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Identification of childbirth selections in Indonesia: Indonesia Family Life Survey (IFLS-2014)

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Abstract

Background: The low coverage of deliveries by health personnel is one of the causes of high maternal mortality cases. Globally every year there are 250,000 women die due to pregnancy and 30 million women due to failed preparation for childbirth, while in Indonesia the number of maternal deaths is increasing every year. In 2021 it shows that there were 7,389 maternal deaths, an increase from 4,627 deaths in 2020. This study aims to describe the selection of places and birth attendants in Indonesia..

Method: The research design used in this study is descriptive. This data uses secondary longitudinal data from the fifth wave of the Indonesian Family Life Survey (IFLS-5) conducted in 2014.

Result: Based on the choice of place of delivery, the majority of pregnant women gave birth in health facilities as many as 610 respondents (95.76%) distributed in government hospitals 20.39%, maternity hospitals 3.63%, polindes 6.05%, private midwives 21.6%, health center 24.92%, private hospital 3.99%, private practice doctor 3.27%. Meanwhile, 27 (4.24%) gave birth in non-health facilities either at their own homes or at the dukun's house. Based on the selection of delivery attendants, the majority of pregnant women chose health professionals as birth attendants as many as 633 respondents (99.37%) which were distributed by doctors 45.53%, midwives 33.91%, village midwives 19.94%, no one helped 0.31%, posyandu cadres and others each 0.16%.

Conclusion: In Indonesia, most deliveries are carried out in health facilities and assisted by health personnel, so a strategy is needed to increase the coverage of deliveries by health personnel through traditional birth attendants and health workers partners, health promotion and policies that are oriented towards increasing access to health services

Keywords: Maternity place; Health Professional; Selection; Facility health; Birth attendant

1. Introduction

The maternal mortality rate (MMR) and infant mortality rate (IMR) are indicators of successful development in the health sector. Globally every year there are 250,000 women die from pregnancy-related causes out of 30 million women due to failure of preparation for childbirth [1]. The Maternal Mortality Ratio (MMR) in poor countries reaches 353 per 100,000 live births while in developing countries it reaches 70 per 100,000 live births [2].

In the United States, more than 60,000 women experience life-threatening maternal morbidity each year, resulting in more than 700 pregnancy-related deaths each year, with significant racial, geographic, and socioeconomic disparities persisting for decades. The maternal mortality rate nearly tripled in the United States between 1990 (8.0 deaths per 100,000 live births) and 2019 (20.1 deaths per 100,000 live births)[3].

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Based on WHO, the estimated MMR in Indonesia is 177 deaths per 100,000 live births. This figure is still far from the MMR target set by the Sustainable Development Goals (SDGs) of 70 per 100,000 live births [4].

The health of pregnant women is still a challenge in Indonesia. The Maternal Mortality Rate (MMR), which is an indicator of maternal health, has not yet reached the targets set by WHO and the Indonesian government. The 2015 Inter-Census Population Survey (SUPAS) showed that the MMR in Indonesia was still high, namely 305 per 100,000 live births. Although in general there was a decrease in maternal mortality during the period 1991 – 2015 from 390 to 315 per 100,000 live births, this figure failed to reach the target (the Millennium Development Goals (MDGs) which had to be achieved, namely 102 per 100,000 live births) [5]. In addition, the number of maternal deaths collected from the Ministry of Health's family health program records increases every year. In 2021 it shows that there were 7,389 maternal deaths in Indonesia, an increase from 4,627 deaths in 2020[5].

Childbirth is one of the most special and important experiences in a woman's life. This involves major challenges during the birth preparation process, including physical changes, psychological stress, role transformation, and changes in family structure [6]). Childbirth is an important and multidimensional process with physical, psychological, emotional, social, and cultural dimensions. Therefore, it is necessary to be fully prepared for various aspects of all the relationships involved so that pregnant women can deal effectively with the challenge, namely birth preparedness as an important component in reducing the risks and complications of childbirth [7].

The leading causes of death are usually associated with failure to use available maternal health care services during pregnancy and failure to prepare for potential complications associated with delivery. Use of available maternal health services and increased preparedness for potential problems during pregnancy and childbirth will improve maternal health [8].

