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The Impact of International Organization and Democracy on the Control of Global Pandemics*

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〈Abstract〉

Numerous scholars have attempted to gauge the gravity of health security because of the outbreaks of global pandemics such as Severe Acute Respiratory Syndrome (SARS), Avian influenza, and Middle East Respiratory Syndrome (MERS) in recent years. Why do some countries succeed in protecting their health security whereas others fail in the attempt? What factors contribute to the control of global health threats or protection against them? Some researchers argue that international cooperation via the functioning of organizations such as the World Health Organization (WHO) is vital. Others contend that domestic factors such as the level of economic development, democracy, and government ability are paramount. This study tests each of these arguments based upon recent data. The results of this study demonstrate that democracy or government capacity are the most significant factor. The variable of the level of economic development of a country is far less significant and may even be irrelevant. The outbreak of SARS in China is presented as a case that evidences the value of democracy and governmental policies in the protection of human security.

*Key Words: health security; pandemic; communicable diseases; democracy; WHO

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Ⅰ. Introduction

With the global spread of pandemics such as Severe Acute Respiratory Syndrome(SARS), Avian influenza, and the Middle East Respiratory Syndrome(MERS) in recent years, many scholars have attempted to investigate the secrets of global health security. Diverse aspects of health security[1] have been explored in the domain of international studies. It has been found, for instance, that technological progress in transportation and communication, unfortunately pose threats to health security. Emerging infectious epidemics caused by exotic viruses are considered to be byproducts of modernization and globalization. The increase of cross-border human movement causes a corresponding mobility of pathogens, and humanity remains vulnerable to these viruses despite the technological and medical advances(Ingram 2008).

The UN defines human security as protection against "violent conflicts, extreme impoverishment, natural disasters, health pandemics," and other dangers(United Nations Trust Fund for Human Security 2016). Threats to health security significantly influence discrete aspects of a society. As an example, the human immunodeficiency virus/acquired immunodeficiency syndrome(HIV/AIDS) has been detrimental for human life at both global and national level. Diseases such as HIV/AIDS do not only deprive the individual well-being; they also hinder the economic development of a country because of low morale, absenteeism, loss of skilled workers, and reduction of business investment (McInnes 2006). Walker and Novogrodsky(2006) state that pandemics pose a fundamental and basic threat to human security as they inhibit the right to health care, to freedom from discrimination, and also to the simple right to life. Sidel and Levy(2002) tender a similar argument, saying that public health is

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1) Health security is a nontraditional security issue that is classified under human security, as opposed to traditional national or military security. Although there is no consensus on a clear definition of human security, among the major threats of health security are "deadly infectious diseases, unsafe food, malnutrition, lack of access to basic health care(Aldis 2008)."

closely related to security and protection against infectious diseases is as important as any other defense matter. Grundy, Biggs, Annear, and Mihrshahi(2008) even argue that public health analyses should be brought under the purview of defense policies.

There are many opposing opinions to questions regarding why some countries succeed in fighting against the health threat of a pandemic, while others fail in the effort. Some researchers argue that the role played by international organizations such as the WHO (World Health Organization) is vital in preventing the global spread of pandemics. Existing scholarly literature on the discourse pertaining to global health security is centered on the functioning of international organizations or internationally mobilized non-governmental organizations(NGOs) in overcoming global threats posed by communicable diseases(Fidler 2004). Some scholars have observed that pandemics are increasingly concentrated in the world's poorest countries, and they regard social and economic development as being important parameters for the effective management of epidemics(Parker 2002). However, many countries with relatively high economic capacity and advanced medical technology also experienced difficulties in managing the severe threats posed by SARS and Avian flu in the early and middle years of the 2000s. Other experts contend that the transparency and competence of national governments are pivotal to the enhancement of health security at the state level. Effective public management of epidemics may help with the decrease of transmission rates by reducing the degree of population contact and improving infection control at hospitals(Gizelis 2012). What, then, are the significant factors that contribute to the amelioration of human security?

