

SP4PHC

Strategic Purchasing for Primary Health Care

MINDING THE GAP BETWEEN UTILIZATION AND COVERAGE OF MATERNAL AND NEWBORN SERVICES IN INDONESIA

THINKWELL

This brief summarizes findings from a study in Indonesia on how their national health insurance scheme, *Jaminan Kesehatan Nasional (JKN)*, is being used for maternal and newborn health (MNH) services. This study found that JKN has not been used optimally for all MNH services. In addition to reviewing the study findings, this brief also offers policy recommendations for how the Government of Indonesia, particularly *Badan Penyelenggara Jaminan Sosial Kesehatan (BPJSK)* as the administrator of JKN can strengthen the system both from its demand-side and supply-side to ensure manageable risks during maternity which can potentially reduce the number of maternal and newborn deaths. This study was conducted by ThinkWell under the Strategic Purchasing for Primary Health Care (SP4PHC) project, supported by the Bill & Melinda Gates Foundation.

THE SUPPLY AND DEMAND SIDE OF MATERNAL AND NEWBORN HEALTH SERVICES

The maternal mortality rate in Indonesia is one of the highest in South-East Asia, around 305 per 100,000 livebirths in 2015, whereas the average in the region is 110 (Ahmed, 2019; WHO, 2015). The rate is still much higher than the national target of 118 per 100,000 livebirths (BAPPENAS, 2014). It is estimated that Indonesia could only be able to reach 204 deaths per 100,000 livebirths by 2030 if it continues its current death rate. This would be much higher than the Sustainable Development Goal (SDG) target of 70 deaths per 100,000 livebirths in 2030 (Trihono, Dwiana O, Suparmi, 2020). Many of these deaths are preventable through supply-side interventions, such as proper antenatal care, quality of skilled-birth attendants (SBA), and timely treatments when labor complications occur. A 2012 study found that the prevalence of poor antenatal care in Indonesia was 91.2%, leading to an increased risk of labor complications by a factor of 1.3 (Bantas K, Aryastuti N, Gayatri D, 2019). In addition, 85% of pregnancies are considered low risk, but unexpected outcomes still can occur, making SBAs vital. SBAs were used by 87.1% of Indonesian pregnant mothers,

though their competency varies, resulting in high maternal mortality (Besral B, Suantari D, 2020; Indonesian Academy of Sciences, 2014). Similarly, another study found maternal deaths were likely caused by delays in emergency care and management due to poor protocols and a lack of information flow to referral hospitals (Mahmood MA, et al., 2021).

In addition to improving supply-side readiness, understanding the demand side of maternal and newborn health (MNH) services is also essential to tailor policies. Often, women do not receive the health care they need because of a lack of education, family support, and cultural norms (Azhar K et al., 2020; Wiradnyani LAA et al., 2016; Nasir S et al., 2020). Educating mothers about maternal care and danger signs could prevent delays in seeking care. The national pregnancy class program in Indonesia, which started in 2009, discusses common issues during pregnancy, giving birth, post-natal care, newborn care, nutrition, sexually transmitted disease, and registering birth certificates. Mothers who participated in the program are more likely to receive proper antenatal care by 2.2 times, to give birth with SBA by 2.7 times, and to give birth in a health facility by 2.8 times (Azhar K et al., 2020).

Pregnant mothers who receive family support, especially from their husbands, are more likely to take iron folic-acid supplementation, essential to reducing anemia and complications during labor (Wiradnyani LAA et al., 2016). Lastly, cultural norms in several areas of Indonesia hinder mothers from seeking proper care. Instead, they rely on traditional birth attendants (TBAs), although national regulation has stated all delivery should be conducted in healthcare facilities (Ministry of Health, 2014). Cultural norms such as leaving the house for birth are considered taboo in some areas, and mothers' reluctance to expose themselves to unfamiliar persons in health facilities persists (Nasir S et al., 2020).

