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THE POTENTIAL OF FAMILY PLANNING SERVICES IN ENHANCING THE UTILIZATION OF MODERN CONTRACEPTIVES: A CLUSTER ANALYSIS OF VILLAGE GROUPING IN WEST SULAWESI PROVINCE

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ABSTRACT

Maternal and child mortality issue is a significant challenge in West Sulawesi, necessitating urgent intervention. The Maternal and Child Health (MCH) data for 2023 reveals maternal mortality at 48 and infant mortality at 359. The declining of 1.2% in modern contraceptive use to 51.14% in 2023 compared to the previous year, underscores the urgency for intervention. Meanwhile, each region exhibits distinct characteristics, conditions, and potentials to decide the right intervention for each region. The k-means algorithm in this research was used to perform regional clustering. The purpose of this study is to determine intervention strategies based on the conditions and potential of regional clusters. Cluster analysis highlights variations among clusters. Based on the analysis, clusters with unmet need below the expected target are clusters 1, 2, and 4. In determining intervention, the following aspects need to be considered specifically cluster 1 requires enhanced access to family planning services, cluster 2 needs improved dissemination of family planning information, while cluster 4 is characterized by high unmet needs and a lack of healthcare facilities, necessitates increased accessibility to family planning services and healthcare staff training. Customized strategies for each cluster are vital to optimize the utilization of resources effectively and efficiently.

Keywords: Cluster Analysis; Family Planning Service; Village Grouping.

INTRODUCTION

Family Planning is a key public health program in Indonesia, having a critical role in controlling population growth and improving family welfare. Through a combination of policy strategies and service delivery approaches, the family planning program has become an integral part of national development policy, aiming to achieve balanced and high-quality population growth (National Population and Family Planning Board, 2023). Despite these efforts, Indonesia still faces significant challenges related to maternal and child mortality, which underscores the importance of continuing and expanding family planning initiatives. Maternal and child mortality remains a serious public health challenge in Indonesia that requires urgent attention. The province with the highest prevalence of maternal and infant mortality in Indonesia is West Sulawesi, with a rate of 19,43% (UNICEF, 2020). According to the 2020 Long Form Population Census, the Infant Mortality Rate (IMR) in West Sulawesi is reported to be between 29 and 30 per 1,000 live births.

Based on research by Indriana et al. (2020), the causes of maternal deaths in Indonesia are multifaceted, involving a combination of systemic and individual factors. These include delays in decision-making with the family, delays in reaching health facilities due to geographical or transportation barriers, and delays in receiving appropriate medical care upon arrival.

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Additionally, maternal mortality is significantly influenced by the “4 Terlalu” (4 too) factors during pregnancy: too young, too old, too many, and too close (Indriana et al., 2020). This is related to contraceptive use to prevent pregnancies that could be at 4T risk, consequently impacting maternal and child mortality. Research by Ahmed et.al highlights that if family planning participation reaches 100%, maternal mortality could be reduced by 25%, and infant mortality by 18%. This underscores the critical role of expanding contraceptive use in improving maternal and child health outcomes.

Despite the recognized importance of family planning, the National Population and Family Planning Board's (BKKBN) Strategic Plan (Renstra) for 2020-2024 notes a decline in the use of modern contraceptives (mCPR), dropping to 57.2% nationally. In West Sulawesi, data from the 2023 Family Data Collection (PK23) indicates that the use of modern contraceptives among couples of reproductive age was 51.14% in 2023, a decrease from 52.3% in 2022. Furthermore, the achievement of unmet family planning needs decreased to 15.80% from the target 17.87% in 2023, achieving 113.10% (BKKBN SIGA, 2023). This data shows that improved access to contraceptives and increased understanding among new family planning users about delaying pregnancies, spacing births, and limiting family size. Meeting these unmet needs for family planning service is essential for increasing participation in family planning and reducing maternal mortality rates (MMR). Nevertheless, there is considerable variation in the achievement of unmet needs across different areas in West Sulawesi. Some areas show low achievement in meeting family planning needs, while others have achieved high levels. Based on PK-23 data, the district with the highest unmet need is Polewali Mandar, at 14.43%, while the lowest is Mamasa, at 6.11%. This variation highlights the need for targeted interventions and localized strategies to improve family planning service coverage and effectiveness, ultimately contributing to the reduction of maternal and child mortality in the region.