This study attempts to investigate the impact of various factors mentioned in the existing literature on health security. These aspects include the role of international actors, the level of economic development, and the political characteristics of a state in terms of democracy and government capacity. The present examination also aims to assess whether the domestic or the international features are more significant to the promotion of health security. It further purposes to

ascertain whether the economic development level or the democratic nature and government capacity, are more important to the mounting of defenses against global health threats.

With regard to human security, extant literature tends to emphasize the magnitude of the international factor over the domestic factor. However, this study elucidates the influence of domestic factors on health security along with the roles performed by international actors. Existing literature is also inclined to value a country's economic development level over the factor of democracy or government capacity with respect to the issue of human security. This study goes beyond previous studies to find that for health security, democracy or government capacity is more significant than economic development level. The present investigation contends that the political characteristics of a state exert an immense impact on its health security or its control of communicable diseases and finds that democracy or government capacity is vital to the determination of the ability of a state to preserve the physical well-being of its people.

The next section reviews existing research conducted on health security and discusses the limitations of previous scholarly efforts to explain the success or failure of health security. Section 3 presents the hypotheses and data analysis, and section 4 reveals the implications of the analysis through a brief discussion of a case study of SARS in China in the early 2000's, showcasing the failure of health security because of the lack of democracy. Finally, the outcomes and inferences of this study are outlined in the conclusion.

2. Literature Review

Many researchers maintain that bilateral donor agencies and international actors such as the WHO, Global Health Initiatives(GHIs), World Bank, and the European Commission contribute to the diffusion of policy ideas and to the promotion of policies pertaining to the handling

of infectious diseases such as influenza, HIV, tuberculosis, and sexually transmitted infections(STIs)(Kamradt-Scott 2011). Referring to the mechanism with regard to the manners in which international actors diffuse policy ideas and policies for health security, Walt et al.(2004) reject the argument that new policy ideas and policies flow rationally into decision making. Instead, they propose that such policy diffusion goes through separate iterative loops of bottom-up adoption, research-oriented adaption, and top-down marketing cycles. They review the framework through which policy ideas and guidelines of such international actors as the WHO and the World Bank are transferred to the national level in the attempt to combat tuberculosis and STIs, and find that the mechanism of policy transfer from the international to the national level goes through three separate loops. First, knowledge is generated before agenda setting and policy transfer, and health workers in the fields are the main actors who disseminate awareness with regard to the methods of combating infectious diseases; second, international organizations, research institutes, and government agencies form global public policy networks to deal systematically with problems gauged by the field health workers; third, international organizations formulate global, standardized best practices and strategies to broadcast their policies to many different countries (Walt et al. 2004).

The positive influence of international actors on the improvement of public health has received increasing attention. Biesma et al.(2009) review country-level evidence on the impact of Global Health Initiatives(GHIs) with regard to the development of country health systems, and discover positive effects including rapid service delivery, greater stakeholder participation, and the channeling of funds to non-governmental stakeholders. Yu et al.(2008) present the mostly positive impact of scaled-up responses of international actors to HIV/AIDS on the health systems of developing countries.

Virus-led communicable diseases such as bioterrorism, AIDS, SARS, and Avian influenza are prominent threats to the health security of global citizens and these pandemics have evinced the need for global health

security governance to address these diseases(Fidler 2004). Fidler(2004) emphasizes that the current international governance system of creating health security centers to mediate the interaction between a sovereign state and intergovernmental organizations such as the UN and WHO, but declares that more robust action is required from transnational actors or NGOs such as the Doctors Without Borders. NGOs can provide the financial and technical support and the essential delivery of HIV prevention and medical care to the afflicted, fund educational programs to inform the public about the risks and preventive measures, and lobby government officials to push for effective AIDS policies to slow down the spread of the disease(Shircliff and Shandra 2011). According to Maynard(2016), NGOs perform a major role in improving global public health and cooperate with the WHO and governments to provide low cost drugs or easier access to medical services and knowledge.

