



# Analysis of Access Quality and Health Services on the Effectiveness of Health Insurance System

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## ABSTRACT

*In Indonesia, the National Health Insurance (JKN) program through BPJS Kesehatan has been launched with the aim of improving accessibility and quality of healthcare services for the entire population. However, despite the existence of an extensive insurance system, challenges to the effectiveness of this system still exist, particularly in terms of access, quality of care, and health facility management (Dinkes Kulonprogo, 2018; Tahir, 2017). This study aims to analyze the relationship between access, quality of healthcare services, and the effectiveness of the health insurance system, as well as how these factors affect the success of the health insurance program in improving public health status. This study uses a quantitative approach with a cross-sectional design, where data on access and quality of healthcare services are collected simultaneously from health insurance participants, especially BPJS Kesehatan users. The t-table value at the 5% error rate = 1.98 and 1% error rate = 2.617. Thus the H1 hypothesis can be accepted because there is a positive relationship between X and Y as evidenced by the processing results of t-value = 17.195 > t-table = 1.98. This study suggests that to improve the effectiveness of JKN implementation through BPJS Kesehatan, continuous improvement is needed, especially to instill government concern for the poor.*

**Keywords:** *Access to Health Care Quality, Effectiveness of Health Insurance System, Public Health*



## INTRODUCTION

The health insurance system has become one of the main pillars in supporting equitable and affordable health services for the community. Health insurance aims to protect individuals from the financial burden of illness or injury that requires treatment, and to ensure access to quality health services. In Indonesia, the National Health Insurance (JKN) program through BPJS Kesehatan has been launched with the aim of improving accessibility and quality of healthcare services for the entire population. However, despite the extensive insurance system, challenges to its effectiveness remain, particularly in terms of access, quality of care, and health facility management (Dinkes Kulonprogo, 2018; Tahir, 2017).

Access to health services is one of the main obstacles to the effectiveness of the health insurance system, especially in rural or remote areas. Here are some of the reasons and factors that lead to such access difficulties:

### **Factors Affecting Access to Health Services**

#### **1. Availability of Infrastructure:**

**Inadequate Health Facilities:** The inadequate distribution of health facilities, such as community health centers (Puskesmas), makes it difficult to access health services. This can be seen from research that shows that the availability of inadequate health infrastructure is one of the main obstacles in accessing health services (Eskawati, 2024; Rahmayani, 2023).

#### **2. Geographical Limitations:**

**Long Distances:** Rural or remote areas often have long distances between residences and health facilities. This requires greater time and cost to access health facilities, creating difficulties (Eskawati, 2024; Wardah, 2023).

#### **3. Availability of Health Workers:**

**Lack of Health Workers:** The lack of availability of health workers in some areas is also a barrier to accessing health services. This can lead to a lack of doctors and nurses available to provide services.

#### **4. Quality of Service:**

**Unsatisfactory Service:** In addition to the availability of infrastructure and health workers, the quality of service is also an important factor. Unsatisfactory services can cause people to be dissatisfied with the services provided, so they are more likely to avoid health facilities.

#### **5. Economic Conditions:**

**Economic Limitations:** People living in rural or remote areas often have economic limitations. High medical costs can be a heavy burden for them, so they are more likely to avoid treatments that require high costs.

In this context, the effectiveness of the health insurance system is not only seen from the coverage of the population, but also from the accessibility, quality, and services provided to insurance participants. The problems associated with the health insurance system, especially JKN, require in-depth analysis to understand the extent to which the system is able to provide fair, quality, and accessible services to the public. Here are some of the issues that need to be analyzed (Erlangga, 2018):



## **1. Accessibility**

- a. Availability of Health Facilities: Although insurance coverage has been expanded, there are still some areas that are not well served. Inadequate health facilities in rural or remote areas may cause access difficulties for the community.
- b. Distance and Transportation: Long distances between residences and health facilities, as well as lack of adequate transportation, are also barriers to accessibility.

## **2. Service Quality**

- a. Resource Availability: The availability of competent human resources and adequate infrastructure is critical to improving service quality. Lack of doctors and nurses in accordance with the required number can lead to unsatisfactory service quality (Batubara et al., 2023).
- b. Communication and Information: Effective communication between health facilities and BPJS Kesehatan is also very important. Errors in data transmission or inaccurate information can lead to errors in the claims process.

## **3. Complete Service**

- a. Complete Services: Complete services, including prompt and appropriate admission procedures, prompt and appropriate examination, treatment, and care, as well as properly executed service schedules, are essential for improving patient satisfaction.

## **4. Patient Satisfaction**

- a. Satisfaction Indicators: Indicators of patient satisfaction, such as attention to each patient, cleanliness of staff appearance, prompt and appropriate admission procedures, prompt and appropriate examination, treatment, and care services, and assurance of service safety, are very important for improving patient satisfaction.

