHIP AND POLICY RESPONSES - OPINION

Link/Source https://blogs.worldbank.org/europeandcentralasia/one-region-one-health-preparing-central-asia-future-pandemics

Developer/Partners: World Bank
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr></table></td><td>REGION</td><td></td></tr>
</table>

	Regional Cooperation Responses **Leadership and Policy Responses** *(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)*	**CAREC/ C COUNTRIES INVOLVED**	**Latest Update**

	x		

Description: Provision of technical support to strengthen the delivery of services that are based on a primary health care approach. Focus on the integration of primary care with public health, hospitals, and the social sector.

Users: who is this for, number of users? Policy makers, healthcare professionals

Country where this has been implemented: Central Asian Countries

5. Paying for Services Responses

This may include aspects of the following:

- Health Financing e.g., support from one country to another, UHC approaches
- Coverage (incl Social Protection) e.g., for those crossing borders.

<table>
<tr><th></th><th>Regional Cooperation Responses
Paying for Services Responses
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C
COUNTRIES
INVOLVED</th><th>Latest
Update</th></tr>
<tr><td>a</td><td>Title: ADB Brings Another 10.4 tons of COVID-19 PPE to Tajikistan/HEALTH FINANCING

Link/Source: http://adbmch.tj/en/2020/10/30/adb-brings-another-10-4-tons-of-covid-19-ppe-to-tajikistan/

Developer/Partners: Tajikistan Maternal and Child Health Integrated Care Project/ADB
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td>X</td><td></td><td></td></tr></table>
Description: The Asian Development Bank (ADB) has delivered another 10.4 tons of personal protective equipment for health care workers in Tajikistan to support the country’s efforts in combatting the coronavirus disease (COVID-19). The medical supplies comprise aprons, face shields, goggles, face masks, headcaps, respirators, and surgical and examination gloves. In September, ADB delivered 12 tons of protective coveralls, isolation gowns, and shoe covers to the country. The goods have been procured under the $ 928,000 grant approved by ADB for Tajikistan in July. The grant is drawn from the ADB's ongoing regional technical assistance and complements ADB's previous COVID-19 assistance to Tajikistan including a $ 50 million budget support grant under the COVID-19 Active Response and Expenditure Support Program to help fund the government's comprehensive response plan and countercyclical measures; a $ 2.5 million grant from the Asia Pacific Disaster Response Fund to further support the government's emergency response; and a $ 100,000 grant reallocated from the Tajikistan Maternal and Child Health Integrated Care Project to procure medical supplies.
Users: who is this for, number of users? Tajikistan
Country where this has been implemented:
Effect on health system resilience: strong</td><td>Tajikistan</td><td></td></tr>
<tr><td>b</td><td>Title: ADB's $30 Million Grant to Support Labor Migrants, Youth, and Women in Tajikistan/HEALTH FINANING

Link/Source: https://www.adb.org/news/adbs-30-million-grant-support-labor-migrants-youth-and-women-tajikistan

Developer/Partners: ADB
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td>X</td><td></td><td></td></tr></table>
Description: The Asian Development Bank (ADB) has approved a $30 million grant to Tajikistan to strengthen the skills of the country’s youth, women, and labor migrants to improve their employability and wages, and enhance the capacity of employment and migration agencies. The grant is accompanied by an additional $1.5 million grant from the Japan Fund for Information and Communication</td><td>Tajikistan</td><td></td></tr>
</table>

<table>
<tr><th></th><th>Regional Cooperation Responses
Paying for Services Responses
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td></td><td>Technology, to be administered by ADB. Three new migration service centers will be built and equipped in Khujand, Bokhtar, and Vose as one-stop centers for departing and returning migrants. The centers will offer migration orientation programs, language training, and entry-level pre-employment skills training to help migrants find better jobs and enable safer living conditions in the destination countries. The centers will also provide financial literacy training for safe remittance transmission and information and communications technology (ICT) training for easier access to social welfare information. The project will establish and equip three new model "job centers" in Dushanbe for tourism, in Rogun for energy, and in Dangara for agriculture. The job centers will provide enhanced skills training, childcare centers, and a pilot stipend program for female job seekers—a pilot program for new and more focused soft skills training, job counseling services to match interests and skills to potential jobs, and ICT skills training for respective sectors.
Users: who is this for, number of users? Tajikistan
Country where this has been implemented: Tajikistan</td><td></td><td></td></tr>
<tr><td></td><td>Title: World Bank-Supported Project Finances Cash Transfers to Protect Vulnerable Children in Tajikistan

Link/Source: https://www.worldbank.org/en/news/press-release/2020/06/19/world-bank-supported-project-finances-cash-transfers-to-protect-vulnerable-children-in-tajikistan

Developer/Partners: World Bank
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td></td><td>X</td><td></td><td></td></tr></table>
Description: Up to 50,000 low-income families with young children in Tajikistan will receive a one-time payment of 500 Tajik somoni as emergency social assistance. These payments are provided as part of the World Bank-financed Tajikistan Emergency COVID-19 Project (TEC-19), which is supporting Tajikistan’s efforts in responding to the health and social risks associated with the global COVID-19 pandemic.
Users: who is this for? General public (families), Tajikistan
Country where this has been implemented: Tajikistan</td><td>Tajikistan</td><td></td></tr>
<tr><td></td><td>Title: Kazakhstan provides humanitarian aid to Kyrgyzstan, Tajikistan

Link/Source: https://www.euractiv.com/section/central-asia/news/kazakhstan-provides-humanitarian-aid-to-kyrgyzstan-tajikistan/

Developer/Partners: Kazakhstan
<table><tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr><tr><td>X</td><td></td><td></td><td></td></tr></table>
Description: In the context of the Covid-19 crisis, Kazakhstan has offered humanitarian aid to its Central Asian neighbors Kyrgyzstan and Tajikistan, answering a request by Bishkek and Dushanbe.</td><td>Kazakhstan, Kyrgyzstan</td><td></td></tr>
</table>

	Regional Cooperation Responses **Paying for Services Responses** *(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)*	**CAREC/C COUNTRIES INVOLVED**	**Latest Update**
	Users: who is this for, number of users?		

6. Other Responses

Responses that cannot be easily put into any of the categories above.

<table>
<tr><th></th><th>Regional Cooperation Responses
Other Responses
(N.B. Health Technology/ Cross-Sector/ Vulnerable Groups)</th><th>CAREC/C COUNTRIES INVOLVED</th><th>Latest Update</th></tr>
<tr><td>a</td><td>Title: Hack Covid-19: Global Virtual Hackathon

Link/Source:

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>
Partners: Ministry of Transport, Communication and High Technologies of the Republic of Azerbaijan; UNDP; SUP.VC
Description: a VIRTUAL HACKATHON to crowdsource tech solutions to help people cope with the coronavirus crisis.[i]
Users: who is this for? Politicians, Health Experts</td><td>Azerbaijan</td><td></td></tr>
<tr><td>b</td><td>Title: Covid-19 Digital Projects in Almaty City

Link/Source:
https://www.astanacivilservicehub.org/uploads/covid/files/COVIDHACKS%20ALMATY%20(eng%20Version).pdf

Further information:
https://www.euro.who.int/en/about-us/organization/office-locations/who-european-centre-for-primary-health-care,-almaty,-kazakhstan

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Partners: Department of Digitalization of Almaty, Kazakhstan

Description: Department of Digitalization of Almaty City, Kazakhstan, provides an overview on all digital, Covid-19 related projects which have been implemented to combat Covid-19.
Users: who is this for? Health experts, Politicians</td><td>Kazakhstan</td><td></td></tr>
</table>

III. Covid-19 INNOVATION AND REGIONAL RESPONSES IN EACH CAREC COUNTRY PER TOPIC

Innovations

Preventing Transmission Innovations.

This may include aspects of the following:

- Testing & Laboratory Capacity
- Monitoring & (Community) Surveillance
- Risk Stratification
- Health Communication
- Isolation & Quarantine
- Research Collaboration
- Vaccine Related Activities

<table>
<tr><th>Prevention Innovation</th><th>CAREC country</th></tr>
<tr><td>
Title: Information of the Operational Headquarters under the Cabinet of Ministers of the Republic of Azerbaijan/MONITORING AND SURVEILLANCE

Link/Source: https://nk.gov.az/az/article/1514/

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>
Description: Daily statistical information on the number of new COVID 19 cases, recovered and deaths. Also, since the vaccination of the population began in the country, daily updates on the number of vaccinated people in general number of vaccinated and daily numbers
Country where innovation is used: Azerbaijan
Users: Who is this for? Number of users? unknown
</td><td>Azerbaijan</td></tr>
<tr><td>
Title: Digital Travel Record: Wechat mini program to see trips during past 14 days/MONITORING AND SURVEILLANCE

Link/Source: https://xc.caict.ac.cn

Developer/Partners: CAICT
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: to Confirm in last 14 days the citizens stay in safety cities in Green, other cities not in Green.
Country where innovation is used: PRC
Users: Who is this for? Number of users: patients enrolled in studies
</td><td>China</td></tr>
<tr><td>
Title: Tracing confirmed case/ MONITORING AND SURVEILLANCE

Link/Source: http://bmfw.www.gov.cn/ggjtmqjczcx/index.html
</td><td>China</td></tr>
</table>

Developer/Partners: Tencent Inc.

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
	X		

Description: It serves for tracing train, flight, car and liners number in and out boarders in 14 days with confirmed and suspected cases (just input name and ID number)

Country where innovation is used: PRC

Users: Who is this for? Number of users?

Title: The Knowledge Centre for China's Experiences in Response to COVID-19

Link/Source: https://covid19.alliancebrh.com

Developer/Partners: Chinese government

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			

Description: The State Council Information Offices briefs media and answer questions on the science-based treatment.

Country where innovation is used: China

Users: Who is this for? Media officials, scientists, health professionals

China

Title: emongolia web portal/**HEALTH COMMUNICATION**

Link/Source: **https://www1.e-mongolia.mn/home**

Developer/Partners: The government of Mongolia (Communication, information technology agency of the Government of Mongolia)

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			

Description: This is a web portal which was developed by Government of Mongolia (Communication, Information and technology agency of the Government of Mongolia) to provide social services (approximately 180 types of social services) to the people of Mongolia. The web portal has COVID information section where people can get information about COVID such as symptoms, prevention and where to get service if people have symptoms and also location of COVID test and vaccine points. In addition, people can get COVID test results and COVID vaccine certificates from this web.

