Evaluation of the Completeness Antenatal Care Coverage (K1-K4) in the Special Region of Yogyakarta Province

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ABSTRACT

The case of maternal mortality requires special attention as it serves as a significant indicator for improving health in a country, which is included in the achievement target of Sustainable Development Goals (SDGs) number three, namely Good Health and Well-being. The Maternal Mortality Ratio (MMR) trend from 2016 to 2019 increased and was higher than the set target, whereas in 2020, it decreased below the set target. The high MMR is influenced by many factors, one of which is healthcare services such as Antenatal Care (ANC) examinations for pregnant women. Lack of ANC visits can endanger both the mother and the fetus due to the failure to detect warning signs. Healthcare services in the form of ANC for pregnant women are important to detect signs of pregnancy danger. The aim of this study is to assess the coverage of K1-K4. This research uses a descriptive quantitative method by utilizing secondary data available in the Special Region Of Yogyakarta Kesga Application from 2020 to 2022. The results show that K1 coverage almost reached 100%, and K4 coverage exceeded 80% in the Special Region Of Yogyakarta Province. Healthcare facility access is evenly distributed, and there is a correlation between K4 coverage and the maternal mortality rate, especially for high-risk pregnant women. In conclusion, K1 coverage in the Special Region Of Yogyakarta province has exceeded the national target, while K4 coverage is still below the national target. The high coverage of K1-K4 in Special Region Of Yogyakarta is influenced by many factors, including healthcare facility access.

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INTRODUCTION

Every pregnancy carries the risk of maternal mortality. Monitoring and healthcare provision throughout pregnancy until the postpartum period are crucial for the well-being of both the mother and her baby. To expedite the reduction of maternal mortality, the Ministry of Health emphasizes the availability of maternal healthcare services in the community (Aswar, 2017). Based on data from the Special Region Of Yogyakarta Provincial Health Office, maternal mortality cases increased from 2020 to 2021 and decreased in 2022, with 40 cases in 2020, 131 cases in 2021, and 43 cases in 2022. Various causes of maternal death include direct causes such as hypertensive disorders of pregnancy (31.90%), obstetric hemorrhage (26.90%), non-obstetric complications (18.5%), other obstetric complications (11.80%), pregnancy-related infections (4.20%), abortion (5%), and other causes (1.70%) (Sample Registration System 2018). These causes of maternal death indicate
that maternal mortality can be prevented with comprehensive and high-quality healthcare coverage (Dinas Kesehatan DIY, 2021). One effort to reduce maternal mortality is through antenatal care (ANC) services. Antenatal care involves examinations during pregnancy aimed at optimizing the physical and mental health of pregnant women, preparing for childbirth and the postpartum period, preparing for exclusive breastfeeding, and restoring reproductive health. Regular pregnancy check-ups aim to maintain the health of the mother and fetus and early detection of pregnancy and childbirth complications, enabling effective management (Kemenkes RI, 2022). In 2020, K1 antenatal care visits in Yogyakarta City reached 100% (national target 40%), and K4 antenatal care visits reached 96.4% (national 90%). Discrepancies between K1 and K4 antenatal care visits occur due to several reasons: 1) pregnant women relocating and unable to be monitored, 2) pregnant women not accessing health center services due to unwanted pregnancies, 3) suboptimal monitoring, recording, and reporting of pregnant women in certain areas, and 4) specific conditions due to the Covid-19 pandemic. Therefore, researchers are interested in evaluating the completeness of Antenatal Care (K1-K4) coverage in the Special Region Of Yogyakarta (Analysis of KESGA Data).

METHOD
This study is a quantitative research with a cross-sectional study design. The research data used are secondary data from the KESGA DIY (Kesehatan Keluarga DIY) Application. This type of research is quantitative, utilizing an observational descriptive research design to examine the trends of K1-K4 coverage over a period of 3 years relative to the number of pregnant women during that time frame.

DISCUSSION
The Coverage of K1-K4 in the Special Region Of Yogyakarta
The number of pregnant women in the Special Region Of Yogyakarta Province over the past three years has decreased in almost all districts except for Kulon Progo and Sleman. Efforts to improve maternal health can be seen from the proportion of deliveries conducted by healthcare professionals and pregnancy check-ups. Antenatal care (ANC) for pregnant women should be conducted at least 4 times from the 1st to the 3rd trimester. The first visit (K1) is done during the 1st trimester as an indicator of healthcare access. Meanwhile, K4 serves as an indicator of the level of protection for pregnant women (Dinas Kesehatan DIY, 2022). Research findings in Figures 1 and 2 indicate that K1 coverage in all districts in the DIY Province has reached over 99%, while K4 coverage has not yet exceeded the national coverage rate of 89.33%.

