

Mapping Public Awareness of Vasectomy in the Stigma of Contraceptive Use in Indonesia

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Abstract

Male participation in the Family Planning program in Indonesia remains low, influenced by social stigma, medical misconceptions, and a patriarchal culture. This study aims to map public awareness of vasectomy spatially and temporally, as well as identify regions with potential for increased interest in male contraception. Using a descriptive quantitative approach based on Google Trends data, this study analyses three main keywords: "vasectomy," "male contraception," and "family planning." Spatial-temporal analysis methods are applied to map fluctuations in search interest across various regions of Indonesia over time. Temporal analysis reveals periods of search spikes, which are associated with events that impact public interest. Spatial analysis examines the distribution of interest by province in Indonesia to identify areas with potential for raising awareness of male contraception. The results reveal that searches for "vasectomy" and "male contraception" remain low and uneven across regions, though there has been a slight increase in searches in recent times. Indonesian society is still burdened by the longstanding stigma that family planning is primarily for women. To increase male participation in family planning, active government intervention is necessary through public policies, as well as interpersonal and culturally sensitive communication strategies implemented by family midwives and community health workers. Additionally, the involvement of opinion leaders and open discussions on social media is crucial. Disseminating information through search engine optimisation (SEO) and digital media helps raise awareness of male contraception, reduce stigma, and promote equitable male involvement in family planning in Indonesia.

Keywords: Vasectomy; male contraception; digital awareness; family planning; Google Trends

INTRODUCTION

Over the past decade, discussions about male contraception in Indonesia have faced significant challenges, particularly regarding vasectomy. This method is still often misunderstood and associated with strong negative perceptions. Many believe that this procedure can damage masculinity or interfere with men's role as head of the family. However, male participation in family planning (in Bahasa: KB or Keluarga Berencana) programs in Indonesia, particularly in DKI Jakarta, remains low. Data shows that the use of male contraceptive methods, such as vasectomy, has not reached 1% of the total family planning participants. This low participation can be attributed to various factors, including a lack of education and information about vasectomy. In a culture that remains highly patriarchal, responsibility for birth control is more often placed on women. Meanwhile, male involvement in family planning programmes is rarely discussed openly, either in public discourse or in formal policy.

Birth control or family planning is not only the responsibility of women, but can also be carried out by men. One method of family planning specifically for men is vasectomy, or what is medically known as Male Sterilisation (MS). Vasectomy is a minor surgical procedure that aims to sever the sperm ducts, thereby preventing pregnancy without affecting male sexual function. This procedure

has several advantages, including its simplicity, high level of safety, effectiveness in preventing pregnancy, and relatively low cost. (Yang et al., 2021).

In Indonesia, although various modern contraceptive methods are available for both men and women, male participation in family planning programmes remains very low compared to women. National data from the 2024 BKKBN Family Data Update (BKKBN, 2024) shows that out of a total of 22.5 million fertile couples (PUS) participating in modern family planning, only about 36,386 (0.16%) use Male Sterilisation (MOP), while the Female Sterilisation Method (FSM) is used by 856,550 PUS (3.8%). This disparity has been consistent over the past three years. In 2022 and 2023, the number of MOP users nationally was also consistently well below 1% of the total modern family planning participants, indicating that contraception is still viewed as primarily the responsibility of women. The dominance of female-based methods such as injections, pills, and implants, which account for more than 80% of modern family planning use, reflects an unbalanced burden in birth control (BKKBN, 2022, 2023).

This phenomenon is concerning, especially since contraceptive options for men are very limited compared to those for women. While the use of long-term contraceptives such as IUDs is increasing among women, men's contribution to birth control through permanent methods is actually declining. Therefore, it is important to understand further the causes of this decline and its implications for reproductive health policies and gender equality in family planning decision-making (Zhang & Eisenberg, 2022).

The lack of participation in vasectomy in Indonesia is due to several factors, such as a lack of knowledge about the vasectomy procedure and the prevalence of misconceptions. Common misconceptions include the stigma that vasectomy can cause autoimmunity, increase the risk of prostate cancer, and even cause sexual dysfunction (Lang et al., 2022). The existence of this stigma reinforces the urgency of broader access to education, so that men can consider vasectomy based on accurate knowledge, rather than fear or myths (Lang et al., 2022).

