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Vaccines Are Not Evenly Distributed? Threats To Human Rights And Herd Immunity

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Abstract
The Covid-19 pandemic has had a significant impact on all humankind by causing losses in all aspects of life. Like other infectious diseases, vaccines are the most potent weapon that human has in fighting the COVID-19 pandemic. But problems arise over who has the right to get the COVID-19 vaccine. All social issues began to emerge and caused clashes between human rights and the inadequate effectiveness of vaccines if they were not given to the whole community (Herd immunity was not achieved). This research is a literature review research with data searches conducted on various search engines such as Google Scholar. This research is qualitative research, where all materials and literature that have been collected during the research period will be reviewed with three types of approaches, namely juridical, conceptual and analytical approaches. The results of the study describe that the ideal goal of the Vaccination action is to eradicate COVID-19 cases. One of the efforts to achieve this goal is to establish a Herd-immunity and ensure that every citizen has his right to vaccinate fairly. Indonesia launched a free COVID-19 vaccination program as of December 16, 2020, as a form of the State's implementation in upholding Human Rights, the 1945 Constitution, Law No. 39 of 1999, and formed herd-immunity in the context of handling COVID-19 as effectively and optimally as possible

Kata Kunci:
COVID-19; Vaksinasi; Kekebalan Kelompok; Yuridis; Konseptual; Analitik

Abstrak
Pandemi Covid-19 memberikan dampak yang signifikan bagi seluruh umat manusia dengan menimbulkan berbagai kerugian di segala aspek kehidupan. Seperti penyakit menular lainnya, vaksin merupakan senjata yang paling ampuh dalam memerangi pandemi COVID-19. Berbagai persoalan sosial muncul dan menimbulkan bentrokan pada berbagai aspek hak asasi manusia dan ketidakefektfan vaksin jika vaksinasi tidak dilakukan kepada seluruh masyarakat (Kekebalan kelompok tidak tercapai). Penelitian ini merupakan tinjauan literatur dengan

menggunakan berbagai mesin pencari seperti Google Scholar. Penelitian ini merupakan penelitian kualitatif, dengan semua data dan literatur yang sudah dikumpulkan selama periode penelitian akan dilakukan peninjauan dengan tiga jenis sudut pandang, yaitu; sudut pandang yuridis, sudut pandang konseptual, dan sudut pandang analitik. Hasil dari penelitian menggambarkan bahwa target ideal dari vaksinasi adalah untuk mengeradikasi COVID-19. Salah satu upaya untuk mencapai target ini adalah dengan membangun kekebalan kelompok dan memastikan bahwa setiap orang berhak mendapatkan vaksinasi secara adil. Indonesia mencanangkan program vaksinasi COVID-19 gratis sejak 16 Desember 2020, sebagai wujud partisipasi pemerintah dalam menegakkan HAM, UUD 1945, Undang-Undang Nomor 39 tahun 1999, dan membentuk kekebalan kelompok dalam rangka menangani COVID-19 seefektif dan seoptimal mungkin

Introduction

In modern times, infectious diseases are a class of diseases that can be prevented, treated and controlled by the application of the latest technology in the health sector and the sustainability of health facilities. The World Health Organization revealed that infectious diseases had become a disease that causes the highest death, especially in the age group of infants, toddlers, and young adults since the 20th century. Since 2020, the world has been at war with various infectious diseases such as HIV / AIDS, TB, malaria, polio, influenza, pneumonia, dengue, and many more. Total deaths from infectious diseases have reached 13 million deaths in 1 year, with TB, HIV / AIDS, and malaria accounting for more than 40% of deaths from infections. Influenza and pneumonia are one of the main causes of death in various countries with a prediction of the death rate from pneumonia are 250,000 - 500,000 people in 1 year. (World Health Organization, 1999, 2002)

The world today, at the end of the second decade of the 21st century, is experiencing a huge problem due to the emergence of mysterious pneumonia that was discovered at the end of 2019. An infectious disease that was first found in Wuhan City, Hubei Province, and has spread rapidly. across the mainland of China.(Kannan et al., 2020; Rothan & Byrareddy, 2020; Schulmeyer, 2020). On January 30, 2020, the World Health Organization declared mysterious pneumonia an outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and is considered an international problem that must receive special attention in all strategic policies of countries (Public Health Emergency of International Concern) (Sohrabi et al., 2020)

