



Activities of the Republic of Korea in the Global Health Security Agenda

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The Ebola virus outbreak that began in Guinea, West Africa, in December 2013 eventually spread to several other countries, including Liberia, Sierra Leone, Nigeria, Senegal, Mali, the United States, and Spain. This prompted a consensus regarding the need for a new global health cooperative to enhance global health security. There was also criticism regarding the initial response by the World Health Organization (WHO), which many considered inadequate. In response to these concerns, the Global Health Security Agenda (GHSA) was launched in December 2014. This initiative was spearheaded by the United States, alongside 27 other countries and international organizations, including the WHO, the World Organization for Animal Health, and the Food and Agriculture Organization of the United Nations [1].

Through multilateral and multi-sectoral partnerships, the GHSA strives to create a world safe from the threat of infectious diseases [2]. Its goal is to protect human life and minimize social and economic losses by preventing, detecting, and responding to pathogens that occur naturally, or are accidentally or intentionally released. To achieve this, the GHSA developed 11 Action Packages for prevention, detection, and response during its first phase (2014–2018) and 9 Action Packages for the second phase (2019–2023).

The GHSA operates through Steering Group Meetings for GHSA management and evaluation of the progress of the Action Packages, as well as Action Package Working Group Meetings for discussion between leading countries and member countries on how to conduct and cooperate with each Action Package, implement them in practice, and achieve the predefined goals. Ministerial Meetings are responsible for the vision and future strategy of the GHSA [1].

The following text examines the activities undertaken by the Republic of Korea during the first and second phases to meet the GHSA objectives. It also explores ways to improve health security within the Republic of Korea and among GHSA member nations through the implementation of Action Packages.

The Republic of Korea recognized the significance of enhancing global health security during the Middle East respiratory syndrome (MERS) outbreak in 2015 and has since been an active participant in the GHSA. In 2015, the Republic of Korea hosted the Second GHSA Ministerial Meeting in Seoul, where it announced the Seoul Declaration—the global community's inaugural commitment to health security. Additionally, the Republic of Korea pledged a total of 100 million US dollars over 5 years to strengthen health security capabilities in low-income countries [1]. This meeting was emblematic of the commitment to a multilateral and multi-sectoral cooperative system aimed at

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fortifying global health security.

It is crucial to evaluate each member country's health security capacities and share information with neighboring countries to prevent, detect, and respond promptly and accurately. In 2015, the GHSA conducted a pilot evaluation of health security capacities, focusing on 11 Action Packages, in Uganda, Georgia, Peru, Portugal, Ukraine, and the United Kingdom [1]. The Republic of Korea was involved in the evaluation process for Georgia and Peru. Stemming from this pilot evaluation, the WHO and GHSA introduced the Joint External Evaluation (JEE) in 2016. The JEE is a significant and impactful initiative from the first phase of the GHSA, designed to assess the health security capabilities of member countries.

In 2017, as Chair of the Steering Group, the Republic of Korea conducted the inaugural JEE in the Western Pacific Region of the WHO to facilitate the implementation of JEE. Following the assessment, the Republic of Korea achieved the highest scores among the countries evaluated across 48 categories, securing the maximum of 5 points in 29 categories, 4 points in 15 categories, and 3 points in 4 categories [3]. Leveraging this demonstrated expertise, the Republic of Korea engaged in the Multi-Sectoral Rapid Response, Antimicrobial Resistance, Zoonotic Diseases, Biosafety and Biosecurity, and Immunization Action Packages during the initial phase [1]. At the Second Ministerial Meeting, the Republic of Korea and the United States conducted a joint bio-exercise as part of the Biosafety and Biosecurity Action Package [1]. More recently, at the Fifth Ministerial Meeting, the Republic of Korea presented its National Immunization Program (NIP) to the GHSA member countries, garnering interest and participation from numerous nations.

The GHSA emphasizes multi-sectoral collaboration to achieve its goals. In the academic sector, the Asian Institute for Bioethics and Health Law at Yonsei University wrote a white paper, "South Korean Activities in GHSA from 2014 to 2018 [1]." It established a master's program for local and international students, especially public officials from low-income countries, to strengthen personnel capacities on Action Packages of the GHSA.

In essence, during the first phase of the GHSA, JEE was the main achievement, but sustainable financing capacity remains the main challenge to achieving the goals of each Action Package.

In the second phase of the GHSA, the coronavirus disease 2019 (COVID-19) pandemic necessitated a reassessment of our ability to prevent, detect, respond to, and recover from a Public Health Emergency of International Concern (PHEIC). Drawing on insights from the first phase of the GHSA and the challenges presented by the pandemic, 2 additional

HIGHLIGHTS

- The Republic of Korea has achieved remarkable results between 2014 and 2023; it created the Seoul Declaration in 2015 and the New Seoul Declaration in 2022, hosted 2 Ministerial Meetings and played pivotal roles in the Steering Group and Action Packages to lead to the Immunization Action Package and to share the legal preparedness cases from Middle East respiratory syndrome to COVID-19 in the Legal Preparedness Action Package. Also, it has spearheaded the establishment of the Global Health Security Coordinating Office in Seoul as a platform of communication and cooperation with the Global Health Security Agenda members.

Action Packages were introduced: Legal Preparedness and Sustainable Finance. Consequently, the previous 4 Action Packages—Report, Emergency Operations Center, Multi-Sectoral Rapid Response, Medical Countermeasures, and Personnel Deployment—were discontinued. To date, a total of 9 Action Packages have been implemented [2].

