

Research in Brief



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Policy Responses to Covid-19: Health Care Industry Approaches

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Introduction

The spread of covid-19 has been slowing down for some time now in Korea, but sporadic cluster infections are likely to occur on and off across different parts of the country. Fears persist over potential increases in infection during the forthcoming Chuseok holidays and transition seasons. Worries remain that silent spreaders and covid-19 variants might increase in the coming winter. It seems clear that the tensions resulting from quarantine and social distancing will continue to stay with us at least until an effective vaccine comes out. Globally, the rate of increase in new cases will decline. However, it will take quite a while before countries the world over will be able to effectively constrain the spread of covid-19.

Korea has of late been increasingly perceived by the world as a country strong in resource mobilization, health care infrastructure, public health, and medical technologies and industries. Korea is likely to shift from its past focus on securing self-reliance in vaccine production toward a more ambitious goal of taking the lead in the development of vaccines, therapeutics, diagnostic test kits and instruments. While there have been cases in the IT and other industrial sectors where its innovations have not panned out due to lack of demand, Korea is likely to take the lead in the health care and quarantine sectors in the global market, with demand for supplies and services in these industries expected to rise in the years to come.



The changing landscape of health care in the age of covid-19

Most of the Western developed countries have focused on raising the efficiency of their response to population aging and the rising trend of chronic diseases. This in part has led to a tapering of investment in the control of high-risk infectious diseases and in preparedness for health crises. It is likely that there will be a shift in the focus of health care away from efficiency-centeredness toward crisis response and the establishment and management of health care safety nets. Meanwhile, as fatality rates are higher in countries with a higher prevalence of underlying conditions, such as diabetes and high blood pressure, it will become increasingly important to combine the management of chronic disease patients with the prevention and control of infectious diseases.

As the advancement of the health care industry is increasingly perceived as not an option but a must, there will be a global move toward classifying as “strategic materials” those materials that are used to respond to high-risk infectious diseases. Consequently, a shift is likely in many countries away from foreign-dependent supply chains to self-reliance in the production of those materials. Also, countries around the world will increasingly move toward stocking up on health materials for crisis response. Efforts will be exerted, especially in advanced industrial economies, to convert the labor-intensive manufacturing of medical products into low-cost production processes.

The importance of strategizing the use and mobilization of health care resources will become increasingly prominent. There is a growing recognition that health care crises, with rapidly surging health care needs, cry out for a mechanism that can promptly mobilize beds, human resources, medical supplies and other available social resources. The ability to control high-risk infectious diseases has come to the fore as a core part of the Fourth Industrial Revolution. As global competition intensifies for the development of new drugs and testing technologies, investment will continue to flow at a rapidly rising rate into the research and development of vaccines and anti-virus drugs.

“Everyday life quarantine” has come on the scene as a new industry. New technologies will follow that allow, with reduced inconvenience, early detection and prevention of high-risk infectious diseases. Unmet health care needs outside of covid-19 have been piling up for some time now in many countries. Foreign patients coming into the country for treatment present an opportunity for Korea. The importance of primary care as a means of implementing quarantine measures is growing. Contact tracing and infectious disease management will become increasingly important as a means of improving community health care, school health and occupational health. The tensions of quarantine will become part and parcel of our daily life and remain so for quite a while. Our modes of daily living and social life will be reconfigured in ways conducive to the prevention and control of infectious diseases. For example, with the practice of physical distancing becoming a staple in our everyday lives, the various activities of consumption, work, and leisure will increasingly be replaced with non-contact alternatives. Also, demand for policy response and public interest will continue to grow in such issues as climate change, local environment, healthy living and personal hygiene.

There will be an increasing move toward international conventions enforcing transparent information disclosure. As high-risk infectious diseases are characterized by significant externalities, the importance

of disclosing information about infections has been widely recognized. In consequence, the need for international cooperation and the role of international organizations will increase in sharing expertise and experience with respect to activities in response to infectious diseases.

●● Tasks ahead

Increased support needs to be provided and public-private cooperation needs to be ramped up for the development of vaccines and therapeutics against high-risk infectious diseases. Support should also be provided to facilitate clinical trials for vaccines and therapeutics. Policymakers may consider running clinical trials in overseas countries when there are not enough patients to take part in the trials in Korea. In addition, national-level publicity activities, including expos and conferences, can help promote Korea's national image as a global public health powerhouse.

There is a need for improvement in regulations concerning automated testing services (facilities and equipment), robotics-based non-contact technologies and remote health management services. Policy attention will have to be paid to introducing a system of flexible supply chains through which to minimize losses in production and sales that may occur at times.

User-friendly quarantine facilities should be developed that allow people to maintain a certain level of quality of life. Along with this, AI tools can be designed that can help predict the probability of exposure to infection as individuals move from one area to another or engage in social activities. Efforts need to be exerted, while keeping infectious diseases from spreading, to advance information security technologies through which to protect privacy and personal information.

Efforts to turn Korea's quarantine industry into a new export engine will have to involve studies of response systems other countries have in place. New export opportunities can be created for hospital infection-control techniques, negative pressure rooms, negative pressure ambulances, testing assays and kits, and therapeutics. Korea should look to attract foreign patients from countries with their unmet health care needs piling up as a consequence of the covid-19 pandemic.

Support need to be provided to promote Korea's Three T's model (trace, test, and treat) as an international standard. Korea's contact tracing and monitoring, management of confirmed and suspected cases, mobilization of required resources, quarantine and treatment procedures, information management, and legal and institutional infrastructures all can be promoted as potential international standards.

Even after countries decide to lift entry restrictions, quarantine measures seem likely to remain for new arrivals. The need has increased for international agreements by which to exempt quarantine for travelers arriving with a virus-test certificate issued from the country of origin. Korea may consider taking the lead in laying down specific rules and procedures on which to base the implementation of such international agreements.

Primary care technologies need to be further improved for better tracing and monitoring of future virus outbreaks in Korea and elsewhere, from the first case onward, with a view to taking evidence-based early prevention interventions. Strategic plans should be drawn up for mobilization and coordination of

human resources, beds, quarantine facilities, and infection prevention supplies. A legal framework—with respect to regulations, procedures, data and information management, the scope of service provision, manpower management, etc.—should be laid down to underpin the use of various social welfare facilities for quarantine purposes. Also, improvement in infectious disease prevention and control can come about through making coordinated use of primary care resources, notably community health centers, in carrying out large-scale antibody tests to gather information about asymptomatic infections and silent spreaders.