

# Perspectives and Challenges of Integrating Public Health Education into the Medical Curriculum in Indonesia: An Administrative and Implementation Study in Public and Private Medical Faculties

Audrey Yohan Agnes Patricya Sidabutar<sup>1</sup>, Ermi Girsang<sup>2</sup>, Sri Lestari Ramadhani Nasution<sup>3</sup>

<sup>1</sup> Master of Public Health Program, Faculty of Medicine, Dentistry, and Health Sciences, Prima Indonesia University

<sup>2</sup> Master of Public Health Program, Faculty of Medicine, Dentistry, and Health Sciences, Prima Indonesia University; PUI PHYTO Degenerative and Lifestyle Medicine, Prima Indonesia University

<sup>3</sup> Master of Public Health Program, Faculty of Medicine, Dentistry, and Health Sciences, Prima Indonesia University; PUI PHYTO Degenerative and Lifestyle Medicine, Prima Indonesia University

\*E-mail : [srilestariramadhaninasution@unprimdn.ac.id](mailto:srilestariramadhaninasution@unprimdn.ac.id)

## ABSTRACT

The integration of Public Health Education (PKM) in medical curricula faces challenges related to curriculum alignment, implementation processes, and lecturer involvement across medical schools in Indonesia. This study analyzes policies and curriculum components supporting PKM integration, identifies key implementation factors, and evaluates its contribution to graduate competency. Using a descriptive qualitative approach, data were collected from 14 informants, including 10 lecturers from public and private medical faculties and 4 students or alumni. Findings indicate that both faculties have implemented PKM integration based on the Indonesian Doctor Competency Standards (SKDI) 2019, Ministerial Regulation No. 53/2023, and Indonesian Medical Council (KKI) guidelines. Public medical faculties apply a structured Community-Based Education (CBE) model, while private faculties use thematic learning and community service approaches. Supporting factors include leadership commitment, lecturer engagement, and institutional collaboration, while constraints involve limited time, resources, and lecturers with public health expertise. Overall, PKM integration enhances students' communication, empathy, and social responsibility, contributing significantly to producing doctors who are promotive, preventive, and community-oriented.

**Keywords:** *Public Health, Medical Curriculum, Integration of Public Health Education*

## INTRODUCTION

Medical education in Indonesia is part of the national education system, with the goals of fostering an intelligent society, ensuring equitable education, improving quality, and producing competent graduates in the field of medicine (RUU, 2021).

Along with changes in the healthcare system, medical graduates are expected to possess both clinical skills and an understanding of public health. The WHO (2020) recommends the integration of public health principles to address global challenges. The SKDI also emphasizes the ability to implement evidence-based health interventions.

Public health is a multidisciplinary field encompassing epidemiology, biostatistics, health management, environmental health, behavioral health, maternal and child health, mental health, health economics, and public policy. Its primary goal is to improve population health through integrated promotive, preventive, curative, and rehabilitative approaches (Babu, 2019; Talukdar, 2023).

The integration of public health education into the medical curriculum is expected to prepare doctors to face population-based health challenges and to promote comprehensive healthcare services (Susanti, 2022).

## METHODS

This study employs a qualitative descriptive approach with a policy analysis design to gain an in-depth understanding of the formulation and implementation processes of public health education integration within the medical curriculum. Policy analysis was conducted by referring to Dunn's (2018) model, which includes the stages of policy formulation, implementation, and evaluation. This study was conducted at two sub-locations in Medan City, namely Faculty of Medicine, State University and Faculty of Medicine, Private University. The study was carried out from August to October 2025. The stages of activities included proposal preparation, proposal seminar, revisions of the proposal seminar, data collection, thesis completion and supervision, as well as the results seminar.

The approach used to select informants in this study was purposive sampling, with general criteria for informants including direct involvement in the formulation of administration,

curriculum implementation, or having relevant experience (at least 1–2 years), willingness to be interviewed, and the ability to provide access to documents if necessary. The instrument used in this study was an in-depth interview guide developed based on the research focus, namely the policy of integrating public health education into the medical education curriculum.

## RESULTS

### Overview of the Research Sites

This study was conducted at two medical faculties in Medan, Indonesia, representing different institutional statuses: a public medical faculty and a private medical faculty. The selection of these sites aimed to obtain a comprehensive understanding of the implementation of public health education (PHE) integration within the medical curriculum under differing administrative and institutional contexts.