Twelve months have passed, cases of SARS-COV 2 infection until December 16, 2020, have. Infecting 72,196,732 cases worldwide with total deaths reaching 1,630,521 people. The United States occupies the country with the highest SARS-CoV infection with 30,925,241 cases, Europe 22,603,335 cases, Southeast Asia 11,468,106 cases, Eastern Mediterranean with 4,562,985 cases and Africa with 1,658,284 cases.(World Health Organization, 2020) Indonesia, as part of a Southeast Asian country, reported 629,429 cases with a death toll of 19,111 cases on December 16, 2020. (Kemenkes RI, 2020b, 2020a)

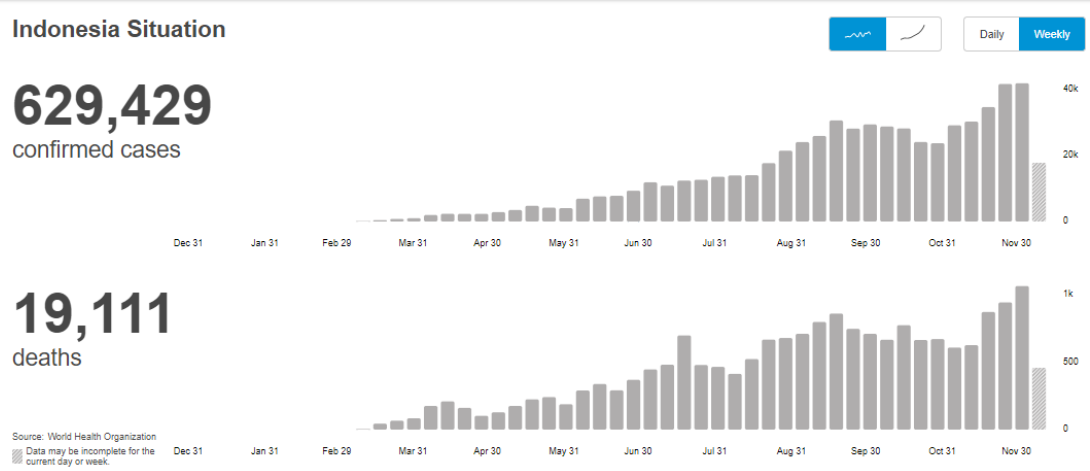

Figure 1.Case Report of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in Indonesia on December 16, 2020. (World Health Organization, 2020)

Facing the magnitude of the COVID-19 pandemic problem, various plans and strategic models have been developed by the government and scientists. Two types of methods considered to be the primary choice are to implement vaccination programs and preventive programs that include behaviour change. Jokowi Widodo has announced a change in behaviour to reduce the risk of spreading COVID-19 as a strategic step in handling COVID-19. The strategic steps that have been established from the beginning until now are in the form of managing patients with confirmed COVID-19, implementing large-scale social restrictions (PSBB), especially in areas with a high incidence rate, routine hand washing and hygiene, closing off access to foreign countries. (Presiden Republik Indonesia, 2020) However, after ten months have passed, COVID-19 cases continue to increase, and this proves that preventive measures alone are not enough to reduce the rate of spread of COVID-19.

Vaccines are one of the main options that can be chosen to reduce the number or rate of COVID-19 infection. Vaccines were chosen because of their advantages in terms

of efficiency, effectiveness and cost-effectiveness.(Brandeau et al., 2005; Suh, 2016) Previous references reveal that vaccination is the “ultimate weapon” against various infectious diseases and drug resistance.(Germann et al., 2006) Due to this dual effect, vaccines are the main choice as a way out of the problems caused by the COVID-19 pandemic. The final hope of the COVID-19 vaccination action is for herd-immunity to be formed. In ideal conditions, COVID-19 will become eradicated from the world just like Variola which only exists in history.(Breman & Arita, 1980; Elwood, 1989)

The way out of the COVID-19 pandemic is not always smooth sailing. The obstacle to the problem of vaccination is how it is distributed evenly in all levels of society. Equal distribution of vaccination hopes to create the most significant opportunity for herd-immunity. From the social aspect, it is in the context of realising social justice for all Indonesian people, as well as human rights issues. In terms of upholding the above elements, it is necessary to think that COVID-19 is a vast and fundamental problem, so it is wise that COVID-19 vaccination is free for all levels of society as well as basic vaccination programs (Hepatitis B, Diphtheria-Pertussis-Tetanus, Polio, Measles, Rubella and others).