Lack of awareness, religious prohibitions, and social constructs are also significant reasons for low male participation in vasectomies (Ayele et al., 2020). This social construct can be seen through gender role stigma, where women are considered solely responsible for birth control. These gender roles are also based on a patriarchal culture that positions men solely as breadwinners and primary decision-makers in the family. At the same time, reproduction is considered solely a woman's responsibility (Gola, 2025).

Indonesia is the world's fourth most populous country, with a population exceeding 270 million. Population control is a strategic issue in national development. The Total Fertility Rate (TFR) is a key indicator for measuring population growth. Based on 2025 data from the National Population and Family Planning Agency (BKKBN), Indonesia's TFR reached 2.10 children per woman, which is the ideal replacement level for maintaining population stability. Achieving a TFR of 2.10 in 2025 is a significant accomplishment in controlling Indonesia's population growth. However, regional disparities highlight the need to strengthen policies tailored to local needs. Cross-sector collaboration, public education, and equitable health services are key to maintaining stable birth rates and achieving sustainable development (BKKBN, 2024).

Little research examines explicitly public digital awareness of vasectomy in Indonesia using Google Trends data (Savu, 2023; Memon et al., 2024). Few studies have specifically examined public digital awareness of vasectomy, especially in culturally and socially sensitive contexts such as Indonesia. Previous studies (Pallayong, 2020; Alamsyah et al., 2024) have explored barriers and misconceptions about vasectomy in other regions such as East Africa. Meanwhile, there is a significant gap in understanding how this issue arises in Indonesia's digital space, where social stigma and traditional perceptions about male contraception remain strong.

In addition, although research on contraceptive use has increased, there is still a lack of studies using spatial-temporal analysis to examine how public awareness and stigma evolve, particularly in relation to cultural changes and socio-political events. This study aims to fill this gap by utilising Google Trends data to map digital awareness of vasectomy, as well as analysing how this awareness fluctuates over time and across regions in Indonesia.

LITERATURE REVIEW

Male participation in Indonesia's family planning program continues to fall far below expectations, even though vasectomy has been understood for centuries as an effective, safe, and inexpensive method of contraception. A review of the literature shows that poor acceptance of vasectomy is not simply a medical issue, but is more frequently influenced by socio-cultural and psychological factors, as well as religious misconceptions. Research in Pakistan confirms that the causes of resistance to the acceptance of vasectomy are patriarchal in nature and based on religious interpretations, even though some men consider the procedure safe and not disruptive to sexual relations (Hatesh et al., 2021). The same was observed in Ghana, where urban women viewed vasectomy as "permission" for cheating on husbands, along with suspicions regarding its impact on sexual health (Asare et al., 2017). These two cross-continental studies reveal stigma patterns cutting across geographical and religious settings, while testifying that relational and social factors are substantial barriers to male involvement.

In the Indonesian context, literature highlights the importance of public education in promoting behavioural change. In DKI Jakarta, research shows that education through electronic media, direct counselling, and facility-based counselling increases men's knowledge and positive attitudes towards vasectomy. Enabling factors such as partner support, counselling by health workers, and easy access to services have been shown to strengthen men's decisions to participate (Lumbantobing & Adnan, 2025). However, access to education and trained medical personnel remains low, at only about 23% of health facilities, with medical personnel lacking vasectomy education skills. The urban-rural gap in services worsens access inequalities. This reality shows that the stigma of vasectomy in Indonesia is not only due to societal attitudes but also to structural limitations on the provision of adequate information and services.

A culturally accommodated health communication strategy is a key factor in increasing the effectiveness of vasectomy campaigns in Indonesia. Gati Dwi Yuliana et al. (2025) note that health workers should adopt a convergence approach in conveying public messages in a manner that makes complex medical terminology accessible to the general public. Through this, the engagement between family planning counsellors and prospective male acceptors can be socially closer and culturally understanding, so that the messages of the benefits of vasectomy are not merely relayed informatively, but relationally. The use of multimodality, such as a combination of text, images, and digital storytelling, has been proven to enhance the audience's receptiveness to educational messages on social media (Gati Dwi Yuliana et al., 2025). Implementing this convergence strategy in the communication of family planning programs has the potential to close the social distance between the health workers and the community and overturn the cultural resistance to vasectomy that has remained steadfast. Together with educational and social determinants, the quality of family planning services is one of the fundamental pillars towards enhancing the use of long-term contraception, such as vasectomy.

