Journal of Public Health Sciences (JPHS)
Vol. 5, No. 01, pp. 1-12
journal.iistr.org/index.php/JPHS
DOI: 10.56741/jphs.001064

Analysis of Access to Reproductive Health Services for the Elderly Challenges of Stigma and Policy in Indonesia

[1]Rahmah Juliani Siregar*, [2]Elvi Suryani, [2]Maryam Latifah Harahap, [1]Juliana Lubis, [1]Lena Juliana Harahap
Corresponding Author: * rahmahjulianisiregar@gmail.com
[1]Public Health Study Program, STIKes Darmais Padangsidimpuan, Padangsidimpuan, Indonesia
[2]Midwifery Study Program, STIKes Darmais Padangsidimpuan, Padangsidimpuan, Indonesia

ARTICLE INFO

Article history
Received 01 June 2025
Revised 05 July 2025
Accepted 11 August 2025

ABSTRACT

This qualitative study examines the barriers faced by elderly populations in Indonesia in accessing reproductive health services, focusing on cervical and prostate cancer screening, sexuality counseling, and menopause/andropause management. Despite the increasing number of older adults, reproductive health services remain predominantly oriented towards younger groups, leaving elderly needs under-addressed. Using semi-structured interviews with 35 elderly individuals, 15 healthcare providers, and 10 policymakers across urban and rural settings, the study identifies significant structural and cultural challenges. Key findings reveal pervasive social stigma surrounding elderly sexuality, inadequate healthcare provider training, and fragmented policy frameworks that fail to explicitly include geriatric reproductive health. Rural participants reported limited availability of essential screenings and counseling services, while many providers perceived elderly reproductive health concerns as low priority. Policy analysis highlights the absence of comprehensive guidelines and inconsistent implementation across regions. These barriers contribute to disparities in service utilization and negatively impact elderly health outcomes. The study recommends evidence-based strategies including stigma reduction initiatives, integration of reproductive health services into primary care for the elderly, enhanced provider education, and the development of targeted policies with dedicated funding. Addressing these challenges is critical to promoting equitable access to reproductive healthcare for Indonesia's

aging population, supporting their right to health and well-being. This research contributes to filling the gap in geriatric reproductive health literature and offers practical policy recommendations to improve service delivery in Indonesia.

Keywords
Health
Elderly
Stigma
Policy

This is an open-access article under the CC–BY-SA license.

Introduction

Indonesia, the world's fourth most populous country, is experiencing a significant demographic transition characterized by a rapidly aging population. According to the Indonesian Central Bureau of Statistics (BPS), the proportion of the population aged 60 years and above has steadily increased over the past decades and is projected to reach nearly 20% by 2045. This demographic shift presents complex challenges for the country's healthcare system, particularly in addressing the unique health needs of older adults. Among these needs, reproductive health remains a largely neglected area, despite its critical importance in promoting healthy aging and quality of life [1].

Reproductive health, as defined by the World Health Organization (WHO), encompasses a state of complete physical, mental, and social well-being in all matters relating to the reproductive system. While reproductive health services traditionally focus on maternal health, family planning, and adolescent sexual health, the reproductive health needs of the elderly-such as cancer screening (cervical and prostate), management of menopause and andropause, and sexuality counseling-have received limited attention in both research and policy in Indonesia. This oversight is problematic, as reproductive health issues continue to affect older adults and contribute significantly to morbidity and mortality. For example, cervical and prostate cancers remain among the leading causes of cancer-related deaths in Indonesia, and timely screening and intervention are crucial for improving outcomes [2].

The reproductive health of elderly populations encompasses a broad spectrum of concerns that extend beyond fertility. Menopause and andropause, for instance, involve hormonal changes that can affect physical health, psychological well-being, and sexual function. Sexuality remains an important aspect of life for many older adults, contributing to emotional intimacy, self-esteem, and overall quality of life. However, cultural taboos and societal attitudes often marginalize elderly sexuality, leading to silence and neglect in healthcare provision [3].