The government has launched several initiatives to improve the welfare and health of mothers and children, however, the strategies applied are the same across various regions, despite differences in issues and potentials in each area. The factors influencing the increase in unmet needs and participation in modern contraceptives exhibit complex diversity in the context of reproductive health services. Research findings by Widyatami et al. indicate that geographical variables significantly impact the level of unmet need; the further east a region is, the higher the tendency for unmet need. This is directly related to accessibility to family planning services in those areas. Regions with limited access to healthcare often face challenges in delivering communication, information, and education (CIE) to their populations. Findings by Wakono and Berhitu (2020) also confirm a strong correlation between the level of community knowledge and the level of unmet need among couples of reproductive age who were the subjects of the study.

Regional clustering is an important step in identifying differences in characteristics and needs in each area, particularly regarding family planning programs. This study utilizes the K-Means method to identify patterns or hidden structures in the data without requiring predefined classification labels. By analyzing village clusters based on similarities and differences in relevant variables, the study aims to recommend tailored intervention strategies that align with local contexts. This, in turn, enhances the accessibility and quality of reproductive health services and family planning education. It is hoped that such a focused and targeted approach will be more effective in achieving various predetermined targets and promoting comprehensive family development.

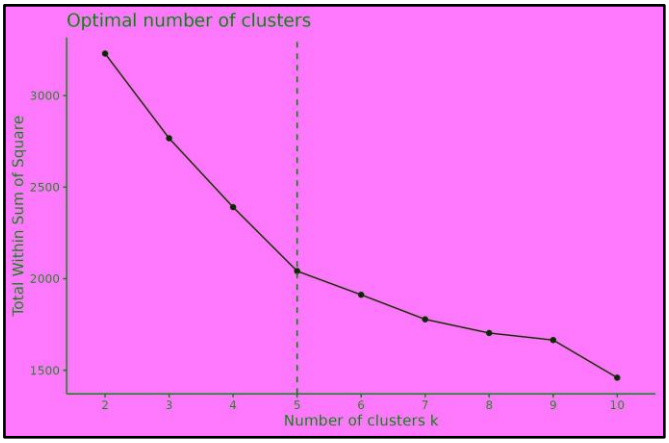
METHOD

This study utilizes cluster analysis to group villages into clusters based on similarities and dissimilarities in research variables. There are several algorithms that can be used for cluster analysis, one of which is the k-means algorithm. The k-means algorithm adopts a distance measure, where this measure illustrates the level of proximity between data points, thus explaining simple cluster structures in complex data. Based on the research "Comparison Analysis

of K-means, K-medoids, and X-mean Algorithms for Employee Performance Grouping" by Kaligis (2022), the results indicate that the k-means algorithm is the best algorithm for grouping employee performance data in that study.

The k-means algorithm starts by initializing the desired number of clusters (k). This determination can be subjective or based on the researcher's domain knowledge. However, there are methods that can be used to determine the optimal value of k, one of which is the elbow method. The elbow method is applied by creating a graph comparing the values of wss (Within-Cluster Sum of Squares) for each trial of k. The wss value is measured as the sum of squared distances between each data point and the centroid of the cluster they belong to. If the first cluster value compared to the second cluster value forms an angle in the graph or experiences the greatest decrease, then that cluster value is considered the best (Putu et al., 2015).

To determine the number of clusters, the elbow method will be used. A graph will be formed between the sum of squares (SSE) and the number of clusters. There will be a point on the graph where a significant decrease in SSE occurs, forming a shape like an elbow. This indicates that adding clusters after this point provides less benefit. Therefore, this cluster point is considered the optimal number of clusters. Based on Graph 1 Optimal Cluster Number, the optimal cluster is found to be at cluster 5.