Hancock et al. (2016) note that the quality of services, encompassing method choice, information clarity, technical competence, and interpersonal relationships, is positively associated with the continuation of contraceptive use. Access to method choice and rights-based reproductive counselling not only increases satisfaction but also strengthens the intention among men to use

them. Under Bruce's Quality of Care model, the integration of responsive family planning services at various points of healthcare is an urgent strategy that must be adopted to reduce structural and cultural barriers. Digitalisation also opens up new opportunities in monitoring public awareness.

Purnaningrum & Ariyanti (2020) in their research confirmed Google Trends as a reliable and significant data indicator for predicting stock market behaviour during the COVID-19 pandemic. This can be used in relation to gauging public interest in reproductive health matters like vasectomy. Spatio-temporal analysis based on keywords such as "vasectomy," "male contraception," and "family planning" can reveal public interest variations across space and time, and link them to specific social moments or policies. The integration of big data and a socio-cultural perspective enables researchers to identify information gaps, pinpoint priority areas, and develop more effective communication strategies. Overseas evidence is increasingly confirming that intensive education, complemented by stigma removal, is a key element in encouraging male participation.

Studies in Ghana, Pakistan, and Indonesia all highlight the role of partners, families, and religious leaders in influencing men's decisions (Asare et al., 2017; Hatesh et al., 2021; Lumbantobing & Adnan, 2025). These three environments underscore the necessity of interpersonally sensitive communication that is cultural, whereby medical information is relayed in a participatory and non-judgmental manner. Education is therefore not merely an information transfer, but a process of social negotiation that changes community attitudes towards gender roles within family planning. At a conceptual level, Bruce's Health Service Quality framework and the WHO reproductive rights paradigm provide a sound theoretical foundation.

They both emphasise the values of freedom of choice, equal access to information, and respectful services for clients (Hancock et al., 2016). Health communication theory also emphasises the importance of persuasive approaches through mass media, social media, and interpersonal counselling (. The Indonesian study incorporates a digital component through SEO and online media, enabling family planning information to reach a wider audience more quickly and accurately (Purnaningrum & Ariyanti, 2020). Stigma related to gender, health complications, and inequality of information are significant barriers.

However, experience from several countries and settings suggests that comprehensive education, high-quality services, and the effective use of digital data can overcome these barriers. Public awareness mapping, as measured by Google Trends, in conjunction with educational interventions and service enhancements, provides a strategic foundation for increasing male involvement in family planning programs. The combination of technological solutions, communications theory, and gender analysis provides Indonesia with an excellent opportunity to reduce cultural barriers and increase male vasectomy uptake, and thereby foster a more equitable distribution of contraceptive and family planning tasks. In general, this literature review indicates that the low level of public awareness of vasectomy in Indonesia cannot be isolated from the dynamic interplay of socio-cultural factors, the quality of health services, and the dynamics of digital media.

In this regard, the utilisation of digital data is a strategic move to fill the gap between social and cultural aspects and the empirical expression of public interest and behaviour. Several studies have confirmed that barriers to vasectomy are more socially constructed and culturally perceived than medically based (Asare et al., 2017; Gati Dwi Yuliana et al., 2025; Hatesh et al., 2021; Lumbantobing & Adnan, 2025). However, conventional qualitative approaches fail to capture the rapidly changing and large-scale patterns of public interest. Therefore, the use of online data, such as Google Trends, is relevant as a complement to socio-cultural research, as it can track patterns of public interest and information-seeking related to male reproductive health spatially and temporally (Purnaningrum & Ariyanti, 2020). The integration of cultural approaches, health communication theory, and digital analytics not only strengthens the theoretical underpinnings of this research but also provides a

methodological direction for understanding and intervening in low male participation in family planning activities in a more comprehensive and evidence-based manner.