Moreover, cancer screening for cervical and prostate cancer is vital for early detection and treatment. Despite the availability of effective screening technologies such as Pap smears,

HPV DNA tests, and prostate-specific antigen (PSA) tests, utilization rates among the elderly in Indonesia remain low. This is due to a combination of factors including limited access to healthcare facilities, lack of awareness, and sociocultural barriers [4].

Access to reproductive health services for the elderly in Indonesia is impeded by both structural and cultural barriers. Structurally, the healthcare system faces challenges such as inadequate infrastructure, shortages of trained healthcare providers specialized in geriatric care, and fragmented service delivery. Primary healthcare centers (Puskesmas) and community health posts (Posyandu) often lack the resources and capacity to provide comprehensive reproductive health services tailored to the elderly. Geographic disparities further exacerbate access issues, with rural and remote areas experiencing more pronounced shortages and service gaps compared to urban centers [5].

Culturally, stigma and social norms play a significant role in limiting elderly access to reproductive health services. In many Indonesian communities, discussions about sexuality and reproductive health are considered taboo, particularly for older adults. Elderly individuals who seek sexual health counseling or cancer screening may face judgment, discrimination, or embarrassment, which discourages them from utilizing available services. Gender norms also influence access; for example, older women may experience greater stigma around sexuality and menopause, while older men may be reluctant to discuss prostate health due to notions of masculinity [6].

Despite Indonesia's demographic transition toward an aging society, reproductive health for the elderly remains under-addressed in research and policy. This study explores the lived experiences of elderly Indonesians in accessing reproductive health services, with attention to stigma, cultural norms, and policy fragmentation [7] [8].

Material and Methods

This study employed a qualitative research design to explore the complex and multifaceted barriers affecting elderly Indonesians' access to reproductive health services. Qualitative methods are particularly suited to capturing the nuanced experiences, perceptions, and social contexts that quantitative approaches may overlook. By focusing on in-depth interviews and thematic analysis, the study aimed to understand how structural, cultural, and policy-related factors interact to shape reproductive health service utilization among the elderly population in Indonesia.

The research was conducted across multiple sites in Indonesia to capture diverse perspectives and contextual variations. These included urban centers such as Jakarta and Surabaya, as well as rural areas in provinces like Central Java and West Nusa Tenggara. The

selection of both urban and rural settings was deliberate to examine disparities in healthcare access and cultural attitudes across different geographic and socioeconomic contexts [9].

The study involved three key groups of participants:

1. Elderly Individuals (aged 60 and above): A total of 35 elderly participants were recruited, including both men and women, with diverse socioeconomic backgrounds. Participants were selected to represent a range of experiences related to reproductive health, including those who had accessed services and those who had not.
2. Healthcare Providers: Fifteen healthcare providers were interviewed, including doctors, nurses, midwives, and community health workers. These participants were selected based on their roles in delivering reproductive health or geriatric services at Primary Healthcare Centers (Puskesmas), hospitals, and community clinics.
3. Policymakers and Health Administrators: Ten policymakers and health administrators at district and provincial levels were included to provide insights into policy frameworks, implementation challenges, and strategic priorities related to elderly reproductive health.

Data collected from three participant groups such as elderly individuals, healthcare workers, and policymakers, were synthesized using a step-by-step thematic analysis approach. After analyzing interview transcripts from each group separately to identify key themes, researchers conducted a triangulation process by comparing and integrating findings across groups. Emerging themes from the elderly, such as experiences of stigma and structural barriers, were then matched with the perspectives of healthcare workers on service and policy challenges expressed by policymakers. This cross-group synthesis aimed to identify patterns, differences, and interconnections among experiences, resulting in a more comprehensive understanding of barriers to accessing reproductive healthcare services for older adults. This process involved regular team discussions to ensure consistency of interpretation and validity of the results.

