March 24, 2020

Policy Responses to COVID-19 in the Russian Federation

Health.

The World Bank has supported countries across the world to make them shock-responsive, preparing for exactly this kind of event. We are also closely monitoring the social response being undertaken around the world and would like to propose for your consideration a summary of measures that are being currently deployed and could be applicable in Russia.

Our starting point is that WHO is the lead technical agency for the medical response to the epidemic. We are coordinating closely with this agency at the global level and see our role as helping support countries in the implementation of WHO recommendations, guidance and policies.

Different countries worldwide have different levels of preparedness and have adopted different measures to combat COVID-19 pandemic (Table 1). In response to previous epidemics of SARS and MERS China, Singapore, and South Korea overhauled their emergency systems and strengthened public health and disease surveillance response systems, which enabled a swift response to the COVID-19 pandemics.

China experience shows that swift disease control measures coupled with surge capacity measures can reduce the epidemic size and the overwhelming demands on health systems. Analysis of the intensive care unit (ICU) and inpatient bed needs from two affected Chinese cities (Wuhan and Guangzhou) shows that the timing of disease control interventions is critical. Lack of prompt disease detection and containment measures can swiftly lead to overwhelmed health systems, and exceeding healthcare capacity can further exacerbate the community spread of COVID-19.

South Korea learned from MERS to leverage extensive and innovative testing, contact tracing, and risk communication to slow the spread of COVID-19. As of March 20, 2020 South Korea tested 6148 individuals per million people, Italy – 3498 individuals per one million, China (Guangdong) – 2820 individuals per million people, Russian Federation – 1266 individuals per million people, and United States - 314 individuals per million people.

Timely disease control measures need to be accompanied with surge capacity to curb the exponential spread of COVID-19. The evidence suggests that travel restrictions only work if coupled with rapid testing, physical distancing, isolation, and infection prevention to break the chain of transmission.

It is important to note that given the unprecedented circumstances, the global community is learning as the pandemic progresses and the World Bank has tried to summarize some potential strategies that other countries are currently trying or that have been put in place during other pandemics or disaster response to provide guidance. Looking ahead and in addition to response strategies, the global community is also starting to think about how countries can effectively relax some of the containment measures to allow economic activity to resume, without risking a second wave of the outbreak.

The following measures for consideration have been extracted from lessons from other countries’ efforts to combat COVID-19.

**Short-Term and Acute Measures (under 6 months) to strengthen surge capacity of health systems**
• **Policy measure H1 Timely interventions for diseases detection and containment** – Timely and aggressive contact tracing and testing coupled with proactive risk communication, isolation of patients in designated COVID-19 facilities, Point of Entry measures, and physical distancing seem to be the early measure best practice for breaking the chain of transmission. In particular, evidence from other countries like Singapore and South Korea (Table 1) suggests the importance of effective contact tracing, and rigorous testing in the effectiveness of the response. In Italy, Veneto resorted to more aggressive testing than Lombardia and its COVID-19 related outcomes have improved significantly. Our understanding is that Russia has implemented early and aggressive testing for returning travelers.

• **Policy measure H2 Switching from patient-centric model of care to a community-centric model** that utilizes innovations like telemedicine and better triaging based on case severity for hospitalization and ICU; and gate keeping for inpatient specialized care at the community level. Measures such as redefining standard treatment protocols to provide needed care at the “right place” would also avoid burdening of health systems.