METHODS

This study uses a quantitative-descriptive approach based on secondary data collected through the Google Trends platform to map the level of public digital awareness of vasectomy as a method of male contraception in Indonesia. The quantitative approach uses a descriptive statistical equation model. The descriptive-quantitative method is a research approach that provides an overview of the variables of a phenomenon being studied (Creswell & Creswell, 2019; Sugiyono, 2018). The primary focus of the study is to analyse the temporal (based on time) and spatial (based on region) search patterns of the public for three main keywords: 'vasectomy,' 'male contraception,' and 'family planning.' These keywords were selected through preliminary exploration of relevant terminology commonly used by Indonesians when accessing information related to birth control through men.

Google Trends was chosen as the primary data source due to its ability to record and present the dynamics of public interest in a topic through search activity on Google, the world's most widely used search engine (Ding et al., 2020). Data from Google Trends is presented on a relative scale of 0 to 100, representing the search volume for a term in a specific region and time period. A value of 100 indicates the peak popularity of the term, while a value of 0 means that the term is not popular enough to be recorded during the specified period (Huang, Rojas, and Convery, 2020; Wang et al., 2021). The search was conducted by setting the geographical scope to Indonesia. The time range from May 2024 to May 2025, covering the last 12 months, aims to obtain an up-to-date picture of public digital awareness regarding the issue of vasectomy.

Figure 1 illustrates that data collection in this study was conducted in several stages, designed to describe how Indonesians respond to the issue of vasectomy in the digital space. The first stage began with entering three main keywords into Google Trends. Researchers compiled various available data, including search trend graphs based on time, the distribution of interest by region, and a list of queries and topics related to these keywords.

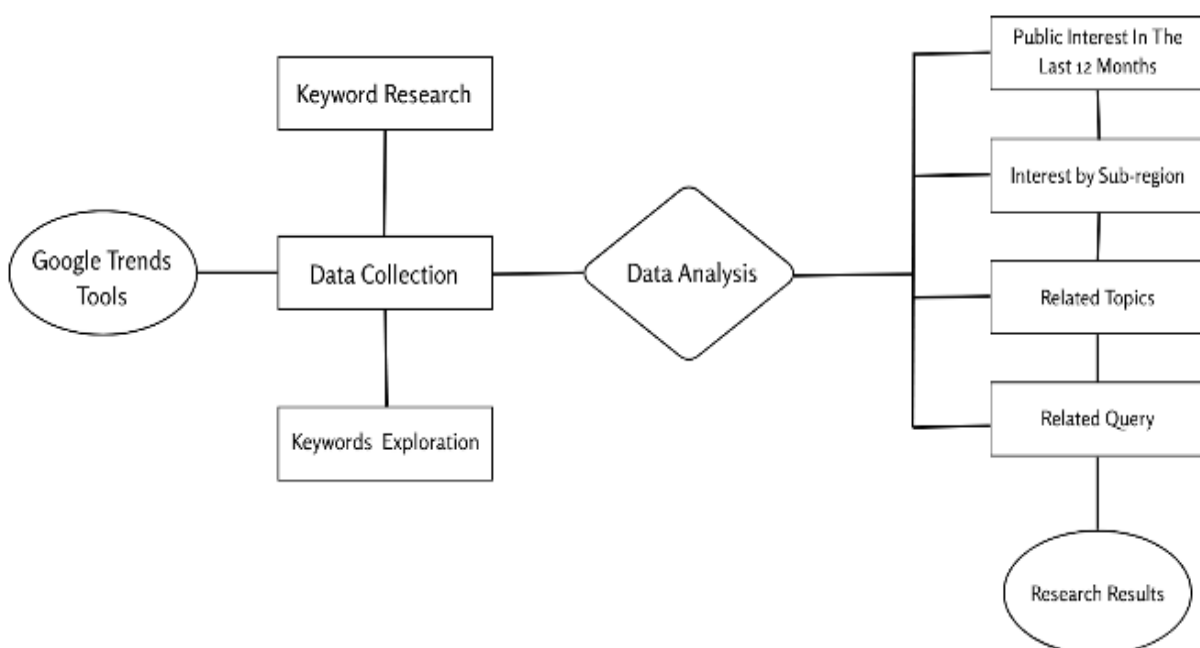


Figure 1. Research Procedure
Source: (Google Trends, 2025)

For Indonesia's geographical coverage, data extraction was performed on May 12 2025. Although Google Trends provides valuable insights into public awareness, the platform has several limitations. Differences in internet access between provinces and potential bias in keyword usage may affect the representativeness of the data. However, as this dataset is publicly accessible, the research process can be replicated by other researchers with the same parameters, ensuring transparency and reproducibility.

