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Determinants of Public Health Service Utilization and Their Implications for Community Health Outcomes

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Abstract

The utilization of public health services is a critical factor in improving community health outcomes; however, disparities in service utilization remain prevalent across different social groups. This study aims to comprehensively examine the determinants of public health service utilization and their implications for community health outcomes. A literature review method was employed by analyzing scholarly articles, reports from health organizations, and relevant academic books addressing health service utilization. The analysis was conducted thematically to identify key determinants influencing public health service utilization, including individual factors, socio-economic and cultural factors, as well as health system and service quality factors. The findings indicate that individual characteristics such as demographic factors, educational level, health literacy, and perceived health needs play a significant role in shaping health-seeking behavior. In addition, socio-economic factors, including income level, employment status, and health insurance coverage, significantly influence individuals' ability to access and utilize health services. Cultural values, social norms, and trust in health institutions also affect decision-making processes related to the use of formal health services. From a structural perspective, the availability of health facilities, quality of care, competency of health professionals, and efficiency of health service delivery systems are key determinants of service utilization. High utilization of public health services, particularly preventive and promotive services, is associated with improved community health outcomes, such as reduced disease burden, better management of chronic conditions, and enhanced quality of life. This study highlights the importance of a multidimensional and integrated approach that addresses individual, social, cultural, and systemic factors to improve public health service utilization and achieve sustainable and equitable community health outcomes.

Introduction

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Public health services play a crucial role in improving the health of the population through promotive, preventive, curative, and rehabilitative efforts. Optimal utilization of public health services is believed to be a key factor in achieving better community health outcomes, such as reduced morbidity and mortality, improved quality of life, and increased life expectancy (Soulissa & Sinay, 2025). However, despite the increasing availability of public health services in various countries, disparities in their utilization remain a significant problem, particularly among vulnerable and marginalized groups. This situation indicates that the availability of services does not necessarily guarantee effective utilization by the public.

Health service utilization is a complex phenomenon influenced by the interaction of various factors, at the individual, social, economic, and health care system levels. One theoretical framework widely used to explain health service utilization behavior is the Health Service Utilization Behavior Model developed by Andersen. This model groups the determinants of healthcare utilization into three main categories: predisposing factors (such as age, gender, education, and beliefs); enabling factors, including income, insurance coverage, and the availability of healthcare facilities; and need factors, which relate to an individual's perception of their health condition and clinically assessed medical needs (Agustina, 2025). This model emphasizes that healthcare utilization is not solely determined by medical need but also by broader social and structural conditions.

Socioeconomic status has long been identified as a key determinant of healthcare utilization. Individuals with higher levels of education and income tend to have better healthcare utilization rates due to higher health literacy, adequate financial resources, and a better understanding of the healthcare system (Dharana et al., 2024). Conversely, low-income communities often face various barriers, such as indirect costs, time constraints, and other life priorities, which prevent them from accessing and utilizing healthcare services, even when these services are publicly provided. These inequalities ultimately contribute to differences in health outcomes between social groups in society.

In addition to economic factors, social and cultural factors also significantly influence health care utilization behavior. Cultural values, social norms, and the level of public trust in health institutions can shape how individuals interpret illness and determine their decisions to seek health care (Wahyudi et al., 2025). In some communities, traditional healing practices remain the primary choice and coexist alongside formal health care, while stigma surrounding certain diseases can discourage individuals from utilizing available services. Social support from family and community also plays a significant role, acting as both a motivating and inhibiting factor in the use of public health services.

The characteristics of the health care system itself are also important determinants of service utilization. The availability of health facilities, geographic accessibility, service quality, and the attitudes and competence of health workers influence the level of public trust and satisfaction with the services provided (Faiz et al., 2025). Long waiting times, limited facilities and infrastructure, and low service quality can discourage people from utilizing health care services, even when their health needs are high. Conversely, a responsive, equitable, and patient-oriented health care system tends to increase service utilization and contribute to improving public health status.