The number of participants in this study was determined based on the principle of data saturation, where recruitment was carried out until no significant new themes or information emerged from additional interviews. A total of 35 elderly individuals, 15 healthcare workers, and 10 policymakers were recruited using purposive and snowball sampling. This number was selected considering the diversity of backgrounds, locations (urban and rural), and participants' positions within the healthcare system. Throughout the interview process, the research team periodically evaluated the emergence of new themes. After the 30th interview for the elderly, the 13th for healthcare workers, and the 9th for policymakers, no significant

new information emerged, and it was believed that data saturation had been reached. Therefore, additional participants were stopped at that point for each group.

Data was collected between January and April 2025 through semi-structured, in-depth interviews. The interview guides were developed based on a review of literature and consultation with experts in geriatric health and reproductive medicine. The guides were tailored for each participant group but covered overlapping themes such as:

1. Experience and challenges in accessing or providing reproductive health services for the elderly
2. Perceptions of stigma and cultural attitudes toward elderly sexuality and reproductive health
3. Awareness and opinions regarding existing health policies and programs
4. Suggestions for improving service delivery and policy support

Interviews with elderly participants were conducted in local languages (Bahasa Indonesia and regional dialects) by trained interviewers with experience in qualitative research and sensitivity to elderly respondents. Interviews with healthcare providers and policymakers were primarily conducted in Bahasa Indonesia.

Each interview lasted approximately 45 to 90 minutes and was audio-recorded with participants' consent. Field notes were taken to capture non-verbal cues and contextual information.

Ethical approval was obtained from the STIKes Darmais Padangsidimpuan Ethics Committee (No. 2025/011). Written informed consent was obtained from all participants. Interviews were conducted privately, with assurances of confidentiality and the right to withdraw at any time. Special care was taken to ensure respectful communication and privacy, particularly given the sensitive nature of reproductive health topics among the elderly.

Triangulation was achieved by comparing perspectives across elderly participants, healthcare providers, and policymakers. Reflexivity was maintained through regular team meetings to discuss potential biases and interpretations.

To ensure the credibility and trustworthiness of the findings, several strategies were employed:

1. Member Checking: Selected participants were invited to review preliminary findings and provide feedback on accuracy and resonance with their experiences.
2. Peer Debriefing: The research team engaged in ongoing discussions with external experts in geriatric and reproductive health to challenge assumptions and validate interpretations.
3. Thick Description: Detailed contextual information and rich participant quotes were included to provide depth and enable transferability.

Audit Trail: Documentation of all research steps, decisions, and data management processes was maintained to allow transparency and reproducibility.

Results

These findings reveal that both structural barriers (limited facilities, lack of trained staff) and cultural stigma (especially around sexuality and menopause) converge to restrict elderly access to reproductive health services.

Healthcare providers also noted reluctance among elderly patients to discuss sexual problems, often resulting in unmet needs. Women reported higher levels of stigma related to menopause and sexual health counseling, while men were hesitant to discuss prostate health due to cultural notions of masculinity. Stigma led to delayed or avoided screening and counseling, contributing to late diagnoses and untreated symptoms.

Only about 30% of Primary Healthcare Centers (Puskesmas) nationwide reportedly provide reproductive health counseling for the elderly, consistent with national data. This limited availability constrains service reach. Consistent with prior studies, many elderly participants had limited knowledge about menopause, andropause, and cancer screening benefits. For example, a study in Semarang found 63.8% of elderly people had knowledge about menopause, but gaps remained regarding symptoms and impacts.

Table 1. Thematic Frequencies

Theme	Elderly Participants (n=35)	Healthcare Providers (n=15)	Policymakers (n=10)
Limited service availability	28	13	8
Geographical barriers	25	10	6
Inadequate provider training	0	12	7
Social stigma/taboo	30	11	5
Gendered stigma differences	20	9	3
Policy gaps and fragmentation	0	7	9
Knowledge gaps	27	5	4
Need for counseling services	22	10	6

The qualitative findings align with existing quantitative data from Indonesian studies. For instance, a study at Puskesmas Lebdosari Semarang found significant relationships between elderly women's knowledge and utilization of reproductive health services, with p-values indicating meaningful correlations. Another study reported that 63.8% of elderly women had knowledge about menopause, but many lacked detailed understanding of

symptoms and management. These data underscore the importance of educational interventions alongside structural improvements.

