

## The Role of Community Empowerment in Efforts to Prevent Non-Communicable Diseases (NCDs): A Literature Review

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### ABSTRACT

The increasing prevalence of non-communicable diseases (NCDs) such as diabetes, hypertension and cardiovascular disease is a major public health challenge in Indonesia. Community empowerment through health promotion by providing education to increase knowledge has become a strategy to support the prevention and control of NCDs independently by the community. This research applies the Systematic Literature Review (SLR) method to assess the role of community empowerment in increasing awareness of non-communicable diseases (NCDs). The SLR method was chosen because it is capable of identifying, researching and compiling a synthesis of relevant evidence obtained from previous research. Research results show that community empowerment has a positive impact, especially in increasing awareness, interest and attention to the importance of health information. With growing awareness, communities are becoming more active in taking preventive measures, making this empowerment an important foundation in building healthier and more resilient communities.

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## INTRODUCTION

Currently, Indonesia has experienced a disease transition that results in a double burden of disease problems. The occurrence of demographic transitions and epidemiological transitions results in disease transitions which are part of the health transition problem. The double burden occurs because the problem of non-communicable diseases is still a problem while the trend of diseases has shifted towards Non-Communicable Diseases (NCDs) such as diabetes mellitus, stroke, heart and cancer (Roosihermatie Betty et al., 2023).

Non-communicable diseases (NCDs) killed at least 43 million people in 2021, equivalent to 75% of non-pandemic-related deaths globally. In 2021, 18 million people died from NCDs before the age of 70; 82% of these premature deaths occur in low- and middle-income countries. Of all deaths due to NCDs, 73% occur in low- and middle-income countries. Cardiovascular disease accounted for the majority of deaths from NCDs, or at least 19 million deaths in 2021, followed by cancer (10 million), chronic respiratory diseases (4 million), and diabetes (more than 2 million including deaths from kidney disease caused by diabetes). These four disease groups account for 80% of all premature deaths due to NCDs. Tobacco use, lack of physical activity, alcohol abuse, unhealthy diets and air pollution all increase the risk of death from NCDs. Detection, screening, and treatment of NCDs, as well as palliative care, are key components of the response to NCDs (WHO, 2024).

The results of Basic Health Research (Riskesdas) in 2018 showed an increase in the prevalence of NCDs when compared to Riskesdas 2013, NCDs that experienced an increase in cancer, stroke, chronic kidney disease, diabetes mellitus, and hypertension. Cancer prevalence rose from 1.4% to 1.8%, stroke prevalence rose from 7% to 10.9% and chronic kidney disease rose from 2% to 3.8%. Based on blood sugar tests, diabetes mellitus rose from 6.9% to 8.5% and blood pressure measurements, hypertension rose from 25.8% to 34.1% (MINISTRY OF HEALTH OF THE REPUBLIC OF INDONESIA, 2023).

Most Non-Communicable Diseases (NCDs) are triggered by factors that can actually be prevented and changed. The World Health Organization has set targets to reduce the number of NCDs by controlling behavioral risk factors, such as alcohol, tobacco consumption, salt, as well as lack of physical activity, and metabolic risk factors, such as obesity and high blood pressure. In Indonesia, the government designed a program through the National Action Plan for NCD control that focuses on reducing the consumption of salt, sugar, fat, alcohol, and tobacco, as well as increasing physical activity and adequate rest. Based on global guidelines and national policies, the control of modifiable risk factors and physiological factors is an important element in efforts to prevent NCDs.

Previous research has shown that a predictive, preventive, and personalized approach (PPPM) can be a solution to overcome Non-Communicable Diseases (NCDs). PPPM is a new integrative concept in healthcare that allows predicting a person's risk of a disease before symptoms appear, providing focused preventive interventions, and developing customized treatment algorithms for NCD patients. To support the prediction of NCDs, the development of effective treatment algorithms, early diagnosis, risk assessment, and innovations in screening are needed. Prevention efforts begin with increased public health education, targeted complication prevention, and efficient treatment management (Universitas Airlangga, 2024).