The Republic of Korea has taken a leading role in the Immunization Action Package and is also a member of the Legal Preparedness and Sustainable Finance Action Package. The Immunization Action Package is being carried out in collaboration with the People's Republic of Bangladesh, the Kingdom of Saudi Arabia, the United States, and the International Vaccine Institute [2]. The Korea Disease Control and Prevention Agency serves as the secretariat office for the Immunization Action Package, with the secretariat support team based at the Asian Institute for Bioethics and Health Law at Yonsei University.

In the Immunization Action Package, capacities of the NIP during peacetime, such as vaccine management, the mandatory vaccine list, immunization budget, legal framework and policies, mandatory vaccination rate, vaccine registry system, vaccine inventory management system, cold chain logistics, and immunization campaigns, influence the vaccination rate during a PHEIC, like COVID-19. The Republic of Korea has been a leader in achieving high vaccination rates during the COVID-19 pandemic and has shared best practices with the GHSA member countries in the Immunization Action Package working group. The Immunization Action Package Secretariat, along with the secretariat support team, is undertaking a project to conduct literature reviews, including WHO-UNICEF (United Nations International Children's Emergency Fund) data, and to carry out an NIP survey for the 71 GHSA member countries. This project aims

to identify the needs of these countries for expanding their NIP capacities and to establish a cooperative system among GHSA members. Through this initiative, the Immunization Action Package seeks to increase vaccination rates in sustainable ways and to further develop the Immunization Action Package.

As a member of the Legal Preparedness Action Package, the Republic of Korea presented a case study on how legislative preparedness has been used to respond to COVID-19, building on experiences since the MERS outbreak in 2015. Following MERS, the Republic of Korea enhanced and expanded its legal framework to better prevent, detect, and respond to infectious diseases. Improvements included crisis communication, collaboration between central and local governments, the authority of public officials at outbreak sites, equitable distribution of medical resources during a pandemic, transparent disclosure of infectious disease information, and the establishment of an Emergency Operations Center.

The Sustainable Finance Action Package has garnered increased interest from both governmental and non-governmental sectors in the Republic of Korea, with a focus on contributing to the enhancement of health security capacities in low-income countries. There is an intention to collaborate with member countries of the GHSA, international organizations, and non-governmental organizations to fulfill the objectives of the Sustainable Finance Action Package.

The Republic of Korea hosted the Seventh GHSA Ministerial Meeting in Seoul from November 28 to 30, 2022. The meeting commenced with Expert Forums on the Immunization Action Package, Legal Preparedness Action Package, and Sustainable Finance Action Package on the first day. The second day featured the Steering Group Meeting and a side event focused on Disease X. The final day culminated in a Ministerial Meeting where discussions centered on the vision for the GHSA's third phase. This session also included the announcement of the New Seoul Declaration, which underscored the commitment to enhancing capacities for responding to future infectious disease outbreaks, and the declaration of the establishment of the Global Health Security Coordinating Office in the Republic of Korea.

The GHSA saw a significant increase in membership since its inception in 2014, with 27 countries participating at the outset. By the end of the first phase in 2018, membership had expanded to 67 countries, and as of 2022, the number of member countries reached 71. As of September 2022, the distribution of member countries includes 25 in the African region, 6 in the East Mediterranean region, 17 in the European region, 9 in the American region, 4 in the Southeast Asian

region, and 10 in the Western Pacific region. During the first phase, the GHSA experienced a growth rate of approximately 150% in the number of participating countries. However, the second phase saw a more modest increase in membership. Looking ahead to the third phase, there is an expectation that non-member countries will join the GHSA, enhancing regional and multi-sectoral collaboration among countries with similar geographic and socio-cultural environments.

The primary objective of the Immunization Action Package is to enhance the immunization rates for vaccine-preventable diseases (VPDs). To attain a 95% immunization rate for VPDs, GHSA member countries must establish a multi-sectoral collaboration system. This system will facilitate policy-making and technical exchange, particularly for those countries with limited capacities in their NIPs. The Republic of Korea, in particular, is well-positioned to assist countries that require policy guidance on vaccine hesitancy and the management of routine immunization disruptions during the COVID-19 pandemic, as well as support with technologies such as vaccination registry systems.

The capacity for legal preparedness is a critical component in protecting against, detecting, and responding to infectious diseases among GHSA member countries. It is essential for achieving the objectives set forth in each Action Package. Effective collaboration between the Legal Preparedness Action Package and other Action Packages is necessary and requires robust communication. While the Republic of Korea has received commendation for its adept handling of COVID-19, which involved amending existing legislation and introducing new laws pertaining to infectious diseases following the MERS outbreak in 2015, there is a need for the country to assess the legal measures implemented and modified during the COVID-19 pandemic to better prepare for future outbreaks. Additionally, the Republic of Korea should endeavor to play a more proactive role in strengthening global health security through sustainable finance capacity.

With the emergence of Ebola, MERS, and Zika virus during the first phase of the GHSA, and COVID-19 in the second phase, member countries have become increasingly aware of the importance of health security. The GHSA Action Package requires the implementation of concrete measures to improve the ability to prevent, detect, and respond to emerging or re-emerging infectious diseases. Additionally, it is imperative for the GHSA to assess the performance and identify the challenges encountered during its second phase before embarking on the third phase, which spans from 2024 to 2028. To achieve this, member countries must consistently execute Action Packages and maintain robust financial and organizational capacities.

Notes

Ethics Approval

Not applicable.

Conflicts of Interest

The authors have no conflicts of interest to declare.

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Availability of Data

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Authors' Contributions

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