Country where innovation is used: Mongolia

Users: Mongolian citizens plus foreigners residing in Mongolia.

Mongolia

Title: Use of delivery drones for medical and biological materials, Wuhan/China**/ISOLATION AND QUARANTINE**

Link/Source: https://sina.cn/Index/nav?vt=4

Developer/Partners: JD Logistics; Wuhan Renhe Station; Wuhan Ninth Hospital

Govt	Develop Partner	Private Sector	Academia (Uni/Research)

Description: China has been using unmanned delivery drones to deliver medical and biological materials to hospitals around Wuhan to reduce the person-to-person contact times and freeing up other logistical resources.

Country where innovation is used: China

Users: Who is this for? Health workforce

China

Title: Telemedicine expanded to rural areas**/MANAGING CASES**

Link/Source: Telemedicine expanded to rural areas

Developer/Partners:

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			x

Description: The example of the China-Japan Friendship Hospital, which undertakes functions for the National Telemedicine and Connected Health Center. It provided long-distance diagnoses for severe COVID-19 cases in Wuhan, capital of Hubei province, earlier this year and played a key role in patients' treatment and recovery.

The government will extend telemedicine coverage to all poor counties, connect long-distance diagnostic services to villages equipped to handle them and offer individuals and households access to online lessons about basic healthcare and home management of chronic disease.

Country where innovation is used? China

Users: Who is this for, number of users? Chinese population

China

Title: Kazakhstan Never Sleeps**/HEALTH COMMUNICATION**

Link/Source: https://t.me/knscovid19

Developer/Partners:
https://centralasiaprogram.org/archives/18399

Govt	Develop Partner	Private Sector	Academia (Uni/Research)

Description: The Telegram Channel of Physicians in Kazakhstan informs about Covid-19 related health information.

Country where innovation is used: Kazakhstan

Users: Who is this for? General public

Kazakhstan

Title: Pakistan COVID-19 Situation Report # 16**/HEALTH COMMUNICATION**

Pakistan

Link/Source: https://www.unicef.org/pakistan/media/2796/file/COVID-19%20SitRep%2016.pdf **Developer/Partners:** UNICEF **Description:** Overview of risk communication and community work by UNICEF, which includes coordination with various partners involved, implementing the national response through social and electronic media, data analysis, engage of religious leaders, reaching out to the at risk population through community engagement, helplines, partnerships and organization of media orientation and mobilization. **Users: Who is this for?** General public and stakeholders in the field.	

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
	X		

Title: COVID Research Repository**/RESEARCH COLLABORATION** **Link/Source:** https://www.aku.edu/mcpk/research/Pages/covid-research.aspx **Developer/Partners:** Aga Khan University **Description:** Aga Khan University's Faculty of Health Sciences is at the forefront of answering critical questions and creating new knowledge about the COVID-19 outbreak in Pakistan. The repository includes a summary of different research projects related to COVID-19 that are being currently undertaken by the faculty. **Country where innovation is used:** Globally **Users: Who is this for?** General Public and experts **How many users?** N/A	Pakistan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
			X

Title: Pakistan in phase III trials of Chinese vaccine/**RESEARCH COLLABORATION** **Link/Source:** http://www.xinhuanet.com/english/2021-01/19/c_139680671.htm **Developer/Partners:** Public Private Partnership **Description:** CanSinoBIO COVID-19 Vaccine Phase III Clinical Trial was launched in Pakistan for the first time ever as a Public Private Partnership. The trial is being implemented successfully and the Interim Results have been analyzed by an international	Pakistan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X		X	

<table>
<tr>
<td>third party and found to be very effective. The vaccine has been granted EUA in China and Pakistan and other countries on the basis of these preliminary results.
Country where innovation is used? Pakistan, Mexico, Chile, Russia, Argentina
Users: Who is this for? R&D
Number of users? 40,000 Volunteers
Lessons learned? The government needs to facilitate and encourage the international pharmaceutical community who are interested now to consider Pakistan for their Clinical Trials. The requisite regulatory framework needs to be strengthened.
Evidence of success? The Clinical trial success initiated the transfer of Vaccine Technology to Pakistan and also enabled preferential access and pricing for the finished vaccine product to Pakistan.</td>
<td></td>
</tr>
<tr>
<td>Title: Pakistan to locally produce China's COVID-19 vaccine Single-dose CanSino vaccine to be produced with China's help/VACCINE RELATED ACTIVITIES

Link/Source: https://www.aa.com.tr/en/asia-pacific/pakistan-to-locally-produce-chinas-covid-19-vaccine/2208705

Developer/Partners: NIH, CanSinoBIO, AJM Pharma
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td>X</td><td></td></tr>
</table>
Description: CanSinoBIO COVID-19 Vaccine production through shared manufacturing has been launched in Pakistan as a Public Private Partnership between the NIH, Islamabad, CanSinoBIO and AJM Pharma. The production site is the National Institute of Health.
Country where innovation is used? Pakistan
Users: Who is this for? General Public
Number of users? 1.2 million doses
Lessons learned? Pakistan is ready to enter the next level of vaccine manufacturing.
Evidence of success? The first batch of locally produced 1.2 million doses have been prepared and rolled out.</td>
<td>Pakistan</td>
</tr>
<tr>
<td>Title: National Guideline for Surveillance of Adverse Events Following Immunization (AEFI) – COVID-19/VACCINE RELATED ACTIVITIES

Link: TBA

Developer/Partners: government of Pakistan, Ministry of National Health Services, Regulations and Coordination
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: The government developed an electronic system of surveillance of adverse events following immunization and is implementing it across the country in all the licensed</td>
<td>Pakistan</td>
</tr>
</table>

Immunization centers. This is the first that an advanced pharmacovigilance system has been developed for vaccination I the country. **Country where innovation is used?** Pakistan **Users: Who is this for?** Vaccination Centers **Number of users?** More than 5 million so far. **Lessons learned?** Pharmacovigilance is a neglected sector in the regulatory system and needs to be strengthened. **Evidence of success?** Process is evolving and in progress.	

Physical Infrastructure/ Workforce Capacity Innovations

This may include aspects of the following:

- Physical Infrastructure
- Workforce
- Mental Health of Workforce

<table>
<tr><th>Physical infrastructure Innovation</th><th>CAREC Country</th></tr>
<tr><td>

Title: Support of voluntary community workers to fight Covid-19/**WORKFORCE**

Link:
http://www.scio.gov.cn/ztk/dtzt/42313/43142/43148/Document/1681818/1681818.htm

Developer/Partners:

<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td>x</td><td></td></tr>
</table>

Description: Some 4 million community workers were working in around 650,000 urban and rural communities, monitoring the situation, taking body temperatures, screening for infection, disseminating government policies, and sanitizing neighborhoods.

Couriers, sanitation workers, transport employees, media workers, volunteers, and many people from other sectors of society also devoted themselves to the fight against the epidemic.

Country where innovation is used: China

Users: Who is this for? Chinese citizens

Lessons learned? (if in development, when expected to be ready?)

Evidence of success? As of May 31 2020, 8.81 million registered volunteers across the country had participated in more than 460,000 volunteer projects, rendering a total of more than 290 million hours of voluntary service.

</td><td>China</td></tr>
<tr><td>

Title: China sends strongest medical force to battle virus in Wuhan**/WORKFORCE**

Link/Source:
https://www.chinadaily.com.cn/a/202002/13/WS5e45203ca3101282172775fd.html

Developer/Partners:

<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>

</td><td>China</td></tr>
</table>

Description: More than 180 teams comprised of over 20,000 medical workers have been dispatched from across the country to support Wuhan, the epicenter of the epidemic. The military also sent 2,600 more medical workers on Thursday.To treat the large number of critically ill patients in Wuhan, more than 7,000 of the health workers are trained in critical care, which should help reduce the mortality rate

Country where innovation is used: China

Users: Who is this for? Chinese patients

Title: Guidelines for Adult Vaccination Counters (AVCs) in Pakistan**/PHYSICAL INFRASTRUCTURE DEVELOPMENT** **Link/Source:** https://www.nih.org.pk/wp-content/uploads/2021/01/20210128-Guidelines-for-Adult-Vaccination-Counters-in-Pakistan_5701.pdf **Developer/Partners:** NIH, Islamabad **Description:** In Pakistan, COVID-19 vaccination is being carried out through Adult Vaccination Counters (AVCs). As per the national decision, vaccine administration is the responsibility of the respective provincial health departments through AVCs in health facilities (tertiary, secondary level and few primary- RHCs) only. Currently 582 AVCs have been designated for COVID-19 vaccination. Every AVC must have a computer, printer, android phone, internet connectivity and consistent power supply to facilitate uninterrupted vaccination process. **Country where innovation is used:** Pakistan **Users: Who is this for?** Vaccination Center Management **Lessons learned?** Such guidelines should have been in place for the routine vaccination in health centers. **Evidence of success?** The document is used during the preparation of the licensing of the centers and during routine work.	Pakistan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Title: Determining psychological distress among health care workers during COVID pandemic in Mongolia/**MENTAL HEALTH OF WORKFORCE** **Link/Source**: National Mental health center of Mongolia **Developer/Partners:** Centers for Disease Control and Prevention (CDC) **Description**: This is a small-scale descriptive survey conducted by Mongolian National Mental health center to determine the causes, risk factors for psychological distress among health care providers who're working on COVID-19 response. The survey was conducted among 435 health care workers in 4 referral hospitals and in 3 isolation centers. **Users: who is this for, number of users?** The survey findings are relevant for health managers and health administrators, decision makers for creating and maintaining mental health wellbeing of health workforce during crisis situations such as COVID pandemic. **Country where this has been implemented**: Mongolia	Mongolia

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			x

Health Service Provision Innovations

This may include aspects of the following:

- Planning Services
- Managing Essential (non-COVID) Services
- Managing (COVID) Cases
- Community Engagement