Community empowerment strategies are expected to play an important role in efforts to prevent Non-Communicable Diseases. Community empowerment involves various deliberation-based facilitation efforts to improve people's knowledge and skills, so that they are able to recognize the problems they face, identify the existing potential, and plan and solve these problems by utilizing available local resources. Community empowerment can also be understood as a process that aims to build individuals or communities through capacity building, behavior change, and sustainable community organizing.

## METHOD

This study applies the Systematic Literature Review (SLR) method to assess the role of community empowerment in increasing awareness of non-communicable diseases (NCDs). The SLR method was chosen because it is able to identify, evaluate, and synthesize from relevant evidence obtained from previous research. Through a review of the available literature, this study aims to provide a comprehensive overview of the effectiveness and various approaches used in community empowerment as a preventive effort related to Non-Communicable Diseases (NCDs). The main focus of the research includes the analysis of various community empowerment interventions, factors that affect the level of community awareness, and challenges and opportunities in the implementation of community empowerment strategies.

The literature search is carried out through an electronic platform that provides scientific articles, national journals, and international journals published in the period from 2020 to 2025. The article selection process is carried out in stages, starting with screening by title and abstract to identify relevant articles. After that, the selected articles are evaluated in depth to ensure relevance and quality in accordance with the research criteria.

## RESULT AND DISCUSSION

**Table 1.** Results of Literature Review

Researchers	Article Title	Research Methods	Findings
Agraini, Fitriana, E., Saquro, A., & Karwiti, W. (2025).	Community Empowerment in Heart Disease Risk Control in Penyengat Olak Village, Muaro Jambi Regency	Community service	Good cooperation between the Penyengat Olak Health Center, resource persons, and posyandu cadres is the key to the success of this activity in increasing public health awareness
Nasruddin, N. I., Jamaluddin, J., Fitriani, F., Saida, S., Arimaswati, A., Asmarani, A., ... & Azis, A. A. Y. K.	Community Empowerment Through Early Detection and Integrated Education Programs: Community-	This community service activity is carried out in the form of health social service.	The results showed significant findings with 60% of participants identified hypertension and a remarkable improvement in health understanding, of which 86.7% of participants

(2025).	Based Hypertension Prevention Efforts in Labibia Village, Kendari City		demonstrated an increase in knowledge about hypertension management. The program offers an effective and replicable model of public health intervention for community-based hypertension prevention
Vilasari, D., Ode, A. N., Sahilla, R., Febriani, N., & Purba, S. H. (2024).	The role of health promotion in increasing public awareness of non-communicable diseases (NCDs): A literature study	Literature review study method (SLR)	The results of this study reveal the importance of maintaining momentum in the implementation of health promotion programs and strengthening cross-sector collaboration. Practical recommendations include improving health service accessibility, optimizing the use of information technology in health campaigns, and actively engaging the community in program planning and implementation.
Amaludin, M., Safitri, D., Arisandi, D., Hidayat, U. R., Akbar, A., Alfikrie, F., ... & Nurannisa, N. (2024).	Community Empowerment in Efforts to Prevent Non-Communicable Diseases (NCDs) in Temajuk Village, Paloh District, Sambas Regency	Community Service (demonstrations and simulations)	The results of community service were obtained that there was an increase in knowledge and skills. After being given education, most of the people's knowledge became high (73.33%). After demonstrations and simulations, most of the people's skills became high (70%). Providing education and demonstrations can increase knowledge and skills can be one of the efforts to prevent NCDs.
Arifianty, A. S., Nurcartenzia, R., Ahmad, G. A., Pratama, D. D., Putri, K. P., Amirah, A. S., ... & Setyawan, H. (2025).	Screening and Education of Non-Communicable Diseases in Marangan Hamlet, Jimbung Village, Kalikotes District, Klaten Regency	KKN service method	The results of the analysis of respondents' pre-test and post-test scores in screening and PTM education activities showed a significant increase in knowledge. The results show that education and screening activities are effective in increasing public understanding of NCDs and their prevention efforts, as well as making a positive contribution to public health, especially in Marangan Hamlet.
Cini, K. I., Wulan, N. R., Dumuid, D., Triputri, A. N., Abbsar, I., Li, L., Priambodo, D. A., Sameve, G. E., Camellia, A., Francis, K. L., Sawyer, S. M., Patton, G. C., Ansariadi, A., & Azzopardi, P. S.	Towards responsive policy and actions to address non-communicable disease risks amongst adolescents in Indonesia: insights from key stakeholders	Qualitative in-depth interviews through conferences. Participants include policymakers, implementation partners, and advocates who focus on <a href="#">Adolescent Health</a> or PTM	For programs or initiatives focused on adolescent health, programs or initiatives that involve adolescents as co-creators and leaders are considered more successful. Therefore, participants recommended more meaningful youth involvement, including youth leadership in initiatives.

