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Research article

Enrolment of informal sector workers in the National Health Insurance System in Indonesia: A qualitative study

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ABSTRACT

One of the main challenges facing the expansion of universal health coverage (UHC) in developing countries like Indonesia is the high prevalence of those working in the informal sector who must voluntarily register in the National Health Insurance System (NHIS). This condition hinders some from being covered by the NHIS. Following Bourdieu's concepts of field, capital and habitus, this research aims to analyse some aspects that influence the decision of informal sector workers to join the NHIS in Indonesia. We conducted qualitative methods, including in-depth interviews of 29 informants and Focus Group Discussion (FGD) in the three selected regions of Deli Serdang (North Sumatera), Pandeglang (Banten) and Kupang (East Nusa Tenggara). Using thematic content analysis and several triangulation processes, this study found that three main factors influence the decisions of those working in the informal sector to join the NHIS: health conditions, family and peers, and existing knowledge and experience. The stories provided by the informants regarding their decision-making processes in joining NHIS also reveal the necessary and sufficient conditions that enable informal sector workers to join the NHIS, which are individual-specific and which may differ between people, depending on individual characteristics, regional socioeconomic and demographic characteristics and belief systems. These three factors are all necessary conditions to support the joining of informal sector workers into the NHIS. This study suggests that one possible route for expanding the UHC coverage of informal sector workers is through maximising the word-of-mouth effect by engaging local or influential leaders.

1. Introduction

Universal health coverage (UHC) is increasingly being prioritised by low and middle-income countries as a means for improving access to and reducing the financial burden of health care [1]. Moreover, many countries that have shifted from extreme poverty to emerging and middle-class status are similarly trying to expand the government's social security to cover all citizens, including both formal and informal sector workers[1]. In their initial phase, most established UHC programs have targeted formal sector workers via contributory plans and the poor via fully government-funded plans. In the second phase, different countries have adopted different options such as 1) the non-contributory option where the government extends the payment of healthcare coverage to the remaining workers in the informal sector and 2) the contributory option where the remaining workers in the informal sector must pay the insurance premium [2]. In the case of developing countries, Thailand adopted the non-contributory option [3], while the Philippines adopted the contributory option [4].

Indonesia as an upper middle-income country has grown committed to achieving UHC through the enforcement of Law no. 40/2004 on the *Sistem*

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[1] Statistics Indonesia defines the informal sector as comprising the following activities: 1) self-employment; 2) self-employment assisted by temporary jobs; 3) agricultural/farm labour; 4) non-agricultural labour; and 5) unpaid (family) labour. Meanwhile, the formal sector refers to regular salaried workers. It should be noted that the definition of informal sector in the SUSENAS and PBPU in the definition of BPJS Kesehatan is not perfectly matched. PBPU refers to irregular salaried workers or non-contractual basis workers.

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Jaminan Sosial Nasional (SJSN) (National Social Security System) and Law no. 24/2011 on the *Badan Penyelenggara Jaminan Sosial (BPJS) Kesehatan* or the Social Security Agency for Health (SSAH) in January 2014. The SJSN law mandates all residents in Indonesia must register for the *Jaminan Kesehatan Nasional (JKN)* [(National Health Insurance System (NHIS)]. The NHIS is managed by the BPJS Kesehatan (BPJS Health)—a semi-government organisation [5]. Indonesia adopted the contributory option in expanding UHC for workers in the informal sector, where they must voluntarily register with the NHIS under the category of a nonwage recipient (Pekerja Bukan Penerima Upah; PBPU)[2]. Informal sector workers can select one contribution from the three-flat contribution types. Most workers in the informal sector are registered in the lowest monthly contribution category (IDR 25,500/person or USD 1.75/person) [6]. A comprehensive explanation about the contribution system and benefits packages of the NHIS can be found in Dartanto et al. [6].

The rollout of the NHIS has significantly improved the welfare of the majority of Indonesians in general and, in particular, that of lower-income households and the rural population who have traditionally been severely underserved by the private health insurance market [5]. As of July 2020, 221.84 million people were covered by the NHIS, with 131.36 million poor and vulnerable citizens covered by premium subsidies from the central government (PBI APBN) or regional governments (PBI APBD). The NHIS has narrowed the access gap between income quintiles [5, 7] while also protecting around one million people from experiencing poverty conditions due to sickness [8].

This achievement, however, is not without challenges, especially concerning the attainment of UHC. First, there are cases where data collection, monitoring and evaluation problems render some poor and vulnerable households that are supposedly eligible for the PBI scheme ineligible (exclusion error), thus making them unable to access health care services. Meanwhile, some better-off households who are ineligible for the scheme may be mistakenly covered by it (inclusion error) [9]. Second, a more pressing and inherent challenge facing UHC in developing countries such as Indonesia is the high number of nonpoor working in the informal sector [10]. Together, this segment of the population forms a group often referred to as the 'missing middle' that remain uncovered by the NHIS.

This group is not an inconsequential demographic; Statistics Indonesia (Badan Pusat Statistik (BPS)) reported that, in 2014, the informal sector employed approximately 60% of Indonesia's labour force and collectively accounted for 160.9 million people when family members were included (Survei Sosial Ekonomi Nasional (SUSENAS)/National Socioeconomic Survey) 2014). Meanwhile, SUSENAS 2016 suggested that the informal sector employs nearly 63% of the labour force. These individuals voluntarily register with the NHIS as PBPU, while workers in the formal sector are covered through the Pekerja Penerima Upah (PPU) (Formal Workers) scheme and there are no means available to enforce large-scale collection registration of workers in the informal economy. Figure 1 strongly supports the notion that those who are working in the informal sector tend to be uninsured. Almost half of those working in this sector remain uncovered by the health insurance system. This sizeable missing middle group thus poses a major obstacle to the achievement of UHC, as mandated in Presidential Decree no. 111/2013 [5,11].

Existing studies suggest that challenges in attracting informal workers to join health insurance are not unique to Indonesia [12, 13, 14]. Many low- and middle-income countries with social health insurance systems face challenges in their road toward achieving UHC, especially with people working in the informal sector [10]. The challenges faced

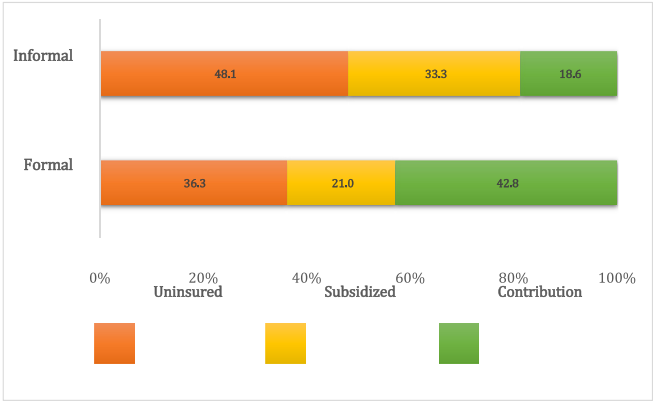

Figure 1. Insurance coverage and employment sector in 2016 (in %).[3] Source: Authors' calculation based on SUSENAS 2016. Note: The mention of 48.1% uninsured informal sector indicates that, among those working in this sector, 48.1% remain uninsured.

regarding informal sector workers include administrative difficulties in recruiting, registering and collecting regular contributions in a cost-effective way [15]. The behaviour of informal sector workers in Nicaragua's new health insurance program shows that the low rate of enrolment in the program was due to the price of premiums and the enrolment locations [13]. Separately, in Kenya, inadequate information about the registration and membership processes as well as benefit entitlements are the primary reasons for why informal sector workers do not join the social health insurance [16]. These diversity of challenges causes a lack of best practices in developing countries for how to expand the coverage of UHC for non-poor informal sector workers [17].