<table>
<tr><th>Health Service Provision Innovation</th><th>CAREC Country</th></tr>
<tr><td></td><td></td></tr>
<tr><td>Title: Fangcang Shelter Hospitals/PLANNING SERVICES

Link/Source: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30864-3/fulltext

Developer/Partners: Chinese government
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>
Description: During the fight against COVID-19, temporary treatment centers, or Fangcang Shelter Hospitals, provided beds to admit all confirmed cases. They were built within three weeks to isolate, treat, and triage patients with mild to moderate COVID-19.
Country where innovation is used: China
Users: Who is this for? Chinese citizens</td><td>China</td></tr>
<tr><td>Title: Bigger role for TCM urged in disease control/MANAGING CASES

Link/Source:
https://www.chinadaily.com.cn/a/202005/28/WS5ecf0c1da310a8b241158fdf.html

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td>X</td></tr>
</table>
Description: "In case of public health emergencies, TCM practitioners should also be able to appear on the front line at the earliest time, and TCM hospitals should also be included as designated hospitals so patients can be treated with TCM therapies, so effective experiences can be promoted quickly," said Zhang, also president of Tianjin University of Traditional Chinese Medicine.
"TCM has played a very important role in epidemic control in Wuhan, capital of Hubei province, and the good practices should be summarized so they can contribute to an improved response to public health emergencies in the future."
Country where innovation is used? China
Users: who is this for, number of users? Chinese citizens</td><td>China</td></tr>
<tr><td>Title: Telemedicine expanded to rural areas/MANAGING CASES

Link/Source: Telemedicine expanded to rural areas

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td>x</td></tr>
</table></td><td>China</td></tr>
</table>

Description: The example of the China-Japan Friendship Hospital, which undertakes functions for the National Telemedicine and Connected Health Center. It provided long-distance diagnoses for severe COVID-19 cases in Wuhan, capital of Hubei province, earlier this year and played a key role in patients' treatment and recovery.

The government will extend telemedicine coverage to all poor counties, connect long-distance diagnostic services to villages equipped to handle them and offer individuals and households access to online lessons about basic healthcare and home management of chronic disease.

Country where innovation is used? China

Users: Who is this for, number of users? Chinese population

Title: Pakistan develops NIMS to manage COVID-19 vaccine supply**/PLANNING SERVICES**

Link/Source: https://www.brecorder.com/news/40045867

Developer/Partners: NOCN, NADRA, NITB

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)
		X	

Description: To manage the supply of coronavirus vaccine, Pakistan has developed the National Immunization Management System (NIMS). The system developed by the National Command and Operation Centre (NCOC) would ensure efficient supply chain management and administration of COVID-19 vaccine in the country. The initiative had been taken in collaboration with Ministry of Health, National Database Registration Authority (NADRA) and National Information Technology Board (NITB), it was told in an NCOC meeting on Wednesday.

Country where innovation is used? Pakistan

Users: Who is this for, number of users? Government and its partners.

Lessons learned? The system is working smoothly.

Evidence of success? It is successful as the national vaccination roll-out is proceeding smoothly across the country using this system and is being appreciated by the public.

Pakistan

Title: How telemedicine is helping in the fight against COVID-19 (and why it should be here to stay)/**MANAGING CASES**

Link/Source:
https://www.pk.undp.org/content/pakistan/en/home/blog/2020/how-telemedicine-is-helping-in-the-fight-against-covid-19--and-w.html

Developer/Partners: UNDP, Sehat Kahani (health tech social enterprise with a network of 27 e-clinics across Pakistan)

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)
	x	x	

Description Like in many other countries, patients in Pakistan are scared to visit hospitals to avoid COVID exposure. Elderly, pregnant women, and patients with pre-existing health conditions are at higher risk while also being more in need of medical help at all times. During this time of the ongoing pandemic, telemedicine is playing a pivotal role in acting as an enabler to help many patients in need. The United Nations Development Programme (UNDP) Pakistan has partnered with Sehat Kahani to connect patients to qualified doctors via a telemedicine based mobile and web solution— to accelerate the efforts to support Pakistan's healthcare system. To bring quality medical practice to Pakistan and further make the healthcare services more accessible

Pakistan

for all, physicians and specialists of Pakistani origins were reached out through Yaran-e-watan to continue their practice through telemedicine platform. More than 30 consultants trained in pulmonology and critical care among other specialties joined the application during this critical time. The mobile application was made free for accessing tele-consultations so that the patients could avail health services through their smartphones within the vicinity of their homes.

Country where innovation is used: Pakistan n Globally

Users: General Public

Lessons learned? Widespread use of Tele-medicine during the pandemic has proved that it is a very tool which can be very user friendly both the physicians as well as the patients.

Evidence of success? Widespread use of this mode of medical treatment is the evidence of its success.

Title: National Command and Operations Center/**MANAGING CASES** **Link/Source**: https://ncoc.gov.pk/govt-initiatives.php **Developer/Partners:** government of Pakistan **Description**: The National Command and Operations Center is the nerve center of the national COVID response. The NCOC has introduced several IT based initiatives to help the public gain better access of the COVID related services being offered by the government. The IT initiatives include Apps related to SOPs Violation registry, Smart Lockdowns, Resource management System, Pak Neghayban App, Integrated Disease Information Management System, Educational Institute Management System, ntional Helpline, Telehealth Portal, 1166, Isolation Hospital & Infection treatment center, Community Mobilization, PM relif Fund, WeCare, Tiger Force, Ehsas programme, Yaran-e-watan. **Users: who is this for, number of users?** General Public **Country where this has been implemented**: Pakistan **Effect on health system resilience**: The system absorbed this new technology quite seamlessly. **Lessons learned/Evidence of success:** There is a huge potential for IT technology use in the medical healthcare sector in the country.	Pakistan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Title: Overview of Isolation and Quarantine facilities in Pakistan/**MANAGING CASES** **Link/Source:** https://covid.gov.pk/facilities/List%20of%20Province-wise%20COVID-19%20Quarantine%20Facilities%20Pakistan.pdf **Developer/Partners:** Government of Pakistan **Description:** The government established a nationwide network of Isolation and Quarantine facilities across the country in various large public facilities and private buildings and equipped them accordingly to prepare for any large-scale eventuality. **Country where innovation is used: Pakistan** **Users: Who is this for?** General Public **Number of users?** unknown	Pakistan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Lessons learned? Contingency plans for creation of such facilities should be developed which can be used to prepare such centers at short notice in case of need. **Evidence of success?** Development of these facilities were well publicized in the national media and received appreciation from the public. The sites developed were used to a limited extent especially in the start of the pandemic.	

Leadership and Policy Innovations

This may include aspects of the following:

- Policy Capacity/Task Force Approach
- Systematic Capacity Approach
- Key Measures (Lockdowns etc.)
- Creation of Transition Plans
- Communication Strategy
- Responding to vulnerable groups

Regional Responses	CAREC country

Paying for Services Innovations

This may include aspects of the following:

- Health Financing
- Coverage (incl Social Protection)

Regional Responses	CAREC country

Other Innovations

Innovations that cannot be easily put into any of the categories above.

<table>
<tr><th>Other innovations</th><th>CAREC countries</th></tr>
<tr><td></td><td></td></tr>
<tr><td>Title: Internet firms provide aid for merchants

Link/Source: http://subsites.chinadaily.com.cn/bjzpark/2020-02/18/c_460928.htm

Developer/Partners: internet companies
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td>x</td><td></td></tr>
</table>
Description: Measures include expense reduction, financial and logistics support, data flow information sharing and health protection.
Chinese internet companies (Jingdong, Alibaba, Meituan…) are reducing or scrapping commission fees, extending payment deadlines and providing loans with low interest rates for merchants on their platforms to help the latter alleviate pressure caused by the difficult situation resulting from the novel coronavirus outbreak.
Users: who is this for, number of users? Chinese citizens</td><td>China</td></tr>
</table>

Country where this has been implemented: China	

Regional Responses

Preventing Transmission Responses

This may include aspects of the following:

- Testing & Laboratory Capacity e.g. if countries sent samples across borders
- Surveillance Responses e.g., sharing information
- Health Communication e.g., shared key messages between countries, or in cross-border areas
- Isolation & Quarantine e.g., joint agreements, clear & accessible guidelines for travelers
- Research Collaboration e.g., for studying effect of testing or quarantine or vaccines
- Vaccine Related Activities e.g.. cross-border collaboration/joint statements/ joint regional policies, research, joint procurement/manufacturing initiatives

<table>
<tr><th>Regional Responses</th><th>CAREC Country</th></tr>
<tr><td></td><td></td></tr>
<tr><td>Title: Eurasia Lab & Fellowship Program/TESTING

Link/Source: http://iep-berlin.de/en/research/enlargement-neighbourhood-and-central-asia/eurasia-lab-fellowship-program/
Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>
Description: The Eurasia Lab & Fellowship Program creates one major network of researchers, practitioners and activists working on Eurasia. The program should increase its outreach to relevant stakeholders and therefore serve as a major contact point for all actors working on Eurasia. Among other, the program organizes a workshop to discuss the implication of the Covid-19 pandemic for researchers working in and on Eurasia.
Users: who is this for? researchers, practitioners and activists working on Eurasia</td><td>Eurasia region</td></tr>
<tr><td>Title: Central Asia Field Epidemiology and Laboratory Training Program (FELTP)/TESTING

Link/Source: https://www.usaid.gov/node/50656
Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>
Description: Formed in 1997, Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) is the global network of 75 Field Epidemiology Training Programs strengthening public health systems across more than 100 countries. Some CAREC countries (Azerbaijan, Georgia, Ukraine, and in Afghanistan, Kazakhstan, Kyrgyzstan, Pakistan, and Uzbekistan) have implemented the Central Asia Field Epidemiology and Laboratory Training Program (FELTP), which is supported by the Training Programs in Epidemiology and Public</td><td>Azerbaijan
Georgia
Afghanistan
Kazakhstan
Kyrgyzstan
Pakistan
Uzbekistan</td></tr>
</table>

Health Interventions Network (TEPHINET). FELTP is a two-year training and service project designed for health professionals in entry and mid-level positions to build skills in applied epidemiology, surveillance, and enhanced public-health practice.