Demand-side challenges may be more difficult to address as they are often more embedded in certain communities, whereas supply-side interventions may be more feasible. The implementation of *Jaminan Kesehatan Nasional* (JKN), administered by *Badan Penyelenggara Jaminan Sosial Kesehatan* (BPJSK), aims to cover the entire population and protect them from financial hardships in accessing healthcare. By 2021, 86% of the population was covered by JKN (BPJSK, 2021). One of its benefits is access to MNH and family planning (FP) services at public and private primary health care (PHC) and higher-level facilities contracted with BPJSK; this includes four antenatal care (ANC) visits, where a doctor attends at least one visit, *per vaginam* and caesarean delivery if needed, four postnatal care (PNC) visits, and contraceptive treatment after delivery. PHC providers can refer patients to higher-level facilities in cases of emergency or complications. These benefits aim to ensure manageable risks during maternity which can reduce the number of maternal and newborn deaths.

Even though it provides comprehensive benefits with almost no claim limits, many women may not be using JKN when they access MNH services. According to 2018 Riskesdas data, 96% of pregnant women have had at least 1 ANC visit, but only 34% of pregnant women used JKN for their ANC (according to 2018 BPJS-K claims data). This under-claiming of MNH services to JKN is likely contributing to the persistently high out-of-pocket spending (32.2% in 2019) seen in Indonesia, as observed in National Health Accounts. Moreover, MNH services not being claimed to JKN makes it harder to track whether

women get the care they need (e.g., four ANC visits) throughout their pregnancy. This could contribute to the stubbornly high MMR that has plagued Indonesia for the last few decades.

This brief aims to estimate and quantify the difference between the total number of women enrolled in JKN that used MNH services (and could have claimed to JKN) in 2018 versus the actual number of MNH-related claims made to JKN in 2018. In other words, there seems to be a utilization gap where the number of JKN claims for MNH is considerably lower than the number of JKN members accessing MNH services. This analysis hopes to quantify that difference and use qualitative methods to understand the reasons for that gap. By doing this, we aim to provide evidence to the Indonesian government on how big this gap is, clarify the reasons for this gap, and offer recommendations on how to reduce it and improve coverage and continuity of care for Indonesian women.

METHODS

This study analyzes three major MNH services: antenatal care (ANC), delivery, and post-natal care (PNC) from several data sources, as there was no single dataset that have all the required variables. Data sources used to estimate the JKN population are the 2018 Indonesia Health Profile, the 2018 National Socio-Economic Survey (Susenas), and the 2018 Basic Health Survey (Riskesdas). Susenas data is nationally representative right down to the city and district levels, providing general information, such as socioeconomic status and demographic indicators (including health indicators), while also covering household consumption and expenditure data. The Indonesia Health Profile is an annual report published by the MOH that provides a comprehensive overview of basic demographic, health facilities, human resources, and health indicators at the province level. Lastly, Riskesdas data provides information about multidimensional health status across regions, which can be disaggregated until city and district levels, such as accessibility to health facilities, environmental health status and disease prevalence. Figure 1 illustrates how the share of MNH services accessed by all JKN members is estimated using Riskesdas and Susenas data, which are then multiplied by the official population data

Figure 1. Steps to estimate the difference between JKN members accessing MNH services and JKN claims for MNH

ANTE-NATAL CARE



DELIVERY



POST-NATAL CARE



- 1 Total number of pregnant women **X** Share of pregnant women accessing at least 1 ANC
- 2 Number of pregnant women accessing at least 1 ANC **X** Share of JKN pregnant women who has ANC expenditures
- 3 Total number of women of reproductive age **X** Share of JKN women of reproductive age
- 4 Number of JKN women of reproductive age **X** Share of JKN women of reproductive age utilizing JKN for at least 1 ANC
- 5 Estimated based on JKN women claimed to be giving birth and having ANC expenditure
- 6 Population of women giving birth **X** Share of JKN members giving birth
- 7 Number of JKN women of reproductive age **X** Share of JKN women of reproductive age utilizing JKN for delivery
- 8 Total number of women giving birth **X** Share of women accessing at least 1 PNC
- 9 Number of women accessing at least 1 PNC **X** Share of JKN women who claimed to be giving birth and having ANC expenditure
- 10 Number of JKN women of reproductive age **X** Share of JKN women of reproductive age utilizing JKN for at least 1 PNC

Source: Author's illustration

from the Indonesia Health Profile. With this framework, we developed reliable estimates for the number of JKN population accessing MNH services.

