

Management of JKN Medicine: The Role of Social Security Agency of Health (BPJS-K) in Strategic Health Purchasing

(Tata Kelola Obat JKN: Peran Badan Penyelenggara Jaminan Sosial Kesehatan (BPJS-K) dalam Belanja Obat Strategis)

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Abstract: The National Health Insurance System (JKN) has social and equity insurance principles aiming participants receive basic health benefits. This raises must-have other requirements for circulated medicine, namely availability and accessibility. Thus, this must meet the elements of safety, efficacy/benefits, good quality, market availability, and easy accessibility. However, drug shortages problem still occurs and ranks 3rd for BPJS-K services complaints. This study is to identify opportunities and constraints of BPJS in strategic health purchasing to increase access to JKN medicine. This is a cross-sectional study using quantitative and qualitative methods. Quantitative research uses Structural Equation Modelling (SEM), while qualitative uses Focus Group Discussion (FGD). This found the problem roots related to JKN medicine shortages, including limited human resource capabilities, in optimal planning processes, e-purchasing method constraints, e-purchasing system and manual purchases medicine prices differences, medicines ordering long lead time, and in optimal BPJS Kesehatan role as a strategic health purchaser. Therefore, it is to increase BPJS-K's role as an active purchaser by making an information system for all medicine use in JKN services, forming a Drugs Advisory Board/JKN drug working group and coordination between policy-making institutions to optimize BPJS-K role in ensuring JKN medicines access.

Keywords: JKN medicine, Healthcare and Social Security Agency (BPJS-K), strategic health purchasing

Abstrak: Sistem Jaminan Kesehatan Nasional (JKN) memiliki prinsip asuransi sosial dan ekuitas, yang bertujuan menjamin peserta memperoleh manfaat dasar kesehatan. Obat-obat program JKN harus memenuhi unsur keamanan, khasiat, bermutu, tersedia di pasaran, dan mudah diakses. Sampai saat ini masalah kekosongan obat masih terjadi dan menempati urutan ke-3 pengaduan pelayanan BPJS Kesehatan. Tujuan dari penelitian adalah mengidentifikasi peluang dan kendala BPJS Kesehatan (BPJS-K) dalam belanja obat strategis untuk meningkatkan akses ketersediaan obat JKN. Penelitian ini merupakan penelitian *cross sectional* menggunakan metode campuran penelitian kuantitatif dan kualitatif. Penelitian kuantitatif menggunakan teknik *Structural Model Equation* (SEM), sedangkan penelitian kualitatif menggunakan metode *Focus Group Discussion* (FGD). Hasil dari studi menemukan akar permasalahan kekosongan obat JKN antara lain kemampuan SDM yang terbatas, proses perencanaan yang tidak optimal, kendala proses pengadaan dengan *e-purchasing*, perbedaan harga obat pada sistem *e-purchasing* dan pembelian manual, waktu tunggu pemesanan obat yang lama, serta peran BPJS-K sebagai *strategic purchaser* yang masih dapat ditingkatkan. Berdasarkan hal tersebut maka disimpulkan rekomendasi untuk meningkatkan peran BPJS-K sebagai *active purchaser* dalam belanja obat strategis adalah dengan membuat sistem informasi penggunaan seluruh obat dalam pelayanan JKN, membentuk *Drugs Advisory Board* JKN dan koordinasi antar lembaga pemangku kebijakan untuk mengoptimalkan peran BPJS Kesehatan dalam menjamin akses obat JKN.

Kata kunci: Badan Penyelenggara Jaminan Sosial Kesehatan (BPJS-K), obat JKN, *strategic health purchasing*

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INTRODUCTION

MEDICINE is one of the elements that play an important role in healthcare efforts related to the medical needs of patients⁽¹⁾. With the National Health Insurance in Bahasa Jaminan Kesehatan Nasional (JKN) program and the continued increase in the number of memberships, the need for medicines will also increase in healthcare facilities (Faskes), especially government healthcare facilities or in collaboration with the Social Security Agency of Health (BPJS-K) to administer the JKN program. This encourages the birth of other requirements that must be owned by medicine in circulation, namely availability, and accessibility. Thus, JKN program medicines must meet the elements of safety, efficacy/benefits, quality, market availability, and easy accessibility⁽²⁾. Disrupted availability leads to difficulties in accessing medicines. This will affect the quality of health services that JKN participants receive because medicines play an important role in providing health services related to the medical needs of patients⁽¹⁻³⁾.