However, other scholars are skeptical about the efficacy of international actors with regard to the improvement of the health security of global citizens. Criticized as an undemocratic and politicized institution, the WHO does not satisfy the needs of member countries apart from the primary donors because of a lack of transparency and accountability(van de Pas and van Schaik 2014), a weak leadership, and low engagement(Battams 2014). These problems have been recognized in the WHO since its foundation, but it is doubtful whether the issues have been appropriately handled. The Ebola outbreak in West Africa in 2014 is an example of WHO's lack of effectiveness due to a weak secretariat and poor decision-making abilities. Internal difficulties such as financial, cultural, and political constraints exist within the secretariat and in the above instance, it did not respond suitably to the attempts of countries to conceal disease-related information that could harm their trade and travel sectors. As the secretariat fails in preventing countries from covering up disease-related information, states continue to invoke their sovereignty to justify their non-compliance with international organizations. The case of the Avian influenza in Indonesia in 2007 may be cited in this context. The nation withheld avian influenza virus samples from WHO's global

influenza surveillance network in violation of International Health Regulations. The Indonesian government was subject to reprimands and to global criticism but ultimately, it could not be forced into adhering to international norms(Stevenson and Cooper 2009). Another such example is a case of SARS. The countries involved invoked the protection of their sovereignty to disallow WHO the autonomy of intervening into their public health emergencies(Kamradt-Scott 2011).

The domestic characteristics of individual states are associated with the spread of global pandemics. The level of economic development or income, and the capabilities of governments are noted to contribute to the improvement of the health security of citizens. In general, good public health is better maintained in economically advanced countries in comparison to economically weaker nations, and no one can deny the importance of economic development for the overall health security of citizens. Infectious diseases including malaria, tuberculosis, and HIV/AIDS disproportionately affect the poorest populations of the world. The lack of material, physical, and financial resources along with limited access to health care, preventive tools, and medications are all established variables in analyzing the lack of health security(Bhutta et al. 2014). Treatment for such diseases is evidently expensive. The reality of high costs of patented medicine, limited availability of health workers, and weak infrastructure makes treatment for pandemics such as AIDS extremely expensive. It is, thus, not surprising that poor countries are hit harder than rich nations. In fact, according to statistics published by UNAIDS, low to middle income countries contracted more than 96 percent of the new infectious diseases in 2007(Condon and Sinha 2008). It may hence be asserted that wealth is helpful for the protection of human security.

The level of democratization or government capacity is also vital for human security. The political system of democracy is directly related to the manner in which governments cooperate with international actors and how they respond to public demands for human security. Neumayer finds a positive association between democracy and the diplomatic commitment of dealing with global problems. He provides empirical

evidence in support of the argument that democratic governments sign and ratify more multilateral environmental agreements, participate in more environmental IGOs(Intergovernmental Organizations), comply more with reporting, protect a greater proportion of land, and make more environmentally relevant information available to citizens in comparison to non-democratic regimes. Democratic governments make information sharing easier among states, international actors such as NGOs and IGOs, and the public. This sharing of knowledge is a crucial factor influencing the adoption of environment-friendly policies by democratic nations. In fact, democratic countries ratified the Kyoto Protocol and the Biosafety Protocol in higher numbers than non-democratic nations(Grigorescu 2007).

The positive relationship between democracy and environmental protection is grounded in the five characteristics of democracy(Neumayer 2002): First, unlike authoritarian regimes, democracies respect individual rights and enable activists to freely market ideas and transform them into legislation; second, democracies are more responsive to the citizenry and demonstrate an increased degree of accountability; third, freely flowing information allows for political learning in democracies; fourth, democracies cooperate more with each other via transnational pressure groups in fields including environment, health, and welfare; finally, democracies champion free-market economies, making businesses subject to external multi-sectoral incentives and sanctions that may apply to health, environment, and other public welfare issues. Gerring also evinces the negative relationship between the level of democracy and a country's infant mortality rate(Gerring et al. 2012). Hence, the manner in which democracy becomes a positive factor for environmental security can also be applied to its influence on health security.