The public medical faculty is a longstanding state institution that has implemented a competency-based curriculum aligned with the Indonesian Medical Doctor Competency Standards (SKDI) and the regulations of the Indonesian Medical Council (KKI). It applies outcome-based education (OBE), emphasizing the achievement of clinical competencies and promotive-preventive approaches.

In contrast, the private medical faculty also adopts a competency-based curriculum but operates within a more flexible academic management framework. It integrates courses and field activities in line with the university’s vision to support community service and public health initiatives.

### Research Participants

**Table 1. Here**

No	Location/Faculty	Informant Position/Status	Number of Informants
1.	Private University	Clinical Lecturers Integrating Public Health	5
	<b>Total</b>		<b>5</b>
2.	Public University	Clinical Lecturers Integrating Public Health	5
	<b>Total</b>		<b>5</b>
3.	Students/Alumni	Final-Year Students / Recent Alumni	4

---

Overall Total

14

---

### Clinical Lecturers

The study involved 10 clinical lecturers from both institutions, with five lecturers from the private faculty (Informants 1–5) and five from the public faculty (Informants 6–10). All participants are clinical lecturers actively engaged in clinical teaching and contributing to the integration of public health education (PHE) within their respective medical curricula.

All lecturers have more than five years of teaching experience, indicating sufficient professional expertise to provide in-depth insights into the implementation of PHE integration policies in medical education.

### Students and Alumni

The study also included four participants from both faculties: one final-year student and one recent graduate (alumnus) from each institution. The students had actively participated in public health courses and field activities, while the alumni had firsthand experience applying public health knowledge in professional practice.

This composition provided a balanced perspective, capturing both the academic and practical aspects of PHE integration in medical curricula. Collectively, the inclusion of students and alumni from both institutions offered a comprehensive overview of the effectiveness and benefits of PHE policy implementation from both educational and professional practice viewpoints.

### Policies, Regulations, and Curriculum Components Underlying the Integration of Public Health Education in the Medical Curriculum

Several lecturers from private medical faculties added that the curriculum design was developed based on the results of tracer study evaluations and input from partner institutions such as community health centers (puskesmas) and the Medan City Health Office. Meanwhile, clinical lecturers from public medical faculties (Informants 6–10) stated that the policy formulation process at public medical faculties is more systematic because it follows national guidelines, and the faculty has long implemented Community-Based Education

(CBE).

"Initially, we conducted a curriculum review at the faculty level. At that time, it was evident that public health topics were still separated from the clinical blocks, so integration was needed to make them more relevant to field needs." (Informant 8, Public Medical Faculty)

The formulation of policies for integrating Public Health Education (PHE) in both faculties was carried out through internal faculty mechanisms referring to national guidelines. The public medical faculty implemented this process in a more structured manner through the curriculum team and development units, whereas the private medical faculty applied a more flexible and adaptive approach, responding to local needs and input from external partners.

The interview results with lecturers from private medical faculties (Informants 1–5) explained that the parties involved included the dean, vice dean for academic affairs, head of the study program, and course coordinators.

"Those involved include the dean, head of the study program, the curriculum team, and block coordinators. We also discussed the curriculum design with the foundation and the teaching hospital as implementation partners." (Informant 1, Private Medical Faculty)

Lecturers from public medical faculties (Informants 6–10) mentioned that, in addition to the faculty leadership, the team from the Department of Community Medicine played a major role in developing the curriculum.

"All lecturers from both pre-clinical and clinical fields were involved, including student representatives." (Informant 9, Public Medical Faculty)

The involvement of stakeholders in policy formulation was collaborative, particularly among faculty leadership, lecturers, and external partners. This collaboration strengthened the relevance of policies to the educational needs and public health service requirements of the community.

Lecturers from public medical faculties (Informants 6–10) added that national policies through SKDI and KKI encourage the improvement of doctors' abilities in addressing public health issues.

“Yes, national policies through SKDI and KKI promote the enhancement of doctors’ competencies in dealing with public health issues. We also take into account WHO recommendations on community-oriented medical education so that graduates are better prepared to face the global context.” (Informant 6, Public Medical Faculty)

The primary references for developing the curriculum integrating Public Health Education (PHE) are the 2019 Indonesian Medical Doctor Competency Standards (SKDI), Minister of Education, Culture, Research, and Technology Regulation No. 53 of 2023, and the Indonesian Medical Council (KKI) guidelines. These three documents serve as the basis for determining learning outcomes and structuring curriculum blocks with an emphasis on public health aspects.