Graph 1. Optimal Cluster Number

The K-Means algorithm is a distance-based clustering technique that divides data into several clusters, and this algorithm only works on numerical attributes or features. The steps of the K-Means algorithm are as follows (Ekasetya & Jayanto, 2020):

1. Determine the number of clusters (k), where the number of k used is 5, based on the optimal k using the elbow method.
2. Determine the centroid points for each tested cluster.
3. Calculate the distance from objects to centroids. The calculation of the distance from objects to centroids in each cluster in this study uses the Euclidean Distance formula with the equation as follows:

   $d(x,y) = \sqrt{\sum_{i=1}^{n}(x_i - y_i)^2}$

   Where: x_i = object x to-i
   y_i = object y to-i
   n = the number of objects

1. Grouping objects into their respective clusters based on the closest distance to the centroid.
2. Determining and calculating new centroids using the average values of each member in each cluster can be done using formula 3.

$$C_k = \frac{1}{n_k} \sum d_i$$

Where :
n_k : Number of data points in cluster k
d_i : Sum of distance values within each cluster

Repeat from step 3 if the calculation of the average of each member is not yet stable or does not have exactly the same value as the average in the previous iteration.

The research data source is the Family Information System (SIGA) of the National Population and Family Planning Board (BKKBN), encompassing observations from all villages/sub-districts in West Sulawesi Province. SIGA is an organized set comprising data, information, indicators, procedures, devices, technology, and human resources that are interconnected and managed in an integrated manner to guide actions or decisions useful in supporting family development (Government Regulation Number 87 of 2014 about Population Development and Family Planning and Family Information Systems). The research subjects are all villages/sub-districts in West Sulawesi Province. Data were collected in January 2024 to assess the overview of the Family Development, Population, and Family Planning (Bangga Kencana) program from the period up to 2023 at the village/sub-district level. The variables used for cluster analysis are as follows.

Table. 1 List of Variables and Operational Definitions

No	Variable Name	Operational Definition
1	Health Facilities	The number of places or institutions providing family planning services, including general hospitals, special hospitals, main clinics, community health centers (Puskesmas), Doctor's practices, primary clinics, type D primary hospitals, and independent midwife practices (equivalent to Health Facilities) (SIGA Module, BKKBN 2022)
2	Network/Networking (Health Center Network and Collaboration)	The number of places or institutions providing family planning services, including health post (pustu), sub district health center (pusling), village health post (Poskesdes/Polindes), independent practices, and midwife network practices (SIGA Module, BKKBN 2022)
3	Untrained Midwife	The number of untrained health care provided in family planning services.
4	Couples of Reproductive Age	The number of Couples of Reproductive Age (PUS) refers to married couples where the wife is aged 15-49 years and still menstruating, or where the wife is over 50 years old but still menstruating (Regulation of BKKBN Number 1 of 2024 concerning the fulfillment of Contraceptive Devices and Drugs needs for Couple of reproductive age in family planning services)
5	PA MKJP (Active Family Planning Participant - Long-Acting Contraception Method Users)	Active Family Planning Participants are Couples of Reproductive Age (PUS) who are currently using one of the contraceptive methods without experiencing pregnancy interruptions. Long-acting contraceptive methods (MKJP), which include contraceptives lasting from 3 years to a lifetime, are characterized by high effectiveness and low failure rates in preventing pregnancy, such as intrauterine device (IUD), implant, tubectomy or female surgical method (MOW), vasectomy or male surgical method (MOP).
6	Unmet Need	The percentage of married women who do not wish to have any more children or wish to have space births but are not using contraception.

RESULTS AND DISCUSSION

The variables processed from 648 villages in West Sulawesi provide an overview of contraceptive service facilities, healthcare provider training status, participation in Long-Acting Contraceptive Methods (MKJP), and Unmet Need.