Studies evidence that democratization often creates international and domestic demand for new social services and for the expansion of outlays on health and environment. IGOs and NGOs actively function to press states to formulate policies, and states can rely on IOs for more information and for policy coordination(Fredriksson and Wollscheid 2007). NGOs can promote governmental expenditure on certain sectors by

changing the policy-making environment, by mobilizing resources that help generate domestic pressure for increased health spending, or by directly influencing health budgets through advocacy(Murdie and Hicks 2013). According to these studies, however, IOs may be expected to positively affect outcomes only when a country can claim a fairly high level of democracy. Many studies demonstrate that the role of international organizations is important for human security, and that the lack of compliance on the part of individual nations to the policies of such organizations is damaging to human security. International organizations such as the WHO apply new technology and surveillance systems and are thus able to detect new cases of unusual symptoms, illnesses, or death anywhere in the world much before state governments officially confirm a new outbreak of these diseases(Roberts and Elbe 2016). Yet, despite the improved capability of international organizations, they cannot significantly contribute to the improvement of health security if individual states are not prepared to accept and to implement the policies proposed by them. Justesen argues that political regimes affect health policies related to the HIV/AIDS and that free electoral systems bear a positive relationship with greater access to the treatment of HIV/AIDS. According to him, democratic governments respond to HIV/AIDS as they respond to demands for health care in general, while autocratic governments target access to treatment to supporters and high-ranking officials without fear of electoral repercussions(Justesen 2012).

Government capacity is also vital to human security because policies for the improvement of human security cannot be implemented without this attribute. Gizelis indicates a negative relationship between political capacity and democracy on the one hand and the spread of AIDS measured by new cases per capita on the other. She demonstrates that economic wealth is not the only determining factor for protection from AIDS and that state capacity and democracy are greater in their effects in this regard(Gizelis 2009).

3. Data and Analyses

This study examines data from 2010 and 2015 to ascertain whether or not international actors such as WHO, the economic development level of a country, and a nation's political characteristics in terms of democracy and government capacity are important attributes for the improvement of human security.[2] The hypotheses of this study state that each of the abovementioned aspects contributes to the amelioration of health security.

Dependent Variable

The dependent variable of this research is health security, which can be measured by various indicators such as a total number of pandemic crises, vaccination rates, infant fatality rates, and life expectancy. This research uses the *cause of death by communicable diseases and maternal, and prenatal and nutrition conditions (% of total)* data provided by the World Bank as the marker of health security at the time of the spread of pandemics. The cause of death refers to the share of all deaths for all ages by underlying causes of that condition. In the present context, it would pertain to communicable diseases as opposed to noncommunicable diseases. Although the WHO classifies health problems and diseases largely into two groups, communicable and noncommunicable diseases, this research initiative focuses on communicable diseases because the fundamental point of the dissemination of a pandemic occurs through the communication of a virus. Communicable diseases and maternal, prenatal and nutrition conditions comprise infectious and parasitic diseases, and respiratory infections(The World Bank). The aggregation method is the weighted average, and data pertain to 2010 and 2015 figures for 183 countries. The statistical values for the dependent variable range from 1.2% to 71.5%, with the average computed to be 23.74%(The World Bank).

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2) Data are used from 2010 and 2015.

Independent Variables

The main independent variables of this study are the degree of democracy and government capacity. First, government function, political pluralism, political participation, civil liberty, and political culture are considered the indicators of democracy. Data on these indicators is found in the Democracy Index produced by the Intelligence Unit of the Economist(The Economist Intelligence Unit 2010). The index of overall democracy presenting the aggregation of values on these five indicators is employed in this study(The Economist Intelligence Unit 2015). The values of overall democracy range from 0 to 10 in which 10 represents the highest level of democracy and 0 the lowest. The mean value for overall democracy is 5.49 with the range extending from 1.08 to 9.93. Second, government effectiveness and regulatory quality are utilized as indicators of government capacity. This data may be found in the World Bank's Worldwide Governance Indicators. Government effectiveness "captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies," and regulatory quality "captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development(The World Bank)." The values of both indicators range from −2.5 to 2.5, where 2.5 is the highest level of government effectiveness or regulatory quality. The mean value for government effectiveness is −0.08 with a range of −2.21 to 2.24, and the mean value for regulator quality is −0.09 ranging from −2.45 to 2.26.