JKN utilization is estimated using BPJSK sample data. This dataset consists of 1% sampled JKN members and their claims, which are publicly available. The sample data is constructed as follows:

- First, we applied a stratified random sampling method to select the family sample based on three characteristics: never had access to health services, had access to PHC, and had access to a hospital.
- Second, the individual unit within the family sample is weighted based on gender, age, and membership types to make it nationally representative at the population level. There are approximately 1.9 million participants in this sample data, consisting of JKN participants registered from 2014 until 2018. Additionally, there are nearly 7 million services/claims to PHC facilities and hospitals.

- Third, this report only analyzes claims for MNH services in 2018, which were selected based on ICD-10 codes.

To calculate the gap in utilization of ANC services by JKN members versus those who actually used their JKN entitlement, we estimated the JKN population who accessed at least one ANC service. As depicted in Figure 1, the steps to obtain the population of JKN members accessing ANC were:

1. Multiply the total number of pregnant women (Indonesia health profile 2018) with the share of pregnant women accessing ANC (Risksdas 2018) to obtain the number of pregnant women accessing ANC.
2. To obtain the number of pregnant women enrolled in JKN that have accessed ANC, we multiplied the result in (1) by the share of those that have ANC expenses recorded in their household consumption (Susenas 2018).
3. Results in (2) estimate for all JKN members accessing the service with/without JKN benefit.

The steps to obtain JKN utilization for ANC were:

1. To obtain the number of women of reproductive age enrolled in JKN, we multiplied the population of reproductive age women (Indonesia Health Profile 2018) with the share of JKN women of reproductive age (Susenas 2018)
2. The result from (4) is then multiplied by the share of JKN claims for ANC among members who are women of reproductive age (BPJSK Sample data 2018). This age group is used because the sample data cannot directly provide an estimate of JKN members with pregnancy.
3. Results in (5) estimate for the number of JKN members accessing the service and utilizing the JKN benefit.

Finally, the utilization gap is evident in the difference in results from all JKN members accessing ANC (3) and those who actually claimed to JKN (6). Similar steps are applied to estimate the utilization gap in deliveries and PNC.

To further understand the role of JKN in delivering MNH services, we conducted FGDs in 8 districts and cities: Bandar Lampung, Grobogan, Jayapura, Jember, Lombok Timur, Manggarai Barat, Palu, and Sukabumi. These districts were purposively selected because of where they were regionally, west to east, and they had specific MNH programs tailored to local issues. We held discussions with local stakeholders, such as District Health Offices (DHOs), District's Development and Planning Agencies, District-level BPJSK offices, District Population and Civil Registry Agencies, as well as public and private health facilities to gather information on JKN's role in delivering MNH service and to identify challenges associated with utilizing JKN and local policies used to improve MNH.

There are several limitations to this study that could potentially make our estimations suboptimal. First, JKN membership information in the BPJSK sample and population-based data might be inconsistent, particularly when disaggregated by PBI (the JKN subsidized group for the poor) and non-PBI (the JKN non-subsidized group for the non-poor) categories. Due to the self-reporting nature of the population-based data, it is possible that a JKN member is unaware of their membership status or that their

membership has expired. Second, BPJSK sample data is not representative of provinces and districts. Thus, the data is aggregated to the regional level, which consists of 6 regions: Jawa, Bali & Nusa Tenggara (NT), Kalimantan, Sulawesi, and lastly, Maluku & Papua (based on the Development and Planning Agency's classification of economic corridors).