In the case of Indonesia, Dartanto et al. [11] investigated quantitatively why workers in the informal sector do not register for the national health insurance, hence hindering government efforts toward achieving UHC. Workers in the informal sector with high health risks tend to join the NHIS, revealing an adverse selection problem. The study also stressed the importance of insurance literacy as one of the key policies necessary to increase the enrolment rate of informal sector workers in the NHIS. Other studies in Indonesia also reported similar findings. In one, knowledge of the NHIS was the main factor that prompted people to register in the program [18], while other study showed that, although the participants had a high awareness of the NHIS program, as measured by knowledge indicators pertaining to various aspects of it, this was not enough to encourage them to actually join it [19]. However, most studies employ quantitative approaches, with data collected through interviews with participants using closed questions, which may limit the scope of the information obtained.

Previous ethnographic research on social safety nets may prove instructive in providing context regarding the effects of differing circumstances on decisions to access social safety net programs. Both religious beliefs and local/syncretic beliefs in supernatural reasons behind diseases may hinder people from accessing formal health services. Offit [20] reported cases in which some people have shied away from modern medical services based on religious grounds, decisions which have often proved to be fatal. In the Indonesian context, there is also principled opposition to joining the NHIS over its perceived un-Islamic conduct

[2] At the beginning of the UHC design, a non-contributory scheme through a general tax was considered by the Indonesian policymakers. However, this option was deemed to be unfeasible as the tax ratio of Indonesia was very low as a consequence of the large informal sector. Therefore, the contributory scheme was then decided as the most feasible option.

[3] The 21% of those working in formal sector were included as subsidized members due to inclusion error as well as the fact that some of them were already covered by the local health insurance system financed by local governments. While there were around 36.3% of formal sector workers who were still uninsured as there is no automatic process to register the formal sector workers i.e. the employers in the company have to apply for NHIS membership since the premium has to be shared between employers and their employees.

[e.g., insurance is claimed as gharar (gambling/uncertainty)], and some parts of the NHIS funds are placed in conventional banks, which is believed to promote riba (usury). This viewpoint may prevent some people from enrolling in the NHIS programme. Dartanto et al. [21], employing an online survey covering 720 respondents, found that among those who had not enrolled, around 24% reported that it was due to their unstable or uncertain income, 18% were simply unwilling to join the program and 7% declared that their decision was due to their religious beliefs.

Therefore, contrary to the popular perception that some of the population remains uninsured because individuals are not well-informed and/or are less than rational, the microeconomic framework allows us to understand several conditions in which such a decision is in fact made by rational and well-informed agents [22]. The most important issue that should be highlighted is that people respond to incentives and different people may face different sets of incentives and disincentives, especially in a one-size-fits-all program such as the NHIS. As some aspects of the perceived benefits and costs of a program are subjective in nature, various qualitative factors may influence individual judgments in utility-maximising decisions. These qualitative and subjective factors cannot be measured ex-ante but rather can only be uncovered through direct interviews with people for whom opting out of the NHIS is preferred to joining it, or with those who first joined the NHIS and then had to leave because they did not pay the mandatory monthly contributions. Even though qualitative research is often criticised as biased, small-scale, anecdotal, and/or lacking rigour, a properly conducted qualitative study is expected to yield unbiased, in-depth, valid, reliable, credible and rigorous outcomes [23].

The variation in methodologies as well as the quantity of literature itself is limited on the topic of how to ensure that workers in the informal sector will be willing to join the NHIS, especially for the case of Indonesia. Adopting Bourdieu's concepts of field, capital and habitus [24], this study aims to assess further how informal workers' choices on healthcare protection have evolved after the NHIS' implementation. This research is designed to analyse aspects—particularly within the context of subjective and qualitative factors such as economic, sociological and anthropological perspectives—that influence individual or household decisions to enrol in the NHIS. The study is expected to make significant contributions to the discussion about how to expand coverage as well as how to achieve UHC. In a diverse society like Indonesia, which hosts an enormous range of ethnic, linguistic, cultural, economic, geographic natural (bio) diversity, religions and system of beliefs, the behaviour of members of the society in responding to the introduction of the NHIS will also vary greatly. Thus, understanding factors that influence people to join the NHIS will provide valuable qualitative information to stakeholders about the problems inherent in expanding coverage and potential solutions to overcome them in Indonesia as well as in other developing countries.

This study proceeds as follows: the second section presents Bourdieu's concepts on healthcare choice. Section three explains the research method, how we conducted the field study, how the informants were selected and how we analysed the results of the in-depth interviews. Section four presents the results of the qualitative study gathered from Deli Serdang, Pandeglang and Kupang. Section five discusses thoroughly how and why informal sector workers join the NHIS. The last section then concludes with some important findings and policy recommendations.

2. Bourdieu's concepts on healthcare choice

Originating in economic liberalism, the notion of choice is summed up within rational choice theory, where health consumers are assumed to be rational agents that purposively maximise individual outcomes [22]. Yet, assumptions of rational choice are challenged by sociologists as choice exists within a complicated network of interrelationships, vulnerabilities and interdependencies. Patients individually are deemed incapable to make rational choices, especially when they are at their most vulnerable [25], and also due to the existence of asymmetric information.

There are also the situations where individuals lack the skills and time to make careful assessments between hard-to-evaluate products such as health insurance plans in relation to the costs and quality of competing health plans and instead choose the alternatives on the basis of their networks' experiences [26]. Some studies have found that patient choices are often inconsistent and influenced by the way choice is offered, the way the information is framed, and the choice-making context [27]. The choices about health, therefore, need to consider the socially constructed nature of decision-making [28]. Cockerham [29] observed that Bourdieu has recently become trendsetting in medical sociology with his concepts of 'habitus', 'field' and 'capital'. Bourdieu's concepts appeal to medical sociologists who wish to move from an 'individualist explanations' style of thinking to the relationship between health and social structures [29]. The theory is, therefore, useful for bridging the mainstream theory with medical sociology [30]. As such, the conceptual tools of Bourdieu are also useful to examine the interactions between informal workers and health-seeking practices [31].

Bourdieu proposed three interconnected concepts that are fundamental in the analysis of the relations between individuals and structures: habitus, field and capital. Habitus explains how people think and take an action that conforms with the social space, yet neither the ideas, beliefs or practices are defined by the social structure. Individuals act unconsciously according to their habitus and, as they become involved in a variety of social fields, they make choices and develop strategies, gathering and deploying forms of capital [32].

