The Role of National Health Insurance (JKN) in Reducing the Financial Burden of Childbirth

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KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

November 2019

BADAN LITBANGKES

Introduction

At 305 per 100,000 live births (Central Bureau of Statistics [BPS] et al., 2016), the maternal mortality rate (MMR) in Indonesia is still considered high, far from the target of 70 per 100,000 live births set in the Sustainable Development Goals (SDGs) (BPS, 2016). The causes of maternal death are described as the "three delays": (1) the delay in recognizing danger signs and deciding to seek care; (2) the delay in reaching appropriate healthcare; and (3) the delay in receiving adequate, high-quality care (Thaddeus & Maine, 1994). In all three delays, financial concerns are identified as a barrier to receiving adequate care.

The Government of Indonesia (GOI) is committed to expand access to high-quality maternal and neonatal healthcare (MNH), primarily for the poor and near-poor, through the Maternity Insurance (*Jampersal*) and National Health Insurance (*JKN*) programs since 2014. The introduction of JKN caused restructuring of the public health insurance scheme, in which antenatal care services, delivery services, and postpartum care services became integrated into one benefit package within JKN. The main goal of JKN is to provide social protection so the people of Indonesia can have their health needs adequately fulfilled. The uninsured poor and near-poor may access maternal healthcare services for no cost through *Jampersal*.

Out-of-pocket (OOP) health expenditure is a common indicator used to measure the financial burden that women or families bear to receive healthcare (Dorjdagva, Batbaatar, Svensson, Dorjsuren, & Kauhanen, 2016; Karan, Selvaraj, & Mahal, 2014; Qosaj, Froeschl, Berisha, Bellaqa, & Holle, 2018). The prospect of financial burden may prevent the poor from seeking necessary healthcare, which may in turn result in negative health outcomes (Bonu, Bhushan, Rani, & Anderson, 2009). Excessively high OOP health expenditure puts a family at an increased risk for catastrophic health expenditure (Qosaj et al., 2018). Catastrophic expenditure specifically for delivery services—catastrophic delivery expenditure (CDE)—has been studied in some Asian countries (Berman, Ahuja, & Bandhari, 2010; Bonu et al., 2009; Goli, Rammohan, & Pradhan, 2016) but not yet in Indonesia.

Several studies have looked into the role of JKN in decreasing OOP health expenditure, with mixed findings on its influence (Nugraheni & Hartono, 2017; Tarigan & Suryati, 2017). One study reported that JKN members still spend a considerable amount of money OOP for healthcare (Dewi, Satibi, & Puspandari, 2015), whereas another study reported that using *Jamkesmas* health insurance (the predecessor to JKN) reduced OOP health expenditure

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(Aji, Mohammed, & Haque, 2017). Earlier results from 2012 indicated that the use of *Jamkesmas* could reduce a household's OOP health expenditure by up to 13% (Situmeang & Hidayat, 2018).

Given the limited research available on CDE in Indonesia, this study aims to understand whether JKN is associated with decreased CDE. In addition, this brief quantifies how much JKN reduces OOP expenditure for delivery services and the extent to which JKN protects a household from a potential CDE.

Methods

This study uses data from the Indonesian Family Life Survey-Wave 5 (IFLS-5), with a focus on women ages 15–49 years who gave birth during the year before the survey period. One year was selected as the timeline to reduce the potential recall bias of women in responding to questions that relate to maternal healthcare utilization, OOP expenses during delivery, health insurance used for the delivery, and the household's total expenditure. In total, 2,143 women were included in the study. OOP expenditure on delivery care includes total expenditure for the delivery service, including for medications and inpatient charges. We note that since JKN was introduced in 2014 during IFLS-5 data collection, this study was unable to capture the full influence of JKN on OOP for delivery services, as the policy was not yet fully integrated across Indonesia. Therefore, the study tries to combine *Jamkesmas* with the current JKN, assuming that the former can illustrate the initial influence of JKN on OOP and CDE. Table 1 provides definitions of study variables.

Table 1. Definitions of Variables

Outcome Variables	1. OOP expenditure for delivery services 2. CDE1. A household is defined as having CDE1 when its OOP expenditure for delivery services is ≥ 5% of the household's annual expenses (or else there is no CDE1). 3. CDE2. A household is defined as having CDE2 when its OOP expenditure for delivery services is ≥ 10% of the household's annual expenses (or else there is no CDE2).
Main Variables/Factors	The types of health insurance used for delivery services are as follows: • No health insurance • National Health Insurance—JKN (includes Askes, Jamsostek, Jamkesmas, Jamkesda, JKN, Jampersal) • Non-JKN (includes private insurance, company reimbursement schemes)
Control Variables	Demographics (employment status, age at delivery, education), presence of complications during pregnancy, place of delivery, other household characteristics (education of the head of household [KRT]), employment status of the head of household, household size, total household expenditure quintile, residence (urban/rural), and geography (five island groups)

Results

To summarize, this study found the following: (1) JKN-insured women still incurred some delivery OOP expenditure; (2) however, JKN-insured women were less likely to incur OOP expenditure for delivery services than uninsured women and were also at a lower risk of experiencing CDE than women who did not have any insurance; and (3) the initial implementation of JKN faced several constraints, as indicated by our study finding that the poorest population was not fully utilizing JKN benefits.