However, the reality shows that until now, problems related to medical shortages still occur and rank 3rd in the BPJS-K complaint service^(4,5). Several studies related to the management of JKN medicines have consistently shown that the supply of JKN medicines is a problem that often arises. Among these are medicine vacancies, discrepancies between planning and procurement, technical problems in electronic procurement, and issues regarding medicine quality^(4,6,7-9). On the other hand, BPJS-K has so far only functioned as a purchaser who will pay healthcare facilities for the services provided to JKN participants⁽¹⁰⁾. Availability is the full responsibility of healthcare facilities, where BPJS-K does not have a role in negotiations or tenders conducted by the National Procurement Board in Bahasa Lembaga Kebijakan Pengadaan Barang dan Jasa Pemerintah (LKPP)^(2,11,12).

Not only in Indonesia, but the problem of medicine shortages also occurs in other countries that use the Universal Health Coverage (UHC) system, such as Kenya, which states that 29.1% of respondents admitted that they did not receive all the medicines prescribed, and most of them (56.6%) had to go to the pharmacy to buy medicine at their own expense, although 22.5% of them had to return to their original healthcare facility to check whether the medicine was available. In this study, eight main challenges related to medicine availability were identified: (1) delays in medicine delivery from distributors, (2) inadequate medicine supplies, (3) inconsistent medicine distribution, (4) increased workload, (5) not all medicines needed were available, (6) poor medicine delivery

system, (7) lack of staff, and (8) medicine shortages⁽¹³⁾.

Another study in Rwanda even mentioned that although the price of medicines was affordable, patients still had difficulty getting medicines because there was a shortage of medicines in both government and entrusted healthcare facilities. The study showed that the highest availability of medicines was in the private sector (71.3%), followed by trusted healthcare facilities (62.8%), and government healthcare facilities (59.6%). In fact, the government has tried to reduce the price to 30% below the procurement price given by the International Medical Product Price Guide, but this has not helped increase the availability of medicines in healthcare facilities chosen by the government⁽¹⁴⁾.

Problems related to medicine shortages are in line with reports on the realization of medicine expenditure through e-purchasing, where the comparison between realization and medication plan (RKO) is extremely different. This fulfillment could be an indication that the availability of medicines does not meet the needs⁽⁴⁾. However, the fact that the proportion of e-catalogue medicines with low e-purchasing continues to increase, from 45 percent in 2018 [the first year of the implementation of the "multi-years" winner] to 51 percent [the second year of the implementation of the "multi-years" winner] shows starting repairs⁽⁴⁾. Therefore, it is necessary to examine what causes this sizable difference in terms of regulation, system, and implementation. In this study, it is hoped that it will be possible to examine further related to JKN medicine management, where all stakeholders can play an active role in achieving medicine availability and quality for optimal JKN services. The general objective of this strategic health purchasing study related to medicine procurement for JKN participants was to identify opportunities and constraints in increasing access to JKN medicine availability.

MATERIALS AND METHODS

METHODS. JKN medicine management research related to the role of BPJS-K in strategic health purchasing is a cross-sectional study using a mixed method of quantitative and qualitative research. Quantitative research used the Structural Equation Modelling (SEM) technique, whereas qualitative research used the Focus Group Discussion (FGD) method. The study was conducted in August–November 2022.

Structural Equation Modelling (SEM). Data analysis using SEM was performed to quantitatively identify the variables (root causes) in the JKN medicine management system. Variables in medicine management include a series of processes, habits,

policies, rules, and institutions that influence medicine management and control in society. Generally, the medicine management chain becomes a system that is divided into input, process, and output sections. Input is needed in the medicine governance process (regulations, procedures, human resources/HR, distributors, and funds). The process is an activity carried out in medicine management (planning, procurement, administration, supervision, control, lead time, and expiration). The output is the initial goal of medicine management, namely, availability.

SEM primary data collection was conducted by distributing questionnaires online to JKN participants, primary/secondary/tertiary healthcare facilities, and IF/distributors. The selection of study areas was based on the number of Healthcare Facilities and the number of participants based on BPJS-K data as of August 2022, with representatives based on the regional distribution of BPJS-K. Questionnaires were distributed to the pharmacists in charge of the healthcare facility and the pharmaceutical industry/distributor in the sampling area. Interpretation of SEM results based on T-count. T-count calculated by multiplication/summing of factors: input, process, and output. If the T-count is greater than 0.5 then it is a variable or factor that influences medicine management.