Capital refers to the resources that actors put forward to social interaction. Capital is represented in economic, cultural and social forms. Economic capital refers to material resources such as income or assets and is the basis of all other types of capital [24]. Social capital refers to the possession of one's network in mutual relationships. Cultural capital relates to the cultural competencies (skills and knowledge) that individuals develop through socialisation. Bourdieu's concepts differ from those developed by James Coleman in that they maximise utility theory, which explains how agents take the actions [33]. In addition, Bourdieu's concepts also differ in the extent that the choice is socially rather than individually produced as postulated in Coleman's rational choice theory. Finally, the field refers to a social space (such as a healthcare field). It also encompasses the power relations that particularly exist between social classes and is always a site of struggle and contest [34]. These concepts of habitus, capital and field can facilitate the theorising of health choices, which should be understood in a dynamic course and fundamentally as a class phenomenon [32].

When the three concepts are put forward together into an interlinked and dynamic sense, it is possible to understand how the processes of decision making result in actions that determine the health choices in a social structure. Health choices are structured within the habitus through the interplay and interaction between the various forms of capital that align with the social class [35]. The habitus and its configurations are then structured by the field dynamics. The field provides structure to the habitus [36] through the mechanism in which the various capitals are produced and distributed [37]. In this way, the choices that can be made are shaped by differentially enabling or suppressing the various forms of power by which the logics and forces of the field structure the capacities of actors [34].

3. Methods

3.1. Research design

This study employs a qualitative approach because it tries to understand the meaning of social phenomena and focuses on links between a larger number of attributes across relatively few cases [38]. Furthermore, this approach can understand phenomena in 'natural settings', in terms of the meanings people assign to them [39]. By using a qualitative approach, this study explores in-depth the behaviours of those working in

the informal sector and their insights about the NHIS program, as well as how and how deeply their internal and external factors influence their behaviours. These types of understanding cannot be captured through quantitative methods. Hence, this study applies ethnography as a tool to understand informants' behaviour and their neighbourhood's behaviour. We conducted in-depth interviews and focus group discussions (FGDs) among relevant stakeholders to deepen and confirm the obtained information. Similar qualitative studies have also been conducted in Ghana to explore the behaviours of informal sector workers in response to UHC [40, 41]. Figure 2 describes the flow of the study's design and analysis.

The research instrument of this study was a semi-structured questions list (see Appendix 1 for the detailed list of question). The instrument was constructed using the Bourdieu's concepts of habitus (the informant's social network), capital (work and employment conditions, economic capital, sociodemographic characteristics and access to capitals) and field (their efforts to seek and access healthcare). The list of interview questions was divided into three parts based on the concepts. Questions about the informants' main reason to join the NHIS or drop out from the JKN and their compliance in paying premiums were asked in order to understand their habitus. To understand their capital, questions were asked about their health condition, socio economic condition, insurance literacy, and current issues. Meanwhile, the concept of field was explored through questions about the influence of social conditions surrounding the informants, including their neighbourhood condition, health service availability, religion-related questions, and the role of community leaders and religious leaders. In-depth interviews and FGDs with community leaders were conducted to answer the questions about Bourdieu's concept of field.

This study was conducted in three provinces: North Sumatra, Banten and East Nusa Tenggara. These areas are as same as in the LPEM FEB UI's Quantitative Survey on Willingness to Join of Informal Sector Workers on NHIS in 2014. The survey area was selected based on four criterias that represent: 1) the high, middle and low-income regions; 2) the west, central and east regions of Indonesia; 3) economic activities of agriculture, industry and fisheries; 4) a large number of informal sector workers. Thus, this study selected Deli Serdang District to represent the industrial and services sectors, Pandeglang District to represent the agriculture sector and the City and District of Kupang to represent the fisheries sector. There are two subdistricts in each district/municipality representing rural and urban conditions. The subdistricts are based on the LPEM FEB UI's 2014 Quantitative Survey.

3.2. Selection of informants

Informants of this study are divided into two categories: a set of follow-up informants and a new set of informants. Follow up informants were selected from respondents of the LPEM FEB UI's Quantitative Survey on 'Willingness to Join of Informal Sector Workers on NHIS in 2014' [11]. The 2014 Survey database also contains the health conditions of informants to be used as initial information and also to validate the gathered information. The 2014 Survey respondents are informal sector workers who are not categorized as poor, and who have not joined the NHIS. They were purposively sampled from each selected village.

Most of the 2014 Survey's respondents work as fishermen, farmers, small stall owners, MSEs (Micro and Small Enterprises) owners. They have relatively low incomes, the majority have between IDR 1,000,000 to IDR 3,500,000. Only two respondents from all survey areas have private insurance. Their outpatient cost is between IDR 50,000 – IDR 200,000. This study also would aims to observe the changes in their socio-economic conditions such as in their incomes and health expenditures. Most respondents had their incomes stay in relatively the same range.

The new set of informants who were not involved in the 2014 Survey were selected using a snowball method based on recommendations from

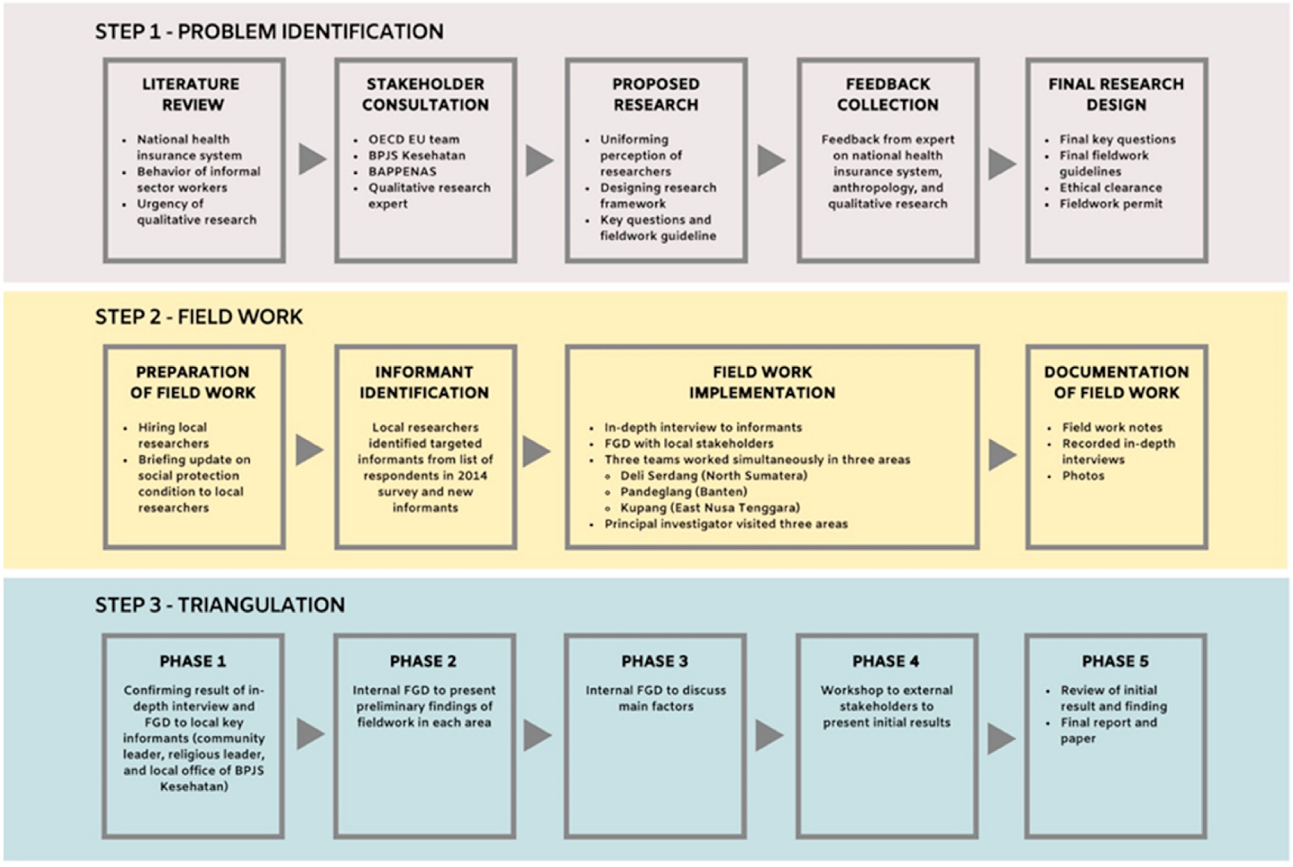

Figure 2. Flow of research. Source: Authors.