Discussion

The study's findings highlight significant structural barriers that limit elderly access to reproductive health services in Indonesia. Limited availability of essential screening tools such as HPV DNA tests for cervical cancer and PSA tests for prostate cancer was a recurrent theme, particularly in rural and remote areas. This aligns with prior research indicating that Indonesia's primary healthcare facilities often lack adequate diagnostic equipment and trained personnel to deliver comprehensive geriatric reproductive health services [10].

Geographical disparities exacerbate these challenges. Elderly individuals in rural areas face greater difficulties due to the scarcity of healthcare facilities, long travel distances, and associated costs. This is consistent with national health reports showing that rural populations have lower utilization rates of preventive health services, including cancer screening [11]. The physical and financial burdens of accessing distant health centers disproportionately affect elderly individuals, many of whom have limited mobility and fixed incomes.

Healthcare providers' insufficient training in geriatric reproductive health further compounds these structural issues. Many providers reported lacking confidence and knowledge to address menopause, andropause, and sexual health concerns among elderly patients. This gap reflects broader deficiencies in medical and nursing curricula, which traditionally emphasize reproductive health for women of childbearing age and often neglect elderly-specific needs [12]. The lack of continuing professional development opportunities focused on elderly reproductive health limits providers' ability to deliver sensitive, competent care.

Collectively, these structural barriers contribute to underutilization of reproductive health services by the elderly, delayed diagnoses of cancers, and unmet needs for hormonal and sexual health management. Addressing these gaps requires investment in healthcare infrastructure, equitable distribution of resources, and targeted capacity-building for providers.

The pervasive stigma surrounding elderly sexuality emerged as a critical and complex barrier to reproductive health access. Many elderly participants expressed embarrassment and fear of social judgment when discussing sexual health or seeking related services. This stigma is deeply rooted in cultural and religious norms that frame sexuality as inappropriate or irrelevant for older adults, particularly women.

The gendered dimension of stigma is notable. Elderly women face heightened social scrutiny regarding menopause and sexual activity, often being labeled as “improper” or “immoral” if they express sexual desire or seek counseling. Men, conversely, may experience stigma linked to masculinity norms that discourage open discussion of prostate health or sexual dysfunction. These findings resonate with studies in Indonesia and other Southeast Asian contexts showing that sexuality in old age is a taboo subject, leading to silence, shame, and neglect [13] [14].

Stigma not only affects elderly individuals but also influences healthcare providers’ attitudes and behaviors. Providers may inadvertently dismiss or overlook elderly patients’ reproductive health concerns due to personal biases or discomfort, further discouraging service uptake. This dynamic creates a vicious cycle where stigma perpetuates invisibility and inadequate care [15].

The impact of stigma on health outcomes is profound. Fear of judgment delays or prevents elderly individuals from seeking cancer screening, sexual health counseling, or hormonal management, resulting in late-stage diagnoses and untreated symptoms. Breaking this silence requires culturally sensitive stigma reduction interventions that engage communities, families, and health workers to normalize elderly reproductive health discussions.

The study’s findings underscore significant policy gaps and fragmentation that hinder the effective delivery of reproductive health services to the elderly. While Indonesia’s national health policies increasingly recognize the importance of healthy aging, explicit inclusion of reproductive health for elderly populations remains limited. Policymakers acknowledged that existing strategies prioritize maternal and child health, family planning, and communicable diseases, with elderly reproductive health often overlooked or subsumed under general geriatric care [16].

Decentralization of Indonesia’s health system, while promoting local autonomy, has resulted in uneven policy implementation and service availability across regions. Some districts have integrated elderly health programs more effectively, while others lack clear guidelines or dedicated resources. This variability contributes to disparities in access and quality of care [17].