## **5. Analysis Model**

- a. SERVQUAL Model: The SERVQUAL model can be used to measure service quality. The five dimensions of SERVQUAL, namely tangibles, reliability, responsiveness, assurance, and empathy, can help in assessing the extent of service quality provided by health facilities (Batubara et al., 2023; Putri, 2015).

## **6. Recommendation**

- a. Recommendations: Based on the results of the study, several recommendations can be given, such as improving service procedures, improving the cleanliness of staff appearance, ensuring compliance with established quality standards, and improving communication and information between health facilities and BPJS Kesehatan.

By conducting an in-depth analysis of these problems, the health insurance system, especially JKN, can be more effective in providing fair, quality, and accessible services to the public.

Therefore, this study aims to analyze the relationship between access, quality of healthcare services, and the effectiveness of the health insurance system, as well as how these factors affect the success of the health insurance program in improving public health status. The results of the study are expected to provide input for the improvement of policies and implementation of the health insurance system in the future, so that the health services provided can be more equitable, effective, and sustainable.



## METHODS

This study uses a quantitative approach with a cross-sectional design, where data on access, quality, and health services are collected simultaneously from health insurance participants, especially BPJS Kesehatan users. This design aims to analyze the relationship between these variables and the effectiveness of the health insurance system in providing optimal services.

This study was conducted in several health facilities (hospitals, Puskesmas, and clinics) that collaborate with BPJS Kesehatan in urban and rural areas in Padang City, to obtain a comprehensive picture of access and service quality. The study was conducted over a period of 6 months.

The population in this study was all BPJS Kesehatan participants who had used health services at health facilities that collaborated with BPJS Kesehatan. The research sample was taken using purposive sampling technique with the following criteria:

- a. BPJS Kesehatan participants who have used health services in the last 6 months.
- b. Health facilities include community health centers (Puskesmas), hospitals, or clinics that serve BPJS Kesehatan participants.
- c. A minimum sample size of 400 respondents from various urban and rural areas was taken to ensure representative data.

The independent variables in this study were:

- a. Access to Health Services: Measured through indicators such as distance to health facilities, waiting time, and ease of obtaining services.
- b. Quality of Healthcare Services: Measured through patient perceptions of the competence of medical personnel, availability of drugs, and condition of health facilities.
- c. Health Services: Measured through patient satisfaction with the services received, BPJS administration process, and handling time.

The dependent variable is the effectiveness of the Health Insurance System: Measured by indicators of overall patient satisfaction, treatment success rate, and frequency of patient visits to obtain health services.

**Questionnaire:** The main instrument used in this study was a structured questionnaire developed to measure access, quality, and health services. **Data collection technique** **Questionnaire Survey:** Primary data will be collected through distributing questionnaires to BPJS Kesehatan participants who have received health services in the last 6 months. The questionnaires will be distributed in person at health facilities or through online platforms for urban areas. **Semi-structured Interviews:** Conducted to elicit deeper information from health workers and BPJS managers regarding their perceptions of the effectiveness of the health insurance system. **The data analysis techniques included:** To describe the distribution of access, quality, and health services and the effectiveness of health insurance based on the data collected. **Pearson Correlation Test:** Used to test the relationship between access, quality, and health services with the effectiveness of the health insurance system. **Multiple Linear Regression Analysis:** Used to determine how much influence access, quality, and health services have on the effectiveness of the health insurance system. Tests were conducted with a significance level of  $p < 0.05$  to ensure the validity of the relationship between variables. **Chi-Square Analysis:** If the data collected were categorical, this analysis is used to test the



relationship between the independent variables (access, quality, and health services) and the effectiveness of the insurance system.

## RESULTS

Law No. 24/2011 established the BPJS. In terms of BPJS, the Law has four important elements. The first is the implementation of the mandate of article 5(1) of the SJSN Law, which means that several BPJS will be established by law. Second, the BPJS Law is a transformation of four large companies (PT Askes, PT Jamsostek, PT Asabri, and PT Taspen). Third, BPJS is a legal entity established to administer social security programs to ensure that everyone can meet their basic needs. BPJS Kesehatan and BPJS Ketenagakerjaan are two types of social security established to provide social protection such as old-age benefits, pensions, and work accident insurance. The following table summarizes the results of this particular study:

**Table 1. Total Achievement of Respondents Variable X**

X variable indicator	Mean	TCR	N	Category
Quality	3,85	77	314,066	High
External assessment	3,75	75	314,066	Medium
Readiness	3,78	75,6	314,066	Medium
Motivation	3,75	75	314,066	Medium
Adaptation	3,67	73,4	314,066	Medium
Purpose of the organization	3,92	78,4	314,066	High
<b>Average of variable X</b>	<b>3,79</b>	<b>75,73</b>	<b>314,066</b>	<b>Medium</b>