other informants. These new informants were expected to complement and provide new insight into the main reasons for joining the NHIS. This is a unique study which focuses on explaining the differences in socioeconomic conditions with the previous respondents from 2014, which ultimately leads them to their decision to enrol in the NHIS. This study attempts to uncover in detail the reasons why they chose to join the program and this new set of informants excludes those who have not yet enrolled in the NHIS, since those respondents have already been analysed in depth in Dartanto, et. al [11] and LPEM's 2014 study.

To identify eligible informants, the researchers checked by phone whether informants had already been enrolled in the NHIS or not, and to confirm the availability, willingness and consent of the informants to be interviewed. In each area, at least two or three were selected from the 2014 list, while another five or more were selected by the researchers through the snowball method, including religious or community leaders. This distribution of informants was fairly flexible, adjusted towards local conditions. In total, there were 29 informants interviewed in this study. All informants were informal sector workers (see Appendix 2 for detailed socioeconomic characteristics of the individual informants). Furthermore, for the Focus Group Discussions (FGD), the relevant officials who were invited to participate included BPJS Kesehatan officers, heads of villages, heads of communities, members of the Indonesia Ulama Council, academicians, members of a social welfare agency, members of a health agency, and heads of community healthcare. Appendix 3 describes the information of the informants from institutions and officials, while Appendix 4 indicates the FGD informants.

3.3. Data collection: in-depth interview and focus group discussion

One local researcher was hired for each area to identify the targeted informants from the list of respondents in the 2014 Survey and other possible new informants, and to engage with relevant stakeholders. They were briefed by our team before the fieldwork began. The interviews were conducted by C. H. S. and H. B. (Deli Serdang), A. U. L. and U. (Pandeglang) and W. P. and N. K. S. (Kupang) who simultaneously conducted fieldwork in the three areas. Meanwhile, T. D., as the principal investigator, visited all three areas during the fieldwork stage.

Data collection was conducted between October 20 and November 10, 2017, using a semi-structured in-depth interview technique. The interviews were conducted in the informants' houses or workplaces. We began the interview by asking the key questions of why they already had enrolled or still had not enrolled in the NHIS program. Based on their answers, we followed with questions such as their perceptions about the NHIS program; how they obtained initial information about the NHIS program; the influence of their family, relatives or neighbours on their decision regarding NHIS program membership; their experiences with the NHIS program; obstacles that they encountered and/or which prevented them from joining the program; and other relevant questions that evolved into being during the interview.

The informants were allowed to describe their experiences and also their relatives/colleague's experiences if they were well acquainted enough with the details. Each interview took around 120 minutes. Each informant was visited once, but some informants whose information need to be collected further were visited twice. In some cases, the session took longer since the informant had an abundance of unique information to provide. Our team also observed the neighbourhood conditions surrounding each informant's house or workplace. Through each informant, we gained a new additional informant, such as a community leader or a neighbour who had discussed the importance of NHIS membership. At the end of the fieldwork, one FGD involving the relevant stakeholders in each area except for those in Kupang was conducted. At that time, it was impossible to conduct an FGD in Kupang since all the officials and most of the community leaders were busy preparing for a large traditional event. The FGD invited community leaders, religious leaders, BPJS Kesehatan representatives and health facilities representatives. This activity was a part of the triangulation process, which confirmed the gathered information and garnered further detail on current conditions from an institutional perspective. All interviews and FGDs were tape-recorded. The team also took fieldwork notes and photos (with informants' consent) as documentation.

3.4. Data analysis

The collected qualitative information were then analysed manually through thematic content analysis using inductive approaches. The analysis was guided by Bourdieu's theory. During the first step of the analysis, each team member from each area discussed the collected information internally to categorise it using recorded interviews, transcripts and interview summaries. The team conducted a fishbone analysis to map the information. In the second step, the whole team reviewed the results for convergence and consistency. Analysis continued throughout the writing process. Since the research instruments followed Bourdieu's concept, all data were analysed by drawing on Bourdieu's concepts of habitus (the informant's social network), capital (work and employment conditions, economic capital, sociodemographic characteristics and access to capitals) and field (their efforts to seek and access healthcare). We conducted several internal FGDs to discuss the findings. This was part of the triangulation processes needed to ensure the reliability and validity of the findings. The preliminary results were then discussed through more FGDs with several stakeholders such as BPJS Kesehatan and OECD before finalizing the outcomes (see Figure 2).

3.5. Ethics

Ethical clearance was given by the ethical committee of the Faculty of Public Health, Universitas Indonesia (no. 604/UN2.F10/PPM.00.02/2017). We also obtained a permit for field survey (Kesbangpol) from the Ministry of Home Affairs. After selecting those individuals who would be the informants, our local researchers contacted all of them and explained the study's objectives. Then, the individuals were asked about their consent to be interviewed. During the fieldwork, before the interview started, the informants were informed again about the study's objectives and asked for their consent. The informants were assured of their privacy and confidentiality, and were asked to sign the consent form prior to the interview if they agreed to be interviewed. The informant could terminate the interview and withdraw as an informant if they experienced any discomfort during the interview. FGD informants were also asked for their consent. At the end of the interview, the informants were reimbursed IDR 100,000 (the exchange rate at the time was USD1 = IDR 13,800) in the form of basic food staples such as sugar, cooking oil, tea, coffee and instant noodles as appreciation for their participation. Meanwhile, the FGD informants, received IDR 200,000 in the form of cash to cover transportation costs and opportunity costs. All informants and FGDs informants did not know they were to receive compensation until the interview/discussion ended.

4. Results of the qualitative study

4.1. Sociodemographic characteristics and access to economic, social and cultural capital

The sociodemographic and socioeconomic characteristics of the informants were very diverse, representing Indonesia. The informants worked in various kinds of informal jobs, such as fishing (n = 4), owning small stalls (n = 5), performing odd jobs (n = 4) and others. Two of them were retirees and four others were contract workers. The interviews with informants also involved their housewives, who provided valuable insight into their family's own economic and health conditions. Eight of the informants were Bataknese; nine were Sundanese; and the rest of informants were Dawan, Manggarai and Sumba people.

