

## Implementation of Digital Health Services to Improve Public Health: Challenges with the JKN Mobile App

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### ABSTRACT

JKN Mobile is an application launched by BPJS Health through an application that can be downloaded on a smartphone. The purpose of this research is to see and know how the JKN application itself and want to find out about what challenges exist during the implementation of JKN Mobile in Indonesia. The focus of the discussion wants to dig deeper into JKN in Indonesia whether it has a good impact on society. The method used is a literature review system (SLR) by looking for various information about JKN in scientific articles and the like that are relevant to the research being discussed. From the results of the research, it was found that there are still many obstacles in implementing JKN, such as people who do not want to use the JKN application; This application depends on the signal and network so there are some areas that have not stabilized the network; there are difficulties in logging in to the JKN application

**Keywords:** JKN Mobile, Health Services, Digitalization

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## INTRODUCTION

Public service is a series of activities in fulfilling service needs in accordance with statutory regulations for every citizen and resident for goods, services, and / or administrative services provided by public service providers. According to the Decree of the Minister of Administrative Reform (KEMENPANRB) Number. 63/KEP/M.PAN/2003 that the state must make all efforts to fulfill the basic needs and rights of citizens through the implementation of public services. One of the areas of public services is the health sector, which is the most important area for the community, where health is the key that humans must have in order to be able to do all the things they want and in order to fulfill other needs. Fulfilling needs in health services is a form of government responsibility, the government must carry out well and with quality, so that public health and the age of the community can be said to be good and able to compete with other nations. This is the role of the government in serving the community as a form of responsibility for health care by fulfilling obligations in the provision of health care facilities. Based on Law Number. 23 of 1992 concerning health, states that everyone has

the right to receive the same health services to obtain optimal health status, which is basically healthy as a human right.

Health itself is a basic need desired by the community, even the state also states that welfare can be achieved if the body feels healthy (Nuurjannah, 2021). Therefore, services in the health sector are very necessary in order to achieve a prosperous society, because health is an investment owned by the community. In Indonesia itself, the government is trying to foster public awareness to maintain their health through a program provided by the government for the community called the National Health Insurance (JKN) program.

The manager of the National Health Insurance (JKN) program is the Social Security Administration for Health (BPJS). The program is used as a social health insurance aimed at the entire community so that they can get health services evenly without exception. The program is the result of a follow-up to Law No. 40 of 2004 concerning the National Social Security System (SJSN). Where one of the steps taken by BPJS in providing health services must make preventive and promotive programs to the community (Kowaas, Alim, & Yusuf, 2024). Therefore, BPJS provides services that can be enjoyed by JKN program participants, including: health education services (promotion); disease prevention (prevention); treatment and care (curative) and rehabilitation (Stiyawan & Ainy, 2023).

The government implements e-government to develop technology-based governance with the aim of improving the effectiveness and efficiency of public services. As time goes by, not only technology develops but also the lifestyle and needs of the community that can affect the condition of the country. So that in the development of egovernment, it requires the ability of the government to create new innovations and make updates to adjust the quality of public services to the needs of the community.

The effectiveness of the application of e-government has a positive impact on both users and organizers, the positive impact on users is that they can access government services anywhere and anytime so that users do not need to come directly to the organizer's place, can be more easily involved in the decision-making process through online public participation mechanisms, reduce administrative costs and physical document management and user data stored securely through the system. The positive impact for organizers is that service operations run more efficiently, improve service quality, facilitate data management, and increase productivity and innovation.

The program managed by the Health Social Security Organizing Agency (BPJS) must provide services that are easy to obtain information so that it can be reached by various groups of people quickly. One way that can be done is by utilizing information and communication technology considering that the development of technology is currently experiencing a very rapid increase. The rapid progress in technology has made the government to innovate, starting from the fields of education, environment, to health starting to utilize technology in providing services (Eprilianto, Sari, & Saputra, 2019). This innovation is needed so that its implementation can be felt by the community or service users easily (Sagala & Hajad, 2022).

The JKN mobile application is available for free to access via smartphone. The innovation from BPJS Kesehatan was introduced with the aim of providing easy access to services to the community. This includes the online registration process, access to information related to membership data, checking bills and participant contributions, and enabling service recipients at First Level Health Facilities and Advanced Health Facilities. (Guntari, 2023). The National Health Insurance Program (JKN) is designed to provide effective and efficient health services with various considerations and objectives. Benefits of the JKN Program Ensure access to health services equally and fairly for all

Indonesian citizens. Improve the quality and standard of health services provided by health facilities throughout Indonesia. From the background of the problem, the purpose of this study is to determine the benefits of the JKN Program in providing effective and efficient services.