• **Policy measure H3 Scaling up Personal Protective Equipment (PPE) and other equipment**
  i. **Arranging for disaster boxes with PPE.** Pharmaceutical companies and pharmacies can be asked to support and maintain a minimum stockpile in national warehouses.
  ii. Liaising with WHO on guidance for reuse of limited equipment and medical devices including some consumables like hemodialysers, goggles or face shields; or innovations such as using a Y connector to simultaneously ventilate in times of equipment shortage or protocol for reuse can improve efficient use and cost containment. However, this will require assessment of the efficacy of sterilization and decontamination among other things.
  iii. **Leveraging private sector or state-owned enterprises for swift manufacturing of equipment and PPE** – The private sector can be leveraged in time of need to support manufacturing of PPE and other equipment that are in short supply – the same could be done with some state-owned companies. For example, in France LVMH is converting its perfume factories to make hand sanitizers, and in Spain, fragrance and in Italy, the pharmaceutical company Menarini has converted its production plant to produce and donate sanitizers and Miroglio, a textile company, has decided to support Italy by manufacturing masks.¹
  iv. **The private and state-owned manufacturing sector can also be leveraged** for: (1) sharing manufacturing knowledge with other companies to meet the stringent quality or design requirements of medical device manufacturing in a short timeframe; (2) engaging in joint ventures/collaborations to increase production of medical devices such as ventilators and other emergency equipment. Companies that do not currently produce essential equipment can be connected with firms already making the equipment; and, (3) sharing of regulatory approvals with new entrants through manufacturing arrangements between a licensed manufacturer and a new entrant to enable clone production.

• **Policy measure H4 Scaling up Systems:**
  i. **Establish a national and regional incident command centre** to facilitate coordination between regions.
  ii. **Establish a centralized triage** mechanism with specified referral hospitals that can direct patients to designated facilities and develop a system to monitor patients.
  iii. **Engage with partners, other countries, local NGOs** to enable surge response support.
  iv. **Leverage data analytics and AI** to ensure a better tracing, monitoring and prevention measures, while protecting civil liberties.

• **Policy measure H5 Scaling up surge critical care space and capacity**
  
i. **Utilize a telemedicine and call-center based hotline** to triage and deliver care to increase non-emergency number capacity and provide self-help.
  
ii. Delivering care to home via deployment of outreach services – Home care, mobile clinics, satellite fever clinics, tele-medicine implementation can avoid unnecessary movements and release pressure from hospitals. Early oxygen therapy, pulse oximeters, and nutrition can be delivered to the homes of mildly ill and convalescent patients, setting up a broad surveillance system with adequate isolation and leveraging innovative telemedicine instruments. This approach would limit hospitalization to a focused target of disease severity, thereby decreasing contagion, protecting patients and health care workers, and minimizing consumption of protective equipment.
  
iii. **Separate COVID-19 designated facilities, ambulances** to ensure minimal spread of disease from COVID-19 infected patients to other patients.
  
iv. **Adopt off-loading tactics to free up ICU and critical care bed space** through off-loading non-emergency patients, reverse triaging \(^2\) wherein inpatients at low risk for untoward events would be discharged or transferred back to the community, giving inpatients and individuals affected by the disaster equal consideration for inpatient resources; altering standards of care; canceling elective surgeries, transferring patients to other facilities etc.
  
v. **Adopt onboarding tactic by creating extra space** – Converting single rooms to double rooms or utilizing non-traditional patient care areas like hallways, lobbies, or waiting rooms; repurposing hotels or private facilities for patients with moderate symptoms; converting a step-down unit to a critical care unit; establishing outpatient facilities and satellite clinics; temporary structures; altering standards of care; holding areas etc.
  
vi. **Leverage specialized field hospitals, ships, plane hospitals, and military facilities to increase critical care capacity** to enhance response and resource pooling for response.

• **Policy measure H6 Surge staffing and infection control**
  
i. **Just in time training and cross-training** by utilizing personnel who have the aptitude to quickly learn, adapt, and assist and utilizing final year students and medical residents; leveraging army clinicians and HCWs/clinicians with traditional credentials but who may be unaccustomed to the specialized care that will need to be delivered etc.
  
ii. **Modifying or extending work hours, task shifting measures to free valuable specialist time**, calling back off-duty staff; training and leveraging non-traditional care providers, such as family members, volunteers, or nonclinical staff or non-ICU staff
  
iii. **Provision of training in infection control and PPE to all staff** (Eg., Provision of training in intubation whilst wearing PPE); private sector can be leveraged to provide training.
  
iv. **Boosting staff morale and providing psychosocial support**.
  
v. **Development of rosters** can augment personnel pools.
  
vi. **Telemedicine platforms** may also be used to augment staff and provide expert assistance “virtually” from anywhere (Example, Teladoc). Retiree doctors, pneumologists, anesthesiologists etc. (who otherwise would be at higher risk due to age) can be leveraged via telemedicine platforms.
  
vii. **Mobilizing technical assistance and HCWs from other provinces and countries** at the epicentre.

