DIGITAL HEALTH POLICY AND HEALTH LAW: THEIR IMPACT ON SOCIAL INEQUALITY

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2nd ICOERESS
25th September 2025

Submission:
20th September 2025
Published:
31st December 2025

ABSTRACT

Current developments in digital technology have had a major impact on the health sector, including in Indonesia. In this study, the author uses a descriptive qualitative method combined with bibliometric analysis to examine how digital health policies affect social inequality, particularly from a health law perspective. Literature from various sources is analyzed to identify basic principles, emerging issues, and alternative solutions in the implementation of digital health policies. The results of the study show that policies such as SATUSEHAT, Electronic Medical Records (EMR), and telemedicine can indeed improve service quality, but on the other hand, they must be implemented with due regard to patient safety, personal data protection, healthcare worker accountability, and legal certainty. However, there are still many obstacles to overcome, such as limited infrastructure, low cybersecurity, poorly integrated legal regulations, and varying levels of compliance with the system among healthcare facilities. These conditions can exacerbate social inequality, especially for people who lack adequate digital literacy, stable internet access, or sufficient economic means. As a result, a digital divide has emerged, which risks creating inequality in healthcare services. Based on the results of the discussion, this study provides recommendations such as the need to increase human resource capacity, adjust telemedicine regulations to be more comprehensive, strengthen data security systems, and develop interoperability so that systems can connect with each other properly. Furthermore, active collaboration between the government, technology providers, and health facilities is needed so that digital health policies not only become a tool for improving service quality but also guarantee equal access for the entire community. Thus, digital health transformation can proceed in accordance with the principles of social justice and reduce existing disparities in society.

Keywords: Digital Health Policy, Health Law, Social Inequality, Digital Divide.

BACKGROUND

The development of digital technology has driven significant transformation in the global health sector. The concept of digital health, which includes telemedicine, electronic medical records, medical artificial intelligence, and health applications, is considered a potential solution to improve access, efficiency, and quality of health services. The COVID-19 pandemic has been an important catalyst in accelerating the adoption of digital health services in various countries, including Indonesia, due to the need to maintain essential health services while reducing the risk of virus exposure (Badr, Motulsky, & Denis, 2024).

One form of digital health that has experienced the most rapid growth is telemedicine. The use of telemedicine has grown rapidly during the pandemic, especially for doctor appointments and remote

consultations for chronic diseases. This technology has proven capable of maintaining the continuity of health services during the pandemic, while overcoming infrastructure limitations and medical personnel shortages, especially in developing countries. During the COVID-19 pandemic, nearly 250 digital health applications were in circulation, using artificial intelligence to detect COVID-19 infections (Figueroa et al., 2021). In Indonesia, the use of telemedicine has increased sharply with the emergence of various digital platforms such as Halodoc and Alodokter, as well as government applications such as PeduliLindungi and SATUSEHAT, which provide remote consultation services, symptom monitoring, and electronic medical record integration. This shows that digitization can be an important strategy in expanding access to healthcare services.

However, not all developing countries have benefited from the use of digital innovations to deal with the pandemic. As a result, the use of technology in healthcare is considered to have excluded some communities from the benefits of technology. This exclusion is not solely due to the technology itself, but also because of the skills, human resources, infrastructure, policies, finances, and supportive environment required for the technology to be adequate. Including, recently, everyone's right to health has been hampered by increasingly complex global challenges, ranging from geopolitical tensions to economic fragility, the increasingly severe impact of climate change, and trends in misinformation and disinformation. These areas must be addressed in order to bridge the digital divide. Otherwise, developing countries will miss out on the opportunities offered by digital health. This digital divide describes the difference between groups of people who have access, capabilities, and digital literacy and those who do not (Van Dijk, 2006). This phenomenon is found not only in developing countries but also in developed countries. A study by Wakeman et al. (2025) also shows a gap in the use of digital health services based on age, income, and race/ethnicity. Similarly, Jones et al. (2022) revealed that remote medical consultations have the potential to reinforce inequalities between communities that have adequate devices and connectivity and those that do not.