The implications of public health service utilization are not only felt at the individual level but also have a broad impact on community health outcomes. High utilization of preventive health

services, such as immunizations, maternal and child health services, and disease screening, has been shown to reduce the burden of preventable diseases and improve overall population health indicators (Multazam & Andayanie, 2024). Communities with high levels of health service utilization tend to have higher levels of health equity, stronger social cohesion, and greater economic productivity. Conversely, low health service utilization can lead to delayed disease treatment, increased risk of transmission, and increased long-term health costs.

Therefore, a comprehensive understanding of the determinants of public health service utilization is crucial for formulating effective health policies and interventions. By identifying factors that influence service utilization, policymakers and health practitioners can design more targeted strategies to increase access, reduce inequalities, and improve service quality. These efforts ultimately aim not only to increase health service utilization but also serve as a strategic step towards achieving sustainable and equitable community health outcomes.

Methods

Literature Study

This study employed a literature review method to systematically examine the determinants of public health service utilization and their implications for community health outcomes. This literature review method was chosen because it allows researchers to integrate various empirical findings and theoretical frameworks from previous research to gain a comprehensive understanding of the factors influencing health service utilization. This approach is also relevant for identifying patterns, research gaps, and policy implications applicable to a public health context.

Data sources for this literature review were obtained from relevant scientific publications, including national and international journal articles, global health organization reports, and academic textbooks discussing health service utilization and public health outcomes. Electronic databases used in the literature search included PubMed, Scopus, Google Scholar, and ScienceDirect. The literature search was conducted using keywords such as "public health service utilization," "determinants of health service use," "community health outcomes," and their Indonesian equivalents. The literature search was limited to publications published within a specific time period to ensure the data remains relevant to current health system developments.

Inclusion criteria for the literature selection included articles that discussed the determinants of public health service utilization, used a clear empirical or theoretical approach, and presented implications for health outcomes at the individual and community levels. Meanwhile, exclusion criteria included articles irrelevant to the research topic, publications that had not undergone peer review, and sources with significant methodological limitations. The literature selection process was carried out in stages, starting with a review of titles and abstracts, followed by a full-text assessment to ensure alignment with the research objectives.

Data analysis in this literature review was conducted using a thematic analysis approach, which grouped research findings based on key emerging themes, such as individual, sociocultural, economic, and health care system factors. Each theme was analyzed comparatively to identify similarities and differences in research findings and to understand the relationship between determinants of health service utilization and community health outcomes. This approach enabled researchers to develop a more structured and in-depth conceptual synthesis.

To ensure the validity and reliability of the study results, researchers critically reviewed the methodological quality of each source used, including the research design, data collection techniques, and analytical methods applied. Furthermore, source triangulation was conducted by comparing findings from various studies and geographic contexts. Thus, the results of this literature review are expected to provide a comprehensive and reliable picture of the determinants of public health service utilization and their implications for community health outcomes.

Results and Discussion

Individual Factors as the Main Determinant of Health Service Utilization

Healthcare utilization is the result of an individual's decision-making process, influenced by various personal characteristics. In public health literature, individual factors are often categorized as predisposing factors in the Behavioral Model of Healthcare Utilization developed by Andersen. These factors include demographic characteristics such as age, gender, education level, and individual values and beliefs regarding health. Jehosua (2024) emphasized that individual factors serve as the initial foundation that shapes a person's tendency to utilize or not utilize healthcare services, even before the individual faces a real medical need.

Age is one of the most consistent individual determinants found in various studies of healthcare utilization. Individuals in the adult and elderly age groups tend to have higher rates of healthcare utilization than younger age groups. This is related to the increased risk of chronic disease, decreased physical function, and the need for ongoing health monitoring with age. Empirical studies show that the older a person is, the more likely they are to utilize healthcare services, both for treatment and prevention (Januraga & Ked, 2024).

Education level is also an individual factor that significantly influences healthcare utilization. Individuals with higher levels of education generally have better health literacy, enabling them to understand medical information, recognize disease symptoms, and rationally assess the benefits of health services. Butarbutar et al. (2025) explain that education contributes to an individual's ability to make more informed health decisions, including decisions to utilize preventive health services. Conversely, low levels of education are often associated with limited health knowledge and low awareness of the importance of early disease detection.