JKN Mobile participants have increased from year to year as shown in the data below:

**Figure 1.1 Number of JKN Participants in 2016-2021**



Source: Statistics JKN 2016-2021

Based on the figure above, JKN membership as of December 2021 has covered 235 million participants or has covered 86.55% of the Indonesian population (2021 Population Projection is 272 million people). This figure is still far from the participation target set in the RPJMN, which is 98% of the population in 2024. The total increase in participation in 2021 is 37% compared to the number of participants in 2016. JKN membership in 2020 decreased by around 1.7 million people and increased again in 2021 by 5.97% (13 million people)

**Table 1.2 Number of JKN Participants by Segment 2016-2021**

Segmen	Jumlah Peserta					
	2016	2017	2018	2019	2020	2021
PBI APBN	91.099.279	92.380.352	92.107.598	96.576.666	96.600.414	99.947.748
PBI APBD	15.475.288	20.305.273	29.873.383	38.842.476	36.164.198	40.423.747
PPU	41.027.229	44.891.042	49.833.095	53.529.136	55.062.746	59.977.437
PBPU	19.336.531	25.397.828	31.100.248	30.248.656	30.434.645	30.909.789
BP	5.060.927	5.008.454	5.139.875	5.012.085	4.107.699	4.381.006
<b>Total</b>	<b>171.939.254</b>	<b>187.982.949</b>	<b>208.054.199</b>	<b>224.149.019</b>	<b>222.369.702</b>	<b>235.639.729</b>

Source: Statistics JKN 2016-2021

## METHOD (BOLD, TNR 12)

This research is written using the literature review method, namely by searching and collecting data and then processing the data that is already owned. The data were selected based on the topic of discussion, namely about the mobile National Health Insurance (JKN) in Indonesia in various reference sources. The criteria for selecting articles are based on the year of publication and less than 10 years since the article was published, as well as selecting articles concerning the application of the National Health Insurance (JKN) in Indonesia. This is done to make it easier for writers to compile and write articles because they have the latest references and are relevant to the research being conducted.

## FINDINGS AND DISCUSSION

### RESULT

Author Name	Article Title	Research Results
Suhadi, Jumakil, Kamrin, & Irma (2022)	Impact of JKN Mobile Application Use on BPJS Services	The impact of using the JKN Mobile application for participants is easy access to services, reducing transportation costs, saving service time, reducing service queues, reducing service distance, and accelerating JKN service time. It is hoped that JKN participants will utilize the JKN mobile application for the convenience and speed of BPJS services. BPJS can improve the features of the JKN Mobile Application service features in the future.
Made Adya Febriana Putri, Komang Adi Sastra Wijaya, & Ni Wayan Supriliyani (2024)	The Effectiveness of the National Health Insurance (JKN) Mobile Application in Improving Service Quality (Case Study of the Denpasar Branch Office of the Social Security Organizing Agency)	This research explains that the Ease of Access of Services can access JKN services more easily without having to come directly to the BPJS office. This reduces the need to travel physically, which is very beneficial especially in today's digital era. Then Transportation Cost Reduction, By using the application, participants do not need to pay for transportation to the BPJS office, thus saving their expenses. Then Time Savings The JKN Mobile App allows participants to save time in getting services. The faster and more efficient process reduces the time spent in queues. Queue Reduction, with the application, queues at service offices can be minimized, thus increasing convenience for participants who come to the office. Distance Reduction. The app also reduces the distance that participants have to travel to get services, as they can do many things online.
Dia Sari, Dwi Hirdanti, Nadia Syaibah Nasution, & Fitriani Pramita Gurning (2024)	Systematic Literature Review: Analysis of JKN Mobile Digital Benefits in Health Financing	The results of the study explain that the JKN Mobile Application Service Quality is equipped with various features that make it easier for users to access health services. Research shows that the quality of service provided through this application satisfies users,