Focus Group Discussion (FGD). Qualitative research was conducted through focus group discussions (FGD). FGDs were carried out to gather detailed information from various aspects, The first Healthcare facilities as technical implementers in purchasing medicines for JKN patients to explore the challenges in the procurement and supply of medicines in healthcare facilities. Second The pharmaceutical Industry and distributors explore the challenges in providing medicines in the JKN system and e-catalogs. The pharmaceutical industry that was invited includes industries that are involved in JKN and those that are not involved. Third Policy stakeholders to explore challenges in regulatory aspects and interagency relations.

Data obtained from qualitative research using the FGD method are primary data derived from informants, including: representatives in charge of healthcare facilities (FKTP, FKRTL, and PRB Pharmacies), industry representatives and pharmaceutical distributors, and representatives of government agencies (Ministry of Health, BPJS, LKPP (National Procurement Board), KemenkoPMK (Ministry of Cooperatives and SMEs of The Republic of Indonesia), Bappenas (The Ministry of National Development Planning).

RESULTS AND DISCUSSION

Analysis Results of JKN Medicine Management at The Healthcare Facility Level. The results of the SEM quantitative analysis at the healthcare facility level obtained 715 healthcare facility respondents from 12 provinces divided into 5 regions. Qualitative studies through FGDs were carried out online, attended by 42 participants from 5 regions. The healthcare facilities involved were representatives from the primary level of healthcare facilities (clinics, primary healthcare, referral pharmacies) and secondary level (hospitals) (referral pharmacies). The SEM test results showed that the greater the number obtained, the greater the influence of these factors on the variable. The potential factor magnitudes obtained from the SEM results are presented in Table 1.

Based on the SEM analysis, the three biggest input factors that most influenced medicine governance in healthcare facilities were Human Resources/HR (0.92), Procedure (0.83), and Regulation (0.79). These three factors are closely related, and HR is related to officers who carry out procurement procedures that comply with regulatory requirements. HR, Procedure and Regulation show a strong relationship with the process stages, namely Planning (0.99), Control (0.93), and Lead time (0.91). Process factor planning and control are influenced by HR skills in conducting analysis, compiling planning data, and making decisions in the procurement process. The optimal quality of planning and procurement processes will have an impact on the lead time).

The HR factor had the highest potential (0.92) for the SEM results at the healthcare facility level. Based on the results of the FGD, several obstacles related to human resources, namely the authority of the head of the pharmaceutical installation, which is considered to be less strong and limited in his ability to use e-purchasing. However, procurement officers who are certified to carry out the procurement process do not understand medicines because they are not pharmaceutical staff. In general, the FGD participants suggested that the head of the pharmaceutical installation should be included in the procurement certification of goods and services. In the medicine procurement process, participants suggested that low prices should not be the main consideration as long as the availability of medicines can be maintained. In addition, when procuring medicines, it is necessary to pay attention to dosage forms, dosages, alternative medicines, and other factors to achieve procurement effectiveness. This is in line with the recommendations provided by the TNP2K Study (2020), namely that the government, in this case the Ministry of Health,

Table 1. Results of input variable at healthcare facilities level.