![The Coverage of K1 in the Special Region Of Yogyakarta Province for the Years 2020-2022](image-url)
The research findings also depict that the ANC coverage rates correlate with maternal mortality rates, especially concerning K4 coverage in the Special Region Of Yogyakarta Province. Below are the correlation calculations between ANC coverage and maternal mortality rates, particularly for high-risk pregnant women.

<table>
<thead>
<tr>
<th>K4 coverage</th>
<th>Maternal Mortality Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.925138841</td>
</tr>
<tr>
<td>Maternal Mortality Rate</td>
<td>1</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>K4 coverage</th>
<th>High Risk Pregnant Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.994401</td>
</tr>
<tr>
<td>High Risk Pregnant Women</td>
<td>1</td>
</tr>
</tbody>
</table>

Based on the correlation calculation table between K4 coverage and Maternal Mortality Rate (MMR) as well as high-risk pregnant women, the relationship is highly significant. Maternal health check-ups are efforts to reduce maternal mortality during childbirth. Research findings indicate a significant relationship between ANC attendance history and stillbirth occurrences, where the frequency of ANC visits affects stillbirth incidents (Gabrysch et al., 2011). Other studies also suggest that a lack of awareness regarding health check-ups during pregnancy and infrequent visits to ANC can contribute to maternal mortality (Oktavianisya, 2016). Furthermore, regular pregnancy check-ups through ANC can help reduce maternal mortality rates and pregnancy complications (Fadliani & Fera, 2022). The importance of pregnancy check-ups at healthcare facilities, such as ANC, is also linked to efforts to reduce the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR). Check-ups for pregnant women are expected to detect pregnancy risks, thereby preventing complications during pregnancy and childbirth, thus reducing maternal mortality rates (Dinas Kesehatan DIY, 2022). According to the research findings, there is a significant relationship between K4 coverage and high-risk pregnant women, where pregnant women experiencing complications during pregnancy or childbirth are more likely to undergo pregnancy check-ups (Bukit, 2019). Another study suggests that pregnancy risk is a pressing and unavoidable need, thus immediate efforts must be made. This makes this factor dominant in influencing the coverage of pregnancy check-ups (Palupi et al., 2020).

Health Facilities in Special Region Of Yogyakarta Province

The Health Profile Data of the Special Region Of Yogyakarta for the year 2021 indicates that there are 121 Community Health Centers (Puskesmas) spread across all sub-districts. Although according to data from the Provincial Health Office of the Special Region Of Yogyakarta for the year 2021, only 31 Puskesmas provide Comprehensive Obstetric Neonatal and Basic Emergency Services (PONED), access to other healthcare facilities is already quite easy due to good road access and adequate transportation.
Figure 3: Map of Community Health Center Distribution in the DIY Province

Based on the location map of community health centers (Puskesmas), it can be observed that their distribution is even and easily accessible. The accessibility of healthcare facilities is advantageous for the community to access healthcare services without being hindered by geographical conditions, which can be assessed based on distance, time, and transportation convenience to healthcare facilities. Antenatal Care (ANC) services have a direct relationship with the distance to healthcare facilities. The distance between pregnant women's residences and healthcare facilities can affect the completeness of ANC visits. For example, a long distance may make pregnant women think twice about making visits because it would consume a lot of energy and time on each visit (Rachmawati et al., 2017). This is because easy access to healthcare services can support pregnant women in utilizing ANC services (Reskiani et al., 2015). Other studies also mention that easy accessibility increases the likelihood of complete antenatal check-up visits by seven times compared to difficult accessibility (Ekawati et al., 2023). Pregnant women who live closer to healthcare facilities and have shorter travel times are three times more likely to receive proper prenatal care compared to those with longer travel times (Sumiati, S, 2012). Additionally, residential distance is also related to travel time and the cost required to reach healthcare facilities (Nurfitriyani & Puspitasari, 2022). Therefore, the Health Department can maximize the utilization of the Integrated Emergency Response System as an emergency response service for referrals during emergency situations experienced by mothers to maximize treatment (Sari & Widayani, 2023).

In the Special Region of Yogyakarta, there are only 31 community health centers that provide comprehensive healthcare (PONED) services, which affects the frequency of antenatal check-up visits. Consistent with research by Supliyani (2017), besides distance and travel time, there are other factors such as service availability that influence antenatal care visits for pregnant women.

CONCLUSION

Based on the research, it can be concluded that the K1 coverage in the Special Region of Yogyakarta Province is nearly 100% across all districts/cities. Meanwhile, the K4 coverage exceeds 80% in the Special Region of Yogyakarta Province. This is because access to healthcare facilities, especially community health centers (puskesmas), is easier due to the even distribution of puskesmas in each sub-district. Additionally, there is a correlation between K4 coverage and the maternal mortality rate, especially among high-risk pregnant women.
REFERENCES