In addition to telemedicine, technological advances in the Industry 4.0 era have also led to the emergence of innovative health services such as genomic-based precision medicine, regenerative medicine, and the use of augmented and virtual reality in medical training and diagnostics. This approach emphasizes patient-centered care and intensive use of data. However, in developing countries, the use of such advanced technology is still limited due to infrastructure and resource gaps.

In the Indonesian context, the right to health is guaranteed in Pasal 28H ayat (1) UUD 1945. This means that the state has an obligation to ensure that developments in health technology do not widen social inequality, but rather expand access for all levels of society. Therefore, in addition to developing advanced technology, simple solutions that are relevant to social conditions are also important. For example, digital-based mobile health check-up services that enable health workers to reach households, thereby preventing chronic diseases and detecting health problems early on.

In Indonesia itself, prior to the Covid-19 pandemic, the country had already begun the initial stages of establishing a regulatory framework for telemedicine. Innovators such as Halodoc and Alodokter were at the forefront, pioneering the transformation of digital health services in the country (Batara et al., 2023). Prior to the issuance of specific telemedicine regulations by the government, the Ministry of Health (Kemenkes) had implemented telemedicine practices between healthcare facilities. Following the global declaration of COVID-19 as a pandemic, there was an urgent need for the government to expand the scope and parameters of telemedicine services. The enforcement of strict activity restrictions during this period made the provision of face-to-face healthcare services very difficult. Meanwhile, telemedicine services, which were expected to address this problem, were still very limited in terms of consultation services, examination coverage, and medication administration. These limitations resulted in inadequate treatment of non-COVID-19 diseases during the pandemic. As the world gradually returned to normal after the COVID-19 pandemic was successfully controlled, the government resumed its efforts to develop and improve technology-based healthcare infrastructure (telehealth). However, these efforts pose challenges due to gaps in the current telemedicine regulatory framework. These gaps arise from the removal of several regulatory foundations related to telemedicine, which were originally designed for Covid-19 response efforts, and the lack of readiness of the telehealth legal framework,

which is expected to become the foundation of a legal infrastructure that supports the development of technology-based health services in Indonesia.

Thus, the development of digital health should be viewed as both an opportunity and a challenge. On the one hand, technology can improve the quality of health services and accelerate service transformation. However, on the other hand, the existence of a digital divide requires the formulation of fair and inclusive policies so that every individual can truly enjoy their right to health. Studies on digital health policies and their impact on social inequality are important to ensure that digital innovation is in line with constitutional objectives in guaranteeing the welfare of society.

Internationally, there are several policies and guidelines regarding digital health, with the World Health Organization (WHO) releasing the Global Digital Health Strategy 2020–2025 to strengthen health systems through the application of digital health technologies for consumers, health professionals, and healthcare providers, transforming the industry towards patient empowerment and achieving the vision of health for all. It is designed to be adopted even by Member States with limited access to digital technologies, goods, and services.

Like Singapore, Korea and Thailand have strong digital health models. They have switched to private clouds to store health data. However, in India, experts have expressed concerns about the widespread digitization policy, citing significant capacity shortages, transportation challenges in rural areas, lack of financial resources, and stigmatization of certain groups. These concerns are exacerbated by the absence of a strong and comprehensive legal framework for data protection, which increases the risk of privacy erosion and human rights violations, the impact of which is likely to be borne by marginalized groups and individuals.

RESEARCH METHOD

This study uses a qualitative method with a descriptive approach. This method was chosen because it emphasizes understanding the meaning, process, and social context behind the implementation of digital health policies from a health law perspective. Data collection was carried out through a literature study by examining various sources such as scientific journals, books, laws and regulations, government reports, and relevant academic articles. These sources were analyzed qualitatively by reading, selecting, grouping, and interpreting the contents of the literature in order to develop appropriate research themes.