This paper discusses vaccination and its impact on the emergence of herd immunity, human rights, and an overview of government programs to achieve the broadest possible vaccination for all levels of society.

Method

This research is based on literature review. The literature search took place from December 17, 2020, to December 20, 2020. Data searches were conducted on various search engines such as Google Scholar. This study examines strategic issues from a juridical normative point of view. Some of the data sources used in this study are credible secondary data sources. The secondary data sources in this study are divided into two, namely library sources and secondary sources of law. Library sources in this research include books, journals and other written documents. Secondary legal materials used in this study consist of applicable laws, court decisions, legal theory, doctrine, and expert opinions presented in the form of written documents.

This research is qualitative research, in which all materials and literature that have been collected during the research period will be examined in part with three types of approaches, namely (1) juridical approach through adjustments to applicable laws and

regulations (positive law in Indonesia); (2) a conceptual approach that considers the discussion from the sociological side which includes socio-culture and society; (3) An analytical approach by considering the relationship of various related aspects, namely social, cultural, health and legal. The qualitative research in this study is an approach in data synthesis, discussion, and data conclusions to provide the best results. (Ibrahim, 2006)

Results and Discussion

1. Challenges Of Covid-19 Vaccination In Achieving Herd-Immunity

Vaccines are one of the greatest inventions in the world of modern medicine. Vaccines are known to have been developed for 200 years by combining two disciplines, namely immunology and microbiology. Advances in science have succeeded in opening the veil of mystery regarding the mechanism of the human body's immunity induced by vaccines in preventing various infectious diseases that have an extensive impact on humankind, ranging from social problems, health, decreased quality of life, disability, economy, and many more.(Pulendran & Ahmed, 2011) The discovery of vaccines was a turning point in humanity's hundreds of centuries of war against microbes. (Zhu et al., 2010)

Ideally, the government's vaccination program can protect population groups at high risk of complications, such as polio, hepatitis B, diphtheria, and tetanus in infants and toddlers. However, the reality in the field shows that there is an interesting fact in the form of vaccination given to a group that has the potential to extend benefits to groups outside those who received a vaccination or outside the directly targeted group. The benefits and positive effects are that unvaccinated people gain immunity as a "group" by preventing the circulation or spread of infectious agents to vulnerable groups.(Kim et al., 2011) This effect is referred to as herd immunity, which means a condition when most people in a group have immunity to certain infectious diseases. The more people who are immune to an infection, the more difficult it is for it to spread because not many people can become infected.(John & Samuel, 2000)

This herd-immunity effect is essential because some groups are fundamentally impossible to get vaccinated, such as immunocompromised groups such as HIV / AIDS, diabetes mellitus, and other medical conditions that cause contraindications from the vaccination program. Herd immunity has a unique role in protecting groups that are

medically impossible to vaccinate against infectious diseases. (Anderson & May, 1990; Fine et al., 2011; D. R. Smith, 2019; P. G. Smith, 2010)

The achievement of Herd-immunity is not always easy; it takes a sufficient level or population size so that the number of vaccinated people is adequate to protect the unvaccinated group. Scheme 2 explains that the vaccine has a direct effect on the recipient in the form of a lower risk of contracting the disease (Panel A is a scenario without vaccination and Panel B is a scene after the implementation of the mass vaccination policy). Panel B explains that there is an additional effect from the group that has been immunised to become an agent that plays a role in breaking the transmission of the spread of infection to social groups.