SEM	FGD
POTENTIAL FACTOR (INPUT)	OBSTACLES
HUMAN RESOURCE (0.92)	Procurement of JKN medicines is handled by staff who are certified in the procurement of goods and services, but many are not pharmacists. HR capability/skills in procuring medicines using e-purchasing are still lacking. Human resources in the procurement of JKN medicines do not receive training information and contacts regarding the use of e-purchasing.
PROCEDURE (0.83)	The technical instructions for using e-purchasing are considered too broad and difficult to understand. Human resources in the procurement of JKN medicines do not receive training information and contacts regarding the use of e-purchasing. There is no assistance from related agencies (LKPP/KEMENKES/BPJS) regarding technical assistance regarding the use of transactions with e-purchasing.
REGULATION (0.79)	Regional governments are no longer allowed to administer JKN medicines (local e-catalogue) – not in accordance with Presidential Regulation 82/2018 article 51 paragraph 8. The e-catalogue's “free market” policy led to price variations that made it difficult to standardize prices for HPS and RKO. There are no binding sanction measures for providers or distributors if they are unable to provide medicines in the e-catalogue within the contract period. There are no regulations governing the special window for national formulary medicines. There are no clear regulations regarding socialization, training and complaints related to LPSE access responsibilities. The single winner system policy for e-catalogue medicines (especially generic medicines) makes it difficult for healthcare facilities to find alternatives when providers in the e-catalogue cannot serve.
FUND (0.76)	There has been no increase in the value of BPJS-K claims in line with the increase in VAT to 11%. There has been no change in the profit factor for healthcare facilities in line with the increase in VAT to 11%.
IF/DISTRIBUTOR (0.68)	Healthcare facilities experience medicine shortages in the e-catalogue, then are directed to buy manually at higher prices from the e-catalogue. Determination of the maximum number of medicine purchases in the e-catalogue is getting lower every year, this is not comparable with the need for medicines in services that are still high. Providers and distributors are considered to prefer serving manual orders. Distributors prioritize hospitals with many branches because they buy medicines in bulk. It is difficult for healthcare facilities to ask for medicine vacancy letters from providers or distributors. Sectoral catalog providers often reject Package IDs due to raw material vacancies. Medicine prices are too low (some are under Rp. 1 per tablet), the quality of the medicines is questionable and at these prices there is still a shortage of medicines. Obstacles due to payment to distributors are too short, it is expected to get more than 21 days for buffer stock so that the medicines remain available. Constraints to healthcare facilities located in remote areas, they have an e-purchasing account, tried to order using e-purchasing but the medicine was never sent by the distributor.

continues to seek the availability of quality pharmaceutical human resources in sufficient numbers and is well distributed throughout Indonesia. In addition, it is hoped that the government will facilitate the certification required by pharmacists, who are specifically responsible for medicine procurement.

In the SEM test on input variables at healthcare facilities, the IF/distributor factor ranked the lowest (0.68), but in the FGD results with healthcare facilities, it was revealed that the distributor factor showed the

highest frequency of constraints. Obstacles to Healthcare facilities in procuring medicines are medicines that have been ordered not sent by distributors, empty medicine stocks in the e-catalogue, and the industry's tendency to prefer serving manually at a higher price than the e-catalogue. These constraints can be attributed to regulatory constraints related to the system of sanctions and rewards that have not worked perfectly. The results of the SEM test on the process variables at the healthcare facility level are presented in Table 2.

Analysis Results of JKN Medicine Management at Pharmaceutical Industry/Distributor. SEM analysis at the pharmaceutical industry/pharmaceutical distributor level was obtained from 71 respondents who filled out online questionnaires. The sampling technique used was convenience sampling, namely, data from a collection of available respondents. The FGD at the online pharmaceutical industry/distributor level was attended by 22 participants who came from industry representatives or pharmaceutical distributors as providers of JKN medicines. The potential factor magnitudes obtained through SEM analysis for the IF/distributor-level input variables are presented in Table 3.

Based on SEM analysis at the pharmaceutical or distributor industry level, the factors that most influence inputs are medicinal raw materials (0.92), production capacity (0.89), and regulation (0.85). Production capacity is related to the amount of medicine that the pharmaceutical industry is capable of provid-

ing. The production capacity figure comes from the RKO submitted by healthcare facilities to the Ministry of Health, which then becomes a reference for bidding and the pharmaceutical industry's commitment to fulfilling it. However, in practice, the pharmaceutical industry does not produce 100% in accordance with the RKO because, based on the experience revealed by the pharmaceutical industry, RKO is not in accordance with the realization of the procurement of healthcare facilities, often lower. However, there are also several medicines for which the demand is even greater than that of RKO. Thus, when ordering in large quantities, the possibility of the availability of raw materials in the pharmaceutical industry is insufficient and requires additional raw materials. Regulations related to medicine raw materials are quite stringent so that the industry cannot simply replace raw materials when the commonly used raw materials are not available on the market. The National Agency of Food and Drug Control (BPOM) has ruled that the pharmaceutical

Table 2. Results of process variable at the healthcare facilities level.