The data analysis focused on several key issues arising from the implementation of digital health policies in Indonesia. These issues include limited infrastructure and human resource readiness, weak data protection and cybersecurity threats, regulatory fragmentation resulting in legal uncertainty, and low compliance of health facilities with the SATUSEHAT system integration. In addition, this study also highlights the impact of digital policies on social inequality, especially for people with limited digital literacy, uneven internet access, and low economic capacity.

With this qualitative approach, the study is expected to provide a more in-depth picture of the relationship between digital health policies, health law principles, and their impact on social inequality. The results of the study are also intended to provide relevant recommendations so that digital health policies not only improve service quality but also ensure equitable access and reduce social inequality in society.

RESEARCH FINDINGS

Studies show that, despite issues with regulations and equitable access, the implementation of digital health policies in Indonesia has shown significant progress in modernizing health services. Several legal instruments, including the Health Law and Minister of Health Regulations, have facilitated current digital health policies. These include technical guidelines related to electronic medical records, telemedicine, and patient data protection. The results show that, although the regulatory framework is in place, its implementation at the field level is still partial and not yet standardized. Many hospitals, especially in remote areas, face infrastructure problems, a shortage of human resources, and a lack of

knowledge about data protection regulations. This creates legal uncertainty and the possibility of patient data privacy violations, which can undermine public trust in digital health services.

This study also found that digital health policies create new social gaps in access to health services. Low-income groups, the elderly, and those living in rural areas still have difficulty accessing digital health services due to limited devices, internet networks, and technological knowledge. Conversely, urban communities, those with higher education, and those with sufficient technological literacy tend to prefer the use of digital technology. The absence of affirmative mechanisms in policies to ensure that vulnerable groups have equal access is exacerbated by this inequality. As a result, the digitization of health services, which was originally intended to improve efficiency and equity, can actually widen social disparities.

The findings show that the success of implementing digital health policies does not only depend on the availability of technology; responsive health regulations and inclusive social policies are also necessary. In addition to policies on infrastructure equity and improving digital literacy for vulnerable groups, it is necessary to strengthen legal elements that regulate data protection, service standards, and the responsibilities of providers. Therefore, the shift to digitization in the health sector can be carried out fairly without causing social discrimination.

DISCUSSION

1. Implementation of Digital Health Policy from a Health Law Perspective

The development of digital technology has brought major changes to various sectors, including healthcare. Digital transformation in the healthcare sector has not only affected medical services, but also information management, hospital management systems, and the relationship between healthcare workers and patients. Indonesia, through the Ministry of Health, has rolled out a digital health transformation policy, including the SATUSEHAT platform, the obligation to use Electronic Medical Records (EMR), and telemedicine regulations (R.T Budiyanti et al., 2023). However, the implementation of these policies cannot be separated from legal aspects. From a health law perspective, digital health policies must comply with the principles of patient safety, data confidentiality, healthcare worker accountability, and legal certainty. Therefore, it is important to examine how existing regulations support or hinder their implementation.

A. Principles of Health Law in Digital Health:

From a health law perspective, there are several principles that must be upheld in the implementation of digital health policies:

1. Patient Safety

Technology should not lower medical service standards. Telemedicine and RME must continue to prioritize diagnostic accuracy, data accuracy, and clinical responsibility. The application of digital technology in healthcare services must ensure that there are no compromises to patient safety standards. The use of telemedicine can indeed accelerate access to services, but it risks misdiagnosis if standard clinical procedures are not followed. Therefore, integration between digital systems and clinical decision support systems (CDSS) is important to improve diagnostic accuracy and patient safety (Zhang et al., 2022).

2. Data Confidentiality and Privacy

Health data is highly sensitive information. The PDP Law emphasizes the importance of protecting patient data, including the right to control its use. Patient data protection is not only related to legal aspects, but also technical aspects, such as encryption, multi-factor authentication, and data security audits. The prevalence of health data leaks shows that regulations such as the PDP Law must be accompanied by the implementation of the latest security technology. Recent research emphasizes that

privacy by design and blockchain-based medical records can strengthen patient privacy protection in digital health services (Gupta et al., 2023).

