POSTPARTUM FAMILY PLANNING IN DKI JAKARTA: RUN CHART ANALYSIS

Siti Fatimah1, *Dadan Erwandi1, Sabarinah Prasetyo1
1Faculty of Public Health, Universitas Indonesia, 16424 Depok, West Java, Indonesia
*Corresponding Author: Dadan Erwandi; Email: dadan@ui.ac.id

ABSTRACT

Maternal Mortality Rate (MMR) is one of the national health indicators to achieve the success of maternal health efforts where the number of MMR in Indonesia reached 305 per 100,000 live births. Family planning services including Post Partum Family Planning / Keluarga Berencana Pascapersalinan (KBPP) can effectively reduce maternal mortality by reducing births and reducing high risk. The high number of KBPP users in DKI Jakarta can be caused by many things such as local government support, level of service by health workers, and others. Therefore, this study aims to analyze and find out the special causes that cause the number of KBPP participants in DKI Jakarta and as a lesson learned for other local governments. This research is a descriptive study to see the variety of data on the number of KBPP participants in DKI Jakarta. Univariate analysis was used to describe the number of KBPP participants and bivariate analysis to explain the characteristics of the variables studied based on time, namely in the form of a run chart. Based on four tests that have been carried out on the data on the number of KBPP participants in DKI Jakarta, it can be said that there is one test that meets the requirements as a variation of system data so that there is a special cause that causes the number of KBPP participants in 2019-2020. The existence of policy support from the DKI Jakarta Provincial Government, and various stakeholders has resulted in high coverage of the use of postpartum family planning.

INTRODUCTION

One of the health indicators in Indonesia is the Maternal Mortality Rate (MMR), which is used to measure the success of maternal health efforts. The number of MMR in Indonesia of 305 per 100,000 live births has not reached the Millennium Development Goals (MDGs) target of 102 per 100,000 live births in 2015.
In addition, it was also found that bleeding was 1,280 cases, hypertension in pregnancy was 1,066 cases, infection was 1,066 cases, and infections with 207 cases were the most common causes of maternal death in 2019 (1).

The MMR which is still quite high requires some concrete efforts so that every woman has access to good quality health services for pregnant women, maternity mothers who are assisted by health workers and carried out in health care facilities, postpartum mothers and babies, as well as referral services if complications arise. as well as family planning services which include Postpartum Family Planning (1).

Several studies show that family planning services (including postpartum family planning or Keluarga Berencana Pasca Persalinan/KBPP) can have an impact on reducing the Maternal Mortality Rate through an approach to reducing the number of high-risk pregnancies and births. Postpartum family planning is a family planning service that is given to women after giving birth up to 42 days after delivery to shorten the pregnancy or stop the fertility process (1).

Based on data from all provinces in Indonesia, the proportion of time they received family planning services for the first time after giving birth for women aged 10-54 years, which was 42 days after delivery, was 29.6% of 54,846 respondents. Meanwhile, of the women who received postpartum family planning services, the most came from Jakarta Province with 47.6% (4). In addition, the percentage of contraceptive use (CPR) in a special area of the capital, or Daerah Khusus Ibukota (DKI) Jakarta from 2018-to 2019 is still stagnant at 78%. Meanwhile, the birth rate in DKI Jakarta is still high, and the high percentage of PUS who want to use contraception but have not been served (unmet need) is also still a problem in DKI Jakarta (5).

According to Donabedian's theory, there are three comprehensive approaches in assessing the quality of health services, namely Structure, Process, and Outcome. The structure is often also called input to measure the dimensions of service quality including infrastructure, management and organization, health facility reports, and surveys. The process is an activity or activity carried out to measure the quality of health services including technical quality and patient experience in receiving health services by health service providers (health workers) and their interactions. While the outcome is the final result of the activities that have been carried out or in the form of an evaluation of the services that have been provided which can be seen in the changes in the condition or health status of the patient after receiving health services, which includes morbidity, mortality and patient satisfaction levels (6).

DKI Jakarta is the center of government and the capital city of the country where the high proportion of KBPP use in DKI Jakarta can be caused by several things, such as local government support in improving services by health workers, and others. So that the various
forms of intervention and support above are expected to be lessons learned for other provinces in improving KBPP services. Therefore, this study aims to analyze and find out the special causes that cause the high number of postpartum family planning participants in DKI Jakarta.