(2023)

Pratama, Y. Y., Salsabila, C. R., Rodiyah, A., Haqiqi, H. A. R., Juniartin, I. T., Fatmala, A., Maulana, R., Defani, R., & Apriliani, R. D. (2025)	Empowerment and improvement of the quality of life of the people of Ketos, Sriharjo, Imogiri, Bantul, Yogyakarta	The counseling program was carried out by the Real Work Lecture (KKN) group	Based on the results of the evaluation, it was found that this program was effective in increasing public awareness about NCDs. Respondents reported positive changes in daily habits, such as exercising regularly, regulating diet, and checking their health regularly.
Dosinaeng, A. W., Mangonto, Y. I., Pibino, D., Romantir, R., & Itlay, L. (2025)	Implementation of Integrated Guidance Post for Non-Communicable Diseases in the Working Area of the Harapan Health Center, Jayapura Regency, Papua	Qualitative approach with phenomenological methods	In conclusion, although the Posbindu program has been operating since 2018 and adheres to the Minimum Service Standards (SPM) introduced in 2019, a greater emphasis on prevention education and increased community involvement is essential to reduce the prevalence of NCDs.
Nisak, R., Sa'adah, H. D., & Prawoto, E. (2022)	Community Empowerment Efforts in Non-Communicable Disease Control (NCDs) through Posbindu-PTM in Watukaras Hamlet, Jenggrik Village, Working Area, Upt Puskesmas, Gemarang Regency, Ngawi Regency	Community service	Posbindu-PTM activities are effective activities to control the incidence of NCDs, so there needs to be support from various parties, both health centers, village governments, health cadres and community members themselves.
Minanga, A. natalia, & Kristamuliana, K. (2022)	Community Empowerment in Efforts to Prevent and Handle Non-Communicable Diseases (NCDs) with the Utilization of Family Medicinal Plants (TOGA)	Community Service (Pengabmas)	The results of observation during the activity showed enthusiasm for the topic of counseling both given to participants in non-communicable diseases and to Posbindu cadres. Participants' knowledge increased and great interest in utilizing TOGA was also obtained from participants' statements in the evaluation session.

The results of the literature review show that community empowerment has an effective influence on the prevention of non-communicable diseases (NCDs). These findings are in line with the principles of community empowerment which aim to improve the ability of individuals and communities to reduce health risks, reduce vulnerability levels, and strengthen their capacity to face and overcome health crises.

According to Law Number 36 of 2009 concerning Health, the community plays an important role in efforts to develop national health. Here are some relevant aspects that support the effectiveness of community empowerment in the prevention of NCDs (Center for Health Crisis Management, Ministry of Health of the Republic of Indonesia, 2015):

### **Great Community Contribution in Health Development**

Studies show that 70% of national development resources come from community contributions or participation. This emphasizes that the community is a key component that must be empowered to support the health system, including in the prevention of NCDs.