3. Accountability of Healthcare Professionals and Facilities

Legal responsibility must be clear, especially in the context of telemedicine, for example, who is responsible in the event of misdiagnosis or data leaks. Clarity of legal responsibility in digital health practices is a significant challenge. For example, in telemedicine services, it is necessary to determine who is responsible in the event of medical errors whether it is healthcare personnel, digital platforms, or facility providers. Recent research confirms that unclear regulations can increase the risk of litigation and reduce public trust in digital health services (Alami et al., 2022). Therefore, a clear division of responsibilities is essential.

4. Legal Certainty and Standardization

Regulations must provide certainty, be unambiguous, and follow international standards such as FHIR (Fast Healthcare Interoperability Resources) for health data exchange. Legal certainty in the implementation of digital health requires regulations that are in line with international standards such as HL7 FHIR. Harmonization of domestic regulations with global standards is important so that medical data can be integrated across systems and countries. Recent research shows that poor interoperability can reduce the efficiency of digital health services by up to 30%, so regulations on health data exchange standards must be strengthened (Belle et al., 2021).

B. Implementation Challenges:

Despite having a legal basis, the implementation of digital health policies still faces several challenges, including:

1. Infrastructure and Human Resource Readiness

Not all hospitals or community health centers have adequate network facilities and IT personnel. The readiness of digital infrastructure in health facilities is not only related to the availability of internet networks, but also to local server capacity, compatible hardware, and training for health workers in operating digital systems (Kruse et., al 2021). A lack of technical personnel and digital competence among health workers often hinders the adoption of technology. In addition, the infrastructure gap between urban and rural areas adds to the inequality of access to digital health services. This has an impact on the quality gap in digital services.

2. Regulatory Fragmentation

Telemedicine regulations are still limited to inter-facilities. Direct services to patients do not yet have a clear legal framework, which could potentially lead to legal liability issues. A fragmented regulatory framework can create legal uncertainty for both medical personnel and patients. For example, the lack of standardization in the management of electronic medical records in various hospitals can lead to differences in data protection (Shaw et., al 2021). This also has an impact on potential legal disputes in the event of errors in telemedicine practices.

3. Data Protection and Cybersecurity

Cases of health data leaks indicate that information security systems in some health facilities are still weak. Health data leaks pose a double risk: loss of public trust in digital health systems and potential misuse of patient personal data. Health data protection is crucial because this data is classified as sensitive personal data (Sultan et., al 2021). Several countries have adopted a privacy by design approach to strengthen digital security, but its implementation in many health facilities in Indonesia is still minimal. This has the potential to violate patients' rights to privacy.

4. Compliance with SATUSEHAT Integration

Studies show that the level of compliance of healthcare facilities in submitting data to SATUSEHAT still varies, so that national data integration is not yet running optimally. The integration of national health data through the SATUSEHAT platform still faces obstacles due to differences in data standards between health facilities (Astuti et., al 2023). In addition, resistance from health workers in adopting the new system also slows down the integration process. To overcome this, capacity building and simplification of the data input process are needed so as not to increase the administrative burden on medical personnel.

C. Recommendations for Strengthening Implementation:

To strengthen the implementation of digital health policies from a health law perspective, several steps can be taken, including:

1. Harmonization of Telemedicine Regulations

Regulations need to be updated to regulate telemedicine services directly to patients, including the division of legal responsibilities. Harmonization of telemedicine regulations is crucial to avoid policy overlap and provide legal certainty for both medical personnel and patients. Uniform regulations also play a role in facilitating cross-regional services, especially in countries with federal systems or remote areas. Recent research emphasizes that harmonizing telemedicine policies can improve service quality, protect patient data, and strengthen public trust in digital health services (Alami et al., 2023).

2. Strengthening Data Security

Develop stricter technical standards for health data protection and require periodic security audits for health facilities. Health data security is a crucial aspect of digital transformation. Cyber attacks on hospital systems have increased significantly in recent years, making the implementation of regular security audits not only technically important but also ethically important. The use of encryption, two-factor authentication, and blockchain technology is recommended to protect electronic medical records. Recent studies indicate that strict security standards can reduce the risk of data breaches by up to 45% in digital health systems (Zhang et al., 2022).