		<p>which contributes to increased use of the application in the excellent category. Then in Effectiveness of Use, this application helps participants check their membership status, contribution payments, and health benefits received. This provides transparency and makes it easier for participants to manage their health financing. Then Accessibility: With the JKN Mobile application, participants can easily access information related to health services, which previously may have been difficult to reach. This increases the accessibility of health services for the community. Also in Cost and Time Reduction: The app is designed to reduce the time and cost required to access health services, thus making the process more efficient and effective. And finally Support for Health Management: The app also allows the community to submit suggestions or complaints related to health services, which can help in the improvement of services in the future</p>
<p>Pradana, A., Casman, C., Rohayati, R., Kamal, M., Sudrajat, A., &amp; Hidayat, A. (2022)</p>	<p>Program Universal Health Coverage (UHC) In Indonesia</p>	<p>The results explain that the concept of UHC was designed with the intention that every individual has the right to access health services without discrimination, considering health as a basic right. The establishment of UHC is due to the fact that 40% of the global population is unable to reach essential health services and lacks social protection. Indonesia, as a member of the United Nations, actively participates in efforts to develop UHC through the implementation of the National Health Insurance, which is strengthened by the policies of UUSJSN No. 40/2004 and BPJS Law No. 24/2011. The implementation of UHC in Indonesia has had a positive impact especially on the vulnerable and poor, by providing better access to needed care and improving population health.</p>

Zebua, C. F. P., Ardhila, D., Yuriska, Y., & Gurning, F. P. (2023)	Analysis of the Role of the National Health Insurance Program (JKN) in Reducing the Financial Burden of Patients: A Literature Study	The results explain that the principles of quality and cost control are applied in health facilities with the aim of reducing inefficiencies, so that the National Health Insurance (JKN) can provide continuity and equality in access to health services. In collaboration between JKN and health facilities, efforts are made to maintain effectiveness, efficiency, rationality, according to patient needs, and collaborate with local governments for supervision and guidance. There were significant differences in the average direct medical costs, direct nonmedical costs, and total costs due to hypertension between hypertensive patients using JKN and those paying out-of-pocket. The difference in average costs incurred by hypertensive patients who utilize JKN has a positive impact on reducing the economic burden on families, especially in the direct medical cost component, which reaches 97.8%.
Yuliastuti, H., & Jawahir, M. (2023).	Analysis of the Effectiveness of Utilization of the National Health Insurance Mobile Health Service Application in Indonesia	The results of the study explain that JKN Mobile is a digital-based health service equipped with 18 menu features, which can be used by users with an account. The JKN Mobile system has a quality that satisfies health service users, thereby increasing the use of JKN Mobile in the excellent category. The effectiveness of JKN Mobile as part of efforts to achieve the JKN goals that have been required is also the result of government cooperation with related parties in health services in Indonesia, and this has proven to be very good in early 2021

## Findings

The JKN mobile application is a digital-based face-to-face service channel to facilitate participants in obtaining information and membership administration services related to the National Health Insurance program with information technology in the form of applications through android-based smartphones that can be downloaded via Google Plystore or Apps Store. With this application, it can make it easier for the community / participants to get services, reduce the number of queues so that the community does not take long to queue at the BPJS Health Office and can directly access various information about health from the JKN mobile application (Putra

et al., 2021). The JKN Mobile application reflects the digital transformation of the BPJS Kesehatan business model

The application, which has existed since January 1, 2014, is presented to the public as an effort to provide convenience to the community or BPJS health participants in obtaining services without having to come and queue to register and to easily get the health services needed. Innovations made by the government by utilizing technology as a way to serve the community more flexibly, efficiently and effectively.

The breakthrough of the JKN Mobile Application by BPJS Kesehatan with the aim of providing convenience to application users as JKN program participants in accessing health services and managing JKN membership information. The Mobile JKN application offers a variety of features such as (1) JKN program features that explain the basic information of the JKN program including registration information, participant rights and obligations, sanctions, program facilities and benefits, payment methods, and questions and answers; (2) Health facility location info feature that explains information from health facilities including address, distance, and telephone number; (3) Service history feature that serves as an archive of JKN participants related to the history of treatment trips that have been carried out; (4) Gradual payment plan (REHAB) feature provided for JKN participants who have been in arrears for more than 3 months; (5) Participant addition feature serves for participants who want to add their family members to the JKN program; (6) Participant info feature that explains the personal information of participants; (7) Service registration (queue) feature that serves to facilitate participants in registering online or taking queue numbers online at health facilities; (8) Doctor consultation that can be used by JKN participants who have had previous treatment; (9) Data change feature that serves to facilitate participants in changing their personal data in the JKN program; (10) JKN service complaint feature; (11) Bed availability info feature that explains bed availability information at all health facilities.