METHODS

This research is a descriptive study to see the variety of data on the number of KBPP participants in DKI Jakarta. This study uses a literature study and secondary data analysis from the National Population and Family Planning Board or Badan Kependudukan dan Keluarga Berencana Nasional (BKKBN) dashboard which can be accessed by the public on the website https://dashboard.bkkbn.go.id/. The data taken for analysis using a run chart is the data on the number of postpartum family planning participants where the data are new.

Family planning participants who use postpartum contraception to the total new participants. Univariate analysis was used to describe the number of KBPP participants in DKI Jakarta and bivariate analysis to explain the characteristics of the variables studied based on time, namely in the form of a run chart.

RESULT

The DKI Jakarta government has designed and made various efforts to increase family planning coverage, especially KBPP in DKI Jakarta, one of which is the implementation of mobile family planning services as a form of implementing central government policies (BKKBN) to improve reproductive health and access to quality and equitable family planning services.

The Department of Empowerment, Child Protection and Population Control (DPPAPP) of DKI Jakarta Province also have a strategic plan for 2017-2022, namely the provision of Postpartum and Post-abortion family planning counseling for health workers in health facilities with achievement indicators that continue to increase every year (7).

The number of Postpartum Family Planning (KBPP) participants in DKI Jakarta from 2019 to 2020 experienced a significant increase (see Figure 3). This is different when compared to the national average, which is still quite low.

The number of KBPP participants in DKI Jakarta during 2019-2020 was 62,885 people with an average of 2,620.17 people using postpartum family planning per month. There are more than 544 health facilities in DKI Jakarta, both public and private, that can provide postpartum family planning services. Based on the histogram above (Figure 1), it can be seen that the distribution of the data is skewed to the right. This indicates the mean > median > mode. The range of the lowest number of KBPP participants was 1,153 people and the highest was 6,271 people.

The number of pregnant women in DKI Jakarta Province in 2019 is 183,366 people (1). Meanwhile, the number of KBPP participants in DKI Jakarta during 2019-2020 was 62,885 people with an average of 2,620.17 people using postpartum family planning per month. There are more than 544 health facilities in DKI Jakarta, both public and private, that can provide postpartum family planning services.

![Histogram](Image)

**Figure 1.** Histogram of KBPP Participants in DKI Jakarta in 2019-2020 (2019-2020 BKKBN Dashboard Data)

The estimated number of pregnant women in DKI Jakarta Province in 2019 is 183,366 people (1). Meanwhile, the number of KBPP participants in DKI Jakarta during 2019-2020 was 62,885 people with an average of 2,620.17 people using postpartum family planning per month. There are more than 544 health facilities in DKI Jakarta, both public and private, that can provide postpartum family planning services. Based on the histogram above (Figure 1), it can be seen that the distribution of the data is skewed to the right. This indicates the mean > median > mode. The range of the lowest number of KBPP participants was 1,153 people and the highest was 6,271 people.

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The estimated number of pregnant women in DKI Jakarta Province in 2019 is 183,366 people (1).
mothers who used postpartum family planning in 2019 was 18,589 people. When compared, postpartum family planning users are only 10% of the total pregnant women in DKI Jakarta Province. The integration of postpartum family planning counseling in maternal services after childbirth can be an effective way to increase postpartum family planning users (8).

Figure 2 above shows the proportion of women of childbearing age who received family planning services for the first time after giving birth in a period of 42 days the most was DKI Jakarta Province, which was 47.6%. Based on the BKKBN dashboard data shown in Figure 3, it can be seen that KBPP participants increased quite significantly from 2019 to 2020. So from the data on the number of KBPP participants in DKI Jakarta, a deeper analysis was carried out using a run chart.

![Figure 2. The proportion of Time to Receive KBPP Services according to Riskesdas 2018 was ≤ 42 days after delivery.](image)

Analysis using a run chart is used to see the effectiveness of a job/program. Run charts can also be used to analyze data by observing trends or by looking at patterns over time and focusing on important changes in the process that determine whether there are general causes or special causes. As a way to see variations in the existing data, four tests need to be done. If one of the tests is met, then the data is a systematic variation where there is a special cause. However, if all tests are not met, it can be concluded that the data is a random variation that has a common cause.

There are four variation tests on the Run Chart of the Number of KBPP Participants, that is Test 1 (Number of Run), Test 2 (Shift of Process), Test 3 (Trend), and Test 4 (Zigzag). Test 1 (Number of Run) is carried out by counting the number of Useful observations (Uo), namely the number of data points minus the data points on the median line. If the number of runs is less or more than the limit specified in the table, it is called systematic variable data.