SEM	FGD
POTENTIAL FACTOR	OBSTACLES
PLANNING (0.99)	Healthcare facilities are not brave to buy in large quantities because of the long lead time, healthcare facilities tend to buy frequently in small quantities.
CONTROL (0.93)	-
LEAD TIME (0.91)	Lead time for ordering JKN medicines via e-catalogue to remote areas is quite long (3-6 months). Repeat orders using e-catalog must wait 1 month. The lead time for ordering JKN medicines through the e-catalogue is long and some are even canceled and not sent, for eastern Indonesia.
EXPIRED MEDICINES (0.89)	Healthcare facilities from remote areas receive JKN medicines ordered through the e-catalogue with a short expiry time (1 year).
SUPERVISION (0.89)	-
PROVIDING (0.79)	-
PROCUREMENT (0.55)	Not all of the National Formulary Medicines (FORNAS) are available in the e-catalogue. There is a maximum limit for the number of JKN medicine orders using e-purchasing (the number of medicines needed according to the RKO is greater than the maximum limit for the number of orders in e-purchasing). Healthcare facilities still have to routinely follow up with medrep/sales after ordering medicines through e-purchasing (the process is not automatically completed). Not all medicine storefronts in sectoral e-catalogues have negotiation features available.

Table 3. Results of variable at the pharmaceutical industry/distributor.

SEM	FGD
POTENTIAL FACTOR	OBSTACLES
RAW MATERIAL (0.92)	-
CAPACITY (0.89)	-
REGULATION (0.85)	Not all Community Health Center provide PRB medicines. PRB medicine providers can only be done at a pharmacy. In remote areas, it becomes a problem Generic medicines are more often empty than branded medicines
FUND (0.79)	Delays in payment of Healthcare facilities to PBF resulted in PBF not sending goods/orders to Healthcare facilities
PROCEDURE (0.72)	At IF/Distributor, the realization percentage compared to RKO is less than 5% The mini competency has started, while currently it still uses the 2020 catalog, so procurement with a mini competency is chosen, it means the opposite of the contract, because the mini competency is no longer for the 2020 catalog.

industry is required to provide a slightest update regarding changes made by the industry related to the production of their products.

In FGD at the pharmaceutical industry/distributor level, problems did not arise directly related to raw materials, as revealed at the healthcare facility level. The problem that arises is that the purchase of medicines is often not through e-purchasing, or the procurement is not in accordance with the RKO, which can actually be closely related to the process of supplying raw materials by the pharmaceutical industry. In FGDs at the healthcare facility level, it was revealed that the input variables were related to pharmaceutical industry/distributor factors. Healthcare facilities often received reasons for vacancies in raw materials from the pharmaceutical industry/distributors so that orders were not fulfilled and healthcare facilities experienced medical shortages. In this case, it can be simplified that the planning process (RKO), the amount of procurement is closely related to raw materials.

Factors that influence process variables in the pharmaceutical industry/distributor are non-e-purchasing or direct purchasing (0.92), followed by e-purchasing (0.88), and empty medicines (0.85). Medicine procurement without e-purchasing (direct manual procurement) ranks highest in the SEM of the pharmaceutical industry/distributor. In the FGD, the pharmaceutical industry/distributors revealed many problems related to late payments from healthcare facilities, which delayed medicine delivery. Delayed payments affect cash flows in the pharmaceutical industry and can relate to the procurement of raw materials and production processes.

Based on SEM analysis at the level of JKN participants, the 3 most influential factors in patient satisfaction in JKN services are the suitability of the number of medicines received (0.37), the quality of medicines that are considered good by participants (0.29), and the search for solutions to obstacles in fieldwork from officers who are quite satisfactory to patients (0.23). Because the purpose of SEM in patients is to determine the level of patient satisfaction, the quantity and quality of medicines received are the main factors that are seen by patients.

Analysis Results of FGD at Stakeholder Level. Stakeholder-level FGDs explored several potential roles of BPJS-K, especially in the medicine procurement system/mechanism in 2023. Before 2023, the National Procurement Agencies set bidding in the e-catalog with a small number of product variations and pharmaceutical industries. Not all industries can sell JKN medicine in the e-catalogue. Therefore, BPJS-K cannot perform their role as strategic health purchasers optimally because healthcare facilities can

choose medicine in the e-catalogue that meets their budget or that is available because the choices are already limited.