Nearly half of the informants (n = 14) were under 40 years old and had four family members. Many of the informants already had children,

while some were also caring for their parents. This sandwich generation pattern is a rather common occurrence given the combination of the significant increase in life expectancy, the relatively young marriage age, and the relatively low age of retirement in physically demanding professions such as farming or fishing. Meanwhile, the majority of informants had finished high school (n = 15), while only four informants held bachelor's degrees.

All informants were enrolled as PBPU members of the NHIS or BPJS Kesehatan (n = 29). Even informants who worked at more settled jobs, such as contract workers, received no coverage benefits from their work, thus forcing them to enrol in the self-enrolled PBPU scheme. Eighteen of them had been enrolled for more than two years before the interview in 2017 and were registered in Class 3, while only three informants were registered in Class 1. The main reason for informants to enrol as Class 3 is because Class 3 premiums are the cheapest and most affordable. The informants cited the fact that Class 2 membership differs from Class 3 only when they have to be hospitalised (i.e., Class 2 members stay in a Class 2 ward, with around three to four patients per room, whereas Class 3 members may have to stay in a ward with six or more patients), while outpatient benefits for both classes are virtually the same. As nearly all the informants have incomes of less than IDR 2,000,000 per month, for a family of four, the difference between Class 3 premiums and Class 2 premiums translates into an additional cost of IDR 102,000, which was a considerably significant amount of money for many informants. Even with current Class 3 premiums, some informants—particularly those whose livelihood comes from subsistence farming—tend to be unable to make regular payments several months after enrolling on the PBPU scheme.

The value of informants' social networks was quite high, consisting of family relations, close neighbourhoods and workmates. Family is one of the important considerations in decision-making, including both the main and extended family—for instance, not only does family influence the decision to become BPJS Kesehatan members, the extent to which the family values the importance of health also becomes a determining factor. For example, the health condition of the main breadwinner in a family becomes important in the economic survival of the family. Additionally, engagement with neighbours and social groups such as religious groups also affects the accessing of health information by informants such as health assistance from the government or independent health programs by the community. The informants also work in groups (farmers and fisherman) such that the social interaction that occurs with workmates is quite high.

4.2. Seeking and accessing healthcare

Factors related to health such as experiences of sickness and precaution motives influence the efforts of informants in seeking and accessing healthcare. For minor illnesses, such as coughs, colds and fevers, informants usually go to Puskesmas (public health centres) for treatment and generic medicines. In some areas, informants do not need to pay. By showing their identity card, informants' treatment and medication are covered by the regional government health program (Jamkesda).

> *'When our children [are] sick or suffer from a mild illness, we just bring them to [the] Puskesmas pembantu (sub–public health centre) near our house. They usually give us paracetamol for fever or cough syrup for [the] children. As long as I remember, we just pay for administration at the very first time and then we do not have to pay again when we go [there] on other days'* (KP-3, 62 years old, male, odd jobs worker).

When the sickness cannot be handled in Puskesmas, the facility will give patients a referral to the nearest public hospital. For several standard medications, informants will not be asked to pay as long as they have a Jamkesda membership card. However, the Jamkesda coverage only works for specific public hospitals that collaborate with the regional government and has limitations regarding advanced medical treatment.

> *'We use Kartu Putih (Jamkesda) when we get treatment at the nearest public hospital in the city. Meanwhile, we cannot use it [at] other hospitals [with] better health service and equipment'* (KP-8, 52 years old, male, temporary worker).

Almost all informants have become BPJS Kesehatan members as they require routine medical treatment that necessitates back-and-forth travelling to the hospital or advanced medical treatment for severe illnesses. Those treatments cannot be covered by Jamkesda. Considering the high costs of treatment and possibility that costs tend to increase annually, informants joined the NHIS program by enrolling as BPJS Kesehatan members to cover their health needs with the cheapest premium available compared to other insurance policies.

> *'We live alone in this house. As elderly [people], we are facing many kinds of disease. My husband suffers from [a] prostate condition and hypertension. We need to go to the doctor regularly for check-ups. Sometimes, he needs to be hospitalised and needs more money. As I [am] retired, I think [our] monthly earnings were not sufficient. After hearing information about [the NHIS program], we decided to join and it's reduced our cost a lot.'* (DS-4, 68 years old, female, housewife).

> *'One night, the doctor told me that I had a severe complication. I had never been hospitalised before because, usually, my health condition is very good. It suddenly happened to me. Knowing the cost is very high, my cousins asked my daughter to register me [in] the NHIS. Fortunately, I [could] utilise the BPJS Kesehatan insurance when I [was] hospitalised. It is hard to imagine that I need to pay that much if I do not enrol to the program'* (DS-13, 60 years old, male, small stall owner).

On the other hand, several informants mentioned that they were aware of the health risks they would face in the future. This is based on their medical history and consultation with doctors or other health officers. Realizing that this risk is unavoidable, informants decided to protect themselves with health insurance that is affordable and can cover their needs. The most affordable insurance available to them is BPJS Kesehatan because private insurance may not cover all kinds of treatment and private insurance premiums depend on current health conditions. For example, one informant required a Caesarean section (C-section) because her body shape was risky for normal delivery, and she enrolled in the NHIS so that the program could cover the C-section costs of her second pregnancy. In addition, the risks faced are closely related to how the informant values the importance of health, especially for those, such as fishermen, whose jobs require a strong physique.

> *'At the end of my second pregnancy, which required a C-section, I decided to join BPJS Kesehatan. [The] C-section for my first child [was] very expensive. The C-section is something that we cannot avoid since my doctor suggested it was needed]. Then, I told my husband that we have to enrol the program so we can have savings for raising our children'* (DS-3, 29 years old, female, housewife).

> *'I became a participant in BPJS Kesehatan because I was bleeding. I registered myself because I am only an honorary teacher who is not registered by the school. My salary is so low that I need to consider [that] health cost[s]might [increased suddenly]. Therefore, I think I had to join the BPJS Kesehatan'* (PD-9, 45 years old, female, contract teacher).

> *'Before I got married, I registered for private health insurance to get better services. However, private health insurance did not cover all the medical expenses and my father's treatment cost a lot. Therefore, I registered as a member of BPJS Kesehatan that covers all medical expenses* (KP-4, 35 years old, female, housewife).

> *'Most of my neighbours received a JKN-KIS card (NHIS) distributed by the government. I know that [the] JKN-KIS card (NHIS) is for PBI members [from] poor family[ies] that [is] subsidised by [the] government. However, I did not receive any. I then went to the village office and found that my name was not on the list of JKN-KIS recipients. My husband is a fisherman, who has the risk of accidents occurring at any time and [his] health is important because he needs to make money for our family. I then registered*

as a member of BPJS Kesehatan' (KP-11, 26 years old, female, housewife).

As healthcare costs for more serious conditions tend to constitute a significant proportion of their average annual income (or even more in cases that involve surgery), rational individuals with no existing insurance coverage will try to search for the lowest private coverage possible. In virtually all cases, joining the NHIS is the cheapest alternative as it will cover healthcare costs in full after a two-week waiting period. Considering the benefits alongside the minimal effort needed, informants decided to join BPJS Kesehatan. They believe that joining the program provides long-term economic benefits relative to out-of-pocket costs that they would need to pay if uninsured.