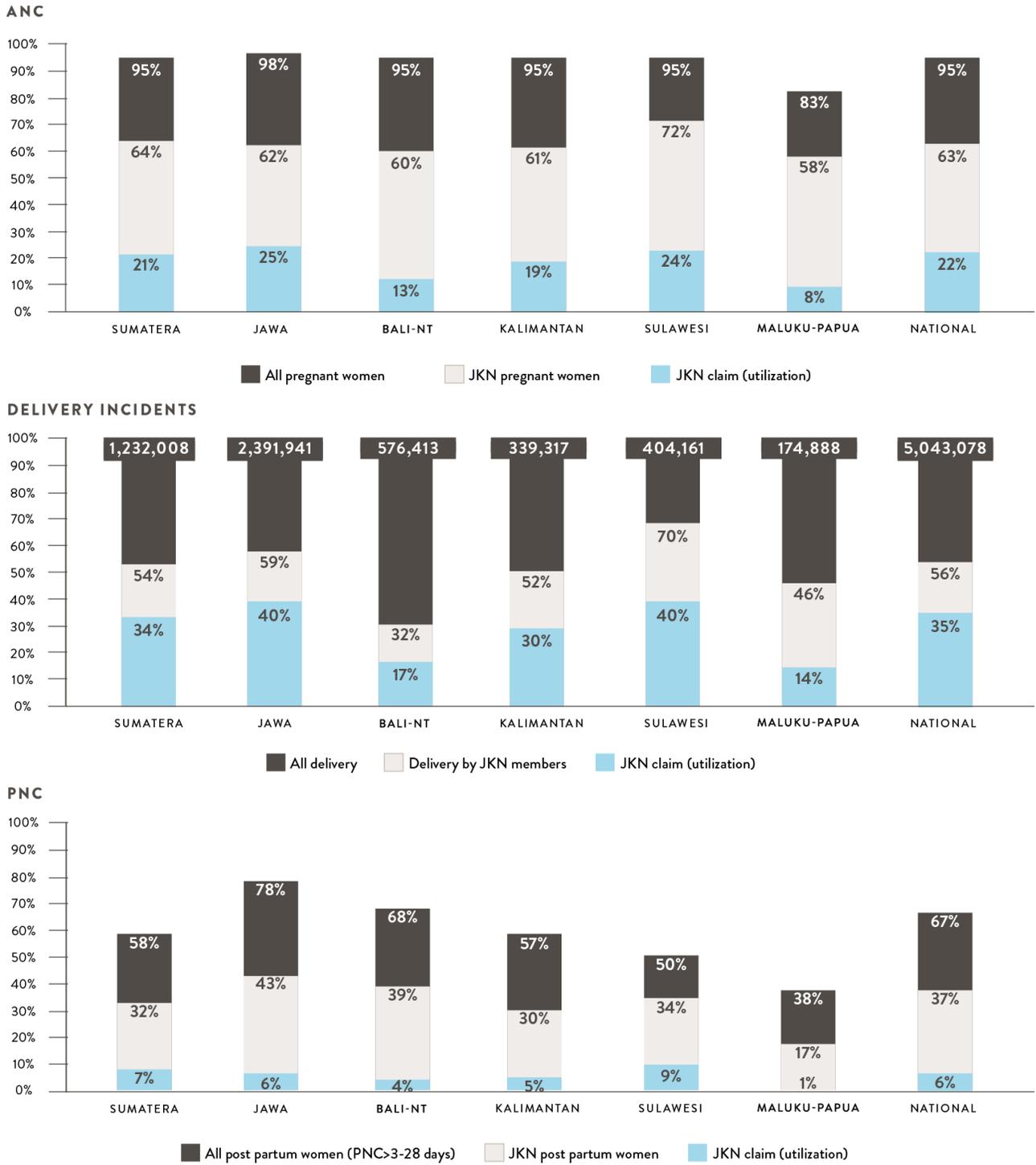
UTILIZATION GAPS

Figure 2 shows that 96% of the total pregnant women across the country have had at least 1 ANC visit, meaning that there are still 4% of pregnant women who did not access any ANC. Among those who did, 63% were JKN members; however, only 22% claim the services to JKN. Out of the 5,043,078 deliveries nationally in 2018, 56% were JKN members, but only 35% of deliveries were claimed to JKN. Maluku-Papua's eastern region had the lowest utilization across all MNH services, likely because of a low supply-side readiness compared to other regions and strong cultural norms emphasizing traditional remedies (Maulana, N et al, 2020; Nasir S, et al, 2020). For example, our FGD found that in Jayapura, the capital of Papua, patients often visit hospitals when their condition is already severe because they choose to deal with their health issues at home. In addition, many in this region believe that blood transfusion is forbidden, which can have dire consequences for the mother.