National policies such as SKDI and the Independent Learning–Independent Campus (MBKM) program, as well as global policies like the Sustainable Development Goals (SDGs) and WHO standards, also influence the direction of PHE integration. Both faculties respond to these demands by adjusting curriculum content and community-based learning activities.

Overall, the findings indicate that policies, regulations, and curriculum components underpinning the integration of public health education into the medical curriculum have been implemented in both faculties. The public medical faculty demonstrates a more systematic and policy-driven implementation pattern, while the private medical faculty shows flexibility, adapting to local contexts and student needs. Both institutions follow SKDI 2019, Permendikbudristek No. 53 of 2023, and KKI guidelines, while also being influenced by national and global policies. The integration of PHE in the curriculum has been effectively carried out and serves as an important foundation for developing doctors who are not only clinically competent but also actively contribute to improving community health.

#### Implementation of Public Health Education Policy in Public and Private Medical Faculties and Its Supporting and Inhibiting Factors

The interview results with clinical lecturers from private medical faculties (Informants 1–5) explained that the implementation of the policy to integrate community health programs (PKM) was carried out by incorporating public health topics into body system blocks and through field activities.

“Integration is carried out through community service activities and health seminars. In several clinical blocks, lecturers add social and environmental topics related to patients so that

students do not focus solely on the disease.” (Informant 1, Private Medical Faculty)  
“Implementation is done through community service activities and health seminars.”  
(Informant 2, Private Medical Faculty)

The implementation of Public Health Education (PHE) policy at the private medical faculty is thematic and centered on social activities, whereas at the public medical faculty it is conducted systematically through Community-Based Education (CBE) modules and integrated field activities. Both approaches aim at the same goal: developing doctors with promotive and preventive capabilities.

The learning methods for PHE in both faculties emphasize active student participation. The public medical faculty employs a structured CBE system, while the private medical faculty highlights field integration within thematic blocks and community service activities.

Coordination among lecturers, curriculum managers, and external partners has been well-established in both faculties. The public medical faculty follows a formal and structured system, whereas the private medical faculty uses simpler but adaptive coordination tailored to the needs of activities.

Based on interviews and observations, the implementation of PHE integration policies in both public and private medical faculties has been successful, albeit with different approaches. The public medical faculty implements it systematically through CBE and a standardized learning structure, while the private medical faculty applies a thematic and flexible approach based on community service activities.

Key factors supporting successful implementation in both faculties include the commitment of faculty leadership, active lecturer participation, support from external partners (community health centers and health offices), and student enthusiasm. In contrast, inhibiting factors include limited learning time, heavy clinical academic workload, a shortage of lecturers with public health backgrounds, and limitations in funding and field facilities.

Overall, the implementation of public health education integration policies shows a positive trajectory, contributing to the development of medical graduates who possess clinical competence, social empathy, and a strong sense of community health responsibility.

## Perceptions of Administrators and Lecturers on the Effectiveness of PHE Integration in Developing Medical Graduates' Competencies

The integration of Public Health Education (PHE) has brought positive changes in students, particularly in communication skills, social empathy, and understanding of the doctor's role in the community. Overall, PHE integration enhances students' social analysis skills, communication abilities, and capacity to understand health issues from a holistic perspective.

## Contribution of PHE Integration to Improving the Quality of Medical Graduates in Indonesia

The interview results with lecturers (Informants 1–5) agreed that the integration of community health programs (PKM) plays a major role in shaping doctors who are more empathetic and broad-minded.

“Yes, quite significantly. Our graduates have become more empathetic and understand that health services are not only provided in hospitals but also within the community.” (Informant 1) Lecturers (Informants 6–10) believed that this policy has made graduates better prepared to work in primary health care facilities. “It contributes greatly. Our graduates now have a more promotive and preventive perspective and understand the importance of a community-based approach in clinical practice.” (Informant 6)

The integration of Public Health Education (PHE) has been shown to contribute significantly to the development of medical graduates' competencies, particularly in promotive and preventive care, communication, and interprofessional collaboration. Based on interviews and observations, it can be concluded that administrators, lecturers, students, and alumni perceive the effectiveness of PHE integration very positively. All informants agreed that this policy enhances students' ability to understand the social context of health, strengthens communication, empathy, and social responsibility, and better prepares graduates to face challenges in the community.