'When I registered as a BPJS Kesehatan member, I stopped my private insurance membership. I think private insurance was fairly expensive if I [had] to pay for my whole family. By joining BPJS Kesehatan, I got similar benefits with what I [would have received] from private insurance for a lower monthly premium. By enrolling [with a] Class 1 membership, I could receive the same benefits and could also pay a top-up if I want to be hospitalised in a VIP room. The [negative] opinions about the BPJS Kesehatan services did not affect my decision to enrol as a PBPU member. I realised that the benefits of being a member of BPJS Kesehatan were greater than the cost[s]' (DS-6, 57 years old, female, housewife).

'Once, I heard [discussion] about BPJS Kesehatan at my office and I knew that it had a lot of benefits. My husband works as a construction worker, with an irregular income. In fact, I also serve as a village officer but [am] not covered by any insurance (health or work accident); neither is my husband. Therefore, considering this situation and the high current level of health costs, I decided to enrol my family [into the] NHIS with [a] Class 3 membership.' (DS-9, 35 years old, female, BPJS Kesehatan cadre).

4.3. Work, employment conditions and the symbolic power of economic capital

As people working in the informal sector without a fixed income, most informants are aware of the financial risk in covering their own health costs. This issue imparts to them the importance of having savings, even if only a small amount of it. Female informants (n = 17) prefer to save their money in the form of gold and jewellery. This is because they believe that as well as being associated glamour, gold and jewellery are more liquid than saving accounts, deposits or other types of saving. Once they have extra money, they buy gold and jewellery and will sell it if they face an emergency, such as a severe illness needing special treatment or to pay for school enrolment.

'In the case of illness, my family prefer[s] to save the assets in the form of goods (jewellery). Saving money in the bank will reduce my money because there is a monthly administrative cost' (DS-1, 55 years old, female, housewife).

On the other hand, the uncertainty faced by informal workers brings them to adopt precautionary motives. The informants consider that an uncertain income need not be compounded with other bad luck such as paying high health costs if their family member falls ill at any time. Therefore, health insurance—in this case, BPJS Kesehatan—that is affordable to them can somehow be used as a safety net. In most cases, the level of disposable income and the individual/family expenses of informal workers ultimately dictates their ability and willingness to sign up and pay the NHIS premiums. More affluent informal workers may find the premium to be affordable and a better alternative to private insurance or having to pay out-of-pocket for healthcare costs, thus motivating them to join the scheme. In many cases, however, nonpoor informal workers can be classified as vulnerable. They may not see the value in joining the NHIS or, if they have already signed up, of prioritizing the payment of NHIS premiums in their budget.

'My family does not have any insurance, but I realise that health costs are very high, so I told my husband to join. He does not have a regular job' (DS-9, 35 years old, female, BPJS Kesehatan cadre).

'We became NHIS members just in case. My husband, a fisherman, has a boat; thank God the results of sea fishing are enough to support the family. [However,] my husband is physically weak because he is now [older than] 50 years' (PD-13, 47 years old, female, housewife).

Previous work experiences can also influence informants' decisions to join BPJS Kesehatan. There were informants (n = 2) who previously owned a company and had a semi-formal job so they received health insurance covered by the company. When working at their previous job, these informants had positive experiences in using health insurance. However, one of them was laid-off from their previous job and another one changed to working as an odd jobs worker. Therefore, shifting their employment status from formal or semi-formal to their current informal state led them to understand the importance of having health insurance to protect themselves and their families. Because of limited economic capacity and because they must cover their premium costs, these informants then choose to enrol as BPJS Kesehatan members.

'I think everybody will be sick, so I joined NHIS even though I am not sick at the moment. In the past, I owned a company and all my workers were registered for insurance because of state rules and [because] insurance is important. That is why my family and I registered as PBPU members of BPJS Kesehatan' (PD-11, 61 years old, male, retiree).

'I could barely pay for food and the school supplies of [my] child after my contract with the previous office was terminated. My family and I still live in my father-in-law's house. Even when we have some money to pay some of the outstanding premiums owed, they [are] not be able to pay by instalments. As soon as I ran out of money due to [my] extended period of unemployment and only working odd jobs, I could not afford to continue payments. I really wanted to continue payments after I had found another job with a stable income. I strongly felt that having NHIS coverage provided peace of mind to my family. I cannot lie to myself since I have experienced the benefits of BPJS. This contribution is about our family [members'] lives. Since, with BPJS, praise God (my wife could give birth safely)' (PD-6, 37 years old, male, odd jobs worker).

4.4. Habitus and social networks

In term of social relationship design, almost all informants stated that family tends to play an important role in an individual's life decisions. In many cases, the family (including the extended family) will determine what kind of school children should enrol in, who they should marry, and even their health-seeking behaviours. Bataknese informants tended to have closer relationships with their families, even their extended families. They believe that people who have the same family name are deemed as their family, even if they do not have a blood relationship. With such close relationships, once a family member experiences an unfortunate event or suffers sickness, their family will take action, such as collecting money to fund the treatment, making suggestions regarding what kind of treatment they should seek, or even finding other ways to finance the treatment.

'When I was hospitalised, my cousin encouraged me to join BPJS Kesehatan. He knew that [the hospital costs] would be very costly. He also told my daughter about the benefits. Therefore, my daughter decided to register me. I could not more thankful for what my cousin said. Because of him, I do not need to pay much for my treatment. Maybe I will change my membership type to Class 1 because, when I was hospitalised, many of my family members came to visit, so I need a more spacious room to make visitors comfortable' (DS-13, 60 years old, male, small stall owner).

On the other hand, social communities (e.g., *perwiridan*, a local religious community for Muslim women) also play important roles as information canals. The close relations and trust in the community leader make information exchange during community gathering activities significant in influencing the views of community members. The following case was no exception: when a community member had a health or

financial problem, other members brought up suggestions that might help her solve it. The closer the relationships between members, the more likely it is that they will affect each other's decisions.

> *'We believe that helping people is a kind of religion. When my husband [had a] severe illness and I heard about BPJS Kesehatan from my Quran tutor in Perwiridan, I [was] interested to join the program. She said that we need not feel ashamed because the program is not [just] for poor people; many rich people who have a luxury car register themselves [in] this program. She also told us not to worry about the monthly payments as the benefits will be greater than the high costs of medical treatment. Then, I decided to quit a private insurance scheme and joined BPJS Kesehatan since it provides the same benefits at a lower cost'* (DS 4, 68 years old, female, housewife).

Other parties that also encourage informants to join the NHIS include health officers. Near the informants' neighbourhoods, private clinics which offer to register people for free into the NHIS exist as long as they choose that clinic as their primary health facility *(Faskes Tingkat Pertama)*. This is a type of profit-seeking behaviour because the more people choose the clinic as their primary health facility, the greater the capitation fund amount that it will receive monthly. However, informants who live near the clinic typically do not have any objection to going there for treatment since it is located near their houses, making transportation cheaper. Meanwhile, some others are influenced by their colleagues or friends who work in the health sector to join as BPJS Kesehatan members.

> *'Health officers from the clinic came to me and told me that they would help people to register on BPJS Kesehatan for free as long as they chose the clinic as their primary healthcare provider. I personally do not mind because the clinic is close to my house and the service is quite good. That is pretty helpful'* (DS-1, 55 years old, female, housewife).