3. System Interoperability

Mandatory implementation of international standards (e.g., FHIR) in data exchange between systems to ensure effective SATUSEHAT integration. System interoperability is key to SATUSEHAT integration so that patient data can be accessed across healthcare facilities without compromising security and privacy. A lack of interoperability standards can lead to data fragmentation and hinder healthcare coordination. Research shows that the implementation of international standards such as HL7 FHIR accelerates clinical data exchange, improves administrative efficiency, and improves the quality of medical decision-making (Rehman et al., 2023).

4. Human Resource Capacity Building

Healthcare and IT personnel need to be given special training so that they are able to manage digital systems in accordance with health regulations and ethics. Improving human resource capacity is not only about technical skills, but also digital literacy and ethical use of technology. Healthcare workers need to be given special training on the use of electronic systems, patient data protection, and the implementation of telemedicine services that are oriented towards patient safety. Recent studies emphasize that continuous digital training is directly related to improvements in the quality of technology-based healthcare services (Kraus et al., 2022).

5. Supervision and Evaluation

The government needs to conduct regular evaluations based on WHO and OECD indicators to assess the safety, quality, and effectiveness of digital services. The monitoring and evaluation of digital health services need to use international indicators such as those from the WHO and OECD, but they must

also be adapted to the local context. These evaluation mechanisms are important to ensure that digital innovations have a positive impact on improving access to and quality of health services. A study confirms that continuous monitoring is a determining factor in the success of digital transformation in the health sector (Greenhalgh et al., 2023).

Digital transformation in the health sector cannot be separated from legal aspects. From a healthcare legal perspective, policies such as SATUSEHAT, Electronic Medical Records (EMR), and telemedicine must continue to refer to basic principles such as patient safety, personal data confidentiality, medical personnel accountability, and legal certainty (Andrianto & Athira, 2022; Ghevariya et al., 2025). These principles are important because the use of technology should not compromise healthcare standards, for example in terms of diagnostic accuracy or doctors' responsibility towards patients (Catapan et al., 2025).

In addition, data protection is a crucial legal issue. Patient health data is sensitive data and must be strictly protected in accordance with the Personal Data Protection Law (PDP Law). Unfortunately, several cases of health data leaks in Indonesia show that cybersecurity mechanisms in healthcare facilities are still weak (Nugroho & Lestari, 2018; Soelasih et al., 2025). In addition, periodic security audits of digital health service providers are also very important to ensure accountability. Routine audits are not only intended to detect security breaches, but also to ensure that international standards regarding encryption and data management are strictly adhered to. A study confirms that the implementation of regular security audits can reduce the risk of data breaches in digital health systems (Zhou et al., 2022). Therefore, national regulations should require annual or even semi-annual audits for telemedicine providers. This proves that existing regulations need to be strengthened with technical standards and periodic security audits to ensure that patients' rights are protected.

In addition to strengthening technical regulations, there also needs to be synchronization between national regulations and international standards in health data protection. This is important because telemedicine practices often involve cross-border data exchange. According to a recent study, global regulatory harmonization is necessary to protect patient data sent through digital platforms without reducing the interoperability of health systems (Alami et al., 2023). If synchronization is not carried out, the risk of data leaks will be even higher, especially in countries with weak digital security infrastructure.

On the other hand, the aspect of legal accountability is also not entirely clear, especially in direct telemedicine services to patients. Public trust is also a fundamental aspect of the success of telemedicine. Even though regulations and data protection have been established, if the public still doubts the security and confidentiality of their health data, the use of telemedicine will remain low. Recent research has found that public trust can increase significantly when there is transparency about how patient data is used, stored, and protected (Choudhury et al., 2022).