Tabel 2. Descriptive Statistic

Variable	mean	sd	median	min	max
Health Facilities	0.2283950617	0.5617888338	0	0	6
Health center network and networking	1.061728395	0.6983429982	1	0	5
Untrained midwife	2.510802469	3.142156001	1	0	27
trained midwife	0.6512345679	1.299850789	0	0	9
couples of reproductive age (PUS)	317.6435185	292.9975462	240	35	2979
Active family planning participants - Long acting contraception method users (PA MKJP)	46.8441358	48.09346994	32.5	0	387
Unmet Need	12.1762963	8.715890027	10.45	0	47.77

Based on Table 2, the availability of healthcare facilities, healthcare personnel in family planning, and family planning coverage in villages/sub-districts can be identified. In West Sulawesi Province, there are 648 villages/sub-districts across 6 districts, showing disparities among them as indicated by relatively high standard deviation (SD) values in Table 2. If the standard deviation significantly exceeds the mean values, it suggests that the mean may inadequately represent the overall data (Astri, 2020). Specifically, variables such as Health Facilities, Untrained midwife, Trained midwife, and Active family planning participants - Long-acting contraception method users (PA MKJP), exhibit higher standard deviations compared to their means. Therefore, median values are also utilized to complement measures of central tendency.

The mean of family planning healthcare facilities (faskes) in villages/sub-districts is 0.23, with a median of 0. The mean value suggests that healthcare facilities (faskes) are present in some villages, particularly in sub-district administrative centers. However, the median value of 0 indicates that at least half of the villages/sub-districts lack healthcare facilities (faskes), which is common. Furthermore, the mean of networks/linkages in villages/sub-districts in West Sulawesi is 1.06, with a median value of 1, indicating that the majority of villages/sub-districts have at least one network or linkage. However, 92 villages lack any networks/linkages. Ensuring equal distribution of healthcare facilities is an urgent need, particularly in remote and border villages in West Sulawesi Province.

In addition to the availability of infrastructure, the presence of healthcare personnel is also important to ensure quality healthcare services, provide education, and manage health programs to improve community welfare. Based on the data regarding the training status of healthcare personnel, the mean of trained family planning healthcare personnel in villages/sub-districts is 0.65, with a median of 0. While the mean indicates the presence of trained healthcare personnel in some villages/sub-districts, the low median value suggests that a significant number of villages/sub-districts lack trained healthcare personnel in family planning. Next, the mean of untrained family planning healthcare personnel in villages/sub-districts is 2.51, with a

considerable variation in the number of untrained personnel in villages/sub-districts. With a median value of 1, it indicates that all healthcare facilities/networks have 1 untrained healthcare personnel, and there are even facilities/networks with 27 untrained personnel.

In terms of demographic aspects of the population, the average number of couples of reproductive age (PUS) in villages/sub-districts of West Sulawesi is approximately 317.64. The average number of active participants in long-acting contraceptive methods (PA MKJP) in villages/sub-districts is about 46.84, with significant variation. Furthermore, the mean unmet need rate in villages/sub-districts is approximately 12.18, with a median of 10.45. This indicates that most villages/sub-districts have rates below the target unmet need of 17.87 for West Sulawesi Province in 2023. Some villages even report an unmet need rate of 0, although this may be attributed to targeting errors in the Family Information System (SIGA), particularly in areas that have not been through family data updates. but there are villages/sub-districts with unmet need rates as high as 47.77. This indicates significant variation in unmet need rates in villages/sub-districts, indicating inequality in access and an urgent need to strengthen the Family Planning program, including providing more equitable contraceptive services and increasing education and awareness about the importance of family planning. An effective Family Planning program can help reduce unmet needs, control population growth, and improve the quality of life for couples of reproductive age by ensuring they have access to adequate reproductive health information and services.

The next step in implementing the K-Means algorithm on the data is to utilize five clusters. The K-Means algorithm forms clusters based on the similarity and dissimilarity of observation objects regarding the variables under study. Cluster 1 comprises 86 villages/urban wards, cluster 2 comprises 13 villages/urban wards, cluster 3 comprises 86 villages/urban wards, cluster 4 comprises 146 villages/urban wards, and cluster 5 comprises 317 villages/urban wards. The results of the K-Means clustering are presented in Table 3.