> *'I once had Jamkesmas (Jaminan Kesehatan Masyarakat/Nasional Health Insurance for the poor) but it was revoked by the government and I did not get a subsequent JKN-KIS card (NHIS). Knowing this, my nephew, who is [a] doctor in a public hospital, suggested [I] register my family [in] BPJS Kesehatan by joining as [a] PBPU member. Then, he asked my Kartu Keluarga (Family Card) to be registered. We also paid a premium through my nephew and always paid the annual premium. On the other hand, I feel that health insurance from BPJS Kesehatan is very important because my child has experienced broken bones and this has cost me a lot. Thank God we have BPJS Kesehatan now so we can avoid paying much for health matters'* (KP-2, 36 years old, female, housewife).

However, in the FGD session in Pandeglang, informants noted that participation as PBPU member was also influenced by information that should be provided through collaboration between formal institutions and the community or social groups. For example in the dissemination of the NHIS program, there needs to be coordination and cooperation between BPJS Kesehatan officials and the sub-district offices (*Pemerintah Desa* or *Kelurahan*), community leaders, and religious leaders, who are all in direct contact with the wider population on a daily basis. For example, officials in the sub-district offices and religious leaders only receive their information about the NHIS from mass media or social media, not from BPJS Kesehatan officials themselves. This may increase the chance of misinformation (e.g. issue that the NHIS is haram or that JKN-KIS cards are given arbitrarily).

5. Discussion

The informants in this study were gathered from various backgrounds in terms of job sector, income level, ethnicity, religion and setting (urban or rural). The informants mostly expressed that they are highly dependent on their health condition being good as they work in various informal sectors that typically require them to perform physical activities. Due to these working conditions, some of the informants reported episodes of severe illness.

All the informal workers interviewed financed their NHIS premiums through their uncertain income. Prior to being registered as an NHIS member, most informants were not enrolled in health insurance with regularly paid premiums. Instead, they mostly relied on local health insurance for mild illness treatments or used traditional medicine. This lack of health insurance is not only reflective of low economic capital; health insurance illiteracy also represents low levels of cultural capital. This finding is confirmed by some studies of uninsured populations in Vietnam and Lao PDR [31, 42].

Only a handful of informants have previously enrolled in private health insurance programs and experienced the benefits offered by owning such insurance. As compared with other informants, those with wide knowledge and prior experience with insurance (specifically health insurance) tended to be influenced more strongly by their prior knowledge and experiences. Likewise, these informants also tended to have more realistic expectations (being more accepting of the concept of monthly premiums) and have a more favourable opinion of the NHIS given its much more affordable premiums relative to similar private offerings.

Health conditions, which is the most cited driver of enrolment, influence household enrolment decisions into the NHIS. Health conditions affected how individuals assess their economic capital and, ultimately, their decision to enrol. Although generalisations about the quality and nature of informal employment is difficult, informal workers in Indonesia usually present a low socioeconomic status (SES) [43]. The characteristics of this state include a lack of protection for non-payment of wages; retrenchment without notice or compensation; unsatisfactory occupational health and safety conditions; and an absence of social benefits such as pensions, sick pay and health insurance.

For informal workers (households) with little savings and who only earn income when they work (i.e., no paid leave), every day the breadwinner falls sick and is unable to work, the family earns nothing. Without income or sufficient savings, the breadwinner cannot afford to pay for medication. This situation creates a vicious circle: breadwinners who cannot afford to see the doctor will remain sick and, if the illness is serious and prolonged enough, this will prevent them from working, which in turn will only worsen their condition. While no respondents had experienced this situation first-hand, some did explain that they were concerned enough about the financial risks posed by potential illnesses that they appreciated the value proposition of the NHIS program.

Numerous studies have reported a negative correlation between SES and health conditions [44, 45, 46]. It is not too exaggerated to state that the lower a household's SES, the higher the likelihood of bad health conditions [47]. Households in the higher social strata are unlikely to display health-risky behaviours and their lifestyles are usually healthy or preventive [47]. The mechanism linking SES to health condition includes class distinction and social capital. In the class distinction theory, Bourdieu [35] characterises people's daily activities such as healthy behaviours as social practices. He explains that, under certain field structures, people use habitus as a basis for maintaining certain lifestyles. Lifestyle functions as a distinction for social classes.

The significant influence of the more horizontal form of communication, as mentioned in the previous section on the role of family and peers, highlights the critical role of social networks in individual enrolment decisions. The social capital theory describes that social networks and social support influences people's health lifestyles through healthy behaviour promotion and the restraining of risky behaviours [48]. There are two ways by which social capital influences people's healthy behaviours. First, there is an exchange in health-related information between members as well as partnership in making health-related decisions and overseeing each other in their practice [49]. Second, there is a higher social cohesiveness in high-SES households. Cooperative networks based on mutual trust and mutual benefits that encourage healthy behaviours are likely to form between members [50].

To depict a more detailed influence of the more horizontal form of communication on the role of family and peers, the critical role of social

networks in individual enrolment decisions that we found in our study could be highlighted. Let us create a hypothetical example of the social network of individual x, as illustrated in Figure 3. While x may only have direct contact with his family and friends (strong ties) or co-workers and acquaintances (weak ties), we must consider that his immediate family and friends also have their own weak and strong ties, with whom they tend to spread relevant information more readily.

The fact that people tend to recommend or advise against using certain goods or services amongst their immediate circles forms the basis of word-of-mouth marketing. Both weak and strong social ties play different but equally crucial roles in propagating information about products and services [51]. Strong ties tend to be more active and influential for the flow of referral information; i.e., people tend to receive information about certain products or services from their inner circle of family and friends and tend to place more trust in the referrals received from these areas. Weak ties, on the other hand, serve as a bridge over which information flows between different subgroups in a broader social system (e.g., new referrals made by co-workers may pique people's interest, which will be transmitted to their inner circles). This means that positive experiences of using a product and positive testimonials tend to be much more powerful marketing tools in terms of conversion rate than conventional promotional channels.

When it comes to using a product and recommending it to others, however, we also have to take into account the confluence of factors that are relevant to individual perceptions of a product. Even if individuals receive positive testimonials from families and friends about certain products or services, they may also receive relevant information from other sources or experience other circumstances that may negate or contradict the endorsement from within their social circles. Similar insights into consumers' decision-making processes are applicable to informal household enrolment in the NHIS program. Even if households are legally mandated to join it, the aforementioned lack of means to legally coerce them (given the highly undemocratic and unconstitutional nature of such coercion) makes the NHIS, especially the PBPU scheme, seem similar in practice to a voluntary insurance program. However, unlike normal products or services, its success hinges on the visibility of the NHIS to informal households (i.e., how well-known the scheme is among informal households) and the overall perception that joining the NHIS is worth the cost (e.g., households perceive, from all information they can gather, that benefits such as lower healthcare costs and peace of mind outweigh the direct and opportunity costs).

Few studies regarding the choice of health insurance membership have illustrated the influence of communications among inner circles in the context of the dynamics of habitus, field and capital. A study by Natalier and Willis [52] portrayed the value people place on joining health insurance even if it is not utilised. They found that there is transmission of these values within their families even across generations. This study demonstrated that those who have grown up in families with health insurance were more likely to value the importance of health insurance even if they have low economic resources. This indicates that while economic capital is important, cultural capital is also crucial in explaining someone's health insurance choices. This unconscious behaviour has shaped the habitus.