Compared to ANC services, PNC services are the least accessed across regions. Of the total mothers who gave birth nationally in 2018, only 67% accessed at least one PNC visit. Meanwhile, based on 2018 Riskesdas data, only 40% accessed at least four PNCs—the recommendation stipulated in the JKN regulation. Additionally, 45.7% of all PNC services were performed at home by TBAs or non-medical workers. In a study by the Ministry of Health, around 61% of maternal deaths occurred during the post-natal period (up to 42 days after giving birth) (Tejayanti, et al, 2012). Performing PNC services at home without the assistance of health workers could be contributing significantly to the number of maternal and newborn deaths in Indonesia.

Figure 3 demonstrates a gap between those accessing all MNH services and those claiming to JKN for those services. In other words, not everyone

Figure 2. Utilization of ANC, Delivery Incidents, and PNC Across Main Regions, 2018



Notes:
 *Regions are presented from west to east
 **JKN claim (utilization) means JKN members who use JKN to purchase the services

Source: Author's calculation based on Indonesia Health Profile 2018, Riskesdas 2018, Susenas 2018, and BPJS sample data 2018

using MNH services is claiming to JKN and thus, are likely to be paying OOP to obtain these services unnecessarily. There's a strong possibility that this is because the majority of pregnant mothers use private midwife practices in Indonesia and private midwives are mostly not contracted with BPJSK. According to the 2017 IDHS report, around 43% of pregnant women in Indonesia visited private midwife practices at least once during their pregnancy, along with other facilities. Private midwives often do not contract with JKN because of low reimbursement rates, delays in receiving reimbursement, and administrative burdens (Wilopo S, et al, 2020). A further challenge is that they must network with public or private PHCs or individual doctor practices, which impacts the deduction of their service fee from BPJSK and delays in receiving their payment.

Figure 3 shows that delivery care has the smallest JKN utilization gap (38%), whereas the gap for ANC is 65%, and PNC is 84%. At the national level, 62% of JKN members use their JKN cards to obtain delivery care, while among PBI (poor) and non-PBI, they are 52% and 76%, respectively. A possible explanation for this is delivery's high cost and high risk compared with other MNH services, especially caesarean deliveries (i.e. c-sections). In fact, since JKN implementation, c-sections have significantly increased, from 52% out of 673,000 deliveries in 2014 to 59% out of 1.2 million deliveries in 2017 (Al Farizi S, 2020). This increase may indicate that more women have access to this service, and JKN has protected them from financial hardships. It may also mean that doctors are now leaning toward c-sections even in cases where *per vaginam* delivery is still possible, especially when doctors know the patient is covered under JKN. The reimbursement rates to perform a c-section are higher than *per vaginam*.

On the demand side, the preference for TBAs is still strong in some societies because of their strong interpersonal skills, respect for local customs, and the public's belief in myths about health facilities and health workers (Koblinsky M, et al, 2000). Home deliveries, for example, were higher (16.4%) than those in public PHC (12.7%) nationally (IDHS, 2017). In addition, the FGDs showed that some JKN members still do not know how to use JKN and found the tiered referral system burdensome, so they