Gender also has important implications for health service utilization. Various studies show that women tend to utilize health services more frequently than men. This difference is not only due to biological needs, such as reproductive health services, but also to psychosocial factors. Women are generally more open in expressing health complaints and more responsive to symptoms of disease, while men often delay seeking health services due to masculine norms and perceptions of physical fitness (Maryuni, 2024).

In addition to demographic characteristics, health knowledge and literacy are individual factors that significantly determine health service utilization behavior. Individuals with good levels of health literacy tend to be more active in utilizing promotive and preventive services, such as routine health checkups and immunizations. Conversely, limited knowledge about service procedures, the benefits of healthcare services, and the rights of service users is often a major

barrier to utilizing public healthcare services. This condition is often found in groups with low educational backgrounds and limited access to information.

An individual's perception of their own health condition also plays a significant role in determining healthcare utilization. In the Andersen Model, this factor is known as perceived need, which is an individual's subjective assessment of their need for healthcare services. Individuals who perceive themselves as healthy are less likely to utilize healthcare services, even if they are clinically at risk, while individuals who experience symptoms or have had previous illnesses are more motivated to seek healthcare services. This perceived need is often the primary driver of healthcare-seeking behavior, even stronger than objectively assessed medical need.

The Influence of Socioeconomic and Cultural Factors on Access and Utilization of Services

Socioeconomic and cultural factors have been shown to significantly influence access to and utilization of public health services. From a public health perspective, socioeconomic determinants such as income, employment, and social status influence the ability of individuals and households to access health services sustainably. Socioeconomic inequality is at the root of health disparities, with groups with lower socioeconomic status tending to have lower levels of health service utilization and worse health outcomes than more affluent groups (Butarbutar et al., 2025).

Income and employment status are key economic factors influencing health service utilization. Individuals with higher incomes have the financial capacity to cover the direct and indirect costs associated with health services, such as transportation, time, and other additional expenses. Conversely, low-income groups often face a dilemma between meeting basic daily needs and accessing health services. Even when health services are publicly provided or subsidized, indirect costs remain a significant barrier and contribute to low health service utilization among poor groups (Arifin et al., 2024).

Having health insurance is also an important determinant of health service utilization. Various studies show that individuals with financial protection through health insurance tend to utilize healthcare services more frequently than those without. Health insurance acts as an enabling factor that reduces economic barriers and increases individuals' sense of security in accessing healthcare services. Without adequate financial protection, people tend to delay or even avoid utilizing healthcare services until their health condition worsens.

In addition to economic factors, social and cultural aspects also shape patterns of healthcare utilization. Cultural values, social norms, and beliefs about health and illness influence how individuals interpret their health conditions and determine treatment options. In many communities, perceptions of illness and health are not solely biological but also influenced by social and cultural constructs (Sunarya & Ruswadi, 2024). As a result, some people prefer traditional or alternative medicine before seeking formal healthcare services.

Cultural factors are also closely related to the level of public trust in the healthcare system and healthcare professionals. Distrust of healthcare institutions, which can be triggered by poor service experiences, discrimination, or differences in cultural values, is often a major barrier to healthcare utilization. Conversely, a healthcare system that is sensitive to local cultural values

and able to build respectful relationships with the community tends to increase healthcare utilization and treatment adherence.

Social support from family and community also plays a significant role in influencing healthcare utilization. Individuals who receive emotional support, information, and encouragement from their social environment tend to be more motivated to utilize healthcare services. Conversely, social norms that normalize health neglect or stigmatize certain diseases can discourage individuals from seeking healthcare. Therefore, social and cultural factors not only influence individual decisions but also shape the social climate that determines healthcare utilization at the community level.