Users: who is this for? Eurasian health workforce

Title: SCO: Overview of Advanced Measures Taken by SCO Member States to Counter the Spread of COVID-19

Link/Source: http://eng.sectsco.org/documents/

Developer/Partners: SCO member states

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Description: Presented are the measures taken by the SCO member states to counter the spread of COVID-19 to accumulate the most effective practices and positive experience. Information on the SCO member states is presented in accordance with the following sections: ensuring coordination and planning of actions at the country level; informing the public about the risks; providing surveillance, organizing rapid response teams (RRT) and investigating cases of COVID-19 infection; control at points of entry into the country; organization of the work of national laboratories; prevention of infection of medical workers and uninfected citizens; organization of medical care for patients with COVID-19; logistic support for operational measures.

Users: who is this for? Health experts, politicians

Country where this has been implemented: Republic of Kazakhstan, the People's Republic of China, the Kyrgyz Republic, the Russian Federation, the Republic of Tajikistan, the Republic of Uzbekistan

Kazakhstan
China
Kyrgyzstan
Tajikistan
Uzbekistan

Title: NIH obtains formal approval from regulatory body for Phase III clinical trial of Covid-19 vaccine/**VACCINE RELATED ACTIVITIES, RESEARCH COLLABORATION**

Link/Source: https://www.dawn.com/news/1574929

Developer/Partners: NIH Pakistan, CanSinoBio (China-based vaccine developer), Beijing Institute of Biotechnology

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X		X	X

Description: A Phase III COVID Vaccine Global Clinical Trial was launched from Pakistan in August 2020. The first ever such clinical trial in Pakistan has opened the doors of international clinical trials in the country. This scientific collaboration with China will go a long way building the capacity of the local experts and institutions in this hitherto untapped potential of scientific research and foreign exchange earning sector.

Users: who is this for, number of users? Pakistani experts

Country where this has been implemented: Pakistan

Effect on health system resilience: The system has benefitted due to emphasis on quality, documentation, M&E etc involved in the Clinical Trial process.

China, Pakistan

Lessons learned, evidence of success: The national health sector has immense potential to conduct clinical trials to generate national evidence, improve the medical system and generate foreign investments without a single penny investment from the government.	

Physical Infrastructure/ Workforce (Human Resources) Capacity

This may include aspects of the following:

- Physical Infrastructure (Buildings & Equipment) e.g., sharing/donating equipment, access to certain health facilities for patients across borders
- Workforce capacity e.g., sharing of health staff esp. in Intensive Care Units
- Capacity Building e.g., training provided from one country to another
- Telemedicine e.g. using telemedicine and virtual care for remote treatments (video telemedicine visits)
- Strengthening mental Health of Workforce

<table>
<tr><th>Regional Responses</th><th>CAREC country</th></tr>
<tr><td></td><td></td></tr>
<tr><td>Title: Chinese medical experts arrive in Tajikistan to assist anti-epidemic efforts/CAPACITY BUILDING

Link/Source: http://www.xinhuanet.com/english/2020-05/24/c_139084348.htm

Developer/Partners: Chinese Embassy in Tajikistan/Handout via Xinhua
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td></td></tr>
</table>
Description: Chinese work team members pose for group photos with Chinese Ambassador to Tajikistan Liu Bin (8th R) and Tajik First Deputy Minister of Health and Social Protection Umarzoda Saida (7th R) at Dushanbe International Airport, Tajikistan, May 24, 2020. A group of Chinese medical experts arrived in the capital of Tajikistan early Sunday to help the country fight its COVID-19 epidemic. Invited by the Tajik government, the team from China's northwestern Shaanxi Province comprises 14 experts and doctors specializing in respiratory diseases, intensive care, nursing, traditional Chinese medicine, and infectious diseases prevention and control.
Users: who is this for, number of users? NA
Country where this has been implemented: Tajikistan</td><td>China
Tajikistan</td></tr>
<tr><td>Title: Chinese experts join Azerbaijan virus battle/WORKFORCE CAPACITY

Link/Source
https://www.chinadaily.com.cn/a/202008/06/WS5f2b76e9a31083481725e9ce.html

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>
Description: A group of Chinese medical experts supported medical doctors in Azerbaijan in fighting against the coronavirus. The Chinese experts used the</td><td>China
Azerbaijan</td></tr>
</table>

opportunity to learn more about the pandemic conditions in Azerbaijan, shared COVID-19 treatment experience with their counterparts in the country, and promoted bilateral cooperation in medical and healthcare matters.

Users: who is this for, number of users? Patients in Azerbaijan

Country where this has been implemented: Azerbaijan

Title: China, Azerbaijan jointly fight the outbreak**/PHYSICAL INFRASTRUCTURE** **Link/Source**: https://global.chinadaily.com.cn/a/202004/17/WS5e98e61fa3105d50a3d16c94.html **Developer/Partners:** **Description**: Local authorities and public organizations in Azerbaijan, including the Sumgait Executive Authority, Nizami Ganjavi International Center and the Heydar Aliyev Foundation have supplied face masks, gloves and other necessary medical equipment to China. Also, as an expression of friendship, China provided Azerbaijan with 5,000 test kits. **Users: who is this for, number of users?** Citizens of Azerbaijan, citizens of China **Country where this has been implemented**: China and Azerbaijan	China Azerbaijan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			X

Title: China and Pakistan joined hands to fight coronavirus/**PHYSICAL INFRASTRUCTURE** **Link/Source**: https://www.chinadaily.com.cn/a/202005/18/WS5ec220d0a310a8b2411567de.html **Developer/Partners:** **Description**: The Chinese medical teams provided logistical support to Pakistan since the global pandemic started in late February or early March 2020. The Senate of Pakistan passed a resolution unanimously on February 10 to express solidarity with China over the fight against the COVID-19 outbreak. Taking note of China's strong support and timely assistance to Pakistan during the current COVID-19 crisis, the Senate, Pakistan's upper house of parliament, expressed its deep appreciation to the Chinese government and the Chinese people for their unflinching role as all-weather friends of Pakistan. The cooperation between both countries has continued in every field. **Users: who is this for, number of users?** Citizens of Pakistan **Country where this has been implemented**: Pakistan	China Pakistan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			

Title: China and Pakistan joined hands to fight coronavirus/**PHYSICAL INFRASTRUCTURE** **Link/Source**: https://www.chinadaily.com.cn/a/202005/18/WS5ec220d0a310a8b2411567de.html **Developer/Partners:**	

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			

Description: The Chinese medical teams provided logistical support to Pakistan since the global pandemic started in late February or early March 2020. The Senate of Pakistan passed a resolution unanimously on February 10 to express solidarity with China over the fight against the COVID-19 outbreak. Taking note of China's strong support and timely assistance to Pakistan during the current COVID-19 crisis, the Senate, Pakistan's upper house of parliament, expressed its deep appreciation to the Chinese government and the Chinese people for their unflinching role as all-weather friends of Pakistan. The cooperation between both countries has continued in every field.

Users: who is this for, number of users? Citizens of Pakistan

Country where this has been implemented: Pakistan

Title: Builders of Silk Road of health/**PHYSICAL INFRASTRUCTURE**

China
Kazakhstan

Link/Source
https://www.chinadaily.com.cn/a/202010/14/WS5f863c0ea31024ad0ba7e79f.html

Developer/Partners:

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			

Description: When the pandemic broke out in China in January, the Kazakh government and social forces provided China with anti-pandemic supplies such as masks and medicines through various channels. After the virus hit Kazakhstan in March, China donated a large quantity of medicines, masks, ventilators and other medical materials. Within its capacity, China will continue to assist Kazakhstan in the anti-virus fight, including assisting it with the procurement of medical materials, expert training, experience sharing and medicine development. China will also accelerate the establishment of an information notification mechanism for major pandemic diseases.

Users: who is this for, number of users? Citizens from China and Kazakhstan

Country where this has been implemented: China and Kazakhstan

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Title: Video Diagnosis Conference of TCM experts with SCO countries' experts/**CAPACITY BUILDING**

China
Kazakhstan
Kyrgyzstan
Pakistan
Tajikistan
Uzbekistan

Link/Source: http://www.gov.cn/xinwen/2020-05/10/content_5510327.htm#1; http://eng.sectsco.org/about_sco/

Developer/Partners:

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			

Description: tele-diagnosis during video conference with Shanghai Cooperation Organization (SCO) member countries to cope with COVID-19

Country where innovation is used: SCO countries

Users: Who is this for? Citizens of SCO countries

Title: Pakistan to begin local vaccine production from May/**CAPACITY BUILDING**

China
Pakistan

Link/Source: https://www.thenews.com.pk/latest/827439-pakistan-to-begin-local-vaccine-production-from-may

Developer/Partners: NIH Pakistan, CanSinoBIO

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X		x	

Description: The National Institute of Health has initiated 'Shared Manufacturing' of CanSinoBIO COVID vaccine in its Sera Laboratory with the technical assistance of the CanSinoBIO experts through Public Private Partnership. The Chinese experts are building the capacity of the NIH experts to not only produce the COVID vaccine in the NIH facility but also other essential vaccines. Earlier the NIH facilities were under-utilized and used for only vaccine filling and labeling and that too for a limited extent only.

Users: who is this for, number of users?

Country where this has been implemented: Pakistan

Effect on health system resilience: Reliance to be reduced on vaccine access through expensive imports and international grants.

Lessons learned/Evidence of success: National vaccine security can best be ensured through developing the local vaccine manufacturing sector.