Thus, transparency of information from digital service providers is an important strategy for encouraging widespread adoption of telemedicine. The fundamental question that arises is who is responsible in the event of a misdiagnosis or data leak: the doctor, the digital platform, or the government as the regulator? (Mahendradhata et al., 2025; Yi et al., 2024). This uncertainty has the potential to lead to legal disputes that could harm patients. In addition to regulatory aspects, the legal responsibilities of medical personnel in telemedicine practice also need to be clarified. Issues such as misdiagnosis, delayed response, or technical errors in the use of digital health applications can give rise to potential lawsuits.

Studies show that unclear legal responsibilities are one of the major barriers to the adoption of telemedicine, as doctors are concerned about the risk of litigation (Qiu et al., 2023). Therefore, a clear legal framework needs to be designed to limit and protect medical personnel from excessive legal burdens, without reducing patients' rights to justice. Therefore, regulatory harmonization is urgent so that the implementation of digital policies is not only innovative but also has strong legal certainty (Alami et al., 2020; Gotsadze et al., 2024).

2. The Impact of Digital Health Policies on Social Inequality

Advances in digital technology have enabled a transformation in the way we access information, communicate, and interact with healthcare systems. The application of digital technology in public healthcare services includes various innovations such as online platforms, telemedicine, mobile applications, big data analytics, artificial intelligence, and the Internet of Things (IoT) (Nugroho et al., 2023). With the help of this technology, individuals can easily access health information, conduct remote consultations with medical personnel, manage electronic medical records, and monitor their health conditions independently (Firdaus et al., 2021).

The use of digital technology in public health services also provides various significant benefits. First, digital technology enables more efficient and targeted health services, reducing the time and costs required to access health services. Second, digital technology also enables individuals to actively monitor and manage their own health, thereby encouraging healthy lifestyles and disease prevention. Third, digital technology can strengthen disease monitoring and control systems, enabling rapid identification and response to disease outbreaks and real-time epidemiological monitoring (Usak et al., 2020).

However, the use of digital technology also faces various challenges and problems. One of them is the aspect of regulation and policy. In implementing digital technology in public health services, a clear and up-to-date regulatory framework is needed to protect data privacy, maintain information security, and ensure ethical use of technology.

However, the development of digital health technology also poses new challenges in the areas of regulation and ethics. Patient data protection, information security, and equal access are issues that continue to be discussed. Without adaptive regulations, technology risks deepening health inequalities. A study highlights that digital health policies must integrate ethical aspects, patient rights, and the responsibilities of service providers to ensure fairness (Thiebes et al., 2023). In addition, the technology access gap is also a challenge that needs to be overcome so that all levels of society can feel the benefits of digital technology in public health services (Ramli et al., 2021).

Although digital technology in the health sector can improve access to services, the reality on the ground shows that it has the potential to widen the social inequality gap. Groups with low digital literacy, limited internet infrastructure, or limited economic capacity tend to lag behind in accessing digital health services. This reinforces the phenomenon of the digital divide, which occurs not only in education and the economy, but also in health and public health.

Social inequality in digital health policies can manifest in various ways. First, there is unequal access to services between urban and rural areas. Rural or remote areas often have limited access to basic infrastructure such as weak internet networks, relatively expensive data packages, and a lack of health

facilities connected to digital services. As a result, individuals living in these areas may face difficulties in obtaining the health care they need, especially in emergencies or for conditions that require long-term care. Recent studies confirm that the quality of digital infrastructure is the most decisive factor in the successful adoption of technology-based healthcare services (Chang et al., 2022). Therefore, investment in digital infrastructure in remote areas is a priority in order to reduce the healthcare gap.

Second, differences in economic or financial capabilities are often one of the causes of inequality in access to digital health services based on paid applications. Economic differences are evident in the ability to pay for subscriptions or consultations offered by paid health applications. Premium services such as online consultations with specialists, access to complete digital medical records, and long-term health monitoring certainly require certain costs. Those who can afford premium services will be healthier, more productive, and have a longer life expectancy. Conversely, those who cannot afford premium services are at risk of experiencing health inequality. This is in line with the findings of studies that socioeconomic status is closely related to an individual's ability to access quality digital health services (Kim & Lee, 2023). This economic inequality ultimately has an impact on differences in quality of life, life expectancy, and productivity of the community.