This is known as herd-immunity in social groups. Ironically, herd-immunity will arise when the number of the population receiving the mass vaccination program reaches a certain level and taking into account the number of groups who find it difficult to get vaccines due to certain medical conditions such as old age, weak immune problems, medical conditions due to chronic diseases, malignancies, end-stage disease, autoimmune, and so on. So it is hoped that the group that has the potential and is medically capable of receiving vaccination will have the optimal number and as much as possible. This will only be achieved if the government provides clear regulations regarding vaccination obligations and the provision of free vaccinations as well as the government's program of primary immunisation for infants and toddlers up to 2 years of age. (Kim et al., 2011)

I was reflecting on the previous case, namely an eradicated disease in the form of Variola disease (Smallpox). Accidental eradication of variola cases can be achieved by mass vaccinating 80% of the population, and the final eradication was carried out in 1977. (Lane, 2006)

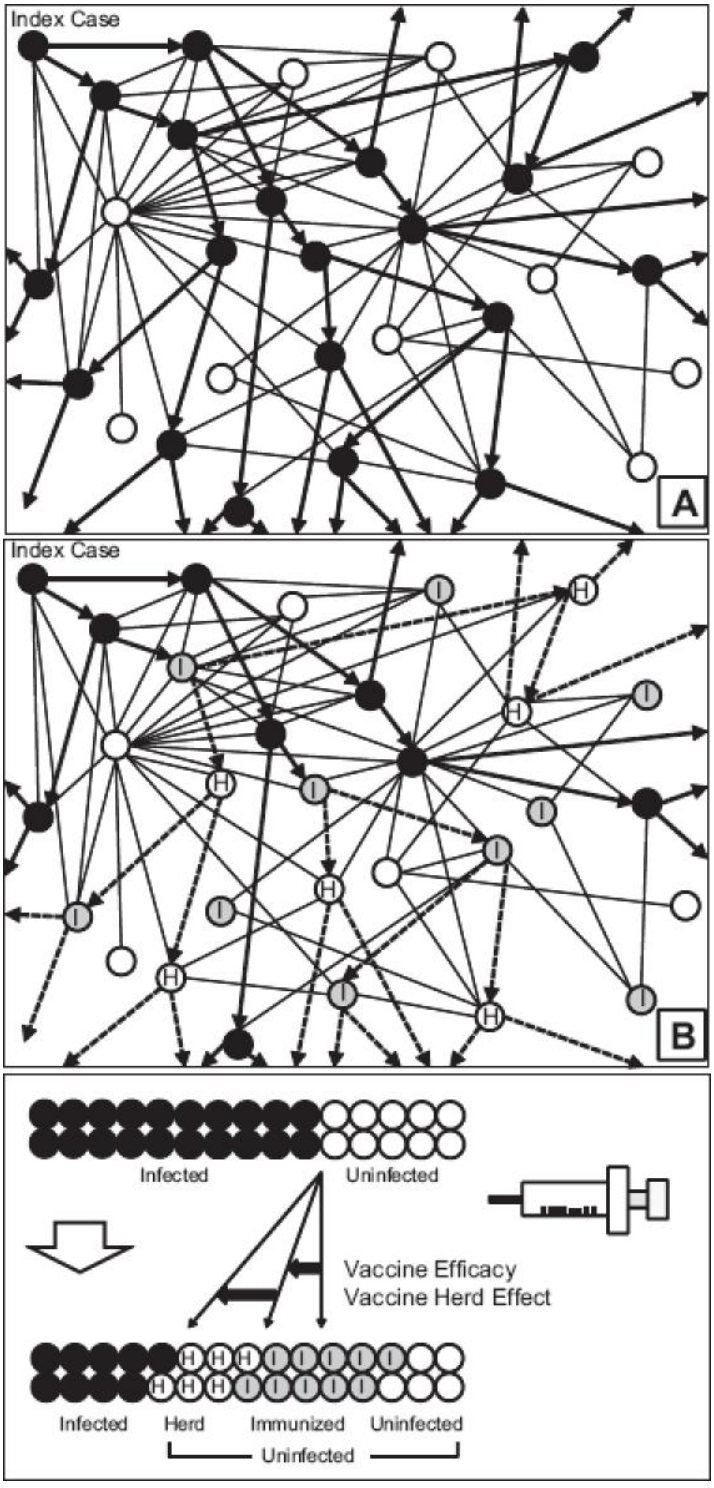

Figure 2. Herd-immunity scheme (Kim et al., 2011)

2. Vaccination Is A Human Right

Immunisation programs have been proven and tested to reduce disease morbidity and mortality, especially infectious diseases. The existence of vaccines has reduced the mortality rate due to pertussis, tetanus, measles, and diphtheria from 2 to 3 million deaths.

