



To become a more stronger and safer country

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In March 2023, various indicators suggest that we are progressively emerging from the coronavirus disease 2019 (COVID-19) crisis. A crucial aspect of the post-COVID plan that must not be neglected is the government's vaccination strategy. On March 22, the government issued vaccination guidelines for the upcoming fall season to prepare for the post-COVID era [1]. To date, we have maintained a high level of population immunity. However, the uptake of the fourth dose stands at 44.3%, and the rate of winter preventive vaccinations is a mere 35.4%, reflecting a general vaccine fatigue. The assessment of the current situation is based on the low incidence and mortality rates in children, adolescents, and middle-aged adults, taking into account the cost-effectiveness of preventing disease and death. Specifically, increasing the age group eligible for last year's fourth dose and winter preventive booster from 60 to 65 years old this year seems highly sensible. This is a rational decision because the cumulative fatality rate for those under 65 years old in Korea is 0.08%, which is half of the 0.16% fatality rate for those aged 65 to 69 years old and lower than the national average of 0.11%. Our approach aligns with the World Health Organization (WHO) SAGE recommendations [2]. Most importantly, to ensure the success of these policy changes, it is essential to provide transparent information, enabling people to make informed vaccination decisions. Reassessing the vaccination program, along with data on vaccine adverse reactions and safety, is anticipated to reduce hesitancy among vaccine recipients and improve vaccination rates. In particular, a paper published last month, titled "A framework for nationwide COVID-19 vaccine safety research in the Republic of Korea: the COVID-19 Vaccine Safety Research Committee," addressed the challenge of analyzing vaccine adverse events by exploring fundamental concepts of research methodology [3]. This month's study on the incidence of heart disease following vaccination [4], although limited to the adolescent cohort, is consistent with the population-based risk assessment report from the National Academy of Medicine of Korea, using health insurance data. The findings align with those of reports from other countries, earning positive evaluations.

The Korea Disease Control and Prevention Agency offers compensation for damages based on the causality classification system (WHO-Uppsala Monitoring Centre causal assessment system) in cases where adverse reactions to vaccines are reported. As of the end of last month, a total of 135,716,807 COVID-19 vaccine doses had been administered, with a reported general adverse event rate of 3.42 cases per 1,000 doses, a major adverse event rate of 0.13 cases per 1,000 doses, and a mortality rate of 0.01 cases per 1,000 doses administered [5].

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For a report to be acknowledged as vaccine-related damage, it must satisfy the causality assessment criteria, with recognized cases classified as “definitely related,” “probably related,” or “possibly related.” However, stringent criteria apply to category 4 adverse reactions (probably not related, unlikely). There have been 15 disease categories in subcategory 4-1 (where the timing of the adverse reaction after vaccination is plausible, but there are insufficient data about the adverse reaction), and 30 disease categories in subcategory 4-2 (where other causes are more probable than the vaccine). This has resulted in public dissatisfaction due to the strict criteria employed for causality assessment and corresponding compensation, which are constrained by the current limitations in scientific knowledge and methodological challenges. To address this issue, the government is concurrently focusing on statistical plausibility and mechanistic validity. Overcoming vaccine hesitancy is vital to ensuring a safer society as we prepare for future epidemics. Notably, the compensation program was established in response to vaccine adverse reactions during the 1994 Japanese encephalitis vaccination campaign and has primarily focused on pediatric vaccination to achieve herd immunity despite known adverse effects. Consequently, for vaccinations targeting adults with underlying conditions such as hypertension, diabetes, and heart disease, further research on factors contributing to or triggering these conditions, along with appropriate compensation, should be considered.

Despite a high vaccination rate against COVID-19, more than 70% of the population in Korea has been infected or re-infected with COVID-19, as evidenced by national survey results for N antibodies. It is essential to establish a cohort study infrastructure to assess the short-term, medium-term, and long-term health effects of hybrid or natural infection on these individuals. This includes evaluating the effects and side effects of vaccination, assessing the impact of COVID-19 infection on chronic diseases, and obtaining vital insights for restructuring the future healthcare system. Examples of important issues include delays in early cancer detection through screening and postponed treatment of diagnosed patients. The Korean Bio-Bank of the Korea National Institute of Health will play a significant role in this research.

As the COVID-19 situation stabilizes, frontline healthcare workers are transitioning back to their original duties from emergency tasks. While various chronic disease management programs have been suspended or delayed, frontline workers have resumed ongoing education and on-the-job training to enhance their work performance. The pandemic has underscored the challenges faced by

frontline health workers in adapting to new job skills and responsibilities and has revealed their reluctance to work on the front lines. It has also demonstrated that personality, competence, and teamwork are more crucial than technical skills and education level. Furthermore, the education of frontline public health workers should incorporate competency-based methods using advanced IT, rather than traditional face-to-face education. However, the educational system for frontline public health workers is struggling to adapt to these changes. Innovative and transformative changes are necessary in the educational system for public health workers to cultivate versatile workers who can function in any situation and improve their ability to adapt to new technologies. In the process of overcoming the pandemic, we have learned the importance of collaborating with various professionals beyond the field of healthcare, including those in social welfare, general administration, crisis management, and community participation [6]. Therefore, the educational system for public health workers needs to be reformed to become more resilient in the face of the next pandemic.

Notes

Ethics Approval

Not applicable.

Conflicts of Interest

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