Title: Immigration Bureau: cooperate with boarder countries to control and prevent COVID-19 **/ISOLATION AND QUARANTINE**

Link/Source https://www.sohu.com/a/391708941_120229638

Developer/Partners:

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
x			

Description: China Immigration Bureau introduced the cooperation across the border in fighting COVID-19: 1) Set up information exchange system: 200 meetings to exchange information across the boards by online audio or video communication, on cases, customs and anti-coronavirus measures etc. 2) jointly checked and exames for passengers and vehicles with the same control measures;3) Reinforce patrol; 4) Regular exchange on lessons learnt and experience acquired to improve the preventative knowledge and monitoring procedures to curb the spread across the boarders

Users: who is this for, number of users? Border countries of China

Country where this has been implemented: Borders countries of China

Afghanistan
Kazakhstan
Kyrgyzstan
Mongolia
Pakistan
Tajikistan

Health Services Provision Responses

This may include aspects of the following:

- Planning & Managing Services e.g., shared experience or training of managers
- Health facility management of COVID patient-care services e.g., any support from 1 country to another
- Health facility management of (non-COVID) essential patient-care services e.g., any support from 1 country to another.

Regional Responses	CAREC country
Title: Uzbekistan sent another batch of humanitarian aid to Tajikistan (Ru version**)/HEALTH FACILITY MANAGEMENT** **Link/Source:** **https://cis.minsk.by/news/14769/uzbekistan_napravil_v_tadzhikistan_ocherednuju_partiju_gumpomoschi**	Uzbekistan Tajikistan

Developer/Partners: The government of the Republic of Uzbekistan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Description: A freight train with another consignment of humanitarian aid arrived in the neighboring republic. The train departed from the Surkhandarya region to Dushanbe, delivering a large consignment of medical products, protective equipment and food products, including a thousand tons of flour.

Also, in early May, Uzbek doctors were sent to the Sughd region of Tajikistan to help colleagues overcome the spread of coronavirus in the country. The team was headed by the Honored Doctor of Uzbekistan Nematjon Ibragimov. The medical staff also included an epidemiologist, virologist and two anesthesiologists. They held a series of scientific conferences, shared their experience of overcoming the epidemiological crisis in Uzbekistan, talked about measures to prevent the spread of COVID-19. Uzbekistan also helped Tajikistan build a mobile hospital in Dushanbe.

Users: who is this for, number of users? General public

Country where this has been implemented: Tajikistan

Title: Uzbekistan built a medical complex in the south of Tajikistan**/HEALTH FACILITY MANAGEMENT**

Uzbekistan
Tajikistan

Link/Source:
https://cis.minsk.by/news/18137/uzbekistan_postroil_na_juge_tadzhikistana_medicinskij_kompleks#

Developer/Partners:

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Description: Construction of a modern medical complex in Kubodiyon in the south of Tajikistan, with an additional receiving-distributor for patients with COVID-19, it is ready to receive patients. The equipment, as well as the construction of the complex, was carried out by Uzbekistan through financing from Uzbekneftegaz, a source in the Tajik government told Asia-Plus.

The construction of the center is one of the projects of the Uzbek authorities approved during the visit of the President of the Republic of Uzbekistan Shavkat Mirziyoyev to Dushanbe in March 2018. In addition, within the framework of the agreements, with the financing of Uzbekistan in the Spitamen district of Sogd in September 2020, a new school for 630 students was commissioned. In response, the Tajik authorities announced that they would build a school for 640 students in Samarkand and a kindergarten in the Fergana region. The corresponding order was signed by the President of Tajikistan Emomali Rahmon in March 2018.

Users: who is this for? General public

Country where this has been implemented: Uzbekistan and Tajikistan.

Title: TAJIK MIGRANTS RETURN HOME/**PATIENT CARE SERVICES**

Uzbekistan, Kazakhstan
Tajikistan

Link/Source: https://www.usaid.gov/tajikistan/program-updates/aug-2020-tajik-migrants-return-home

Developer/Partners:

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X	X		

Description: In June 2020, USAID in partnership with the International Organization for Migration, assisted more than 600 Tajik migrants stranded at the Kazakh-Uzbek border to safely return

home. The returning labor migrants, including women, children, and students made the 180-km journey by bus from the Zhibek Zholi border point in Kazakhstan, through Uzbekistan to Tajikistan. This movement of migrants was closely coordinated with the governments of Kazakhstan, Uzbekistan, and Tajikistan. **Users: who is this for?** Migrants from Tajikistan **Country where this has been implemented**: Tajikistan	
Title: Coronavirus in Pakistan: China builds makeshift hospital to treat patients/**HEALTH FACITLIY MANAGEMENT** **Link/Source** https://www.businesstoday.in/current/economy-politics/coronavirus-in-pakistan-china-builds-makeshift-hospital-to-treat-patients/story/399730.html **Developer/Partners:** Chinese government, government of Pakistan **Govt**: x; **Develop Partner**: ; **Private Sector**: ; **Academia** (Uni/Research): **Description**: China provided support to Pakistan to manage the COVID pandemic by providing PPE, laboratory equipment etc, and support in building health care facilities. **Users: who is this for, number of users?** General Public **Country where this has been implemented**: Pakistan **Effect on health system resilience**: Strengthened the government efforts to streamline its defenses against the COVID pandemic. **Lessons learned/Evidence of success:** Local capacity and resources for disaster management needs to be developed and strengthened.	China Pakistan

Leadership and Policy Responses

This may include aspects of the following:

- Policy Responses between countries e.g., joint statements and declarations, joint strategies,
- Key Measures e.g., coordination of lockdowns, travel restrictions/bridges
- Communication Strategy e.g., shared between countries
- Specific policy for responding to vulnerable groups e.g., policy for elderly, women, children, and persons with disabilities & communities residing in border areas.

Regional Responses	CAREC country	
Title: United Nations Special Programme for Economies of Central Asia (SPECA)/**POLICY CAPACITY** **Link/Source**: https://www.unescap.org/events/2020speca-ef **Developer/Partners:** Centers for Disease Control and Prevention (CDC) **Govt**: X; **Develop Partner**: ; **Private Sector**: ; **Academia** (Uni/Research): **Description**: Development of ideas for coordinated actions by Governments, the United Nations system, and other relevant stakeholders *to respond to the socioeconomic impacts of COVID-19*. **Users: who is this for, number of users?** **Country where this has been implemented**: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, under the chairmanship of Kyrgyzstan; representatives of United Nations agencies and programmes, relevant international and regional organizations, international financial institutions, and donors.	Afghanistan Azerbaijan Kazakhstan Kyrgyzstan Tajikistan, Turkmenistan, Uzbekistan	

Title: WHO Hub in Kyrgyzstan and Georgia to boost Covid-19 response in the region**/POLICY CAPACITY**

Link/Source: https://www.euro.who.int/en/health-topics/Health-systems/pages/news/news/2020/12/who-hubs-pool-resources-in-the-european-region-to-boost-covid-19-response

Developer/Partners: Centers for Disease Control and Prevention (CDC)

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)
x			

Description: The hubs' knowledge ensures that WHO guidelines and tools are optimized according to each country's socioeconomic reality and needs. On-the-ground scientific assessments assist countries in developing their health systems and improving emergency preparedness, as well as promoting intensive and fit-for-purpose activities in every aspect of public health.

Users: who is this for, number of users? Healthcare professionals in the region

Country where this has been implemented: WHO/Europe in Kyrgyzstan, Georgia, and Serbia

Effect on health system resilience: strong

Lesson learned/evidence of success: In the Central Asia Hub, Kyrgyzstan successfully presented its evidence-based preparedness and response plan to international partners via the hub platform, following an assessment by experts in emergencies. This ability to mobilize resources helped other countries gain support from regional partners, allowing them to improve surge capacity and provide equipment and training for their health workforce.

Kyrgyzstan
Georgia

Title: OECD Eurasia Week**/POLICY CAPACITY**

Link/Source: https://www.oecd.org/eurasia-week/

Developer/Partners: Centers for Disease Control and Prevention (CDC)

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)

Description: During the meeting, several high-level policy dialogue discussions to share best practices and experiences in addressing common challenges in the region take place (policy change and competitiveness, economic diversification, and sustainable development).

Users: who is this for? Politicians and relevant experts form Eurasia

Country where this has been implemented: 13 countries - Mongolia, Republic of Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, Afghanistan, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan

Mongolia
Tajikistan, Turkmenistan, Uzbekistan, Afghanistan
Armenia
Azerbaijan
Georgia
Kazakhstan
Kyrgyzstan

Title: The Central Asian Leadership Program of education for sustainable development (CALPESD)**/LEADERSHIP AND POLICY RESPONSES**

Link/Source The Central Asian Leadership Program of Education for Sustainable Development (CALPESD) (carececo.org)

Developer/Partners: Centers for Disease Control and Prevention (CDC)

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)
	X		

Kazakhstan
Kyrgyzstan
Tajikistan, Turkmenistan
Uzbekistan
Afghanistan

Description: Develop leadership cadre in the region

Users: who is this for, number of users? Politicians

Country where this has been implemented: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan

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Title: CIS draft Statement of the heads of state on cooperation in the field of biological safety/**POLICY RESPONSES**

Link/Source: https://cis.minsk.by/news/18718/v_sng_razrabatyvaetsja_proekt_zajavlenija_glav_gosudarstv_o_sotrudnichestve_v_oblasti_obespechenija_biologicheskoj_bezopasnosti

Developer/Partners: Rospotrebnadzor, Russia Federation

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Description: The Coordinating Council on the Problems of Sanitary Protection of the Territories of the CIS Member States provides organization and maintenance of the functioning of the system of interstate information exchange about emergencies in the field of public health of a sanitary and epidemiological nature; assistance in the implementation in the CIS space of the International Health Regulations (2005). In the period 2000–2020 constant active work was carried out to ensure the regulatory and methodological base in the field of sanitary protection of the territories of the CIS member states, epidemiological surveillance of especially dangerous infectious diseases, and ensuring biological safety. In recent years, the Coordinating Council has been actively increasing its efforts to further develop international cooperation, strengthen scientific and practical interaction, pool the efforts of the CIS countries in the implementation of the International Health Regulations (2005), ensure the sanitary and epidemiological well-being of the population and biological safety.

In 2020, six extraordinary meetings of the Coordination Council were held in the format of a videoconference to exchange practical experience and up-to-date information on measures to combat the new coronavirus infection. The meetings were held on March 19, April 21, June 1, August 5, September 25, December 21, 2020. They were attended by members of the Coordination Council and representatives of relevant departments and organizations from the Republic of Azerbaijan, the Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Moldova, the Russian Federation, the Republic of Tajikistan, and the Republic of Uzbekistan.