The Maternal Mortality Ratio (MMR) in poor countries reaches 353 per 100,000 live births while in developing countries it reaches 70 per 100,000 live births [2]. The coverage of delivery services in health facilities based on the 2018 Riskesdas was 79.3%. Coverage of deliveries in health facilities from 2017 to 2019 continued to exceed the target, in 2019 decreased compared to 2018 [5]. In 2020, it was reported that 4,046,521 mothers received delivery assistance by health personnel at health facilities according to standards from 4,984,432 mothers. [5]

2. Material and method

The research design used in this study is descriptive. This data uses secondary longitudinal data from the fifth wave of the Indonesian Family Life Survey (IFLS-5) conducted in 2014. The initial survey (IFLS1) was conducted in 1993, which represents approximately 80 percent of Indonesia's population. The IFLS5 dataset is anonymous, includes participants of all ages, and is available to researchers who meet criteria based on the RAND Corporation guidelines on dataset use [9]. Institutional Review Board (IRB) review of IFLS studies through sufficient and appropriate reviews that follow IRB guidelines and have been approved by RAND Corporation and Indonesian Institutions, especially the Survey Meter institute for studies IFLS -5[10]. This study involved participants having complete data regarding the method of delivery both the place of delivery and the selection of birth attendants in the last 12 months during 2014. The number of samples in this study were 637 respondents. Data analysis was performed using statistical software STATA 14.

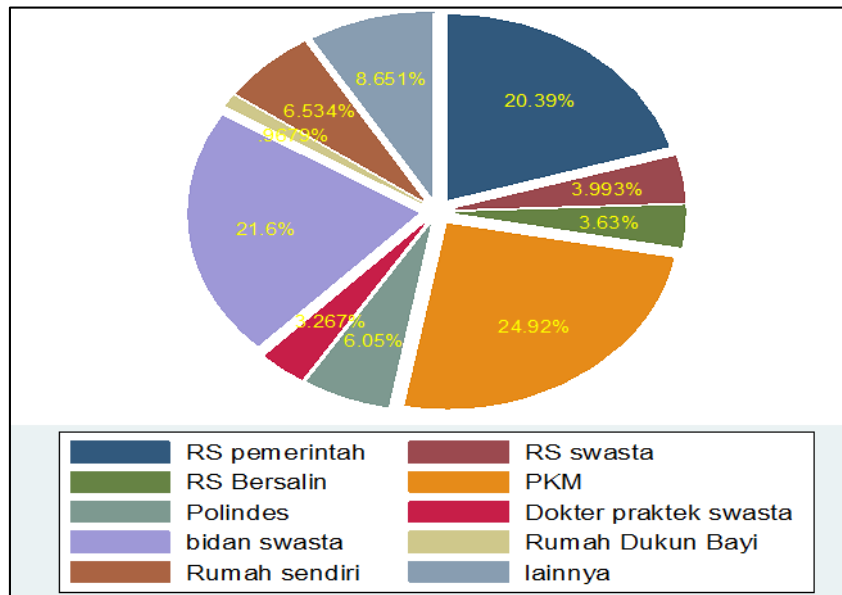
3. Result and Discussion

3.1. Maternity Place

Place of delivery is the choice of pregnant women in determining the place where the delivery process takes place. The choice of place to give birth is highly dependent on predisposing factors, enabling factors and reinforcing factors. Places for delivery services include health facilities including hospitals, maternity homes, midwives clinics/practices, health centers, auxiliary health centers, maternity huts and village health posts while non-health facilities include homes.

Based on table and figure 1 above, it shows that the majority of pregnant women gave birth in health facilities as many as 610 respondents (95.76%) which were distributed in government hospitals 20.39%, maternity hospitals 3.63%, polindes 6.05%, private midwives 21.6%, health center 24.92%, private hospital 3.99%, private practice doctor 3.27%. Meanwhile, 27 (4.24%) gave birth in non-health facilities either at their own homes or at the dukun's house. In theory, the decision-making made by birthing mothers in choosing a place to give birth is influenced by the social conditions that occur, namely the existence of social reality which indicates differences in understanding and attitudes between

patients and family members. The condition of mothers who give birth still choose their own house or a shaman's house as a place for delivery due to the attitude of the staff who are not good at health services.