The results in Table 1 indicate that the overall achievement of Variable X is in the medium category, with an average score of 3.79 and a TCR value of 75.73. This suggests that the implementation of access and quality-related aspects of health services is perceived as moderately adequate by respondents. Among the indicators, purpose of the organization shows the highest score and is categorized as high, indicating that respondents generally understand the objectives of the health service system. Similarly, the quality indicator is also categorized as high, reflecting relatively positive perceptions of service quality. However, other indicators such as adaptation, external assessment, readiness, and motivation remain in the medium category. This implies that although the overall performance is acceptable, improvements are still needed, particularly in enhancing adaptability, strengthening external evaluation mechanisms, and increasing service readiness and motivation.

**Table 2. Total Achievement of Respondents Variable Y**

Y variable indicators	Mean	TCR	N	Category
Responsive	3,53	70,6	314,066	Medium
Politeness	3,66	73,2	314,066	Medium
Credibility	3,91	78,2	314,066	High
Access	3,54	70,8	314,066	Medium



<b>Average of variable Y</b>	<b>3,66</b>	<b>73,2</b>	314,066	<b>Medium</b>
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Table 2 shows that the overall level of Variable Y is also in the medium category, with an average score of 3.66 and a TCR value of 73.2. This indicates that the effectiveness of the health insurance system has not yet reached an optimal level. The credibility indicator has the highest score and is categorized as high, suggesting that respondents have a strong level of trust in the system. Meanwhile, responsiveness, access, and politeness are categorized as medium, indicating that these aspects still need improvement. These findings imply that although the system is considered credible, efforts are required to improve responsiveness and accessibility in order to enhance overall system effectiveness.

**Table 3. Product Moment Correlation Test**

		X	Y
X	Pearson correlation	1	.867(**)
	Sig. (2-tailed)		.000
	N	100	100
Y	Pearson correlation	.867(**)	1
	Sig. (2-tailed)	.000	
	N	<b>100</b>	<b>100</b>

\*\* Correlation is significant at the 0.01 level (2 tailed)

Based on the product moment correlation analysis between X and Y as shown in Table 3, the correlation coefficient  $r_{yx1} = 0.867$  is in the coefficient interval 0.800-1.00 with a very strong relationship level. The strong positive correlation indicates that improvements in access and quality of healthcare services are closely associated with increased effectiveness of the health insurance system. This means that better service delivery, easier access, and improved quality are likely to significantly enhance the overall performance of the system. The significance coefficient t-value = 17.195 as presented in Table 4:

**Table 4. Coefficients(a)**

Model		Unstandardized		Standardized	T	Sig.
		Coefficients		coefficients		
		B	Std. Error	Beta	B	Std. Error
1	(constant)	-3.362	1.058		-3.179	.002
	X	.184	.011	.867	17.195	.000

*A dependent variable: Y*

The t-table value at the 5% error rate = 1.98 and the 1% error rate = 2.617. Thus the H1 hypothesis is accepted because there is a positive relationship between X and Y as indicated by the processing results of t-value = 17.195 > t-table = 1.98.

This result confirms that access and quality of healthcare services play a crucial role in determining the effectiveness of the health insurance system. The positive regression coefficient



indicates that any improvement in these aspects will contribute to increasing system effectiveness. In practical terms, this finding suggests that policy improvements focusing on service accessibility, responsiveness, and quality enhancement are essential to achieve a more effective health insurance system.

## DISCUSSION

To determine the effectiveness of an organization in performing tasks and achieving goals, there are several models and approaches that can be used. Here are some commonly used models and approaches: Goal Approach, Functional Approach, Balanced Scorecard (BSC), Legitimacy Model, Competing Values Model, System Resources Model, Strategic Constituencies Model (Ririn, 2012).

By using some of these models and approaches, organizations can assess the extent to which they have achieved their goals and performed tasks effectively. Each model has advantages and disadvantages, so it is important to choose the model that best suits the needs and conditions of the organization (Rudian & Apriyandi, 2023).

According to Steers, an organization is created and designed to achieve one or more specific goals. The usefulness of the goal model is limited to organizations that have measurable and predictable targets or goals. This model basically states that organizational effectiveness should be assessed through the achievement of the end result rather than the means or the process.