The absence of comprehensive, elderly-specific reproductive health policies impedes systematic planning, funding, and monitoring of services such as cancer screening, menopause management, and sexuality counseling. Furthermore, the limited provision of counseling services at primary care levels restricts elderly individuals’ opportunities to receive education and psychosocial support [18].

These findings echo critiques in the literature calling for policy reforms that explicitly address elderly reproductive health within Indonesia's universal health coverage agenda. Integrating elderly reproductive health into national and regional health plans, with clear standards, training requirements, and budget allocations, is essential to institutionalize equitable service delivery [19].

Knowledge deficits among elderly individuals regarding reproductive health emerged as a significant barrier to service utilization. Many participants lacked understanding of menopause and andropause symptoms, the importance of cancer screening, and available services. This gap is consistent with prior quantitative studies in Indonesia showing limited reproductive health literacy among elderly populations, particularly in rural areas [20].

The positive correlation between knowledge and service use observed in this study and previous research highlights the critical role of health education. Elderly individuals who are informed about reproductive health issues are more likely to seek preventive services and adopt health-promoting behaviors. However, existing health education programs predominantly target women of reproductive age, leaving elderly populations underserved.

Healthcare providers also noted the need for culturally appropriate educational materials and communication strategies tailored to elderly literacy levels and cultural contexts. Enhancing health literacy among the elderly requires community-based interventions that leverage local networks, peer educators, and mass media campaigns to disseminate accurate information and dispel myths.

The intersection of structural, cultural, and policy barriers creates compounded disadvantages for elderly Indonesians, particularly those living in rural areas, women, and socioeconomically marginalized groups. These disparities violate principles of health equity and social justice, undermining the right to health enshrined in Indonesia's constitution and international human rights frameworks.

Elderly individuals' reproductive health needs are often invisible in public discourse and policy, reflecting ageism and gender biases that marginalize older adults. This invisibility perpetuates neglect and inequitable access to essential services. Addressing these inequities requires a rights-based approach that recognizes elderly reproductive health as integral to dignity, autonomy, and well-being.

Limitation and Suggestions

To improve access to reproductive health services for the elderly in Indonesia, it is essential to implement targeted interventions addressing both structural and cultural barriers. First, policymakers should develop and enforce comprehensive, elderly-specific reproductive

health guidelines integrated into national and regional health plans. Second, expanding the availability of cancer screening, menopause/andropause management, and sexuality counseling at primary healthcare centers, especially in rural areas, is critical. Third, healthcare providers require specialized training to enhance their competence and sensitivity in managing elderly reproductive health issues. Fourth, culturally sensitive public education and stigma reduction campaigns should be launched to normalize elderly sexuality and encourage service utilization. Finally, community engagement involving families, religious leaders, and local organizations can foster supportive environments. These combined efforts will promote equitable, respectful, and effective reproductive healthcare for Indonesia's growing elderly population.

Conclusion

This study identifies several key structural, cultural, and policy challenges that may limit elderly Indonesians' access to comprehensive reproductive health services, such as cancer screening, menopause and andropause management, and sexuality counseling. Service availability appears particularly constrained in rural areas, and healthcare providers may require further training to deliver effective care. Cultural norms and social stigma around elderly sexuality seem to discourage utilization of these services, especially among women. Additionally, policy fragmentation and the lack of specific guidelines for elderly reproductive health contribute to ongoing disparities and complicate systematic improvements. Addressing these issues could benefit from a multifaceted approach, including the development of clear, elderly-focused reproductive health policies within Indonesia's universal health coverage framework, expansion of services at the primary care level, enhancement of provider training, and culturally sensitive efforts to reduce stigma and improve health literacy. Empowering elderly individuals with knowledge and supportive environments may help improve health outcomes and uphold their reproductive rights. While these findings point to important areas for policy and program development, further research and collaboration among stakeholders will be essential to effectively promote equitable access to care and support healthy aging in Indonesia.

Acknowledgment

The Authors thank all people and institutions which helped and fund this research.

Conflict of Interest

There is no conflict of interest.