There are Useful observations 21 For data with 24 points, the stipulation is that the number of runs is the lower limit of 7 and the upper limit of 15. Based on the graph, the number of runs is 7, so in Test 1 the data vary randomly. Test 2 (Shift of Process) to assess if the number of Useful observations (Uo) < 20 there are seven data points in one run or if the number of Useful observations is 20 there are eight data points in one run, the data will be called systematic variation. If you look at the run chart above (Figure 4), with a total Uo of 21, there are eight data points in one run, so the data are a systematic variation or a special cause. There was a sudden increase in May 2020.
Test 3 (Trend) assesses that if there is a trend or trend, which is something unusual, where data points are sequentially up or consecutively down, the data will be referred to as systematic variation data. Provisions with 24 points, namely there are at least seven data points that increase or decrease sequentially. The run chart above shows that the most consecutive ascending/descending points are four points, namely in March-June 2019 (up), March-June 2020 (up), and June-September 2020 (down), so the data vary randomly. While Test 4 (Zigzag) is to assess if there is a saw pattern, namely 14 or more data points that form a “zigzag” pattern (up and down) sequentially, the data will be called systematic variation data. It can be seen from the graph above that there is a zigzag pattern at most seven data points (< 14 data points) from July 2019 – to January 2020, so the data vary randomly.

**Figure 3.** Percentage of Postpartum Family Planning (KBPP) Participants in 2019-2020

**Bivariate Analysis**

Based on the four tests that have been carried out on the data on the number of KBPP participants in DKI Jakarta above, it can be concluded that there is one test that meets the requirements of systematic variation data. Data that vary systematically means the number of KBPP participants in DKI Jakarta is caused by a special cause that causes the high number of KBPP participants in 2019-2020.

**Figure 4.** Run Chart Number of KBPP Participants in DKI Jakarta in 2019-2020 (BKKBN Dashboard Data 2019-2020)
DISCUSSION

The test results above show that the data vary systematically, so there are special causes that cause the high achievement of KBPP participants in DKI Jakarta. If seen in Figure 2, it can be seen that the number of KBPP participants from 2019 to 2020 has increased and the run chart shows the number of KBPP participants increased sharply in May 2020 (Figure 4).

The Indonesian Ministry of Health issued a Guide to Family Planning and Reproductive Health Services in a COVID-19 Pandemic Situation on April 26 2020 as an effort to respond quickly to COVID-19. The preparation of these guidelines is based on recommendations from various parties such as WHO, professional organizations, and related cross-sector such as the BKKBN so that several recommendation points have been agreed upon in providing family planning and reproductive health services in disaster situations (9). In addition, the DKI Jakarta Government-issued policies related to handling COVID-19 through the DKI Jakarta Health Office Circular No. 83 of 2020 concerning the Implementation of Family Planning Services and Postpartum Family Planning Services (KBPP) in Primary Services on 11 May 2020 (10). This is a form of strong support from the provincial government in improving family planning services, including KBPP as an effort to reduce mortality, morbidity, and fertility in Indonesia through various policies.

Policy implementation is a process of activities/programs in carrying out decisions/policies that have been made by the government carried out by officials, stakeholders at various service levels, to the community as an effort to achieve mutually agreed targets so that it is expected to affect the final results or outcomes of a policy (11).

Women can be introduced to postpartum contraception methods since pregnancy so that they can choose early because most women start using family planning at the sixth week after giving birth. Postpartum family planning services can be a crucial strategy that has many significant benefits for both mother and baby. In addition, this is also a strategic program that is expected to have an impact on reducing the number of unmet needs and unwanted pregnancies. So it is necessary to strengthen Postpartum family planning services both from the government and the private sector as quality improvement and indicators are achieved KBPP in Indonesia and can reduce the number of unmet needs and unwanted pregnancies which will lead to a decrease in the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR).

Various things can affect the use of modern contraception in postpartum mothers, including the history of using modern contraception, return of sexual activity and menstruation, involvement of male partners in contraception, family planning counseling during pregnancy check-ups, and knowledge of modern contraceptive methods available at health facilities. Strengthening family planning education and counseling during antenatal care and using a multi-faceted strategy to involve men as partners in family planning will increase the use of postpartum contraception (12).

Based on research conducted at Pasar Rebo Health Center, DKI Jakarta on pregnant women who came to check their pregnancy and were accompanied by their husbands. The results showed that 90% of husbands had good knowledge of postpartum contraception and most of the pregnant women had chosen the contraceptive method to be used immediately after delivery (13). This shows that there is an influence on the level of knowledge of the husband/partner in making decisions to use Postpartum Family Planning for pregnant women and after giving birth at Pasar Rebo Public Health Center, DKI Jakarta.