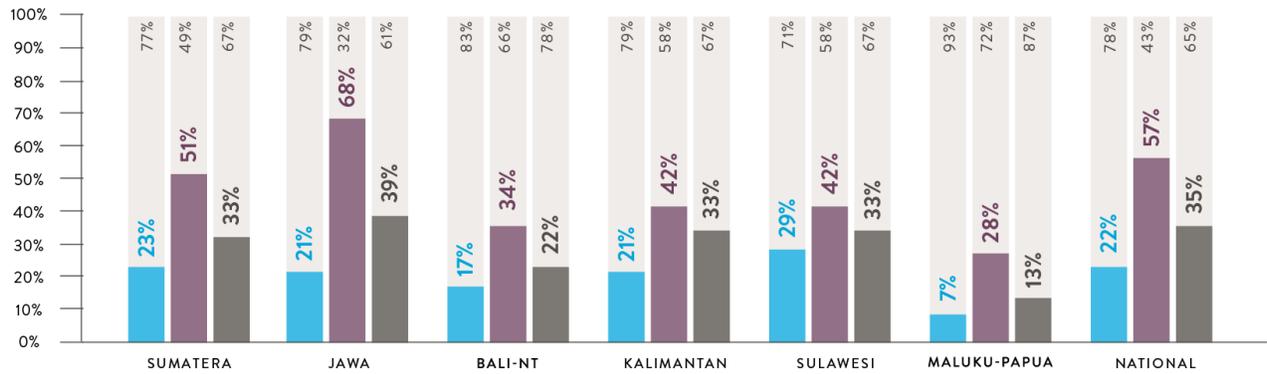
prefer paying out-of-pocket over taking advantage of their entitlements under JKN.

JKN utilization among non-PBI members is generally higher than among PBI members. The poor are more likely to prefer going to TBAs than health facilities (Brooks MI et al., 2017). They too are often unaware of their JKN membership and the services they are entitled to (Prabhakaran S et al., 2019). On the contrary, the non-poor use their JKN entitlement more, with factors such as education level, economic status, and knowledge likely contributing to this. One study showed that the poorest group of JKN was 38% less likely to have a facility-based delivery than the richest (Anindya, et al., 2020). However, for PNC services, the PBI utilization rate is slightly higher than the non-PBI. Our FGDs found that the non-PBI group strongly prefers to visit obstetricians who are primarily practicing at hospitals, and are willing to pay out-of-pocket for this service, even though JKN requires PNC services to be delivered at the PHC level. The service can be provided in higher-level facilities if referred from PHC facilities in the case of complications. In addition, one of the reasons for PBI members' lower utilization for deliveries is that they lack transportation (and payment for it) to get to health facilities, especially in rural areas. Our FGD in Manggarai Barat district confirmed this issue, as the local government has a program to encourage pregnant women to stay at maternity waiting homes near health facilities a week before their due date.

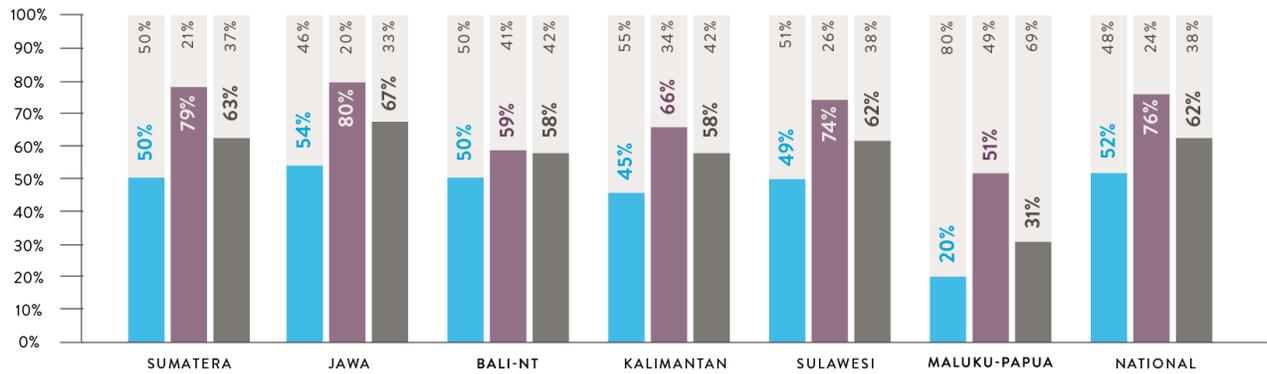
Between regions, the utilization gap is higher in the East compared to the West. This is unsurprising as the east is less developed, has fewer service delivery points, and is more rural and spaced out. Healthcare workers and facilities contracted with BPJSK, especially private ones, are far less available. Our recent analysis of the supply-side readiness at the province level showed this same trend of an over-dependence of those in the rural East on limited public PHC facilities (Maulana, et al, 2022). The FGDs found that private PHC providers are not widely available even in Jayapura, the capital city of Papua. Furthermore, midwives in less developed areas need training programs to strengthen their capacity. This is a significant issue for private midwives in particular, since they lack access to these trainings compared to those assigned to public PHC facilities.