Users: who is this for, number of users? CIS members: Republic of Azerbaijan, the Republic of Armenia, the Republic of Belarus, the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Moldova, the Russian Federation, the Republic of Tajikistan and the Republic of Uzbekistan.

Country where this has been implemented: CIS members

Azerbaijan
Armenia
Kazakhstan
Kyrgyz Republic
Tajikistan
Uzbekistan

Title: Comprehensive plan of measures in the field of health care and sanitary and epidemiological well-being of the population to prevent the spread of coronavirus infection COVID-19 and other infectious diseases in the territories of the member states of the Eurasian Economic Union/**POLICY RESPONSES**

Link/Source: https://docs.eaeunion.org/docs/ru-ru/01426846/err_20072020_16

Developer/Partners: Centers for Disease Control and Prevention (CDC)

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Description: On July 20, 2020, the Order of the Eurasian Intergovernmental Council of July 17, 2020 No. 16 "On a comprehensive plan of measures in the field of health care and sanitary and epidemiological well-being of the population to prevent the spread of coronavirus infection COVID-19 and other infectious diseases in the territories of the member states of the Eurasian

Armenia
Kazakhstan
Kyrgyzstan

Economic Union " was published. This plan includes the exchange of information on the epidemiological situation, conducting joint exercises to develop responses to outbreaks of infectious diseases, conducting joint research to develop vaccines and diagnostic test systems. **Users: who is this for, number of users?** Eurasian Economic Union **Country where this has been implemented:** Republic of Armenia, Republic of Belarus, Republic of Kazakhstan, Republic of Kyrgyzstan, Russian Federation		

Paying for Services Responses

This may include aspects of the following:

- Health Financing eg support from one country to another, UHC approaches
- Coverage (incl Social Protection) eg for those crossing borders.

<table>
<tr><th>Regional Responses</th><th>CAREC country</th></tr>
<tr><td></td><td></td></tr>
<tr><td>Title: ADB Brings Another 10.4 tons of COVID-19 PPE to Tajikistan/HEALTH FINANCING

Link/Source: http://adbmch.tj/en/2020/10/30/adb-brings-another-10-4-tons-of-covid-19-ppe-to-tajikistan/

Developer/Partners: Tajikistan Maternal and Child Health Integrated Care Project/ADB
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td>X</td><td></td><td></td></tr>
</table>
Description: The Asian Development Bank (ADB) has delivered another 10.4 tons of personal protective equipment for health care workers in Tajikistan to support the country’s efforts in combatting the coronavirus disease (COVID-19). The medical supplies comprise aprons, face shields, goggles, face masks, headcaps, respirators, and surgical and examination gloves. In September, ADB delivered 12 tons of protective coveralls, isolation gowns, and shoe covers to the country. The goods have been procured under the $ 928,000 grant approved by ADB for Tajikistan in July. The grant is drawn from the ADB's ongoing regional technical assistance and complements ADB's previous COVID-19 assistance to Tajikistan including a $ 50 million budget support grant under the COVID-19 Active Response and Expenditure Support Program to help fund the government's comprehensive response plan and countercyclical measures; a $ 2.5 million grant from the Asia Pacific Disaster Response Fund to further support the government's emergency response; and a $ 100,000 grant reallocated from the Tajikistan Maternal and Child Health Integrated Care Project to procure medical supplies.

Users: who is this for, number of users? Tajikistan</td><td>Tajikistan</td></tr>
<tr><td>Title: ADB's $30 Million Grant to Support Labor Migrants, Youth, and Women in Tajikistan/HEALTH FINANING

Link/Source: https://www.adb.org/news/adbs-30-million-grant-support-labor-migrants-youth-and-women-tajikistan

Developer/Partners: ADB</td><td>Tajikistan</td></tr>
</table>

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X	X		

Description: The Asian Development Bank (ADB) has approved a $30 million grant to Tajikistan to strengthen the skills of the country's youth, women, and labor migrants to improve their employability and wages, and enhance the capacity of employment and migration agencies. The grant is accompanied by an additional $1.5 million grant from the Japan Fund for Information and Communication Technology, to be administered by ADB. Three new migration service centers will be built and equipped in Khujand, Bokhtar, and Vose as one-stop centers for departing and returning migrants. The centers will offer migration orientation programs, language training, and entry-level pre-employment skills training to help migrants find better jobs and enable safer living conditions in the destination countries. The centers will also provide financial literacy training for safe remittance transmission and information and communications technology (ICT) training for easier access to social welfare information. The project will establish and equip three new model "job centers" in Dushanbe for tourism, in Rogun for energy, and in Dangara for agriculture. The job centers will provide enhanced skills training, childcare centers, and a pilot stipend program for female job seekers—a pilot program for new and more focused soft skills training, job counseling services to match interests and skills to potential jobs, and ICT skills training for respective sectors.

Users: who is this for, number of users? Tajikistan

Country where this has been implemented: Tajikistan

Title: World Bank-Supported Project Finances Cash Transfers to Protect Vulnerable Children in Tajikistan

Link/Source: https://www.worldbank.org/en/news/press-release/2020/06/19/world-bank-supported-project-finances-cash-transfers-to-protect-vulnerable-children-in-tajikistan

Developer/Partners: World Bank

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X	X		

Description: Up to 50,000 low-income families with young children in Tajikistan will receive a one-time payment of 500 Tajik somoni as emergency social assistance. These payments are provided as part of the World Bank-financed Tajikistan Emergency COVID-19 Project (TEC-19), which is supporting Tajikistan's efforts in responding to the health and social risks associated with the global COVID-19 pandemic.

Users: who is this for, number of users? General public (families)

Tajikistan

Title: Kazakhstan provides humanitarian aid to Kyrgyzstan, Tajikistan

Kyrgyzstan

Tajikistan

Link/Source: https://www.euractiv.com/section/central-asia/news/kazakhstan-provides-humanitarian-aid-to-kyrgyzstan-tajikistan/

Developer/Partners: Kazakhstan

Govt	Develop Partner	Private Sector	Academia (Uni/Research)
X			

Description: In the context of the Covid-19 crisis, Kazakhstan has offered humanitarian aid to its Central Asian neighbors Kyrgyzstan and Tajikistan, answering a request by Bishkek and Dushanbe.

Users: who is this for? Patients in Kazakhstan and Tajikistan

Other Responses

Responses that cannot be easily put into any of the categories above.

Regional Responses	CAREC country
Title: Hack Covid-19: Global Virtual Hackathon **Link/Source**: **Developer/Partners:** Centers for Disease Control and Prevention (CDC) **Govt** / **Develop Partner** / **Private Sector** / **Academia** (Uni/Research):	Azerbaijan
Title: Covid-19 Digital Projects in Almaty City **Link/Source**: https://www.astanacivilservicehub.org/uploads/covid/files/COVIDHACKS%20ALMATY%20(eng%20Version).pdf **Further information**: https://www.euro.who.int/en/about-us/organization/office-locations/who-european-centre-for-primary-health-care,-almaty,-kazakhstan **Developer/Partners:** Centers for Disease Control and Prevention (CDC) **Govt** / **Develop Partner** / **Private Sector** / **Academia** (Uni/Research): X **Partners**: Department of Digitalization of Almaty, Kazakhstan **Description**: Department of Digitalization of Almaty City, Kazakhstan, provides an overview on all digital, Covid-19 related projects which have been implemented to combat Covid-19. **Users: who is this for, number of users?**	Kazakhstan

[1]

Country where this has been implemented: Kazakhstan	

IV. INNOVATIONS PER COUNTRY

<table>
<tr><th>Country</th><th>Innovation</th></tr>
<tr><td>Afghanistan</td><td>NONE</td></tr>
<tr><td>Armenia</td><td>
Title: Kolba Lab. COVID-19 Scenario Planning Exercise: Strengthening security, stability and resilience of the bordering communities in Vayots Dzor, Gegharkunik and Syunik regions/CAPACITY BUILDING

Link/Source: http://kolba.am/projects/covid-19-response/

Developer/Partners: UNDP-UNICEF
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: Futuring research and collaborative scenario building are the cornerstones of our approach. Kolba Lab has shifted its gaze forward in order to ask critical questions about governance innovation and social change in an evolving world. Bringing together government players with thoughtful individuals, we spark creativity, generate new ideas, and explore what kinds of intelligence a positive and more equitable future will need.
Specific Covid-19 initiative: To advance stability and safety in the bordering communities of Gegharkunik, Vayots Dzor and Syunik regions, directly affected by Nagorno Karabakh conflict. The project will implement activities to deliver transformation at institutional (local governments, CSOs, businesses) and human development levels (skills, services, behavior, perceptions).
A scenario planning exercise will outline multiple development scenarios for two pre-identified consolidated communities – Sisian and Areni. The scenarios will include the identification of major growing and declining trends in security, socio-economic, cultural, and demographic dimensions of the communities. Each scenario will be validated through a participatory town-hall and will generate a set of practical strategies that can fast-start with a panic button when needed.
Country where innovation is used: Armenia
Users: Who is this for? Number of users? Communities – Sisian and Areni
Lessons learned? (if in development, when expected to be ready?) End 2020
</td></tr>
<tr><td>Armenia</td><td>
Title: First virtual country mission by RKI and WHO Euro in the Republic of Armenia for COVID-19 response/

Link/Source:
https://www.rki.de/EN/Content/Institute/International/COVID_ZIG_en/COVID_Armenia_Mission_html_en.html

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td>X</td><td></td><td></td></tr>
</table>
Description: In response to the request from the Armenian Ministry of Health (MoH) and the Presidential Office of the Republic of Armenia, RKI and WHO Euro put together an expert delegation to consult Armenian colleagues about the response measures to the COVID-19 outbreak.
The joint mission's overall goal was to rapidly provide Armenia's national government with feedback on their COVID-19 response efforts and offer recommendations regarding the implementation of additional measures.
Country where innovation is used: Armenia
Users: Who is this for? Number of users? Over 400 participants attended a total of nine online sessions between 29.04 and 07.05.2020. Eleven colleagues from the Centre for International Health Protection and Department for Epidemiology of Infectious Diseases of the RKI supported the joint mission.
Lessons learned? (if in development, when expected to be ready?) During a facilitated internal discussion between the RKI and WHO Euro, most participants agreed that the virtual mission has considerable
</td></tr>
</table>