References

[1] M. M. Rahman, Z. Khan, S. Khan, and S. Abbas, "Disaggregated energy consumption, industrialization, total population, and ecological footprint nexus: evidence from the world's top 10 most populous countries," *Environ. Sci. Pollut. Res.*, vol. 30, no. 56, pp. 119069–119083, Nov. 2023, doi: 10.1007/s11356-023-30499-4.

[2] L. W. Sishartami *et al.*, "Enhancing the well-being of high school students through comprehensive reproductive health education," *J. Community Serv. Empower.*, vol. 6, no. 1, pp. 207–213, Apr. 2025, doi: 10.22219/jcse.v6i1.35361.

[3] S. Wang, J. Ren, Y. Jing, J. Qu, and G.-H. Liu, "Perspectives on biomarkers of reproductive aging for fertility and beyond," *Nat. Aging*, vol. 4, no. 12, pp. 1697–1710, Dec. 2024, doi: 10.1038/s43587-024-00770-5.

[4] A. Chan, C. Jamieson, H. Draper, S. O'Callaghan, and B. Guinn, "Cancer screening attendance rates in transgender and gender-diverse patients: a systematic review and meta-analysis." Apr. 19, 2024. doi: 10.1101/2024.04.17.24305969.

[5] D. T. Stein, M. F. Rakhmadi, A. Dutta, and J. I. Ugaz, "Attributes of funding flows and quality of maternal health services in a mixed provider payment system: A cross-sectional survey of 108 healthcare providers in Indonesia," *World Med. Heal. Policy*, vol. 15, no. 2, pp. 179–193, Jun. 2023, doi: 10.1002/wmh3.545.

[6] S. Siraj and S. Dahlke, "Nurses' Provision of Sexual and Reproductive Health to Community-Dwelling Older Adults: An Integrative Review," *J. Gerontol. Nurs.*, vol. 50, no. 10, pp. 17–23, Oct. 2024, doi: 10.3928/00989134-20240912-05.

[7] M. E. Cerf, "Maternal and Child Health, Non-Communicable Diseases and Metabolites," *Metabolites*, vol. 13, no. 6, p. 756, Jun. 2023, doi: 10.3390/metabo13060756.

[8] D. Desdiani, S. Mulatsih, and D. A. Puspandari, "Implementation of Respect for Autonomy in Hospital Services Within the Indonesia National Health Insurance System," *Natl. J. Community Med.*, vol. 15, no. 10, pp. 830–841, Oct. 2024, doi: 10.55489/njcm.151020244579.

[9] J. P. Alonso *et al.*, "Barriers to advancing the sexual and reproductive health agenda in Latin America: a qualitative study of key informants' perspectives," *Reprod. Health*, vol. 21, no. 1, p. 187, Dec. 2024, doi: 10.1186/s12978-024-01927-6.

[10] C.-M. Chen and B. Baithesda, "Primary healthcare utilization by the elderly: a secondary analysis of the 5th Indonesian Family Life Survey," *Work. with Older People*, vol. 24, no. 2, pp. 81–94, Apr. 2020, doi: 10.1108/WWOP-01-2020-0001.

[11] J. Uddin and T. Fariha, "Bridging the Gap: Expanding Telehealth Services to Address Rural Health Disparities." Jun. 28, 2024. doi: 10.20944/preprints202406.2012.v1.

[12] F. Ghahremani, M. Ahmadi Doulabi, Z. Mahmoodi, and M. Nasiri, "The Relationship Between Social Determinants of Health and Attitudes Towards Childbearing with the Mediation of Social Support Among Women of Reproductive Age: A Path Analysis," *Iran. J. Psychiatry Behav. Sci.*, vol. 19, no. 2, Apr. 2025, doi: 10.5812/ijpbs-141364.

[13] P. A. Noak, I. K. Ardhana, N. M. P. Ariyanti, and N. W. R. N. Puspitasari, "Border studies in southeast Asia: Challenges and opportunities," *J. Infrastructure, Policy Dev.*, vol. 8, no. 15, p. 9604, Dec. 2024, doi: 10.24294/jipd9604.