Figure 3. Utilization Gap of ANC, Delivery Incidents, and PNC Among JKN Members Across Main Regions

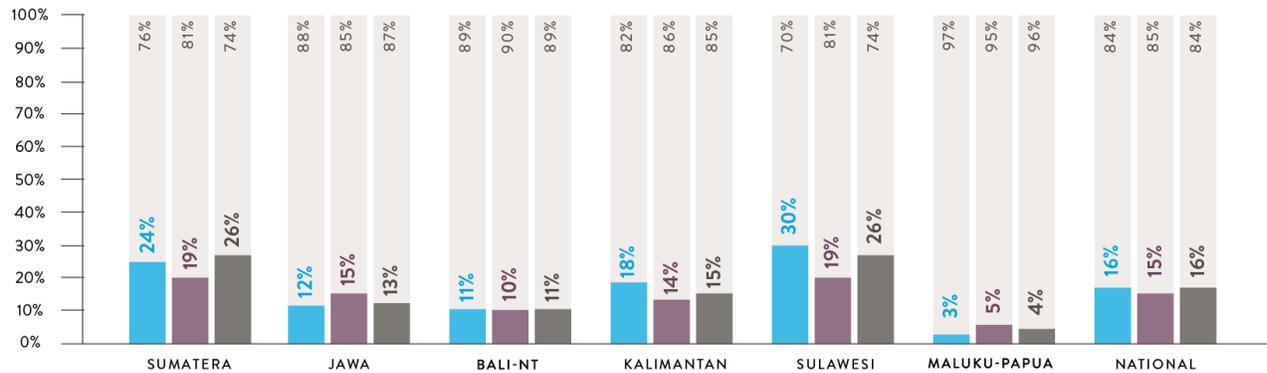
ANC



DELIVERY INCIDENTS



PNC



■ PBI claim ■ non-PBI ■ JKN members ■ Utilization gap

Notes:

*Regions are presented from west to east

**JKN utilization gap means the ratio between JKN members who utilize JKN for ANC, delivery and PNC (numerator) and all JKN members who access these services (denominator)

Source: Author's calculation based on Indonesia Health Profile 2018, Riskesdas 2018, Susenas 2018, and BPJSK sample data 2018.

The Eastern regions have also been struggling with access to care. Riskesdas 2018 reported that ease of access to health facilities is lower in the Eastern regions. For example, in Papua-Maluku, only 27% of households claimed to have easy access, whereas, in Jawa, it is around 42.2%, which is above the national average of 38%. Our FGDs also found that there are more in the East with certain beliefs and customs pushing them towards traditional medicines and methods, which delays access to a healthcare facility. In addition, we found that there is a higher likelihood among Eastern populations to be unaware of their JKN membership and its benefits.

Another challenge for optimizing MNH services in Indonesia is the availability of public financing schemes from the central government other than JKN, namely Jampersal, which can cause fragmentation and misaligned incentives. Jampersal precedes JKN and has been implemented since 2011, covering maternity waiting homes, certain operational costs for mothers and pregnant women, transportation costs to healthcare facilities, cost of delivery, post-partum FP, as well as newborn care. To obtain this funding, patients must apply for a letter to their local DHO, which they would show to their local facility. Subsequently, health facilities may reimburse the service costs directly to the DHO. This scheme is only supposed to be eligible for those who do not have JKN or other insurance, as well as the poor. However, in practice, DHOs have difficulty verifying patients' JKN enrollment when patients submit Jampersal's application. Therefore, JKN members have the potential to also be financed through Jampersal, especially in cases where participants are in arrears in their contribution payment and cannot present proof of their JKN enrolment.