PHE integration is considered relevant to the objectives of national medical education and aligns with the 2019 Indonesian Medical Doctor Competency Standards (SKDI), which emphasize promotive and preventive competencies. Although implementation still faces challenges such as limited time and resources, this policy is regarded as effective and should continue to be developed as an integral part of shaping doctors who are humanistic, professional, and community-oriented.

## **DISCUSSION**

### **Policies, Regulations, and Curriculum Components Underlying the Integration of Public Health Education in Medical Curricula**

The study findings indicate that the integration of Public Health Education (PHE) into medical curricula is firmly grounded in national policy and regulation. Both public and private medical faculties refer to the 2019 Indonesian Medical Doctor Competency Standards (SKDI), Minister of Education, Culture, Research, and Technology Regulation No. 53 of 2023, and Indonesian Medical Council (KKI) guidelines. These frameworks emphasize that medical graduates must possess not only curative skills but also promotive and preventive competencies, which are essential for improving public health outcomes.

Interviews revealed that both faculties have adapted their curricula in line with these national policies. The public medical faculty implements PHE systematically through structured modules and field activities such as Community-Based Education (CBE) and Family Studies. In contrast, the private medical faculty integrates PHE through thematic approaches within clinical blocks and community service projects that actively involve students.

Although both faculties adhere to national policies, differences exist in the depth and mechanisms of implementation. The public faculty maintains a more formal and standardized policy structure, while the private faculty adopts a flexible approach tailored to internal campus needs. Despite these differences, both share the common goal of producing doctors who are not only clinically competent but also proactive in disease prevention and health promotion.

### **Implementation Process and Supporting/Inhibiting Factors**

The implementation of PHE integration policies shows significant progress in both faculties, albeit with different characteristics. At the public medical faculty, implementation is structured and planned, with mandatory field activities where students engage directly with communities through health surveys, counseling, and education programs. Faculty mentors actively guide students, reflecting strong institutional support and effective coordination among curriculum managers, lecturers, and external partners such as community health centers.

In contrast, the private medical faculty implements PHE with a more flexible and adaptive approach, incorporating social projects, seminars, and community service activities linked to clinical block topics. While less formal than the public faculty, this approach still provides relevant experiential learning for students to understand community health conditions.

Key supporting factors for successful implementation include faculty leadership commitment, active lecturer involvement, collaboration with health institutions, and student engagement. Conversely, inhibiting factors include limited learning time, a dense clinical curriculum, a shortage of lecturers with public health backgrounds, and constrained resources and funding for field activities.

Overall, despite some challenges, both faculties have made substantial efforts to maintain the continuity and relevance of PHE integration, ensuring that medical graduates acquire competencies aligned with contemporary healthcare demands.

#### Perceptions of Faculty and Administrators on the Effectiveness of Public Health Education (PHE) Integration in Shaping Medical Graduates' Competencies

The study found that faculty and administrators perceive the integration of Public Health Education (PHE) in medical curricula very positively, particularly regarding students' empathy and communication skills. This high perception is closely linked to the learning methods applied: the structured Community-Based Education (CBE) in the public faculty and the thematic community service approach in the private faculty. The CBE model allows students to interact directly with communities, primary healthcare providers, and families, fostering real-world experiences and reflective discussions that enhance empathy and communication. Similarly, although more flexible, the private faculty's community service projects provide authentic learning contexts, allowing students to "learn in the field" rather than solely in classrooms.

These findings align with the 2019 Indonesian Medical Doctor Competency Standards (SKDI), which emphasize that medical graduates must possess promotive, preventive, and communicative competencies while understanding social determinants of health. They also resonate with the international Social Accountability framework recommended by WHO, which underscores that medical schools should produce graduates responsible for community health needs, not only individual patients. Faculty statements confirmed that PHE programs have been internalized as integral parts of the curriculum, with clear evaluation systems in the

public faculty and meaningful field experiences in the private faculty, shaping socially aware, empathetic, and communicative doctors. Global literature similarly supports that community-based learning significantly enhances soft skills, including communication, teamwork, confidence in patient interactions, and awareness of social determinants of health.