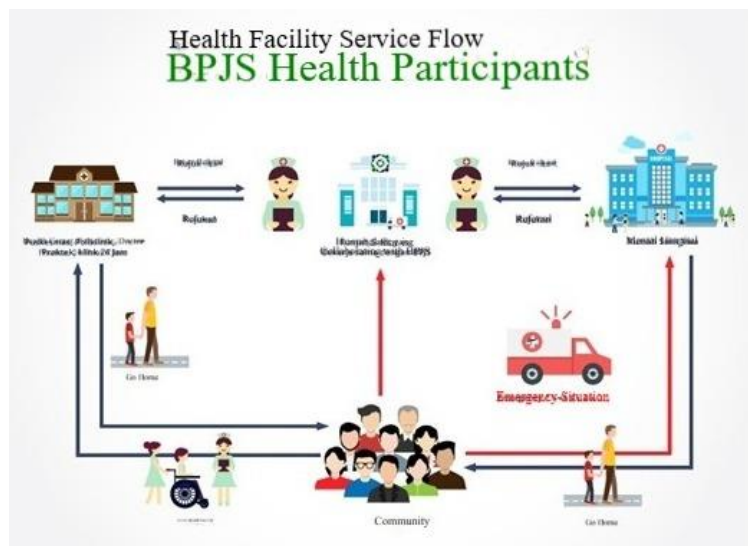
The results of the above research show that BPJS Kesehatan participants in the contributory assistance recipient (PBI) category are quite numerous. The research also shows that people in this PBI category have relatively low levels of education, with some only completing secondary school, which impacts on their likelihood of having a decent and steady job. The questionnaire results then show that the respondents consist of individuals who work in the informal sector, with some of them even working as housewives and not having a job. These facts will shed further light on how effective BPJS is in providing health services to the poor.

Quality, assessment by outsiders, preparedness, motivation, adaptability, and acceptance of organizational goals are some of the indicators that can determine how effective the implementation of JKN through BPJS is with the health services of the poor. The results showed that most respondents did not understand the registration procedures and benefits of the BPJS Kesehatan card.

In addition, BPJS Kesehatan card users from the PBI category may not want to make use of it because they have had bad experiences with previous health insurance programs such as Jamkesmas or Jamkesda. One participant said that they did not want to keep an eye on the BPJS card because they thought it would be complicated from the health center (Puskesmas) to the hospital (RS), leading them to choose alternative treatments over the available health facilities. Some argued that they also have to pay monthly fees like non-PBI category participants. They argued that the information they were given by the government did not match the government's socialization, so they did not want to make use of government health services even though they were sick.

When viewed from an external perspective, the underprivileged or poor people in Padang City will be informed about using the BPJS Kesehatan card when they visit or register at BPJS Padang City, but the information they know beforehand about BPJS Kesehatan is only by word of mouth and cannot be confirmed to be correct. However, when they come to BPJS Padang City, respondents still believe that they get satisfactory information and they are also served well.

In addition, healthcare providers must be responsive, providing services that are procedurally appropriate, timely, and prompt. With BPJS Kesehatan card, it will receive the following health services:



**Figure 1. BPJS Kesehatan Facility Service Flow**

Based on the flow of health services above, it is expected that health workers, especially at Puskesmas and hospitals, provide services according to procedures to everyone. This will ensure that the poor in Kota Padang truly benefit from the national health insurance. There is no doubt about the success of the BPJS organization in improving health services for the poor, although there are other weaknesses that also have substantive significance, such as elements of friendliness, discipline, and so on. In fact, there is no doubt that the government has launched a number of policies and work programs related to poverty at both the central and regional levels, but the results have been insignificant in terms of improving the economy, education, and welfare including health insurance as well.

While a thorough analysis needs to be done, there are a few things that should be noted about the issue of health insurance for the poor. In addition to socialization, cooperation and coordination with outside parties is very important because so far the government has only seen from their own perspective; by getting opinions from different partners, such as NGOs or community groups, the results will definitely be better. To create a physically and mentally healthy environment, collaboration and community empowerment are essential, and citizens should be involved in improving their health.



## CONCLUSIONS

There are several things that can be concluded based on the research findings in the field discussed in the previous chapter: (a) The National Health Insurance (JKN) provided by BPJS Kesehatan is health insurance for all Indonesians, including the poor. The implementation of JKN by BPJS for the poor is included in the category of membership of contribution assistance recipients (PBI), and the utilization of JKN provided depends on the utilization of health facilities provided by the government in accordance with applicable regulations. (b) Several indicators can be used to measure the effectiveness of JKN through BPJS, such as quality, external assessment, readiness, motivation, adaptability, and acceptance of organizational goals. (c) According to respondents participating in BPJS PBI, health services are still quite good, but there are still weaknesses in their implementation. For example, services at some community health centers (Puskesmas) tend to be complicated and unfriendly to BPJS PBI patients, so the poor feel neglected by the government. In fact, the law states that JKN through BPJS Kesehatan has the right to be felt by all Indonesian citizens without discrimination.

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