In addition, the husband's support has a significant relationship with the mother's willingness to use postpartum family planning as much as 56.9%. Meanwhile, mothers who do not get support from their husbands tend to be unwilling to use postpartum family planning (14). The percentage of postnatal mothers who were counseled by midwives about KBPP who were willing to use Postpartum KB was greater (56.8%) compared to mothers who were not counseled regarding Postpartum KB (43.2%) (15).

Based on the Networking for Policy Change: An Advocacy Training Manual developed by the “POLICY” Project to improve the quality and coverage of contraception, it can be done through several strategies: 1) Forming a working group, 2) conducting a comprehensive situation analysis, 3) Setting goals, outcomes and performance indicators clear, 4) Identify target participants, 5) Build
support and strengthen relationships, 6) Develop messages, 7) Choose forms of communication (fact sheets, meetings, conferences, etc.), 8) Develop action plans, 9) Monitoring and Evaluation (16).

Health care system factors include four sub-themes: accessibility to contraceptive methods, financial support, policy guidelines, and monitoring systems. The availability of funds at the level of health facilities and health administration is also indicated as a factor that can increase the use of contraceptives. Health workers and coordinators of family planning services show that even though they have good planning and strategies related to family planning services, if they are not supported by policies and budgets, then services cannot be provided (17).

Government policy is a process carried out for a specific purpose as an effort to solve a problem related to the interests of the general public. The implementation of policies is usually in the form of laws or orders or decrees which are then realized in the form of work programs for development by utilizing regional potential (18).

Several other regions have issued similar policies and the provincial BKKBN representative strategic plan related to improving KBPP services, such as the Baubau City Regulation No. 6 of 2016 and Kendari City's Regulation No. 8 of 2017 which includes the provision of KBPP services. However, the 2018 Riskesdas data show that the KBPP achievement in Southeast Sulawesi is still quite low at 12.9%.

According to Edward III's Policy Implementation theory, policy implementation is important because of how good and effective the policy is if it is not consistent and clear, the policy objectives and implementation will not be able to be fulfilled. This is also shown by a study in DKI Jakarta regarding the implementation of mobile family planning service policies in 2019. Mobile family planning innovation focuses on attracting family planning participants who use the Long-Term Contraception Method or Metode Kontrasepsi Jangka Panjang (MKJP). This program is carried out through service visits using the Family Planning Service Unit or Mobil Unit Pelayanan (Muyan) facility carried out by teams in regions that need assistance in family planning services to the community.

This can expand access and improve the quality of family planning services (19).

CONCLUSIONS AND SUGGESTIONS

Conclusion

National family planning policies, strategies, and guidelines have an important role in determining the implementation of family planning programs in the regions. However, there may be economic, social, and cultural factors that also affect access to services (20).

The Family Planning and Population Control Program in DKI Jakarta Province has been successfully implemented more optimally since 2017 due to strong support from policymakers as well as across sectors and across programs including religious leaders, community leaders, and non-governmental organizations. The commitment that has been built together is also getting stronger with agreements in various sectors such as Non-Governmental Organizations and Community Organizations, as well as the private sector plus local governments that provide support in providing free family planning services in all health facilities such as sub-district health centers, private hospitals, and Regional General Hospitals (RSUD) which have to cooperate under Governor Regulation Number 43 of 2017 concerning Family Planning Services (5).

In addition, the DKI Jakarta Health Office Circular No. 83 of 2020 strengthens the family planning program in DKI Jakarta Province. This proves that the existence of policy support from the DKI Jakarta Provincial Government can increase the coverage of the use of Postpartum Family Planning. So it is hoped that this can be a lesson learned for other local governments.

Suggestion

Referring to the conclusion above, it is hoped that the DKI Jakarta Provincial Government will continue to implement the Postpartum Family Planning program and be able to increase its coverage by strengthening the implementation of policies that have been made. In addition, other local governments can take lessons learned from the DKI Jakarta Province with the policies and support from the local government in making similar policies to increase the coverage of postpartum family planning.
ACKNOWLEDGEMENTS

The researchers would like to thank National Population and Family Planning Board or Badan Kependudukan dan Keluarga Berencana Nasional (BKKBN) which provide a publicly accessible dashboard website. In addition, the researchers also would like to thank all parties who have contributed to the accomplishment of this article.

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