Moderate-Term strengthening of surge systems capacity at national and regional levels

i. Testing major hospitals for surge response by utilizing simulation exercises, PPE training, and maintaining rosters, and development of hospital and provincial level contingency plans.

ii. Develop a national registry of hospital capacity, medical supplies and stockpiles of PPE, essential medicines with real time capability to help maintain an overview in a dynamic crisis situation.

iii. Conduct a gap analysis of emergency legislations to bolster future surge response to emergency.

iv. Working on a more effective regional response systems for pandemics: Pre-crisis, there were strong links and population movements between the Russian federation and CIS countries. In order to preserve these links while fighting more effectively against this pandemic and preparing for the next crisis, a coordinated regional approach would be optimal. Russia has medical, epidemiological and laboratory testing capacities that exceed that of many of its neighbors. Strengthening regional networks of human and animal disease surveillance, control, preparedness and response would be a critical element of an effective medium-term response.
Table 1: COVID-19 comparison between select countries

<table>
<thead>
<tr>
<th>As of March 21, 2020</th>
<th>Italy</th>
<th>China</th>
<th>Singapore</th>
<th>South Korea</th>
<th>Japan</th>
<th>Spain</th>
<th>USA</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Confirmed Cases</strong></td>
<td>53,578</td>
<td>81,345</td>
<td>432</td>
<td>8,897</td>
<td>1,055</td>
<td>25,496</td>
<td>26,747</td>
<td>438</td>
</tr>
<tr>
<td><strong>Deaths</strong></td>
<td>4,825</td>
<td>3,265</td>
<td>2</td>
<td>102</td>
<td>35</td>
<td>1,381</td>
<td>340</td>
<td>0</td>
</tr>
<tr>
<td>*<em>CFR (Deaths/confirmed cases)<em>100</em></em></td>
<td>9%</td>
<td>4%</td>
<td>0.46%</td>
<td>1.1%</td>
<td>3.3%</td>
<td>5.4%</td>
<td>1.3%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Tests per million people</strong></td>
<td>3498</td>
<td>2820</td>
<td>NA</td>
<td>6148</td>
<td>118</td>
<td>646</td>
<td>314</td>
<td>1267</td>
</tr>
<tr>
<td><strong>Total Tests</strong></td>
<td>206,886</td>
<td>320,000</td>
<td>NA</td>
<td>316,664</td>
<td>14,901</td>
<td>30,000</td>
<td>103,945</td>
<td>185,918</td>
</tr>
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<td><strong>Doubling Time (days)</strong></td>
<td>5</td>
<td>35</td>
<td>NA</td>
<td>12</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Percent population over 65</strong></td>
<td>23%</td>
<td>11%</td>
<td>12%</td>
<td>14%</td>
<td>26%</td>
<td>19%</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Population pyramid</strong></td>
<td>![Chart]</td>
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<tr>
<td><strong>Global Health Security Index</strong></td>
<td>Rank: 31/195 Country Score: 56.2 Prevent: 47.5 Detect: 78.5 Respond 47.5 Health System: 36.8</td>
<td>Rank 51/195 Country Score: 48.2 Prevent: 45 Detect: 48.5 Respond 48.6 Health System: 45.7</td>
<td>Rank 24/195 Country Score: 58.7 Prevent: 56.2 Detect: 64.4 Respond : 64.6 Health System: 41.4</td>
<td>Rank 9/195 Country Score: 70.2 Prevent: 57.3 Detect: 92.1 Respond 71.5 Health System: 58.7</td>
<td>Rank 21/195 Country Score: 59 Prevent: 49.3 Detect: 70.1 Respond: 53.6 Health System: 46.6</td>
<td>Rank 15/195 Country Score: 65.9 Prevent: 52.9 Detect: 83 Respond 61.9 Health System: 58.6</td>
<td>Rank 1/195 Country Score: 83.5 Prevent: 83.1 Detect: 98.2 Respond: 79.7 Health System: 73.8</td>
<td>Rank 63/195 Country Score: 44.3 Prevent: 42.2 Detect: 34.1 Respond: 50.1 Health System: 37.6</td>
</tr>
<tr>
<td><strong>Joint External Evaluation</strong></td>