<table>
<tr><td></td><td>limitations compared to a conventional country mission. Team members pointed out that site visits cannot be reconstructed during a virtual country visit. There is also an indisputable value to the direct face-to-face exchange between participants over longer periods, some of which is lost in the format of an online session.
Evidence of success? Virtual missions have great potential when actual travel is severely restricted for all or some participants. They offer a low-cost opportunity to bring people together and engage experts in a targeted manner. Rather than having to allocate several days to a trip, the participants can selectively attend the relevant online sessions dedicated to their area of work.</td></tr>
<tr><td>Azerbaijan</td><td>Title: Information of the Operational Headquarters under the Cabinet of Ministers of the Republic of Azerbaijan/MONITORING AND SURVEILLANCE

Link/Source: https://nk.gov.az/az/article/1514/

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>

Description: Daily statistical information on the number of new COVID 19 cases, recovered and deaths. Also, since the vaccination of the population began in the country, daily updates on the number of vaccinated people in general number of vaccinated and daily numbers
Country where innovation is used: Azerbaijan
Users: Who is this for? Number of users? unknown</td></tr>
<tr><td></td><td></td></tr>
<tr><td>China</td><td>Title: Tracing confirmed case/ MONITORING AND SURVEILLANCE

Link/Source: http://bmfw.www.gov.cn/ggjtmqjczcx/index.html

Developer/Partners: Tencent Inc.
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>

Description: It serves for tracing train, flight, car and liners number in and out boarders in 14 days with confirmed and suspected cases (just input name and ID number)

Country where innovation is used: PRC
Users: Who is this for? Number of users?</td></tr>
<tr><td>China</td><td>Title: Digital Travel Record: Wechat mini program to see trips during past 14 days/MONITORING AND SURVEILLANCE

Link/Source: https://xc.caict.ac.cn

Developer/Partners: CAICT
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>

Description: to Confirm in last 14 days the citizens stay in safety cities in Green, other cities not in Green.
Country where innovation is used: PRC
Users: Who is this for? Number of users: patients enrolled in studies
Lessons learned? (if in development, when expected to be ready?)
Evidence of success?</td></tr>
<tr><td>China</td><td>Title: The Knowledge Centre for China’s Experiences in Response to COVID-19

Link/Source: https://covid19.alliancebrh.com</td></tr>
</table>

<table>
<tr><td></td><td>Developer/Partners: Chinese government
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>

Description: The State Council Information Offices briefs media and answer questions on the science-based treatment.

Country where innovation is used: China

Users: Who is this for? Media officials, scientists, health professionals</td></tr>
<tr><td>China</td><td>Title: Use of delivery drones for medical and biological materials, Wuhan/China/ISOLATION AND QUARANTINE

Link/Source: https://sina.cn/Index/nav?vt=4
Developer/Partners: JD Logistics; Wuhan Renhe Station; Wuhan Ninth Hospital
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>
Description: China has been using unmanned delivery drones to deliver medical and biological materials to hospitals around Wuhan to reduce the person-to-person contact times and freeing up other logistical resources.
Country where innovation is used: China
Users: Who is this for? Number of users?</td></tr>
<tr><td>China</td><td>Title: Support of voluntary community workers to fight Covid-19/WORKFORCE

Link: http://www.scio.gov.cn/ztk/dtzt/42313/43142/43148/Document/1681818/1681818.htm

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td>x</td><td></td></tr>
</table>

Description: Some 4 million community workers were working in around 650,000 urban and rural communities, monitoring the situation, taking body temperatures, screening for infection, disseminating government policies, and sanitizing neighborhoods.
Couriers, sanitation workers, transport employees, media workers, volunteers, and many people from other sectors of society also devoted themselves to the fight against the epidemic.
Country where innovation is used: China
Users: Who is this for? Chinese citizens
Evidence of success? As of May 31 2020, 8.81 million registered volunteers across the country had participated in more than 460,000 volunteer projects, rendering a total of more than 290 million hours of voluntary service.</td></tr>
<tr><td>China</td><td>Title: China sends strongest medical force to battle virus in Wuhan/WORKFORCE

Link/Source: https://www.chinadaily.com.cn/a/202002/13/WS5e45203ca3101282172775fd.html

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>
Description: More than 180 teams comprised of over 20,000 medical workers have been dispatched from across the country to support Wuhan, the epicenter of the epidemic. The military also sent 2,600 more medical workers on Thursday.To treat the large number of critically ill patients in Wuhan, more than 7,000 of the health workers are trained in critical care, which should help reduce the mortality rate

Country where innovation is used: China
Users: Who is this for? Chinese patients</td></tr>
</table>

<table>
<tr><td>China</td><td>
Title: Fangcang Shelter Hospitals/PLANNING SERVICES

Link/Source: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30864-3/fulltext

Developer/Partners: Chinese government
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>
Description: During the fight against COVID-19, temporary treatment centers, or Fangcang Shelter Hospitals, provided beds to admit all confirmed cases. They were built within three weeks to isolate, treat, and triage patients with mild to moderate COVID-19.
Country where innovation is used: China
Users: Who is this for? Chinese citizens
</td></tr>
<tr><td>China</td><td>
Title: Bigger role for TCM urged in disease control/MANAGING CASES

Link/Source: https://www.chinadaily.com.cn/a/202005/28/WS5ecf0c1da310a8b241158fdf.html

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td>X</td></tr>
</table>
Description: "In case of public health emergencies, TCM practitioners should also be able to appear on the front line at the earliest time, and TCM hospitals should also be included as designated hospitals so patients can be treated with TCM therapies, so effective experiences can be promoted quickly," said Zhang, also president of Tianjin University of Traditional Chinese Medicine.
"TCM has played a very important role in epidemic control in Wuhan, capital of Hubei province, and the good practices should be summarized so they can contribute to an improved response to public health emergencies in the future."
Country where innovation is used? China
Users: who is this for, number of users? Chinese citizens
</td></tr>
<tr><td>China</td><td>
Title: Telemedicine expanded to rural areas/MANAGING CASES

Link/Source: Telemedicine expanded to rural areas

Developer/Partners:
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td></td><td></td><td>x</td></tr>
</table>
Description: The example of the China-Japan Friendship Hospital, which undertakes functions for the National Telemedicine and Connected Health Center. It provided long-distance diagnoses for severe COVID-19 cases in Wuhan, capital of Hubei province, earlier this year and played a key role in patients' treatment and recovery. The government will extend telemedicine coverage to all poor counties, connect long-distance diagnostic services to villages equipped to handle them and offer individuals and households access to online lessons about basic healthcare and home management of chronic disease.
Country where innovation is used? China
Users: Who is this for, number of users? Chinese population
</td></tr>
<tr><td>China</td><td>
OTHER INNOVATION
Title: Internet firms provide aid for merchants

Link/Source: http://subsites.chinadaily.com.cn/bjzpark/2020-02/18/c_460928.htm

Developer/Partners: internet companies
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td>x</td><td></td></tr>
</table>
</td></tr>
</table>

<table>
<tr><td></td><td>Description: Measures include expense reduction, financial and logistics support, data flow information sharing and health protection. Chinese internet companies (Jingdong, Alibaba, Meituan…) are reducing or scrapping commission fees, extending payment deadlines and providing loans with low interest rates for merchants on their platforms to help the latter alleviate pressure caused by the difficult situation resulting from the novel coronavirus outbreak.
Users: who is this for, number of users? Chinese citizens
Country where this has been implemented: China</td></tr>
<tr><td>Kazakhstan</td><td>Title: Kazakhstan Never Sleeps/HEALTH COMMUNICATION

Link/Source: https://t.me/knscovid19
Developer/Partners: https://centralasiaprogram.org/archives/18399
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>
Description: The Telegram Channel of Physicians in Kazakhstan informs about Covid-19 related health information.
Country where innovation is used: Kazakhstan
Users: Who is this for? Number of users? General public</td></tr>
<tr><td>Kyrgyzstan</td><td>Title: Innovation for Kyrgyzstan: Inno4Kg challenge/OTHER INNOVATIONS

Link/Source: https://www.kg.undp.org/content/kyrgyzstan/en/home/projects/open-innovation-challenge-inno4kg.html

Developer/Partners: UNDP, State Agency on ICT of Kyrgyzstan and the High Technology Park
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>X</td><td>X</td><td>X</td><td></td></tr>
</table>
Description: A contest that is expected to generate speedy, diverse and effective solutions designed to tackle the cascading effects of the coronavirus pandemic and address the acute needs of the vulnerable populations.
The Inno4Kg challenge aims to support those isolated at home, seeking solutions for managing mental health and social care. It focuses on self-education, networking and social connections, innovative solutions for unmanned production and delivery, as well as on exploring new ways to ease the burden on healthcare providers.
Country where innovation is used: Kyrgyzstan
Users: Who is this for? Number of users? Innovators, private companies and civil society organizations may take part
Lessons learned? (if in development, when expected to be ready?) Projects will be carried out in May – September 2020 with each of the contest winners receiving up to USD 10,000 for their implementation
Evidence of success?</td></tr>
<tr><td>Mongolia</td><td>Title: emongolia web portal/HEALTH COMMUNICATION

Link/Source: https://www1.e-mongolia.mn/home

Developer/Partners: The government of Mongolia (Communication, information technology agency of the Government of Mongolia)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td></td></tr>
</table>
Description: This is a web portal which was developed by Government of Mongolia (Communication, Information and technology agency of the Government of Mongolia) to provide social services (approximately 180 types of social services) to the people of Mongolia. The web portal has COVID information section where people can get information about COVID such as symptoms, prevention and where to get service if people have symptoms and location of COVID test and vaccine points. In addition, people can get COVID test results and COVID vaccine certificates from this web.
Country where innovation is used: Mongolia</td></tr>
</table>

<table>
<tr><td></td><td>Users: Mongolian citizens plus foreigners residing in Mongolia.</td></tr>
<tr><td>Mongolia</td><td>Title: Determining psychological distress among health care workers during COVID pandemic in Mongolia/MENTAL HEALTH OF WORKFORCE