#### Contribution of PHE Integration to Improving the Quality of Medical Graduates in Indonesia

The integration of PHE contributes substantially to the quality of medical graduates, enhancing not only academic and clinical competencies but also social and professional skills. Alumni reported that community-based learning prepared them effectively for primary healthcare settings, with differences reflecting each faculty's approach. Public faculty graduates trained under the structured CBE model emphasized analytical skills in assessing community health and planning data-driven interventions, strengthening critical thinking, interdisciplinary communication, and program management competencies. In contrast, private faculty alumni highlighted interpersonal skills, empathy, and social adaptability developed through thematic community service, reinforcing sensitivity to social contexts and responsibility for community health.

From a national policy perspective, these contributions align with the Ministry of Health's strategy to strengthen primary healthcare as the backbone of Indonesia's health system and the Outcome-Based Education (OBE) principles outlined in Permendikbudristek No. 53 of 2023. The PHE integration demonstrates tangible OBE implementation by evaluating students on their ability to identify community health problems, carry out promotive-preventive interventions, and display professional and social responsibility.

Applying George C. Edwards III's policy implementation model, the success of PHE integration can be analyzed across four variables: communication, resources, implementers' disposition, and bureaucratic structure. Communication is strong in both faculties, with shared understanding of policy goals. Resource availability differs: the public faculty benefits from sufficient faculty with public health expertise and ample field facilities, while the private faculty faces limitations but compensates through local adaptation and innovation. Implementer disposition is positive, reflecting high faculty commitment in both institutions. Bureaucratic structure distinguishes the two: the public faculty's formalized system ensures consistent CBE implementation, while the private faculty's flexible structure enables contextual innovation responsive to local community needs.

Overall, the findings demonstrate that PHE integration positively impacts medical graduates' social, empathetic, and professional competencies. Despite differences in bureaucratic structure and resources, both faculties effectively enhance graduates' readiness for community-based practice, supporting national health priorities, OBE implementation, and the development of socially accountable physicians.

## **CONCLUSION**

The integration of Public Health Education (PHE) into the medical curriculum in Indonesia aligns with national regulations, including the 2019 Indonesian Medical Doctor Competency Standards (SKDI), Permendikbudristek No. 53 of 2023, and guidelines from the Indonesian Medical Council (KKI). Both public and private medical faculties have adapted their curricula accordingly, though implementation differs: public faculties apply a structured approach through blocks and field activities, while private faculties emphasize thematic learning and community service projects.

The policy implementation at both types of faculties has been generally effective, supported by faculty leadership, active involvement of lecturers, and collaboration with health institutions. Challenges include limited time, a shortage of lecturers with public health expertise, and constraints in field facilities.

Faculty and administrators perceive that PHE integration positively impacts the development of student competencies. The program enhances students' communication skills, ability to collaborate with communities, and understanding of the physician's role in promotive and preventive healthcare.

Overall, PHE integration contributes significantly to the quality of medical graduates. Graduates are better prepared for community-based practice, demonstrate high social responsibility, and can apply promotive and preventive approaches in healthcare delivery.

## **ACKNOWLEDGEMENT**

We would like to thank everyone especially the clinical lecturers, alumni, and students of both public and private medical faculties for the help and support for this research.

## REFERENCES

- Ahmad Budiyo. (2021). Konsep kurikulum terintegrasi: Analisis kurikulum formal dengan pesantren. *Ilmuna: Jurnal Studi Pendidikan Agama Islam*, 3(1). <https://stiwujombang.ac.id/jurnalstit/index.php/ilmuna/article/view/253>
- Ananda, F., Putra, R. D., & Hendrasto, V. S. (2021). Kesuksesan implementasi system application product (SAP): Studi kasus di PT. Semen Padang. *Jurnal Pundi*, 1(1), 1–10.
- Andriani, A. (2023). Implementasi kebijakan izin mendirikan bangunan (IMB) di Kecamatan Lubuk Kilangan Padang. *JAPan: Jurnal Administrasi dan Pemerintahan*, 1(1).
- Arikunto, S. (2019). *Prosedur penelitian*. Jakarta: Rineka Cipta.
- Atypon. (2021). Medical educators' perspectives on the barriers and enablers of teaching public health in the undergraduate medical curricula: A systematic review. *Public Health Reviews*, 42, 1603990. <https://pubmed.ncbi.nlm.nih.gov/36063404/>
- Babu, G. R., & Yamuna, A. (2019). *Choosing a career in public health: Practitioners' guidance series XIII*. [https://doi.org/10.1007/978-3-030-75370-2\\_19](https://doi.org/10.1007/978-3-030-75370-2_19)
- Bage, B. (2022). Public health system in promotion of water sanitation and hygiene: An analytical study. *World Review of Science, Technology and Sustainable Development*, 19(1–2), 70–82. <https://doi.org/10.1504/wrstd.2023.127301>
- Bambang Suryadi, F., Ekayanti, F., & Amalia, E. (2018). An integrated curriculum at an Islamic university: Perceptions of students and lecturers. *Eurasian Journal of Educational Research*, 74. <https://doi.org/10.14689/ejer.2018.74.2>
- Cholifah, A., P., & Nisak, U. K. (2019). *Buku ajar mata kuliah ilmu kesehatan masyarakat* (S. B. Sartika, Ed.; 1st ed.). UMSIDA Press.
- Creswell, J. W. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: SAGE Publications.