Study results indicate that although delivery care is subsidized through JKN for the insured and *Jampersal* for the uninsured poor and near-poor, on average, women still spent Rp. 1,594,332 OOP for delivery services. The amount of OOP expenditure varied, depending on the type of insurance used (Table 2). Women who used non-JKN insurance incurred the largest expense (Rp. 2,315,137), which was slightly higher than the amount women without insurance pay OOP (Rp. 1,946,595). Women who utilized JKN incurred the lowest OOP expense—less than half that of women without insurance (Rp. 887,603).

Table 2. Average OOP Expenditure for Delivery Care

Insurance Coverage	OOP (IDR)
No insurance	1,946,595
Non-JKN insurance	2,315,137
JKN insurance	887,603
Average	1,594,332

Studies across Indonesia demonstrate that the JKN-insured still pay some fees OOP for outpatient or inpatient services. The largest OOP costs that the JKN insured pay during hospitalization usually relate to a request for upgrade to a higher class of accommodation. Some of the JKN-insured are aware of the additional costs, whereas others are not; the latter is likely to have been common especially during the initial implementation of JKN. Other OOP costs may consist of additional medications, use of extraneous medical devices, and/or polyclinic services not covered under JKN (Gultom & Jaya, 2015; Intiasari, Hendrartini, & Trisnantoro, 2016; Made, Rahayu, & Indrayathi, 2019). Some of the JKN insured decline the use of JKN insurance for care because they wish to receive services more quickly, which may not be covered under JKN and instead require OOP payment (Rathomi, Yulianto, & Romadhona, 2018).

A 2015 study in Jakarta, Bogor, Tangerang, and Bekasi (*Jabotabek*) reported that medications not covered under JKN comprised the largest OOP expenses that patients had to pay. JKN poor and near-poor participants whose premiums were subsidized by the government (known as *Penerima Bantuan Iuran*, or PBI) also bore the same burden (Gultom & Jaya, 2015). A survey of JKN members who purchased medicines in pharmacies supported this finding (Yuniar & Handayani, 2016).

Our analysis showed that CDE (either CDE1 or CDE2) occurred mostly among women who did not utilize insurance for delivery care, followed by women who utilized insurance other than JKN (Figure 1). However, JKN-insured women still experienced CDE. Our logistic regression analysis explored the factors that influenced CDE, and we found that it was significantly influenced by the type of insurance that women use for childbirth (Figure 2). JKN-insured experienced the lowest odds of incurring CDE (0.09). Other, non-JKN insured women experienced increased odds of CDE compared to JKN-insured, however they were still able to reduce the risk of delivery costs by 76%.

Our analysis found that, based on the initial implementation of JKN, improvement is needed to increase use of JKN by the poor. The poor and vulnerable have the highest odds of experiencing CDE; however only about 15% of the poorest and most vulnerable utilize JKN (Figure 3).