Digital literacy barriers are also an important factor that exacerbates inequality. Even though internet networks are available, low digital skills prevent some people from effectively utilizing health applications. Research shows that low digital literacy is associated with low utilization of telemedicine, especially among the elderly and those with low levels of education (Leung et al., 2022). Therefore, improving health digital literacy should be made a complementary program in the implementation of digital health policies.

Efforts to address social inequality or inequity in access to health services require active synergy from various stakeholders, including the central government, local governments, technology providers, and health facilities themselves (Davina, 2025). Collaboration with the private sector is key to ensuring that the solutions implemented are tailored to local needs and characteristics (Kemenkes, 2021). Multisectoral collaboration involves not only the government and healthcare providers, but also the education sector, local communities, and non-governmental organizations. Recent research confirms that a cross-sector collaborative approach can accelerate equitable access to digital health services, as each party brings different resources and perspectives (Alami et al., 2022). Thus, cross-sector policy integration must be the foundation for digital health strategy planning. These efforts are expected to accelerate the equitable distribution of digital technology in health services and reduce regional disparities.

If left unchecked, this situation will only exacerbate social inequality. Access to services that should strengthen the right to health has the potential to cause covert discrimination. Therefore, collaboration between the government, technology providers, the private sector, and the community is key to reducing this gap. Programs to improve digital health literacy, subsidize internet access, and strengthen infrastructure in remote areas must be prioritized (Davina, 2025; Kemenkes, 2021). In other words, the implementation of digital health policies does indeed bring great opportunities for the modernization of health services. However, without comprehensive regulations and inclusive strategies, it could actually widen the social inequality gap.

CONCLUSION

Based on the results of the study, it can be concluded that digital health policies in Indonesia have great potential to drive the transformation of health services towards a more modern, effective, and efficient

direction. Innovations such as SATUSEHAT, Electronic Medical Records (EMR), and telemedicine have proven to be able to accelerate public access to health services and support efforts to improve the quality of medical services in various health facilities. However, the implementation of these policies is not without structural and technical obstacles. These obstacles include limited network infrastructure in remote areas, a shortage of trained health workers and IT personnel, weak patient data security systems, and legal regulations that are not yet fully clear and comprehensive. These issues not only hinder the optimization of healthcare digitalization, but also risk increasing social inequality in society.

The digital divide phenomenon has become one of the important issues arising from the implementation of digital health policies. Groups with low digital literacy, economic limitations, and minimal internet access tend to lag behind in utilizing digital health services. This creates the potential for indirect discrimination, where the right to health, which should be universal, can only be enjoyed by certain groups who are more financially and technologically capable. If this situation is left unaddressed, digitalization could exacerbate socioeconomic inequality in the long term and hinder the achievement of the constitutional goal of guaranteeing health as a fundamental right for all Indonesians.

Therefore, comprehensive strategic efforts are needed to strengthen the implementation of digital health policies. Regulatory harmonization is necessary so that telemedicine, electronic medical records, and other digital service systems have clear legal certainty, including regarding the accountability of health workers and patient data protection. In addition, strengthening data security systems, implementing international interoperability standards, and mandatory periodic security audits are important steps to maintain public trust. On the other hand, increasing the capacity of health human resources and IT personnel through continuous training must be a priority so that digital transformation can proceed in accordance with medical service standards and legal ethics.

Furthermore, equitable access must be ensured through affirmative policies such as internet service subsidies for remote areas, digital health literacy programs for vulnerable groups, and the development of equitable technology infrastructure throughout Indonesia. Cross-sector collaboration involving the central and regional governments, technology providers, the private sector, health facilities, and the wider community is also key to the successful implementation of this policy. Only with an inclusive and socially just approach can digital health transformation be effectively implemented. Thus, health digitalization not only serves as a tool for modernizing medical services, but also as an important instrument for strengthening social justice and ensuring the fulfillment of health rights for all Indonesians.

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