Table 3. Cluster Classification

No	Cluster	Cluster Members	Number of Members
1	1 (One)	SALUTAMBUNG, ARALLE, TOMMO, SALOGATTA, JENGENG RAYA, MOMBI dan lainnya	86
2	2 (Two)	TOPOYO, MOTU, PASANGKAYU, POLEWALI, TOTOLI, RIMUKU dan lainnya	13
3	3 (Three)	ONANG, SEPAKUAN, KAKULLASANG, BOJO, TIKKE, TONYAMAN dan lainnya	86
4	4 (Four)	ONANG UTARA, RALLE ANAK, MALINO, SALUMANURUNG, PATIKA, PAO-PAO	146
5	5 (Five)	SULAI, RALLEANAK UTARA, SANDANA, TINALI, MAPONU, KALUMAMMANG dan lainnya	317

According to Table 3, cluster 2 has the fewest members, totaling 13 villages, while cluster 5 has the most members, totaling 317 villages.

Table 4. Cluster Analysis Results

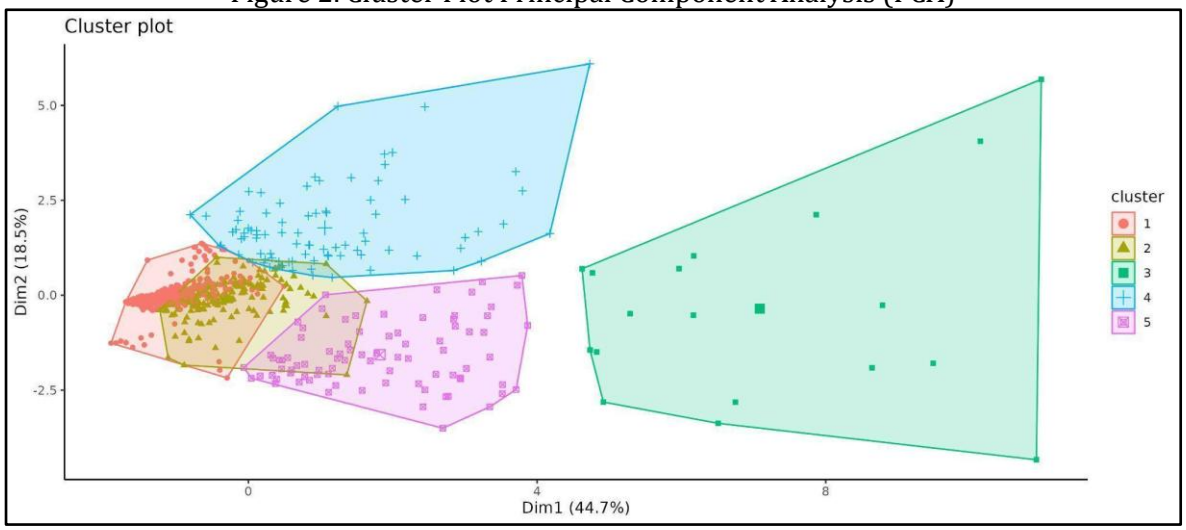
Mean	**Variable**	**Cluster**				
		1	**2**	**3**	**4**	**5**
	Health Facilities	1.09	**2.40**	0.01	0.01	0.16

	Health center network and networking	0.29	1.40	1.04	0.95	**2.07**
	Untrained midwife	6.04	**11.93**	1.33	1.54	3.38
	trained midwife	2.18	**3.80**	0.19	0.32	0.85
	couples of reproductive age (PUS)	374.01	**1457.67**	171.98	329.30	575.91
	Active family planning participants - Long acting contraception method users (PA MKJP)	63.85	**195.47**	25.18	34.33	105.48
	Unmet Need	14.00	16.54	6.39	**22.87**	12.01

According to the cluster analysis results presented in Table 4, the obtained data are as follows:

1. In Cluster 1, the variable 'network' exhibits the lowest average value at 0.29, while the number of health facilities is 1.09. This suggests that individuals of reproductive age (PUS) in villages are more inclined to seek family planning services at family planning facilities (Faskes KB) rather than through networked facilities.
2. In cluster 2, five of the seven variables studied indicate that cluster 2 demonstrates the highest average values. For instance, the variable 'PUS' has an average of 1457.67, nearly three times larger than other clusters. These characteristics imply that villages in this cluster are situated in urban areas or centers of government/community activities. Family planning services are already accessible in cluster 2, as reflected by the average number of health facilities (2.4) and network (1.40). Although the average PA MKJP is also the highest at 195.47, the proportion becomes smaller when compared to the number of PUS, necessitating more strategies to encourage PUS to transition from short-term family planning methods to Long-Acting Reversible Contraceptives (MKJP).
3. In contrast to cluster 1, cluster 3 exhibits the lowest average values in six out of seven variables studied. The average unmet need is remarkably low at 6.39, which is reasonable considering the lowest average number of PUS at 171.98. Furthermore, the average number of networked family planning facilities is 1.04, while the number of family planning facilities is 0.01. It indicates that villages in this cluster have at least a network for family planning services, even though they lack family planning facilities.
4. In cluster 4, the variable 'unmet need' registers the highest average value at 22.87, with the lowest number of health facilities akin to cluster 3 at 0.01, the number of family planning facilities at 0.95, and the number of trained health workers at 0.32, which is lower than other clusters. Consequently, cluster 4 comprises villages with high unmet needs, with the majority lacking family planning facilities and trained health workers.
5. In cluster 5, based on the average values in cluster 1 as shown in Table 4, the variable 'unmet need' exhibits a relatively low average value of 12.01. This is corroborated by the highest average network value of 2.07, indicating that each village, on average, has two family planning service places.

Figure 2. Cluster Plot Principal Component Analysis (PCA)



Utilizing Principal Component Analysis (PCA), the aforementioned clustering results are depicted in a two-dimensional graph. It is evident that cluster 3 exhibits notable distinctions, whereas certain observations, particularly within clusters 1 and 2, appear to overlap. This overlapping phenomenon can be attributed to the inherent limitations of PCA in dimensionality reduction and simplifying clustering outcomes into a more accessible format. Nevertheless, this visualization yields valuable insights into the underlying patterns within the data clustering, albeit potentially lacking in capturing all intricacies presented by the two-dimensional representation.

DISCUSSION

The findings of this study provide valuable insights into the regional disparities in family planning needs and healthcare access across West Sulawesi, Indonesia. The K-Means clustering analysis identified five distinct clusters, each exhibiting unique characteristics related to accessibility levels, availability of healthcare facilities, trained healthcare workers, and unmet family planning needs. These clusters highlight varying degrees of infrastructure and resource distribution, which significantly impact the delivery and uptake of family planning services. Based on the target performance indicator of the percentage of unmet need for family planning (Unmet Need) set for West Sulawesi Province in 2024 at 13.20%, clusters 1, 2, and 4 require intervention to reduce unmet needs.

The study highlights the need for targeted intervention in cluster 1,2, and 4 to meet the 2024 target for unmet family planning needs in West Sulawesi Province. Cluster 1, with 86 villages, demonstrates a relatively high average unmet need is 14% and limited access to family planning services, which are mainly centralized at sub-district facilities. Despite a significant number of individuals of reproductive age (PUS) with an average of 374.01, only a small fraction participates in long-acting reversible contraception (MKJP) that is 63.85, or about 17% of the average number of PUS in the cluster. To enhance family planning service delivery in this cluster, increased service accessibility is needed. The availability of family planning service access is crucial to support participation in family planning, especially for long-acting contraceptive methods like implants (Kesuma, 2020).

Cluster 2 consisting of 13 urban areas with high community activity, shows better accessibility to family planning services. Villages in cluster 2 have good accessibility characteristics related to family planning services, as evidenced by higher average numbers of health facilities, networks, and trained personnel compared to villages in other clusters. Research conducted by Agustini, Sagitarini, & Dewi (2022) indicates a significant relationship between information exposure and

contraceptive use. Therefore, strategies for cluster 2 could involve expanding exposure to information about various contraceptive methods, especially long-acting reversible contraceptives (MKJP). Information exposure to family planning programs supports the continued participation of individuals of reproductive age in family planning programs (Bahamondes & Makuch, 2020).