In 2023, the e-catalogue will function as a showcase displaying medicine products that healthcare facilities can procure for JKN patients. Healthcare facilities have the opportunity to choose medicines and prices that suit their budget. In carrying out procurement, healthcare facilities negotiate prices independently with the pharmaceutical industry/distributor. Providers with varying prices are a challenge for healthcare facilities. On the other hand, BPJS-K, as an extension of the patient, also requires guarantees for the availability and quality of the medicines chosen by healthcare facilities. Thus, in this new mechanism, there are opportunities for BPJS-K to be involved with strategic purchasers, as shown in Figure 1. The relationship between institutions and the role of a strategic purchaser is a topic that must be discussed institutionally and refers to applicable regulations. The potential of BPJS-K is shown in detail in Figure 2.

BPJS-K can form a Medicine Advisory Board (DAB) at the national level, which contains experts who can provide inputs related to medicine studies that can specifically provide inputs related to medicine policy. DAB is an effort for BPJS-K to carry out its role as a guarantor for the quality of medicine services. To increase access to medicines for JKN participants, the role of BPJS-K as an active purchaser can be increased by forming a JKN Medicine Working Group (POKJA) at the regional level, either at the province, district, or city level. POKJA can function to evaluate problems in medicine availability, procurement efficiency, and cost-effectiveness of medicine use. Furthermore, the results of monitoring or evaluating medicine use can provide recommendations for selecting medicines in the e-catalogue for healthcare facilities. In the POKJA, BPJS-K can participate together with other stakeholders, such as the Health Office, local BPOM in each province, and local hospital associations, as well as other organizations or agencies that are deemed necessary as a forum that will facilitate medicine transactional for healthcare facilities. BPJS-K can conduct further reviews based on the results of creating a system that can record medicine transactions carried out by healthcare facilities. Thus, if the healthcare facility does not procure medicines according to POKJA's recommendations, the BPJS-K can report to POKJA for follow-up. This is one way for the BPJS-K to play an active role in ensuring that what is paid to healthcare facilities is for standardized services, including the provision of standardized medicine services.

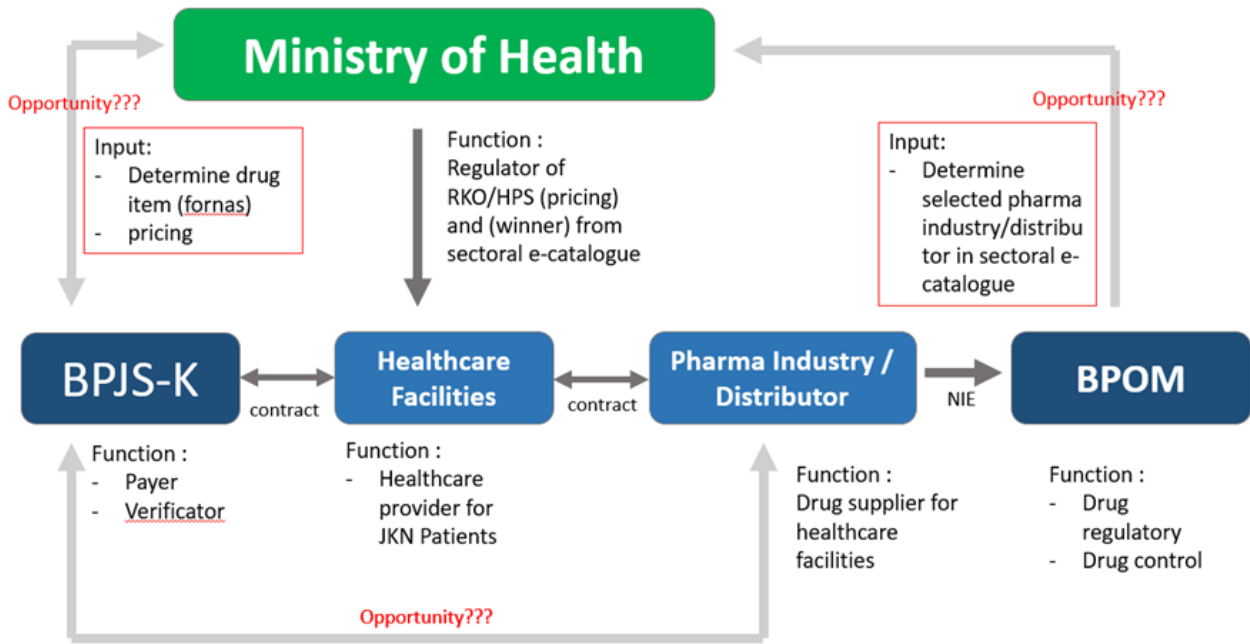


Figure 1. Opportunity BPJS-K as strategic purchaser.