The implementation of JKN aims to ensure that every participant receives health care benefits and protection in meeting basic health needs. Basic health needs are any health services that medical science has recognized must be provided in order for a patient's health level to recover and return to social and economic production. The JKN program along with four other social security programs, namely Work Accident Insurance, Death Insurance, Old Age Insurance, and Pension Insurance, aims to provide guarantees for the fulfillment of the basic needs of a decent life for each participant and their family members. The basic needs of life referred to by the SJSN Law are the essential needs of every person in order to live properly for the realization of social welfare for all Indonesian people in accordance with human dignity. The JKN program is designed to serve all levels of society, especially for various population groups that range in income, education, employment, and various different characters, so it takes time to gain the full trust of all residents

The results of the analysis of findings from the literature study conducted related to the Implementation of Digital Health Services to Improve Public Health: Challenges in the JKN Mobile Application. The following according to Matthew, Lewis & Cook (2019) identifies seven factors that can hinder innovation in the public sector, namely:

1. **Delivery pressures and administrative burdens.** Where there are people who feel uncomfortable with the JKN application because there are cases in its use, namely the pressure on costs and administration. According to research conducted by explaining that this application requests an OTP (One Time Password) code sent via SMS (Short Message Service) which deducts a credit of Rp. 700 and BPJS participants explain that the money is deducted directly without any notification every 5th of each month, if late paying then the membership status is temporarily suspended for 1 month. There is also a case of wanting to make a claim for class III payment but in fact the participant still pays in class II (Sudrajat, Simanjorang, Fitrianti, & Zahra, 2024)
2. **Short-term budgets and planning horizons.** In planning the implementation of JKN, socialization has actually been carried out and every hospital that collaborates with BPJS will conduct socialization regarding BPJS participant procedures (Trianggraini & Wahyuni, 2024). But in reality there are still many people who do not want to use JKN

Mobile (Narmansyah & dkk, 2022). So it takes the need for in-depth socialization door to door to all levels of society to want to use JKN.

3. **Poor rewards and incentives to innovate.** In using technology in JKN Mobile, it actually provides many benefits such as making it easier for the community but it is still found that many people do not want to use it because the community feels uninterested in the program. maybe JKN Mobile cannot be felt directly but can be used as an investment in the future if you join as a participant and can ease the burden if you are sick. But people are still not aware of this.
4. **Culture of risk aversion.** In terms of JKN utilization, it is still relatively low because there are some people in Bogor Regency who are reluctant to use JKN Mobile (Narmansyah & dkk, 2022) because they are afraid of using technology and do not understand using technology, so people choose to do conventional health services by coming to the nearest hospital themselves.
5. **Poor skills in active risk or change management.** In applying technology, various skills are needed to be used, such as officers having difficulties because many BPJS participants change their cellphone numbers without reporting to the BPJS, making it difficult to communicate. (Narmansyah & dkk, 2022)
6. **Relutance to close down failing programs or organisations.** JKN Mobile has various pros and cons in its implementation, many consider that this program can have a positive impact but in reality, even though it has innovated by launching applications, there are still obstacles, namely: even though it uses technology, there are also many people who do not use it. Nevertheless, the JKN application is still continued on the grounds that the government wants to provide access to health for the community.
7. **Technologies available but constraining cultural or organisational arrangements.** Where one way to implement requires adequate infrastructure such as the availability of technology. But in reality there are still obstacles even though they have implemented technology with the hope of being more efficient and flexible. In the first case, there are still many people who do not know about the benefits of the JKN Mobile application (Hafidz, Pangestuti, & Qintharah, 2024). Although this JKN application can be accessed easily, the reality of this application depends on the internet connection during its operation (Guntari & Noviyanti, 2022).

## CONCLUSION

Innovation arises because of the ways used to overcome the problems that exist around. Health is the most important way because it is a human investment so that humans can work to meet their daily needs. Thus, the government provides JKN Mobile in providing health services so that people can feel at ease about health. In fact, there are still obstacles in its application even though based on data many people have used JKN. The obstacles in innovating are the unpreparedness of the community in using technology so that there are still many who do not want to use JKN and choose to come directly to the hospital. applying technology requires various skills that must be used such as officers having difficulty because many BPJS participants change their cellphone numbers without reporting to the BPJS so it is difficult to communicate. There may be many more challenges faced while implementing JKN so that the government is expected to provide solutions so that the community and the government both feel comfortable and satisfied with this JKN.

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