It is not surprising that vaccines and immunisation programs are at the forefront of eradicating the COVID-19 disease and saving people from the threat of disease that has become a problem and pandemic.. (National Center for Immunization, 2011; Unicef, 2005; "Vaccine Preventable Deaths and the Global Immunization Vision and Strategy, 2006-2015," 2006; Wolfson et al., 2008)

The description and search of the literature reveal that the effectiveness of vaccines in preventing the incidence of infection reaches 80%,(WHO/UNICEF, 2015; WHO, 2019) This means that vaccination is the main shield in defending against a COVID-19 infection. This main shield must be owned by every people and society regardless of social status such as economy, culture, race, religion, and so on.

The concept of a State is as an organisation of human/community power and is a means of achieving common goals. (Asshidiqie, 2009; Huda, 2007; Tamrin & Ihya, 2018) This can be interpreted that the State takes a policy, ideally, can cover and provide justice for all people under this auspices. Justice is not only about economic equality but also means equality in getting the opportunity to survive from various life-threatening conditions, one of which is the opportunity to get COVID-19 vaccination as a defence medium in dealing with COVID-19 infection. (Kolm, 1996; Sadurski, 2017; SCHEDLER, 1979; Young, 2011)

This equal and equal opportunity must not be limited by social status alone, such as the economy (poor and rich), geography (developed and marginalised areas), education (low or high), social status, and so on. The vaccination program launched by the government to eradicate COVID-19 should be able to reach all levels of society. One alternative is embracing this is the provision of free vaccination for all citizens. (Kolm, 1996; Sadurski, 2017; SCHEDLER, 1979; Young, 2011)

The 1948 Universal Declaration of Human Rights states that health is an inseparable part of the right to live a decent life (an adequate standard of living).("Universal Declaration of Human Rights 1948," 2009) The Declaration was further extrapolated to the International Covenant on Economic, Social and Cultural Rights of 1966.("International Covenant on Economic, Social, and Cultural Rights," 1977) Broader than the issue of the right to a decent life, humans are expected to have equal opportunities in obtaining medical access and equipment. This proves that a State should ensure that all its citizens have access to food, housing, employment, education, human dignity, life, non-discrimination, equality, the prohibition of torture, privacy,

access to information, and freedom of association, assembly and movement.(Honey, 2009; Scheinin, 2016; Zandy, 2019) It can be applied that, a State must ensure that every citizen has the right to life and in the context of the COVID-19 pandemic, that every citizen has the same opportunity to get access to vaccinations regardless of the social status of that citizen.

3. Indonesia's Regulations In Covid-19 Vaccination

On December 16, 2020, Joko Widodo as the seventh president of Indonesia, explained that the Covid-19 vaccine is declared free for all people regardless of the social status of Indonesian citizens. This news was delivered in a digital conference on December 16, 2020, from the State Palace of the Republic of Indonesia. This appeal simultaneously revises government policies and proposals regarding 75 million Indonesians who are expected to pay for the Covid-19 vaccine by themselves on the grounds of a limited budget.(Sembiring, 2020)

On the other hand, Joko Widodo also guarantees that he is a recipient of the Covid-19 vaccine and ensures the safety of the COVID-19 vaccine, where the vaccine has just received a distribution permit for emergency use from BPOM.(Sembiring, 2020) The seriousness of the government regarding vaccination in the eradication of COVID-19 is also stated in Regional Regulation Number 2 of 2020 which regulates various provisions for handling Covid-19, including sanctions for people who do not take an active role in preventing the spread of Covid-19. The fines awaiting from blocking the vaccine program are 5 million to 7 million rupiahs, where the implementation of these rules will be regulated in other regulations. (Wiryono, 2020)

Indonesia's policy in implementing Free Vaccination for all people is considered very wise because COVID-19 vaccination involves two strategic aspects, namely the issue of the State's obligation to protect citizens and the eradication of COVID-19 by forming herd-immunity.