The number of delegates from each country that participate in the annual World Health Assembly of WHO is considered another independent variable that may represent the relationship of each country with WHO. The participation and delegation of state members in the international organizations are often used as indicators to represent international cooperation and engagement.[3] The more delegates a country

sends to the WHO, the closer relationship it may share with the IGO.[4] This study aims to determine whether or not an association with WHO positively affects health security. The annual conference of the World Health Assembly, the main decision-making body of the WHO, is held in Geneva, Switzerland. Delegates from each country include the chief delegate, deputy chief delegates, delegates, and other alternate delegates who attend the conference to discuss a specific health agenda prepared by the executive board. The attendees determine policies, appoint positions, supervise finance, and review or approve proposals(The World Health Organization 2010). The number of delegates from each country ranged from 0 to 64, and the average number of delegates was computed to be 11.28 for the years 2010 (63rd WHA) and 2015, (68th WHA). These data are included in the regression analyses conducted for this study(The World Health Organization 2010). For example, in the 68th session of the World Health Assembly in 2015, the number of delegates from each country ranged from 0 to 64, and the average number of delegates was 11.25. China sent 64 delegates, Russia 51, and Thailand 50, and the agenda included Ebola outbreaks, health emergency plans, antimicrobial resistance, epilepsy, international health regulations, malaria, nutrition, polio, and public health(The World Health Organization 2015).

Per capita GDP, logged population, health expenditure represented as a

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3) It is fairly established in existing literatures that membership in international organizations may have a positive effect for improving human security. For example, according to Lee et. al.(2018) if a state is a member of international organization, it is less likely for it to have militarized disputes. Castelleno(2016) found that the member states of international organizations tend to have lower military spending. According to Goodwin(2013), when the delegates of states participate in international conferences relating to the environmental issues, they are more likely to sign environmental treaties.

4) Another common number provided by the WHO is the amount of aid or donation transactions by its member states, but this has been determined as unfit. The WHA can be judged as most representative measure because other numbers provided by the WHO such as financial factors are lopsided due to the fact that richer countries inevitably donate only, while poorer countries inevitably receive more. This would not be a fair and equal comparison. Participation in delegates can encompass the efforts of all states without excluding them for financial reasons.

percentage of GDP, and out-of-pocket payments for health[5] and year are also employed as control variables.

Analyses

An OLS(Ordinal Least Square) regression was implemented to analyze the relationship between the independent variables and the dependent variable vis-à-vis the percentage of death caused by communicable diseases. Table 1 reports the results of the OLS regression. Model 1 presents the impact of WHO and the control variable of economic development level on health security. The main independent variables of this study, democracy and government capacity, are not included in this model. In other words, if the independent variables of democracy and government capacity are kept out of the purview of the analysis, only the economic development level of a country represented by its per capita GDP exerts a negative impact on the dependent variable, the death rates caused by communicable diseases. Although the coefficient is very low, as per capita GDP of a country increases, death caused by communicable diseases decreases. In this model, the relationship of a country with WHO, as represented by the number of delegates it sends to its annual conference, is not found to affect health security.

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5) According to the World Bank's data base, "estimates of current health expenditures include healthcare goods and services consumed during each year" and "out-of-pocket payments are spending on health directly out-of-pocket by households."

〈Table 1〉 The Impact of Democracy and Government Capacity on Death Rates by Communicable Diseases

	Model 1		Model 2		Model 3		Model 4	
Democracy			−3.654*** (0.640)					
Government Efficacy					−17.052*** (1.628)			
Regulatory Quality							−13.161*** (1.594)	
Delegates	0.171 (0.160)		0.287 (0.158)		0.351* (0.139)		0.241 (0.145)	
Out-of-pocket expenditure	0.051 (0.066)		−0.056 (0.068)		−0.114 (0.059)		−0.058 (0.061)	
Health expenditure	−0.518 (0.444)		0.294 (0.471)		−0.012 (0.387)		0.087 (0.410)	
Population (logged)	−0.093 (0.850)		−1.065 (0.948)		−0.307 (0.736)		−0.231 (0.774)	
GDP per capita	−0.001*** (0.000)		−0.000*** (0.000)		0.000 (0.000)		−0.000 (0.000)	
Time	−0.302 (0.429)		−0.303 (0.429)		−0.310 (0.372)		−0.317 (0.390)	
N	331		313		331		331	