There are also other financing sources for MNH from the local or district-level government that may be leading to inefficiencies in the system. Through the FGDs, we found programs such as *Kartu Papua Sehat* (KPS) in Papua, and *Program Pelayanan Kesehatan Masyarakat* (PPKM) in Bandar Lampung that target the poor and those who do not have any insurance. Similarly, JKN members have the potential to be financed through these schemes if they could not present proof of their JKN enrolment.

POLICY RECOMMENDATIONS

Our analysis indicates that JKN has not been used optimally for MNH services. The lowest utilization gap is for delivery care services, while PNC is the highest. One of the main reasons for this suboptimal utilization is that many JKN members still access MNH services at private midwives, who are mostly not contracted by JKN. Additionally, JKN, as a financing policy instrument, still cannot effectively encourage its members in certain areas to stop visiting TBAs. Fragmentation of public financing for MNH services between JKN, Jampersal, and other local schemes is another challenge to the efficient use of financing of MNH in Indonesia.

We suggest the following policy recommendations from this analysis:

- **Offering more attractive rates and reducing administrative burden would increase the proportion of private midwives joining JKN.** Not only will this increase JKN utilization and coverage for MNH services, but it can also improve and monitor the quality of services because most private midwives operate individually, and the quality varies and is largely unsupervised. Additionally, private practices should integrate with clinics or independent doctor's practices that provide a broader range of health services under JKN, which is more feasible to implement in urban areas due to higher population density and easier transportation access compared to rural areas. To encourage this integration, the government can fund the capital for facility setup, ensure the capitation payment covers operating costs, and facilitate permit applications. This integration is even more critical today because new JKN regulations recommend that ANC be performed six times during pregnancy, in which two should be performed by doctors.
- **Socialization, including TV or social media advertisement, should be increased on what the JKN benefit package for MNH services offers.** This is an important factor to consider to increase knowledge and demand for JKN services. For example, JKN members should be strongly encouraged to visit health facilities contracted with JKN rather than TBAs and other providers that require them to pay out of pocket.

Comparatively, before the JKN era, Jampersal was heavily advertised on TV with taglines like "visit a PHC, every mother can get free MNH services." Unfortunately, this approach has not been implemented so far with JKN.

- **JKN PBI members should be given more attention as their utilization of MNH services fall behind JKN non-PBI members.** Increasing their knowledge and awareness of JKN membership and the benefits they are entitled to is imperative. In many cases, the poor are not aware of their membership or do not hold a JKN card to prove their membership.
- **Increase the availability of healthcare workers and facilities, especially in Eastern regions.** According to 2018 Riskesdas data, Maluku and Papua have the highest proportion of mothers who deliver without a skilled birth attendant. They also have the lowest proportion of deliveries at healthcare facilities. Telemedicine could become increasingly important to solve human resource issues in remote areas since they are scarce, and facilities are challenging to access. Still, there could be significant infrastructure barriers to rural populations being able to take advantage of this type of service. In addition, maternity waiting homes could help mothers obtain care prior to giving birth.
- **Synchronize Jampersal with JKN.** To reduce the fragmentation of the public financing schemes for MNH services, the Minister of Health gave an order in 2022 to shift the cost of delivery, which is part of Jampersal, from the non-physical component of Special Allocation Fund (DAK non-physical) to MOH budget and assigned BPJSK as a third-party administrator (TPA). In the long run, this fund should be fully integrated into the JKN program and socialized to the public to ensure that all pregnant mothers receive care free of charge. This would also encourage those not yet registered to JKN to register. One of the potential scenarios to integrate Jampersal's cost of delivery is paying the JKN contribution cost for reproductive-age women who are non-JKN members. Jampersal funds could be used for expenses outside the JKN benefit package, like transportation and maternity waiting homes. In the short run, Jampersal should only be used to cover the costs of transportation and operational

expenses for pregnant women since JKN does not offer such coverage.

With the implementation of these policy recommendations, the Government of Indonesia can reduce the gap between JKN members using MNH services and actually claiming to JKN. This will help increase financial protection, especially among the poor and rural who are the most likely to benefit from such a change. It will also help make the most efficient use of limited resources for addressing one of the most significant and persistent health challenges in Indonesia of high maternal mortality.

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