Delpiero, et al. (2021). Implementasi pemerintah dalam penanganan virus corona (COVID-19) di Desa Ongkaw 1, Kecamatan Sinonsayang, Kabupaten Minahasa Selatan. *Jurnal Governance*, 1–11.

Eka Pirdia Wanti. (2025, April 8). *Pendekatan kualitatif dalam analisis kebijakan publik: Studi kasus implementasi program pemerintah daerah*. Biro Perencanaan Mutu Pendidikan dan Pembelajaran Terbaik di Sumatera Utara.

Ekayanti, F. (2021). *Implementasi kurikulum etika kedokteran dalam pendidikan dokter: Studi tiga fakultas kedokteran pada universitas Islam di Jakarta*. Universitas Islam Negeri Syarif Hidayatullah Jakarta.

Indrayadi, dkk. (2024). *Ilmu kesehatan masyarakat*. AIKOMEDIA Press.

Jusma, P. A., Bur, N., Khalifatun, U. N., Annisa, N., & Nur, J. (2024, December 30). Implementasi kurikulum integrasi materi dalam kurikulum. *Jurnal Pendidikan Ilmiah Transformatif*, 8(12).

Kementerian Kesehatan Republik Indonesia. (2023). *Profil kesehatan Indonesia 2023*. Jakarta: Kementerian Kesehatan RI.

Konsil Kedokteran Indonesia. (2019). *Standar nasional pendidikan profesi dokter Indonesia*.

Martini, S., dkk. (2021). *Panduan kurikulum nasional program studi sarjana kesehatan masyarakat tahun 2021*. UI Publishing.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Thousand Oaks, CA: SAGE Publications.

Moleong, L. J. (2018). *Metodologi penelitian kualitatif*. Bandung: PT Rosdakarya.

Nabila. (2023). *Integrasi nilai-nilai pendidikan agama Islam dalam menanggulangi pelanggaran peserta didik di SMK Negeri 1 Parepare*. Institusi Agama Islam Negeri Parepare.

Permendikbudristek. (2023). *Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia No. 53 Tahun 2023 tentang penjaminan mutu pendidikan tinggi*.

Prihatiningsih, T. S. (2020). *Pengembangan model sistem penjaminan mutu untuk pendidikan kedokteran dan profesi kesehatan*. Sumber Aksara.

RUU. (2021). *Tentang pendidikan kedokteran*. Badan Legislasi Dewan Perwakilan Rakyat Republik Indonesia.

Setiawan, E., Rahmawati, D., & Pramudyo, A. (2023). Factors influencing medical educators' intentions to teach public health: A qualitative study in Indonesia. *BMC Medical Education*, 23(1), 112. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10704052/>

Sugiyono. (2022). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.

Susanti, N. R. (2022). Integration of Islamic value in the medical education curriculum. *Journal of Islamic Medicine*, 6(01), 11–20.

Talukdar, R., & Barman, D. (2023). Let's understand public health: A free-flow writing from novice learners. *International Journal of Medicine and Public Health*, 12(4), 151–152. <https://doi.org/10.5530/ijmedph.2022.4.27>

Untari, I. (2017). *7 pilar utama ilmu kesehatan masyarakat*. <http://r2kn.litbang.kemkes.go.id:8080/handle/123456789/63831>

Werdhani, R. A., Dewi, D. K., & Findyartini, A. (2024). How community-oriented medicine is implemented in medical education: Experience from Indonesia. *Journal of Community Medicine and Public Health Research*, 5(1), 45–55. <https://e-journal.unair.ac.id/JCMPHR/article/view/47512>

World Health Organization. (2020). *Framework for action on interprofessional education and collaborative practice*. Geneva: WHO.