[14] S. Zakhour, A. Sardinha, and A. Egidio Nardi, "(301) Gender Sensitivity In The Treatment Of Sexual (Dys) Function: A Critical Review And Future Directions," *J. Sex. Med.*, vol. 21, no. Supplement_6, May 2024, doi: 10.1093/jsxmed/qdae161.229.

[15] R. D. Barnes and J. L. Lawson, "Weight stigma and binge eating related to poorer perceptions of healthcare provider interaction quality in a community-based sample," *J. Eat. Disord.*, vol. 12, no. 1, p. 128, Sep. 2024, doi: 10.1186/s40337-024-01093-x.

[16] R. Pandey *et al.*, "A Descriptive Study to Assess the Level of Knowledge Regarding National Geriatric Health Care Policies Among Elderly People in a Selected Area of Haridwar," *Int. J. Res. Publ. Semin.*, vol. 15, no. 3, pp. 374–383, Sep. 2024, doi: 10.36676/jrps.v15.i3.1521.

[17] M. A. Musaád, "Contextualizing Asymmetric Decentralization in Papua in the Context of Sustainable Development Goals," *J. Lifestyle SDGs Rev.*, vol. 5, no. 1, p. e04705, Jan. 2025, doi: 10.47172/2965-730X.SDGsReview.v5.n01.pe04705.
[18] D. N. Suhaid, B. S. D. Aningsih, K. Dini, M. Kadarsih, and Y. B. Purbo, "Health and Counseling Service of Reproductive Health 'I am Empowered Over my Body,'" *AMK Abdi Masy. UIKA*, vol. 3, no. 4, pp. 217–227, Feb. 2025, doi: 10.32832/amk.v3i4.2617.
[19] F. Andriati, A. F. Azhari, and W. Yuspin, "Minister of Health Regulation of the Republic of Indonesia Number 35 of 2014 on Reproductive Health Service Standards: Legal Review and Normative Aspects in Healthcare Practices," *SOEPRA*, vol. 9, no. 2, pp. 209–219, Dec. 2023, doi: 10.24167/sjhk.v9i2.10960.
[20] J. Wu, C. Lin, J. Kang, and D. K. Moser, "Cognitive impairment and limited health literacy are associated with poor health outcomes among patients with heart failure residing in rural areas," *J. Rural Heal.*, vol. 41, no. 1, Jan. 2025, doi: 10.1111/jrh.12919.

Authors



Rahmah Juliani Siregar is affiliated with the Public Health Study Program, STIKes Darmais Padangsidimpuan, Padangsidimpuan, Indonesia. She is an active reviewer for the International Journal of Population Studies (Scopus Indexed) and Editor-in-Chief for the International Journal of Public Health Excellence (SINTA 5). In addition to her role as a lecturer, she is also the Deputy Chair II at Darmais Health College, Padangsidimpuan. (email: rahmahjulianisiregar@gmail.com).



Elvi Suryani is a lecturer of Midwifery Study Program, STIKES Darmais Padangsidimpuan, Padangsidimpuan, Indonesia. She is also active as a journal editor, professional organization and health education development. (email: elvisuryani141@gmail.com).



Maryam Latifah Harahap is a lecturer of Midwifery Study Program, STIKES Darmais Padangsidimpuan, Padangsidimpuan, Indonesia. She is also active as a journal editor board, professional organization and health education development. (email: maryamlatifahharahap@gmail.com).



Juliana Lubis is a lecturer of Public Health Study Program, STIKES Darmais Padangsidimpuan, Padangsidimpuan, Indonesia. She is also active as professional organization at Ikatan Ahli Kesehatan Masyarakat Indonesia (IAKMI). (email: julilubis17@gmail.com).



Lena Juliana Harahap is a lecturer of Public Health Study Program, STIKES Darmais Padangsidimpuan, Padangsidimpuan, Indonesia. She is also active as professional organization Ikatan Ahli Kesehatan Masyarakat Indonesia (IAKMI). (email: lenajulianahrp@gmail.com).