The Role of Health Care Systems and Quality

The health care system is a structural determinant that plays a crucial role in shaping public access to and utilization of health services. Within the public health framework, the health care system encompasses the availability of facilities, the distribution of health workers, financing mechanisms, and service governance that regulates interactions between the community and service providers. Abo et al. (2025) categorize health care system factors as enabling factors, which can facilitate or hinder individuals' access to health services, regardless of their medical needs.

The availability and distribution of health facilities are key factors in determining the level of health care utilization. People living in areas with adequate and easily accessible health facilities tend to have higher service utilization rates than those in remote or underserved areas. Geographical inequalities in the distribution of health facilities often lead to low service utilization, particularly among rural and underserved communities. Long distances, limited transportation, and long travel times are significant barriers that reduce public access to health services.

In addition to the availability of facilities, the quality of health services has a strong influence on people's decisions to utilize them. Service quality encompasses not only technical medical aspects but also non-medical dimensions such as healthcare worker attitudes, communication, empathy, and respect for patients. Public perception of service quality is a crucial component of healthcare access (Kadi et al., 2022). Friendly, responsive, and professional service tends to increase patient trust and satisfaction, ultimately encouraging repeat service utilization.

The competence and availability of healthcare workers also play a crucial role in determining the quality of healthcare services. Healthcare workers with adequate clinical skills, good communication skills, and an understanding of the patient's sociocultural context can improve service effectiveness and public trust. Conversely, a shortage of healthcare workers, high workloads, and low professional competence can reduce service quality and discourage people from utilizing healthcare services, even when facilities are physically available.

Administrative and organizational aspects of healthcare services also influence service utilization. Complicated service procedures, long waiting times, and inefficient referral systems are often sources of public dissatisfaction. These conditions can cause individuals to delay or even avoid using healthcare services, especially for preventive services deemed non-urgent. Conversely, a simple, transparent, and patient-centered service system can improve the convenience and accessibility of healthcare services.

Integration of primary healthcare services is also a crucial factor in an effective healthcare system. Strong primary healthcare services integrated with referral services contribute to improved continuity of care and the overall efficiency of the healthcare system. Siregar (2023) shows that healthcare systems with strong primary healthcare services tend to have more equitable service utilization rates and better public health outcomes. This confirms that strengthening the healthcare system, particularly at the primary level, is a key strategy for increasing public healthcare utilization.

Implications of Service Utilization on Community Health Outcomes

The utilization of public health services has significant implications for overall community health outcomes. High levels of health service utilization reflect the success of the health system in reaching the community and increasing access to promotive, preventive, curative, and rehabilitative services. Various studies have shown that communities with high levels of health service utilization tend to have more positive health indicators, such as lower morbidity and mortality rates, and an overall improved quality of life (Aziz et al., 2024).

One key implication of high health service utilization is the increased effectiveness of disease prevention efforts. The utilization of preventive services, such as immunizations, health screenings, and maternal and child health services, directly contributes to a reduction in the prevalence of preventable diseases. Health systems with high levels of primary care utilization are able to reduce the burden of disease and prevent health complications at the community level (Fajriana et al., 2025). Thus, health service utilization serves not only as a response to disease but also as a crucial strategy in maintaining population health.

Beyond disease prevention, optimal health service utilization has implications for improving chronic disease management at the community level. Individuals who regularly utilize healthcare services are more likely to receive earlier diagnosis, appropriate treatment, and ongoing health monitoring. This impacts the control of chronic diseases such as diabetes, hypertension, and heart disease, which are major causes of morbidity and mortality in many countries. Effective disease management at the individual level cumulatively improves overall community health outcomes.

Healthcare utilization also contributes to increased health equity within a community. When healthcare services are utilized equitably by various social groups, health disparities between groups can be reduced. Conversely, low healthcare utilization among certain groups, such as low-income or marginalized communities, has the potential to widen health disparities. Therefore, healthcare utilization serves as an important indicator in assessing the fairness and inclusiveness of a public health system (Prasetya, 2025).

The implications of healthcare utilization extend beyond physical health to impact the social and economic well-being of a community. Communities with better health tend to have higher economic productivity, lower levels of work absence, and a better quality of life. Furthermore, optimal utilization of health services can reduce long-term healthcare costs by preventing serious illnesses and complications requiring intensive care. Therefore, investing in improving health service utilization provides significant socioeconomic benefits to communities.