Source: Indonesia Family Life Survey (IFLS), 2014

Figure 1 An overview of the selection of maternity facilities in Indonesia

Table 1 Overview of maternal maternity facilities in Indonesia

Maternity place	Number (n)	Percent (%)
Health facility	610	95.76
Non health facility	27	4.24
Total	637	100

Source: Indonesia Family Life Survey (IFLS), 2014

Based on the results in table 1 it also shows that the majority of mothers gave birth in health facilities reaching 95.76%. This is because access to health facilities is getting closer and access to information is easy, thus forming perceptions about the importance of seeking health services. Because, in theory, the decision making that is done by a person in utilizing public health services is also influenced by access to information by each individual to other parties so as to form perceptions about the disease problem experienced. Accessibility of health services, namely the affordability of health service places as assessed from the aspect of the mode of transportation used, travel time (in minutes) and transportation costs to the health facility [11]. Green's theory states that health behavior is also influenced by the availability and affordability of health resources [12]. The findings of this study support the findings of previous studies which state that mothers who are far and near have the same opportunity to be able to reach health care facilities[13]. The mother's decision to choose a health facility as a place of delivery is not only influenced by access to services but also supporting factors such as husband's support which also influence maternal health behavior [11].

3.2. Health professional

Based on table 3, it shows that most pregnant women choose health professionals as birth attendants as many as 633 respondents (99.37%) which are distributed by doctors 45.53%, midwives 33.91%, village midwives 19.94%, no one helps 0.31%, posyandu cadres and others each 0.16%. A mother's decision to choose birth attendants is influenced by several factors such as the mother's knowledge, attitudes, delivery costs, access to services and availability of facilities and infrastructure and husband's support as well as tradition/culture.

Table 2 Distribution of Selection of Birth Attendants in Indonesia

Birth Attendants	Number (n)	Percent (%)
Doctor	290	45.53
Midwife	216	33.91
Village midwife	127	19.94
Nothing helps	2	0.31
Posyandu cadres	1	0.16
Other	1	0.16
Total	637	100

Sources: Data Sekunder IFLS, 2014

Table 3 Overview of birth attendants in Indonesia

Birth Attendants	Number (n)	Percent (%)
Health professional	633	99.37
Non health professional	4	0.63
Total	637	100

Source: Data Sekunder IFLS, 2014

Knowledge is a reinforcing factor (predisposing factor) that can influence a person's behavior towards making decisions in a better direction. Knowledge is considered good, if someone makes the right decision related to the problem at hand, but those who have low knowledge will make the opposite decision. The level of education and sources of information received influence knowledge, in this case knowledge about pregnancy and childbirth, so that the knowledge gained about pregnancy, childbirth and their risks is expected to be a reference in every attitude and behavior of maternal health in the selection of birth attendants [14].

In addition, the issue of access to health services is a factor influencing decision making. The distance to health services that are not accessible to the community can result in the community choosing to seek closer delivery assistance. The distance between the house and the location of the health service facility, there is a certain limit so that people still travel to seek services, this limit is influenced by road conditions, the type of vehicle, the ability to pay for transportation and the severity of the disease. Distance is the easy reach of the community to available health facilities. Distances that are too far and difficult to travel will cause people to be reluctant to come to health facilities, they prefer health services that are not too far from their area of residence. [12]. From the results of research where the use of professional health workers has provided an illustration of close access to birth attendants.

Tradition/culture also has an important role in choosing birth attendants, especially in terms of staff. The prohibition on choosing health workers for birth mothers who choose traditional birth attendants also has a causal factor where there is still a perception from the community that the ability of traditional healers is better than health workers (midwives) in terms of adopting beliefs and spirituality that is believed by the community, for example reading prayers or mantras when assisting in childbirth. . The community still needs the services of traditional healers because the tradition of comprehensive services performed by traditional healers is still strong and they consider that health workers are inexperienced, and emotional closeness is more established between traditional healers and mothers, easy to access and the most predominant thing that has been done so far is still safe and healthy- I'm healthy until now, where they say that the delivery of health workers (midwives) is only when there is an emergency. The partnership meeting of midwives and shamans, which has been intensified by the central government, is a strategy to improve delivery services. This is also related to the behavior of health workers as birth attendants. Therefore, in theory the behavior of officers is one of the factors that influence the response and individual behavior. This behavior is related to responses to service facilities, service methods, health workers and medicines which are manifested in knowledge, attitudes and perceptions [12].

4. Conclusion

The description of pregnant women in choosing a place to give birth and birth attendants has shown a very significant increase. It shows, most deliveries are carried out in health facilities and assisted by health personnel, so a strategy is needed to increase the coverage of deliveries by health personnel through traditional birth attendants and health workers partners, health promotion and policies that are oriented towards increasing access to health services.

Compliance with ethical standards

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Disclosure of conflict of interest

All authors in the making of this scientific article have no conflict of interest.

Statement of informed consent

This research was conducted by an independent and trusted survey institution. in collecting data both surveys, interviews and case studies, survey institutions always pay attention to research ethics by giving research approval to all respondents

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