RESULTS AND DISCUSSION

In recent years, issues related to reproductive health and the role of men in family planning programmes have begun to receive attention, albeit limited. Amid efforts to promote gender equality in family management, public understanding of male contraception remains low. One way to assess the level of public concern or interest in this issue is to look at digital information search patterns.

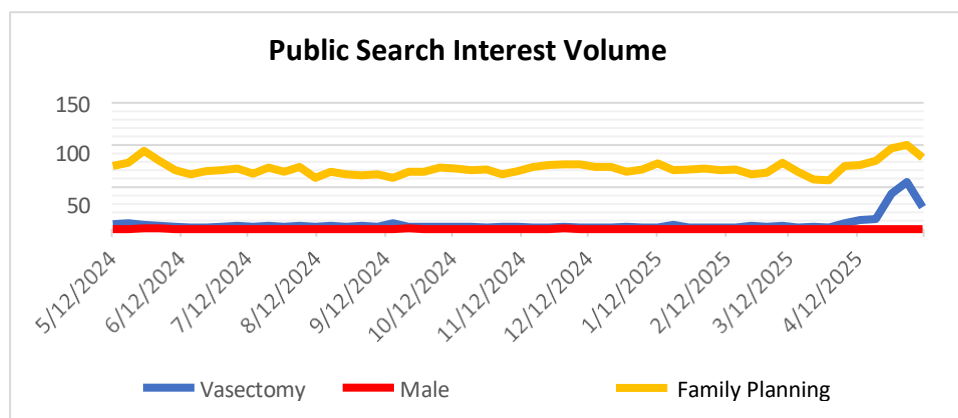


Figure 2. Comparison of search interest for the keywords 'vasectomy,' 'male contraception,' and 'family planning.'
Source: (Google Trends, 2025)

Figure 2 shows the difference in search interest for the three keywords used by the author. Searches for the keyword 'Family Planning' show a significantly higher graph compared to the other two keywords. This data shows the level of familiarity among Indonesians with the keyword 'Family Planning' due to government campaigns, health programmes, and education over the past decades. Unfortunately, searches for the term 'Male Contraception' have stagnated at a low level. This shows the lack of public interest in the role of contraception for men.

Based on Table 1, this data also shows that the term 'family planning' remains the most frequently searched keyword by the public throughout Indonesia. The highest search percentage reached more than 90 per cent. This reflects the high level of public awareness of the family planning program, which the government has promoted for a long time. In contrast, the term 'male contraception' showed a very low search rate, not exceeding one per cent in almost all provinces. Meanwhile, the keyword 'vasectomy' shows varying levels of interest. Some regions, such as DKI Jakarta, Yogyakarta, Riau Islands, and Bali, recorded higher searches than other regions, although still far below searches for 'family planning'.

Mapping of search interests in sub-regions in Indonesia once again shows the dominance of the topic 'Family Planning' with yellow graphics. Unfortunately, no province dominates the highest searches for the topics 'Male Contraception' and 'Vasectomy' with red and blue colours, indicating that these two topics have not yet shifted the old pattern of contraceptive practices that only emphasise women. The above analysis reflects that family planning programmes have been firmly embedded in society as a result of decades of education and campaigns by the government and health workers. Unfortunately, no province dominates the highest searches for the topics 'Male

Contraception' and 'Vasectomy' in red and blue, which means that these two topics have not yet shifted the old pattern of contraceptive practices that only emphasise women. The above analysis reflects that family planning programmes have been firmly embedded in society as a result of decades of education and campaigns by the government and health workers. Unfortunately, the urgency of educating the public that contraception and family planning are only for women is still deeply rooted in society, and further action is needed to shift the stigma that has been embedded throughout Indonesia.