Figure 1. Incidence of CDE, by Insurance Status

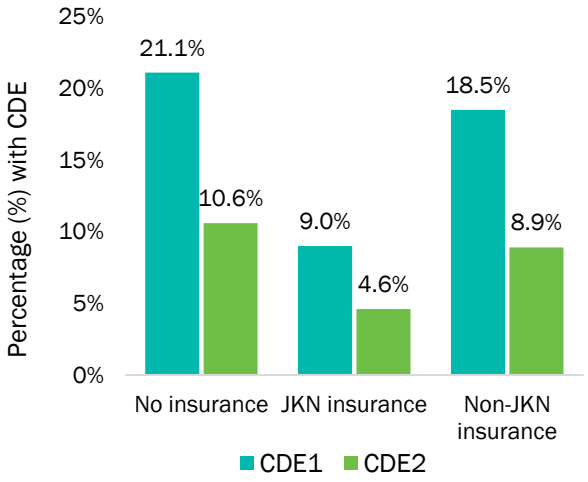


Figure 2. Odds of Experiencing CDE1, by Insurance Type

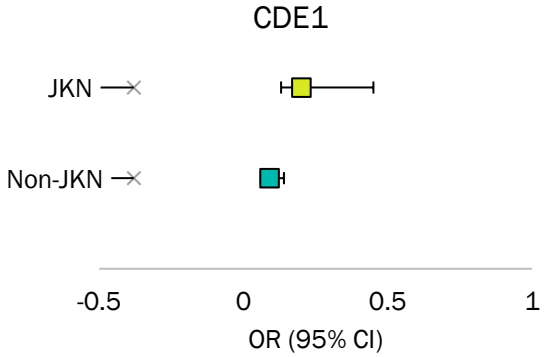
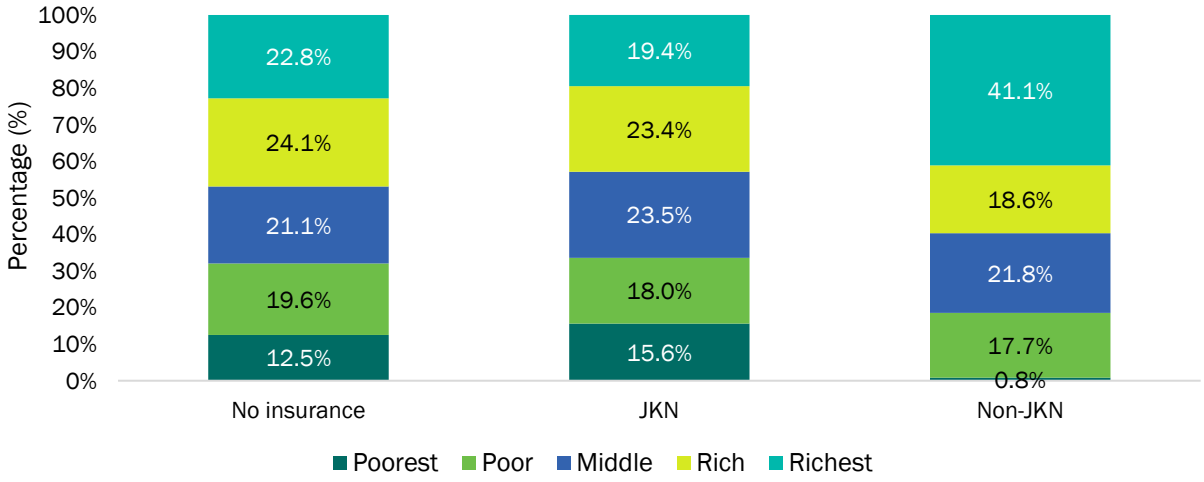


Figure 3. Insurance Status, by SES Group



Discussion and Policy Recommendations

1. This study provides evidence that JKN is associated with reduced OOP expenditure on delivery care compared to non-JKN insurance or no insurance. Compared to other insurance programs and no insurance, JKN-insured have the lowest risk of impoverishment due to catastrophic health expenditure for delivery services. Participation in JKN thus should be expanded and optimized so that it can cover the whole population of Indonesia universally. Health insurance should not be seen as an "obligation" per what is written in Law Number 40/2004 on the National Social Security System but should instead be seen as a "need." Continuous socialization and education of the public about JKN is necessary to instill such a mindset (Hidayat, 2016). This is critical because research findings indicate that only 25% of the poor utilize JKN.

2. The list of medications not covered by JKN should be reviewed to understand whether health facilities do not have JKN-covered drugs available or health providers tend to prescribe drugs not covered by JKN. We also recommend that drug procurement regulations be reviewed and socialized due to the constraints in procurement via e-catalogue for drugs listed in the National Formulary (Fornas), which sometimes cause drug stock-outs or the need to purchase through another source at a normal price. In addition, information on the administrative requirement for reimbursement of JKN claims is frequently delayed, resulting in late reimbursement or even rejection of claims. Health facilities cite this issue as a barrier. JKN-insured also feel disadvantaged because they do not always receive the correct quantity of drugs or must pay some part of the drug price OOP due to facilities' cost-sharing policies (Gauthfa & Sunjaya, 2015). Drug provision through a distributor that wins the tender needs to be in line with the contracting mechanism used under JKN. Clarity is needed regarding how drug prescription approval is managed, along with socialization of the JKN program to related parties, such as health providers (including at the facility level and in pharmacies) and JKN participants, to ensure that drug prescriptions are covered under JKN (Raharni, Supardi, & Sari, 2018).

3. It is known that JKN-insured incur OOP expenditure associated with upgrades to the class of accommodation for inpatient care. The upgrades can occur at the patient's request because an inpatient upgrade is not allowed under JKN. There are also instances in which all of the beds in a certain class are occupied, requiring a patient to upgrade to a higher class and pay for the difference in the charge, resulting in OOP expenditure. We recommend that the JKN regulation be revised to no longer allow patient-initiated class upgrades to avoid further OOP health expenditure. Upgrades and related additional charges caused by full occupancy in the class intended for the patient should not be paid by the JKN-insured.

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This analysis and policy brief was produced by the Ministry of Health, Badan Litbangkes with support from the U.S. Agency for International Development-funded Health Policy Plus (HP+) project, under the Maternal and Newborn Health Data Analytics Partnership activity.

HP+ is a five-year cooperative agreement funded by the U.S. Agency for International Development under Agreement No. AID-OAA-A-15-00051, beginning August 28, 2015. HP+ is implemented by Palladium, in collaboration with Avenir Health, Futures Group Global Outreach, Plan International USA, Population Reference Bureau, RTI International, ThinkWell, and the White Ribbon Alliance for Safe Motherhood. Funding for TNP2K was partially supported by the Australian Government.