Standard errors in parentheses, *p<0.05, **p<0.01, ***p<0.001

Model 2 presents the impact of the independent variables on health security when the independent variable of overall democracy is incorporated in the analysis. It shows the negative impact of democracy on the death rates caused by communicable diseases thereby evidencing a positive impact of democracy on health security. However, the relationship of a country with WHO does not affect outcomes at all.

Model 3 and 4 illustrate the impact of the independent variables on health security when the indicators of government capacity is included in the analysis. According to Model 3, government efficacy exerts a negative impact on death rates caused by communicable diseases, demonstrating the positive impact of government efficacy on health security. However, the economic development level of a country displays no significant relationship with health security. Moreover, while the relationship of a

country with WHO shows statistical significance at .05 level, the direction counters our original expectations, showing a positive relationship with the dependent variable. Model 4 illustrates the impact of the independent variables on health security when regulatory quality is used in the analysis. It shows the negative impact of regulatory quality on the death rates caused by communicable diseases or evinces a positive impact of regulatory quality on health security. However, when the independent variable of regulatory quality is included in the analysis, the economic development level of a country is not seen to constructively influence health security, and neither does the relationship of a country with WHO. These results emphasize the role of government capacity on controlling the communicable disease.[6)]

In the literature review presented above, it has been noted that there are two contending views with regard to the impact of WHO on human security, but the findings of this study evidence that although it is an international organization designed to promote human security, engagement with the WHO does not exert impact on the protection of the world population. It has also been previously noted that the economic development level positively affects human security, and this study confirms this finding. However, if the independent variable of democracy or government capacity is included in the analysis, democracy or government capacity is found to constructively affect human security, while economic development levels are seen to have a relatively negligible effect

4. The Implications of the Regression Results for a Case study on China

Pandemics are natural disasters that do not conform to state borders,

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6) We use VIF(variance inflation factor) for multicollinearity check. For all four models the mean VIF is below 2. VIF is below 3 for all the respective variables in four models.

and are able to spread across the globe. The regression results conducted by the present investigation can present several implications for the control of the global dissemination of pandemics. The results evidence that the absence of democratic characteristics of national governments hinders the containment of a virus and, in fact, facilitates its spread. If actions taken by the government *after* an outbreak are observed, certain specific government-related problems that actually intensify the crises may be identified.

One example that can be cited in this context is the 2003 outbreak of SARS in China. China was one of the largest economies at that time, but its per capita GDP equaled that of the world's poor countries. Although there can be no single answer with regard to why China faced the outbreak in the first place, the bigger question pertains to why the disease was not controlled or restrained for a long time after its outbreak, allowing for its escalation to a very high fatality rate. A search for the answer to this question yields the result that the political characteristics of China were more to blame than its underdeveloped economic level or the ineffectiveness of WHO(Huang 2004).

When SARS broke out in 2003, the Chinese government falsely announced in a state-run television broadcast that China was safe from SARS. Moreover, it aired images of happy tourists traveling around the country. Further, when the news of SARS inevitably surfaced despite the televised propaganda, Chinese officials continued to suppress the truth through their official media and press coverage, stating that there were only ten SARS cases in the capital and that this number did extend beyond 37 even months after the outbreak(Gittings and Meikle 2003). The Chinese government did not allow WHO experts to examine the situation until early April 2003(Zhang and Fleming 2005). Only after WHO began to realize the seriousness of SARS in China and started to intervene did China admit that its authorities had lied about the true extent of the SARS crisis. It was finally revealed that the number of confirmed SARS cases was 339. By May 2003, Beijing reported over 2,177 SARS victims and 114 deaths(Caballero-Anthony 2005). Obviously, China missed the