Table 1. Search Interest in Sub-regions of Indonesia

Region	Vasectomy	Male Contraception	Family Planning
DKI Jakarta	13%	≤1%	87%
Yogyakarta	10%	≤1%	90%
Riau Islands	9%	0%	91%
Bali	9%	–	91%
West Sumatra	8%	≤1%	92%
Banten	8%	≤1%	92%
West Java	7%	≤1%	93%
East Kalimantan	6%	≤1%	94%
North Sumatra, Riau	6%	≤1%	94%
Others (27 provinces)	≤5%	≤1%	≥94%

Source: (Google Trends, 2025)



Figure 3. Mapping of Sub-region Search Interests

Source: (Google Trends, 2025)

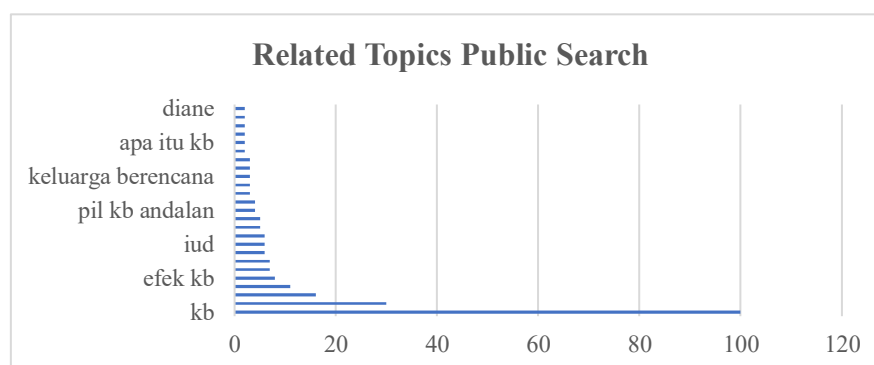


Figure 4. Volume of Topics Related to Public Searches

Source: (Google Trends, 2025)

The bar chart above shows data frequently searched by the public related to contraception. Contraception ranks first and has a frequency almost four times higher than other related terms, such as 'contraceptive pills' and 'contraceptive injections'. This indicates that people tend to search for

information broadly before narrowing their focus on the type, method, or effects of contraception. Conversely, the data shows low public searches for topics such as 'diane', 'yasmin contraception', and even simple questions such as 'what is contraception?'. This indicates that the majority of the public already has a basic understanding of contraception and no longer needs a definitional explanation. The side effects of contraception and IUDs are also present in the list. Even so, these searches are still far lower than general searches for 'contraceptive pills' or 'contraceptive injections', indicating the popularity of these two methods among the public. This phenomenon highlights the need to expand public education on the various contraceptive methods available, such as vasectomy.

Figure 5 shows that queries still focus on brand, price, and access to digital information, such as the Family Planning Village website. Based on the graph, the query 'diane pil kb' appears at the top, followed by 'kb yasmin' and 'kb diane'. This data indicates that people tend to search specifically for specific brands of contraceptive pills, suggesting that the decision to choose a contraceptive method is not only determined by the type, but also by the identity of a quality brand, its effectiveness, or a reliable testimonial.

Interestingly, topics such as 'the price of Yasmin and Diane contraceptive pills' or 'the price of Diane contraceptive pills' validate the strong economic considerations that influence people's decisions and choice of contraception. Searches such as 'kampung kb website' and 'web kampung kb' also appear frequently, indicating an increase in digital literacy among the public in searching for official and structured sources of information. Meanwhile, the term 'vasectomy' still ranks at the bottom of searches. This serves as a reminder of the low interest or knowledge regarding permanent contraceptive methods for men. Inadequate access to information, prevailing stigma, and the perception that contraception is solely a woman's responsibility are some of the contributing factors.