Another example of a study that sheds the light into how health insurance memberships are influenced by inner circle communications was conducted by Shim [53]. By employing Bourdieu's triad of concepts, he demonstrated that the interaction between patients and healthcare providers may improve communication capacities that will in turn enrich health knowledge or other social advantages. This channel of communication induces a value exchange of cultural health capital that may vary according to social grouping.

Enrolment into the NHIS and health-seeking behaviours were also influenced by working and employment conditions, and were discussed within their SES. Poor working conditions which caused the lack of relevant capital, alongside the lack of knowledge and experience in the complexities of the health insurance system, forced informal workers to experience uncertain healthcare conditions. This led them to enrol in the NHIS as the first best option. Such reasoning is rather different from the other remaining factors: our study finds that enrolment through employment works by turning enrolees into a captive market, even after they become informal workers. Some informants who previously worked in formal sectors and had their premiums paid by their employers have taken advantage of their NHIS coverage, which provides input to their existing knowledge and experience about insurance. Those who have experienced good care usually do not want to lose their coverage after exiting the formal sector and are therefore willing to pay for the PBPU scheme. Additionally, there is one case in which an informant's spouse was given coverage by her employer through the PBPU scheme because she works as a contract worker for about eight months out of the year.

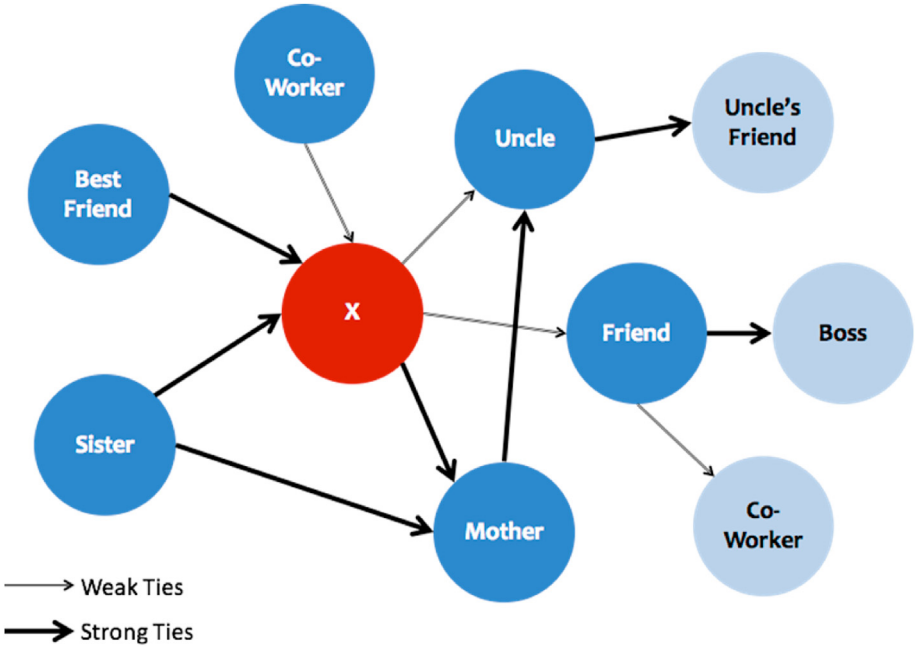

Figure 3. Illustration of propagation of information through personal networks. Source: Authors.

These are aligned with what Zadoroznyj [54] found in his study. By using Bourdieu's framework, he discussed a case from an informant with limited economic and cultural resources, in which a shift in mothers' choice toward private health insurance during subsequent childbirths could be driven by experiential knowledge as a result of dissatisfaction with their first childbirth experience. It is evidence from this study that experiential knowledge may shift the dynamics of healthcare choice made despite families being in the condition of severe capacity constraints.

Hence, Bourdieu's approach in analysing healthcare choices has provided a richer analysis of health behaviours by bringing together the key concepts, rather than focusing on a single determinant [55]. The interplay and interaction of the various forms of capital in our study can assist with theorising health choices. Bourdieu's concept of capital in our study should be understood in a dynamic sense, i.e. as a form of power or capacity to act: resources are not simply consumed, but must be actively deployed [37, 56]. For instance, in our study, people who acquire cultural capital in the form of knowledge and skills through their previous experiences may value the healthcare high and manage to put in place strategies to join the system, even if they have low economic capital. Since different forms of capital are dependent and conditional upon one another, i.e. social capital necessitates cultural capital [56], the membership of the individuals in the given social group will spread the health-promoting behaviours in a particular society.

6. Conclusion

Our study employed Bourdieu's concepts of field, capital and habitus to provide insights into the processes and experience of informal worker enrolment in the NHIS. While Bourdieu's concepts have been applied in research on inequities, only a handful of studies to date have adopted the concepts in investigating healthcare choices in countries with low and lower-middle incomes. This study suggests that informal workers' choices over healthcare—for instance, private versus public insurance or lower versus upper premiums—are shaped not only by the cost of each option but also by their circumstances and by what is deemed reasonable, which is shaped by their habitus and social structure.

This study concludes that the following three main factors influence the decision to join the NHIS: health conditions, family and peers, and existing knowledge and experience. The stories provided by the study's informants regarding their decision-making processes in joining the NHIS also revealed the necessary and sufficient conditions that enable informal workers to join the NHIS program. The necessary conditions are individual-specific and may differ between people as well as vary depending on individual characteristics, regional socioeconomics, demographic characteristics and belief systems. All of the listed factors, apart from knowledge and experience, are the necessary conditions for joining the NHIS program, while knowledge and experience are sufficient aspects that encourage informal workers to join the program.

With the need for customised promotion policies in each region in mind, we identify at least two broad policy directions that may improve enrolment among informal workers and households. First, future promotional strategies should be focused on interactive campaigns and involve actual informal households and influential locals so as to maximise the word-of-mouth effect. This can be done by engaging local village/subdistrict offices and influential locals in creating question-and-answer sessions regarding the NHIS.

Second, as informal workers/households may have distorted ideas about the costs and benefits of the NHIS, BPJS Kesehatan might be interested in developing new promotional campaigns that emphasise the communal nature of the NHIS and provide concrete examples regarding how it pays off for everyone in the long-term. Furthermore, related to the misinformation problem, BPJS Kesehatan could also emphasise that the NHIS-PBPU scheme is not only for poor people and could give several examples of successful informal households who have benefited from it.

Finally, there are several study limitations. The sample is largely comprised of low-income households and located in three provinces. Hence, the inclusion of samples from other provinces will improve the representation of the results even though our study has tried to represent sociodemographic as well as socioeconomic diversity among informants. As such, future studies might examine how the health insurance choices differ among households in all provinces. Future research should also focus on the roles of both kinds of policy incentives, i.e. government subsidies and penalties that favourably position the choice to join health insurance within the healthcare field.

Declarations

Author contribution statement

T. Dartanto, W. Pramono: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Wrote the paper.

A. U. Lumbanraja, C. H. Siregar, H. Bintara, U. Usman, N. K. Sholihah: Performed the experiments; Analyzed and interpreted the data; Wrote the paper.

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Competing interest statement

The authors declare no conflict of interest.

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