<td>Not done</td>
<td>Not Done</td>
<td>Done</td>
<td>Done</td>
<td>Done</td>
<td>Not Done</td>
<td>Done</td>
<td>NA</td>
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<tr>
<td><strong>Strategies for disease control</strong></td>
<td>Lockdown, travel restrictions, followed by testing</td>
<td>Mass-scale provincial and country-wide quarantine and border closures, extension of holidays, strict quarantine rules, PoE screenings, rigorous contact tracing and testing of suspected innovative means of contact tracing, and aggressive testing (including multiple drive through) border closure, quarantine, isolation of elderly.</td>
<td>Border closure, declaration of emergency, lock down, centralized coordination of response</td>
<td>Border closure, declaration of emergency</td>
<td>Border closure, declaration of emergency, rigorous contact tracing and testing</td>
<td></td>
<td></td>
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<td>Unique constraints</td>
<td>High proportion of elderly population, decentralized provinces</td>
<td>Sheer population size, decentralized health system</td>
<td>Major airport hub with heavy to and fro traffic from China. One of the first countries affected with multiple local transmission.</td>
<td>Major cluster in Daegu religious sect</td>
<td>High proportion of elderly population</td>
<td>Decentralized provinces</td>
<td>Initial delays in availability of tests</td>
<td>Initial shortage of tests</td>
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<td>Unique surge capacity strategies</td>
<td>Decree signed to enhance the capacity of the National Health System (NHS) to face the Covid-19 emergency by allocating funds for response, hiring extra HCWs, setting up new health facilities, purchasing of new equipment from the private sector.</td>
<td>Surge capacity HCWs transferred to hotspot, quarantine centers, designated facilities established in record time. Outside of Hubei, provincial staff divided into groups to: (1) support Wuhan; (2) set up fever clinics and triage; (3) work in isolation facilities; (4) quality control and supervision. WeChat used for trainings and capacity building of HCWs.</td>
<td>Satellite primary health care fever clinics activated, non-ICU staff trained in resuscitation, infection control, information flow, ICU etc. Staff morale boosting measures</td>
<td>Repurposed corporate facilities to provide medical support for patients with moderate symptoms. High-risk patients prioritized for hospitalization</td>
<td>NA</td>
<td>Nationalization of private hospitals, Central government has assumed command of response, Hiring of final year graduates for surge staffing, protocol for prioritization of tests, cancellation of non-emergency surgeries, repurposing of hotels to increase surge hospital bed capacity</td>
<td>Defense Production Act can be invoked by the President to force private sector to manufacture surge equipment and PPE; Strategic National Stockpile</td>
<td>Establishing Coordination Councils at federal and regional level; identification of designated health facilities, reshaping existing facilities for COVID-19 patients, building of new infection hospital, extending network of laboratories, increasing production of tests, purchasing of extra ICU and other equipment, infection control; forcing private sector to manufacture surge equipment and PPE.</td>
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- Social distancing, contact tracing, testing points, voluntary isolations, proactive community engagement.
- Free masks distributed, daily life not disrupted.

- Risk communication, centralized coordination of response; schools and high education organizations closure, risk communication, voluntary isolations.