potential golden time for action to prevent the spread of SARS; it also exacerbated the situation and amplified the rate of the SARS infection's transmission. The lack of democracy and the authoritarian control of the media were the main reasons behind China's failure to control SARS and to cooperate with WHO in containing the outbreak. Originally, China concealed the actual status of the SARS crisis because it feared economic and social injury to result from such news. In fact, the economic consequences of the SARS pandemic amounted to the loss of more than 11 billion Chinese yuan, equivalent to 1.3 billion US dollars(Mackey 2012). China suffered enormously, especially in the travel and tourism sector. In addition, it registered a fall in consumer confidence, in domestic demand, and in business prospects. Many firms were threatened with collapse as the cost of SARS rose(Mackey 2012).

Prior to China's official acknowledgment of the crisis, WHO criticized the lack of cooperation it received from Chinese authorities, and it took a considerable amount of time for WHO to obtain Chinese support in terms of more information and teamwork. The Chinese authorities were very reluctant and hesitated to accept WHO's requests to allow its medical team to investigate the Guangdong Province, allegedly the original site of the SARS outbreak. WHO's Director-General, Gro Harlem Brundtland, censured China, asserting that it was this slow and reluctant response on the part of the Chinese government that cost more lives and increased fatality rates(Mackey 2012). In particular, China tends to prioritize its image and to save face over reaching out to seek help in times of crises. Its tradition of saving face and the communist penchant for secrecy may be the two important pillars that motivated the country's tight control of broadcast media with regard to news on SARS. Transparency is extremely important for a globalized and modern society and even more so for fortifying democracy. Canada's former ambassador to China condemned this lack of forthrightness and stated that the Chinese state does not share information with anyone, and suppresses vital facts. China's actions, though economically motivated, caused a regressive setback to its international relations.[7)]

The outbreaks of SARS in China illustrate the crucial linkages between the level of democracy and government capacity and the pattern of a nation's health security management with respect to threats and risks pertaining to communicable diseases. The hesitation of the Chinese authorities in sharing pertinent information in a period that was fatal for many of its citizens created panic among people and prevented the effective management of the SARS outbreak. The lack of democracy in China accounted for the initial denial of the government and the concealment of information about the pandemic, and prevented WHO from helping China control the disease immediately after the outbreaks. In China's political context, it would have been disrespectful for domestic scientists to declare otherwise once the Ministry of Health had announced that the illnesses were not of major consequence. Of course, the Ministry of Health also initially banned the expression of alternative views regarding SARS(Enserink 2003). This faulty and undemocratic behavior on the part of the state authorities is not specific only to China. It applies to other rich but undemocratic countries like Singapore, which was also strongly affected by SARS. China cannot be said to possess the high government capacity for the protection of human security as has been demonstrated by the policies and actions of the Chinese government at the time of a health crisis.

China is a country in which many infectious diseases may break out easily as its per capita GDP still remains at the level of the world's impoverished countries. China sends a large number of delegates to the annual conference of WHO, but despite such a relationship with WHO, the IGO could not help China protect its human population because of the resistance of the Chinese government to the sharing of accurate information at the outbreak of the SARS pandemic. This resistance was absolutely due to the undemocratic and authoritarian characteristics of the Chinese government and its poor judgment regarding human security.

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7) "China's Inaction on SARS Criticized by Former Diplomat," CBC News (6 April 2003) <https://www.cbc.ca/news/canada/china-s-inaction-on-sars-criticized-by-former-diplomat-1.399813 > (search date: 6 January 2019).

5. Conclusion

In the face of the global spread of pandemics, some countries appropriately secure public health, whereas others fail in the effort. What factors contribute to the defense of health security? This study tests whether or not each of the independent variables mooted by previous research is important to health security. The aspects analyzed in this investigation include international organizations, the level of economic development, democracy, and government capacity. Different scholars have considered disparate factors as being pivotal to health security. Some regard international factors as being important, while others believe that domestic factors are paramount. Among the experts who emphasize the importance of domestic factors, there are some who regard economic development levels as being significant markers, while others think democracy or government capacity are central concerns. This study tested the validity of each of these contentions through regression analysis conducted on recent data.