Based on the overall graph, it can be seen that the term 'Family Planning' (KB) has a significantly higher search rate than 'Vasectomy' and 'Male Contraception'. Although the public is quite familiar with and actively seeks information about family planning programmes in general, awareness of contraceptive methods involving men is still very low (Amin et al., 2022). In this context, the responsibility for birth control is more often placed on women, whether through pills, injections, or intrauterine devices (Rahayu et al., 2023). Meanwhile, methods such as vasectomy are often considered taboo, misunderstood as castration, or even damaging to male virility. The lack of public education and campaigns about the role of men in family planning further exacerbates this situation (Nesro et al., 2020). To change this situation, a multidisciplinary approach is needed. Deconstructing gender norms that restrict men's active role in birth control is essential to educating the public. (Ruderman et al., 2022).

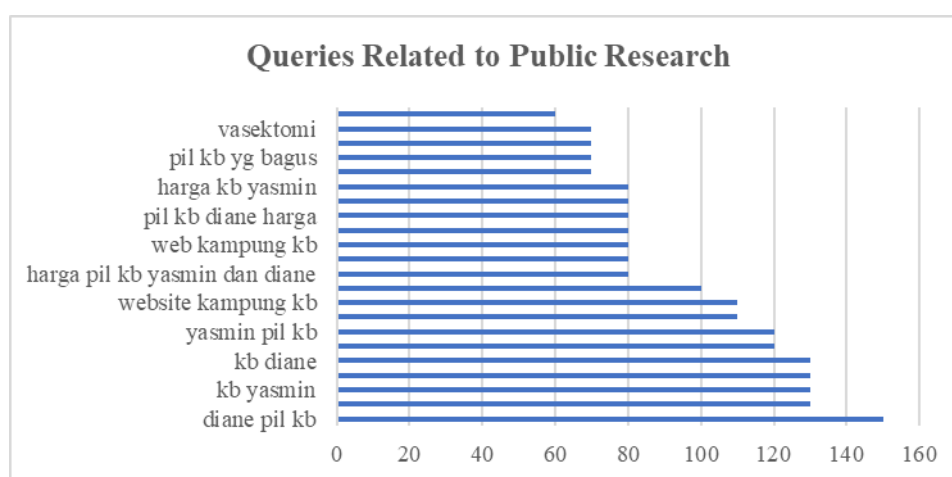


Figure 5. Volume of Queries Related to Public Searches
Source: (Google Trends, 2025)

This situation underscores the importance of collaboration among various stakeholders across different sectors. This includes the involvement of the government as policy makers, health workers as providers of valid medical information, and opinion leaders and religious figures as shapers of social norms. Participatory communication strategies such as community-based education, digital visual campaigns, and the use of personal narratives from men who have undergone vasectomies have been proven to reduce stigma, improve perceptions, and increase public openness to male contraception (White et al., 2022).

A study by Geltore & Lakew (2022) in Ethiopia shows that the rate of male participation in family planning reaches 69.7%. However, only 9.8% of men actively use their own contraceptive methods, and none have undergone a vasectomy. This is similar to the situation in Indonesia, where the low rate of vasectomy use is influenced by factors such as lack of knowledge, negative attitudes towards male sterility, and limited access to male-friendly services.

With Indonesia's diverse cultures and predominantly patriarchal society, Sari dan Hadi (2023) are active, starting from the most minor health units. These units include integrated health service posts and village health workers, also known as village midwives. According to data from the 2024 Indonesian Village Potential Statistics, published by Badan Pusat Statistik (2024), the number of midwives living in villages or sub-districts throughout Indonesia is recorded at 69,734 people. Meanwhile, posyandu activities were recorded as active in 79,741 villages/sub-districts. With these figures, inclusive services can be provided. The most applicable and practical approach to increasing the use of modern contraception is the demand-generation approach.

This strategy includes interpersonal communication such as counselling by trained personnel, door-to-door outreach, and the formation of community discussion groups. This approach has been proven to increase knowledge, change attitudes, and shape positive behaviour towards family planning (FP) at both the individual and community levels (Memon et al., 2024). Mass media campaigns, conducted through conventional, print, and digital media, can also expand the reach of information and shape public opinion to be more open to modern contraception. This communication strategy has a significant impact with the highest odds ratio (OR) of 1.61 (95% CI: 1.32–1.96). This makes it the most effective strategy compared to other approaches, such as health system-based interventions or franchise clinics.