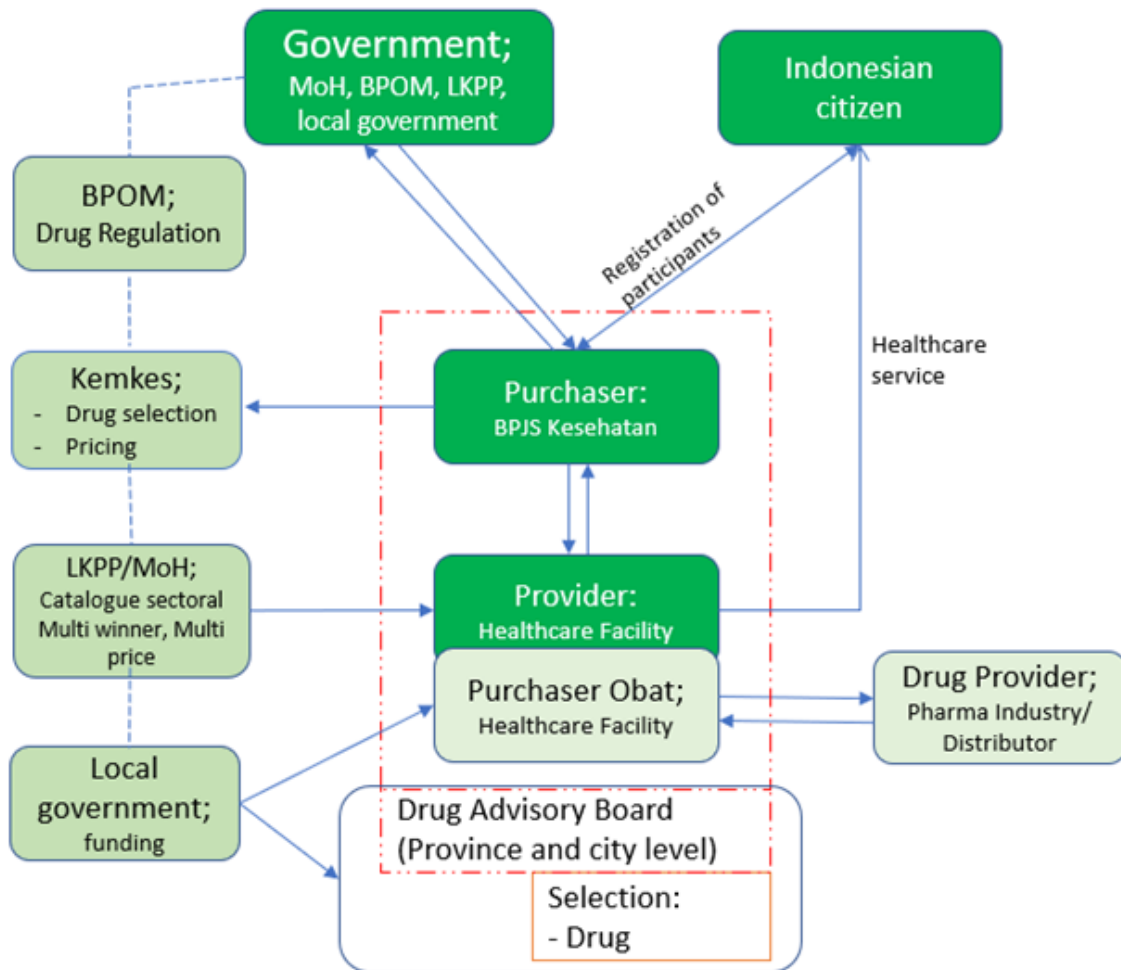


Figure 2. JKN scheme in Indonesia.

CONCLUSION

The root causes of medicine shortage problems based on the SEM method at the healthcare facility level are, among others, the limited ability of human resources to procure medicines, suboptimal medicine planning process, constraints on the e-purchasing system, and medicine vacancies from the pharmaceutical industry/distributors. The opportunities for BPJS-K to improve their role as strategic health purchases were found at the FGD stakeholder level. BPJS-K can have an opportunity to create an information system for the use of all medicines in JKN services. They can also establish a Medicines Advisory Board/JKN medicine working group and conduct regulatory reviews and coordination between policy-making institutions to optimize the role of BPJS-K in ensuring access to JKN medicines.

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