Link/Source: National Mental health center of Mongolia

Developer/Partners: Centers for Disease Control and Prevention (CDC)
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td>x</td><td></td><td></td><td>x</td></tr>
</table>
Description: This is a small-scale descriptive survey conducted by Mongolian National Mental health center to determine the causes, risk factors for psychological distress among health care providers who’re working on COVID-19 response. The survey was conducted among 435 health care workers in 4 referral hospitals and in 3 isolation centers.
Users: who is this for, number of users? The survey findings are relevant for health managers and health administrators, decision makers for creating and maintaining mental health wellbeing of health workforce during crisis situations such as COVID pandemic.
Country where this has been implemented: Mongolia
Effect on health system resilience: strong</td></tr>
<tr><td>Pakistan</td><td>Title: Pakistan COVID-19 Situation Report # 16/HEALTH COMMUNICATION

Link/Source: https://www.unicef.org/pakistan/media/2796/file/COVID-19%20SitRep%2016.pdf

Developer/Partners: UNICEF
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
<tr><td></td><td>X</td><td></td><td></td></tr>
</table>
Description: Overview of risk communication and community work by UNICEF, which includes coordination with various partners involved, implementing the national response through social and electronic media, data analysis, engage of religious leaders, reaching out to the at risk population through community engagement, helplines, partnerships and organization of media orientation and mobilization.
Users: Who is this for? General public and stakeholders in the field.</td></tr>
<tr><td>Pakistan</td><td>Title: COVID Research Repository/RESEARCH COLLABORATION

Link/Source: https://www.aku.edu/mcpk/research/Pages/covid-research.aspx

Developer/Partners: Aga Khan University
<table>
<tr><th>Govt</th><th>Develop Partner</th><th>Private Sector</th><th>Academia (Uni/Research)</th></tr>
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Description: Aga Khan University's Faculty of Health Sciences is at the forefront of answering critical questions and creating new knowledge about the COVID-19 outbreak in Pakistan. The repository includes a summary of different research projects related to COVID-19 that are being currently undertaken by the faculty.
Country where innovation is used: Globally
Users: Who is this for? General Public and experts</td></tr>
<tr><td>Pakistan</td><td>Title: Pakistan in phase III trials of Chinese vaccine/RESEARCH COLLABORATION

Link/Source: http://www.xinhuanet.com/english/2021-01/19/c_139680671.htm

Developer/Partners: Public Private Partnership
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Description: CanSinoBIO COVID-19 Vaccine Phase III Clinical Trial was launched in Pakistan for the first time ever as a Public Private Partnership. The trial is being implemented successfully and the Interim Results have been analyzed by an international third party and found to be very effective. The vaccine has been granted EUA in China and Pakistan and other countries on the basis of these preliminary results.

Country where innovation is used? Pakistan, Mexico, Chile, Russia, Argentina

Users: Who is this for? R&D

Number of users? 40,000 Volunteers

Lessons learned? The government needs to facilitate and encourage the international pharmaceutical community who are interested now to consider Pakistan for their Clinical Trials. The requisite regulatory framework needs to be strengthened

Pakistan

Title: Pakistan to locally produce China's COVID-19 vaccine Single-dose CanSino vaccine to be produced with China's help/**VACCINE RELATED ACTIVITIES**

Link/Source: https://www.aa.com.tr/en/asia-pacific/pakistan-to-locally-produce-chinas-covid-19-vaccine/2208705

Developer/Partners: NIH, CanSinoBIO, AJM Pharma

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)
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Description: CanSinoBIO COVID-19 Vaccine production through shared manufacturing has been launched in Pakistan as a Public Private Partnership between the NIH, Islamabad, CanSinoBIO and AJM Pharma. The production site is the National Institute of Health.

Country where innovation is used? Pakistan

Users: Who is this for? General Public

Number of users? 1.2 million doses

Lessons learned? Pakistan is ready to enter the next level of vaccine manufacturing.

Evidence of success? The first batch of locally produced 1.2 million doses have been prepared and rolled out.

Pakistan

Title: Pakistan develops NIMS to manage COVID-19 vaccine supply**/PLANNING SERVICES**

Link/Source: https://www.brecorder.com/news/40045867

Developer/Partners: NOCN, NADRA, NITB

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)
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Description: To manage the supply of coronavirus vaccine, Pakistan has developed the National Immunization Management System (NIMS). The system developed by the National Command and Operation Centre (NCOC) would ensure efficient supply chain management and administration of COVID-19 vaccine in the country. The initiative had been taken in collaboration with Ministry of Health, National Database Registration Authority (NADRA) and National Information Technology Board (NITB), it was told in an NCOC meeting on Wednesday.

Country where innovation is used? Pakistan

Users: Who is this for, number of users? Government and its partners.

Lessons learned? The system is working smoothly.

Evidence of success? It is successful as the national vaccination roll-out is proceeding smoothly across the country using this system and is being appreciated by the public.

Pakistan

Title: How telemedicine is helping in the fight against COVID-19 (and why it should be here to stay)/**MANAGING CASES**

	Link/Source: https://www.pk.undp.org/content/pakistan/en/home/blog/2020/how-telemedicine-is-helping-in-the-fight-against-covid-19--and-w.html **Developer/Partners:** UNDP, Sehat Kahani (health tech social enterprise with a network of 27 e-clinics across Pakistan) **Description** Like in many other countries, patients in Pakistan are scared to visit hospitals to avoid COVID exposure. Elderly, pregnant women, and patients with pre-existing health conditions are at higher risk while also being always more in need of medical help. During this time of the ongoing pandemic, telemedicine is playing a pivotal role in acting as an enabler to help many patients in need. The United Nations Development Programme (UNDP) Pakistan has partnered with Sehat Kahani to connect patients to qualified doctors via a telemedicine based mobile and web solution — to accelerate the efforts to support Pakistan's healthcare system. To bring quality medical practice to Pakistan and further make the healthcare services more accessible for all, physicians and specialists of Pakistani origins were reached out through Yaran-e-watan to continue their practice through telemedicine platform. More than 30 consultants trained in pulmonology and critical care among other specialties joined the application during this critical time. The mobile application was made free for accessing tele-consultations so that the patients could avail health services through their smartphones within the vicinity of their homes. **Country where innovation is used:** Pakistan n Globally **Users:** General Public **Lessons learned?** Widespread use of Tele-medicine during the pandemic has proved that it is a very tool which can be very user friendly both the physicians as well as the patients. **Evidence of success?** Widespread use of this mode of medical treatment is the evidence of its success.

Govt	**Develop Partner**	**Private Sector**	**Academia** (Uni/Research)
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Pakistan	**Title**: National Command and Operations Center/**MANAGING CASES** **Link/Source**: https://ncoc.gov.pk/govt-initiatives.php **Developer/Partners:** government of Pakistan **Description**: The National Command and Operations Center is the nerve center of the national COVID-19 response. The NCOC has introduced several IT based initiatives to help the public gain better access of the COVID related services being offered by the government. The IT initiatives include Apps related to SOPs Violation registry, Smart Lockdowns, Resource management System, Pak Neghayban App, Integrated Disease Information Management System, Educational Institute Management System, national Helpline, Telehealth Portal, 1166, Isolation Hospital & Infection treatment center, Community Mobilization, PM relief Fund, WeCare, Tiger Force, Ehsas programme, Yaran-e-watan. **Users: who is this for, number of users?** General Public **Country where this has been implemented**: Pakistan **Effect on health system resilience**: The system absorbed this new technology quite seamlessly. **Lessons learned/Evidence of success:** There is a huge potential for IT technology use in the medical healthcare sector in the country.

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Pakistan	**Title:** Overview of Isolation and Quarantine facilities in Pakistan/**MANAGING CASES** **Link/Source:** https://covid.gov.pk/facilities/List%20of%20Province-wise%20COVID-19%20Quarantine%20Facilities%20Pakistan.pdf **Developer/Partners:** Government of Pakistan

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<table>
<tr><td></td><td>Description: The government established a nationwide network of Isolation and Quarantine facilities across the country in various large public facilities and private buildings and equipped them accordingly to prepare for any large-scale eventuality.
Country where innovation is used: Pakistan
Users: Who is this for? General Public
Number of users? unknown
Lessons learned? Contingency plans for creation of such facilities should be developed which can be used to prepare such centers at short notice in case of need.
Evidence of success? Development of these facilities were well publicized in the national media and received appreciation from the public. The sites developed were used to a limited extent especially in the start of the pandemic.</td></tr>
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<tr><td>Tajikistan</td><td>NONE</td></tr>
<tr><td>Turkmenistan</td><td>NONE</td></tr>
<tr><td>Uzbekistan</td><td>Title: Creation of the ZF-UZ-VAC2001 coronavirus vaccine/VACCINE RELATED ACTIVITIES

Link/Source: http://tashkenttimes.uz/national/6743-innovation-ministry-on-sino-uzbek-covid-19-vaccine

Developer/Partners: Uzbekistan Ministry of Innovative Development and the Center for Advanced Technologies, Anhui Zhifei Longcom Biopharmaceutical in collaboration with the Institute of Microbiology of the Chinese Academy of Sciences (IMCAS)
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Description: The ZF-UZ-VAC2001 vaccine is made from a purified receptor-binding section of the coronavirus spike glycoprotein (NCP-RBD recombinant protein) expressed by recombinant CHO cells and the addition of an aluminum hydroxide adjuvant
During the development of the ZF-UZ-VAC2001 vaccine, a technology was applied similar to the technologies for creating other recombinant vaccines, such as NVX-CoV2373 (Novavax), EpiVacCorona (Vector), etc. The ZF-UZ-VAC2001 vaccine was obtained biotechnologically by creating a recombinant protein NCP- RBD coronavirus SARS-CoV-2,
Country where innovation is used: Uzbekistan, China
Users: Who is this for? Number of users? General population
Lessons learned? (if in development, when expected to be ready?) Unknown
Evidence of success? Undergoing testing</td></tr>
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ENDNOTES

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[i] *Do not write in here..*