Discussion

Public health service utilization is influenced by a complex interaction between individual factors, socioeconomic and cultural factors, and the health care system and quality. This finding aligns with Andersen's Health Service Utilization Behavior Model, which positions service utilization behavior as the result of the interplay between predisposing factors, enabling factors, and need factors. Thus, health service utilization cannot be understood as a purely individual decision, but as a social phenomenon influenced by broader structures and contexts.

Individual factors play a significant role in shaping people's initial inclination to utilize health services. Demographic characteristics, education level, health literacy, and individual perceptions of their health have been shown to influence decisions about seeking health services. Individuals with good health literacy tend to utilize health services more actively, particularly promotive and preventive services. Conversely, limited knowledge and low awareness of health risks often lead to delays in service utilization, ultimately increasing the risk of complications and the burden of disease at the community level.

Socioeconomic and cultural factors also significantly influence access to and utilization of health services. Income inequality and limited financial protection limit the ability of low-income groups to consistently access health services. Even when public healthcare services are available, indirect costs such as transportation and lost work time remain major barriers. Furthermore, cultural values, social norms, and beliefs about specific treatments influence how people interpret illnesses and determine treatment options, thus directly impacting the utilization of formal healthcare services.

In the context of the healthcare system, the study confirms that the availability of facilities, service quality, and the competence of healthcare workers are important factors influencing public trust and satisfaction. Responsive, friendly, and professional healthcare services encourage people to utilize healthcare services consistently. Conversely, poor service experiences, complicated administrative procedures, and long waiting times can discourage people from accessing healthcare services, even when medical needs are high. This suggests that increasing physical access without improving service quality does not necessarily increase healthcare utilization.

The study also demonstrates that a strong healthcare system, particularly at the primary healthcare level, plays a strategic role in increasing service utilization and improving community health outcomes. Integrated primary healthcare services enable early disease detection, ongoing health monitoring, and more effective management of chronic diseases. In this context, healthcare utilization serves as a crucial mechanism connecting individuals to the healthcare system and enabling timely health interventions.

The implications of healthcare utilization for community health outcomes are evident in the relationship between utilization rates and public health indicators. High utilization of preventive and promotive healthcare services is associated with a reduced burden of preventable diseases and improved public health status. Conversely, low utilization of healthcare services contributes to delayed diagnosis, increased prevalence of chronic diseases, and health disparities between social groups. These findings demonstrate that healthcare utilization is a critical factor in determining the overall quality of community health.

Conclusion

Utilization of public health services is a multidimensional phenomenon influenced by the close interaction of individual, socioeconomic, and cultural factors, as well as the health care system and quality, which collectively impact community health outcomes. Individual factors, such as demographic characteristics, education level, health literacy, and perceptions of health needs, serve as initial triggers in shaping health care-seeking behavior. However, these individual decisions do not stand alone but are strongly influenced by socioeconomic conditions, including income level, employment status, and health insurance coverage, which determine a community's ability to access health care services sustainably. Furthermore, cultural values, social norms, and levels of trust in the health care system shape how people interpret illness and determine treatment options, thus directly influencing the utilization of formal health services. From a structural perspective, the health care system and quality have been shown to be crucial factors that can strengthen or weaken health care utilization, with the availability of facilities, equitable distribution of health workers, service quality, and the efficiency of the administrative system influencing levels of public trust and satisfaction. High utilization of health services, particularly promotive and preventive services, correlates with improvements in community health indicators, such as a reduction in the burden of preventable diseases, improved management of chronic diseases, and improved quality of life. Conversely, low utilization of health services contributes to delayed disease treatment and increased health disparities between social groups. Therefore, improving community health outcomes requires a comprehensive and integrated approach, focusing not only on the provision of health facilities but also on individual empowerment, reducing socioeconomic disparities, culturally sensitive approaches to care, and continuously strengthening the health care system and quality

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