Cluster 4 consists of 146 villages/urban areas with high unmet needs, but most of them lack family planning facilities and trained healthcare workers. The lack of understanding or skills of midwives to provide Information, Education, and Communication (IEC) to the target audience may be due to not all midwives being trained and skilled in providing family planning services. Additionally, the limitation of the number of midwives/doctors who can attend contraception service training each year organized by the National Population and Family Planning Board (BKKBN) poses a challenge for local governments to prioritize areas requiring immediate healthcare worker training efforts to increase the reduction in unmet needs and increase participation in family planning services, especially long-acting contraceptive methods (MKJP) in those areas. According to the Family Information System (SIGA) data, as of March 2024, there are 2029 midwives, of which only 446 are trained, accounting for about 21.98%. The strategy required for cluster 4 involves steps to improve family planning service accessibility, especially the provision of family planning networks/systems tailored to the needs of villages/urban areas, as well as training for healthcare workers to provide quality services.

An unexpected finding in this study is the significant disparity in healthcare infrastructure and workforce capacity across clusters, particularly in Cluster 4. Despite higher unmet family planning needs, these areas often lack adequate healthcare facilities and trained personnel. This disparity suggests a need for urgent interventions to build healthcare capacity and infrastructure to meet the growing demand for family planning services effectively.

The implementation of family planning programs in Indonesia faces several challenges reflected in these findings. While efforts have been made to decrease unmet family planning needs, disparities persist across regions due to varying levels of infrastructure development, healthcare access, and workforce capacity. The study underscores the importance of adapting strategies to local contexts, ensuring that interventions are responsive to specific cluster needs to effectively reduce unmet needs and improve reproductive health outcomes.

Strengths and Limitations

This study's strengths lie in its use of the K-Means clustering method to systematically analyze and categorize regional variations in family planning needs and healthcare access. By identifying distinct clusters, the study provides a nuanced understanding of the underlying factors influencing contraceptive use and healthcare delivery in West Sulawesi. Moreover, the findings offer practical implications for policymakers and healthcare providers to allocate resources more effectively and tailor interventions based on local needs.

However, the study also has limitations. The analysis relies on secondary data sources, which may be subject to reporting biases or inconsistencies. Additionally, while the K-Means clustering provides insights into cluster characteristics, it does not account for dynamic changes in healthcare access or community-specific socio-cultural factors that may influence family planning behaviors. Future research could benefit from incorporating qualitative methods or longitudinal data to capture these nuances more comprehensively.

Implications for Policy and Practice

The findings underscore the critical need for targeted strategies to improve family planning service accessibility and reduce unmet needs in West Sulawesi. Policymakers should prioritize

expanding family planning networks and enhancing healthcare infrastructure, particularly in underserved clusters like Cluster 1 and Cluster 4. Investing in continuous training for healthcare workers is essential to ensure quality service delivery and increase community trust in contraceptive methods.

Furthermore, the results call for adaptive policy frameworks that accommodate local variations in healthcare access and community needs. Integrating information dissemination about family planning options tailored to local contexts can empower individuals to make informed decisions about their reproductive health. By addressing these challenges comprehensively, policymakers can contribute to achieving national family planning goals and improving maternal and child health outcomes in Indonesia.

CONCLUSION

The results of the k-means algorithm analysis reveal distinct differences among the five clusters based on several observed variables including accessibility levels, availability of healthcare facilities, presence of trained healthcare workers, and unmet needs. Clusters 1, 2, and 4 have been identified as needing intervention to reduce unmet needs in alignment with the 2024 targets for West Sulawesi Province. Based on this analysis, recommendations have been formulated to adapt strategies aimed at reducing unmet needs and improving the provision of long-acting reversible contraceptive (MKJP) services, considering the specific characteristics and conditions of each cluster. Local governments and the National Population and Family Planning Board (BKKBN) are encouraged to utilize the clustering analysis results to pinpoint priority areas for intervention, particularly in enhancing access to family planning services and trained healthcare workers. Additionally, conducting spatial autocorrelation analysis is recommended to assess whether significant geographic relationships influence the achievement of unmet needs among neighboring areas.

These suggestions aim to enhance the specificity of the recommendations by proposing actionable steps, such as establishing mobile clinics, expanding training programs for community health workers, and emphasizing the importance of geographic analysis to better target interventions. This approach ensures that the family planning program is not only responsive to local needs but also strategically focused on improving access and outcomes in identified clusters.

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