Addressing human rights issues for Indonesian citizens with a view to the fourth paragraph of the 1945 Constitution and Law 39 of 1999 concerning Human Rights as a form of Indonesian moral and legal responsibility,(Presiden Republik Indonesia, 1999) then Indonesia is obliged to uphold Health Protection for its citizens. This principle is further elaborated in the 1945 Constitution: Article 28A: everyone has the right to defend his life and life. Article 28B paragraph (2): every child has the right to live, grow and

develop and has the right to protection from violence and discrimination.(Kemenristekdikti, 2015) Therefore, the government must make it free and ensure that all citizens get the free COVID-19 vaccination to carry out the constitutional mandate. (Galih, 2017)

Seeing from the Herd-immunity aspect, the reality in the field is that several groups are medically impossible to get vaccinated. As for the contraindications of the COVID-19 vaccination, which were reported by several clinical trial studies, four major groups contraindicated or were unfit for someone to get the COVID-19 vaccine, namely "with allergies (latest MHRA advice included)", "who are immunocompromised" "Who has a bleeding disorder", and "who have a current or previous history of COVID-19 infection".(Davis, 2020) The interesting point is that the immunocompromised group is extensive in medicine. In general, the Center for Disease Control and Prevention (CDC) groups the population classified as immunocompromised are those with HIV / AIDS; cancer and transplant patients. (Centre for Disease Control and Prevention, 2017) But looking further, the population of the immunocompromised group in the field was more than expected, which includes groups with old age, pregnant women, diabetes mellitus, autoimmune disorders, and the use of certain drugs that weaken the immune system for medical indications.

Infodatin 2020 released data that Indonesia is the third-largest country prevalence in Southeast Asia in diabetes mellitus morbidity, while the prevalence rate of diabetes mellitus in 2019 is 11.3%.(Kementrian Kesehatan RI, 2020) In terms of the elderly, the World Bank Census reveals that the elderly population in Indonesia is 9% of the total population.(World Population Review, 2020) On the other hand, lupus as the most common autoimmune disease in the community has a prevalence rate of 0.5% with the incidence of new cases varying from 1.2% to 22.9%.(Kementrian Kesehatan Republik Indonesia, 2017) The exposure of immunocompromised cases according to the 2018 Basic Health Research among mothers and children was very much, where cases of malnutrition were 3.9%, and cases of malnutrition were 13.8% in 2018. The population of pregnant women is also quite large, where pregnant women experience nutritional problems or chronic lack of energy varies from 14.4% to 32.5% in all provinces of Indonesia. (Kemenkes RI, 2018; RISKESDAS, 2018)

The figures above describe the number of groups that are medically unlikely to be vaccinated for specific medical indications. There is great hope that the COVID-19

vaccination program will be carried out to eradicate the COVID-19 disease like other infectious diseases, even in ideal conditions until it is completely eradicated such as variola infection. However, the struggle to reach that stage is not easy; it takes at least 80% of the population to receive vaccinations to form herd-immunity and get rid of COVID-19 cases. Therefore, all policies ranging from preventive activities (wearing masks, washing hands, maintaining distance, etc.) to the vaccination program should be very optimal. One of the things to boost optimisation is by not adding to the financial burden or by eliminating COVID-19 vaccination for all levels of society.

Conclusion

Vaccination is expected under ideal conditions aimed at eradicating COVID-19 cases, but the vaccination program requires a lot of strategies and efforts. One of these efforts is to establish Herd-immunity and ensure that every citizen has his right to get access to health (vaccination) fairly. Indonesia in its latest program seeks to eliminate COVID-19 vaccination as of December 16, 2020, as a form of the State's implementation in upholding Human Rights, the 1945 Constitution, Law No. 39 of 1999, and formed herd-immunity in the context of handling COVID-19 as effectively and optimally as possible

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