First, the importance of international health organizations like the WHO to the protection of human security was tested. The significance of international organizations to the effective protection of global public health cannot be denied as deadly infectious diseases spread across national borders. However, as evinced in the case of China in 2003, the effectiveness of the WHO is limited in some countries. This paper investigated the manner in which the relationship of each country with the WHO affects human security. This association was measured by the number of the delegates each country sends to WHO's annual conference, assuming that more delegates implies a closer relationship with the IGO or that it illustrates an increased interest or involvement in the WHO on the part of a member country. The outcomes of this study adds support to the argument that such relationship of each country represented by the number of delegates at the WHO conference does not affect the issue of human security.

The importance of the level of economic development to the health security of a country was also examined. In fact, human security is stronger in economically developed countries, while it is observably weak in economically underdeveloped nations. Most infectious diseases have actually broken out in the poorer countries. This study confirms the consequence of economic development levels as represented by per capita GDP to the protection and improvement of a nation's human security.

However, incorporating political variables of democracy or government capacity, it is discovered that the factor of democracy and government capacity is extremely notable and affects human security in a positive manner. Democracy or government capacity is thus a decisive parameter for human security. This result confirms both the argument that democracy positively affects human security and the contention that government capacity is constructive in this regard. Government capacity is assessed in terms of a government's efficacy or regulatory quality, and both government efficacy and regulatory quality are noted to be helpful for human security, while economic development levels become irrelevant once this factor is introduced.

The state's response to the health crisis that resulted from the outbreak of SARS in China illustrates that infectious diseases are easily spread in regions that are impoverished in terms of per capita GDP. More importantly, the case study described above indicates that without democracy or government capacity, human security cannot be properly protected. The case of China also demonstrates that WHO cannot help to efficiently protect human security in nations bereft of democracy or government capacity.

As different scholars regard disparate factors to be important, there exists no literature on the factor that is of supreme consequence for health security. This study shows that the political characteristics of a country in terms of democracy or government capacity are paramount to the defense of the health of its citizenry. This finding is supported by the evidence from the China case study of the SARS epidemic in the early 2000's. In particular, the China case exhibits that WHO failed to prevent

the spread of the infectious diseases due to the lack of democracy or government capacity in China, and not because of the paucity of its medical capacity. This study also finds that the economic development level matters less for human security than the level of democracy or government capacity of a country. Although most democratic or governmentally effective countries are economically developed countries, the political system of the state is, in fact, the dominant factor for human security.

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국문요약

보건안보에 영향을 미치는 정치적 요인분석

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최근 중증 급성 호흡기 증후군 (SARS), 조류 인플루엔자 (Avian Influenza), 중동 호흡기 증후군 (MERS)등의 전지구적인 전염병의 발발로 많은 학자들의 보건안보에 대한 관심이 높아졌다. 왜 일부 국가들은 이러한 전염병의 예방에 성공하는 반면, 또 다른 국가들은 실패하는가? 이 논문은 보건안보의 달성에 영향을 미치는 요인들을 분석한다. 다수의 기존 연구에서는 세계보건기구(WHO)와 같은 국제기구의 역할을 강조하고 있다. 또 다른 연구에서는 개별 국가의 경제 발전, 민주성 그리고 정부의 능력과 같은 국내적인 변수에 초점을 맞추어 보건안보를 논의한다. 이 논문은 이와 같은 기존 연구의 주장들을 최근 데이터의 분석을 통해 검증한다. 데이터 분석의 결과는 민주주의와 정부의 능력과 같은 국내 정치적인 변수가 국제적인 요인이나 경제적인 변수 보다 보건안보의 달성에 중요한 요인임을 보여준다. 이 연구는 중국의 사례 분석을 통해서 국내 정치적인 요소의 중요성을 보여준다.

주제어: 보건안보, 전염병, 민주주의, 세계보건기구 (WHO)

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