Several developed countries have integrated culturally-based health communication approaches into their contraception policies. Education tailored to local cultural values, masculinity, and gender roles has proven to be more acceptable to the community. Public campaigns involving public figures, the provision of free reproductive health services, and inclusive community education are strategies that can increase men's awareness and participation sustainably. This approach can serve as a reference for Indonesia in designing communication strategies and policies that are more responsive to the needs and challenges that exist in society (Pyo & Kwon, 2024).

Opinion leaders have a significant influence in shaping public perception in Indonesia, especially on issues that are still unfamiliar, such as male contraception. White (2022) shows that the presence of respected community figures, whether from religious, cultural, or specific communities, can increase men's openness to considering contraceptive methods such as vasectomy. The involvement of influencers with non-patriarchal lifestyles and awareness of the importance of male contraception is crucial in persuasively guiding public opinion. Open discussion on social media and mass media is also needed, given that the issue of male contraception and discussions surrounding contraception are still considered partial and biased in society (Romero dan Zapatos, 2023). This emphasises that social media has the power to shape public perception, especially among men, either by reinforcing stigma or potentially shifting it, depending on the direction and quality of the narrative presented regarding vasectomy.

Open discussion on social media and other media is also needed because male contraception and conversations about contraception are still considered taboo (Jacobstein et al., 2023). Therefore, the openness of information will facilitate dissemination psychologically. The mass media also play an important role in shaping public opinion. Pansanella et al. (2023) demonstrate that consistent and repeated messaging in public and digital spaces can encourage people to adopt new values, including those related to health issues. This reinforces the influence of narratives on male contraception, which, if communicated openly and repeatedly in the media, will gradually shape and change public perceptions. Several government discourses have made vasectomy a prerequisite for social assistance, as seen in the initiative by West Java Governor Dedi Mulyadi, reported by Tempo (2025), which reflects strategic health communication efforts aimed at involving men in family planning. This policy not only responds to family planning issues but also raises awareness about the importance of men's roles in maintaining family well-being, addressing gender inequality, and changing social stigma towards male contraception. This step opens a new chapter in the history of male contraception stigma, which has long been a shackle, providing men with the opportunity to play an active role without shame and showing that shared responsibility in the family is not a burden, but rather a strength for creating a more harmonious, prosperous and equitable life.

CONCLUSION

The results of the study indicate that Indonesians' familiarity with vasectomy remains low, as evidenced by the low data obtained in the Google Trends data analysis. The top search results are still dominated by keywords such as 'family planning', 'birth control pills', 'birth control effects', or even 'birth control injections', indicating that Indonesians are still burdened by the old stigma surrounding birth control, which is generally considered to be for women and has many side effects.

Google Trends search results across all sub-regions also show that regional interest in the keyword 'Vasectomy' reached a maximum percentage of only 13% in DKI Jakarta Province and 10% in the Special Region of Yogyakarta Province, likely due to the high level of access to adequate information in these two regions. Meanwhile, the lowest percentage of searches on the topic of vasectomy was found in West Sulawesi Province, with figures showing less than 1%. This data suggests the significant role of access to information in shaping public knowledge about the vasectomy method.

Based on all the analysis results, the public is still looking for general information before narrowing down their considerations to economics and the type of contraception used. However, the public is still very unfamiliar with the topic of 'vasectomy,' which has only recently seen an increase in searches. It is hoped that the public can obtain more education and relevant information about the option of using contraception for men, and can dispel the stigma that contraception is only used by women.

Going forward, stakeholders are also expected to expand education, particularly in the digital and media fields related to vasectomy, which is also effective compared to other family planning methods. Efforts can take the form of social media campaigns that emphasise the importance of male involvement in family planning to shift the old stigma attached to women regarding family planning. Information provision is also expected to be more accessible to remote areas and conveyed in a clear and coherent manner. In addition, collaboration with influential figures or public figures can also be an effective strategy in digital campaigns for vasectomy. Further research on the importance of vasectomy is also needed so that Indonesia can be more advanced in contraception, and there is no longer any stigma attached to it.

Author Contribution

All author declares having an equal contribution. All authors have read and agreed to the published version of the manuscript.

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Conflict of Interests

The authors declare that they have no conflict of interest.

Data Availability Statement

The data is available by request to the author.

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