### **The Value of Gotong Royong as the Foundation of Empowerment**

Community empowerment is rooted in the culture of mutual cooperation which is a characteristic of Indonesian society. Through this approach, communities can work together to identify health problems, design solutions, and implement preventive measures collectively, thereby increasing the effectiveness of NCD prevention programs.

### **Behavior Change as the Key Solution**

Health problems are often rooted in people's behavior, such as poor eating habits, lack of physical activity, and smoking. By increasing knowledge through health education, people can change their behavior to be healthier. Government guidance in this regard is very important to provide direction and ensure consistency of behavior change.

### **Utilization of Local Potential for Health Improvement**

The community has various potentials that can be optimized, such as local leadership, community organization, traditional knowledge, and local technology. By integrating this potential into health programs, NCD prevention efforts can be carried out effectively, relevantly, and sustainably according to local needs.

### **Prevention Effectiveness Over Treatment**

Efforts to prevent NCDs are more efficient than treatment, both in terms of cost and impact on public health. Through empowerment, people can practice clean and healthy living behaviors (PHBS), which have been proven to be able to reduce the risk of NCDs such as diabetes, hypertension, and cardiovascular diseases.

### **Limited Government Resources**

The government has limitations in dealing with complex health problems. Therefore, active community participation is a solution to fill this void. With support from the government, the community can become a strategic partner in NCD prevention through community-based programs.

Research conducted by Vilasari et al., 2024 found that with various promotional strategies such as direct counseling, social media, and banner installation have proven to be effective. Health promotion programs increase public knowledge and participation in the prevention of NCDs, especially through cadre training and health education. Posbindu Elderly plays a significant role in improving the quality of life of the elderly and their participation in community health programs.

The results of research conducted by Minanga, A., Natalia, & Kristamuliana, K. (2022) show that community empowerment through health counseling has a positive impact, both on participants suffering from non-communicable diseases (NCDs) and posbindu cadres. During the observation of the activity, the participants showed high enthusiasm for the topic of counseling. This enthusiasm reflects their interest and concern for the importance of the health information provided. In addition, the observation results also showed an increase in participants' knowledge after participating in counseling. This increase in knowledge is an indicator that the information conveyed can be understood and relevant to the needs of the participants. Increased knowledge plays an important role in encouraging participants to adopt better NCD prevention measures.

### **CONCLUSION**

Community empowerment through knowledge improvement is the main strategy in the prevention of non-communicable diseases (NCDs). This approach is effective and sustainable because it leverages cultural values, local potential, and active community participation. Support from the government in the form of policies and assistance is urgently needed to ensure that the empowerment program runs optimally, so that it can reduce the burden on public health and support the achievement of national health development goals.

Community empowerment has a positive impact, especially in increasing awareness, interest, and attention to the importance of health information. With growing awareness, the community has become more active in taking preventive measures, making this empowerment an important foundation in building a healthier and more resilient community.

## SUGGESTION

Community empowerment programs need to further integrate local potential, such as cultural wisdom and the use of local natural resources, to encourage active community participation in efforts to prevent NCDs. The government must develop policies that strengthen community empowerment, including budget allocation for health cadre training, facility development, and other supporting programs. Collaboration between governments, community organizations, the private sector, and academia needs to be strengthened to support the implementation of broader and sustainable empowerment programs.

## LIMITATIONS

This literature study relies on secondary data obtained from various previous studies, which can result in a lack of empirical data that directly describes the effectiveness of community empowerment programs in certain contexts or regions. The main focus of the study is short-term outcomes, such as increased public awareness, interest, and attention to health information. However, the long-term impact of empowerment in reducing the prevalence of non-communicable diseases (NCDs) has not been described. In addition, the lack of data on community-based monitoring and evaluation mechanisms makes it difficult to measure the effectiveness of empowerment programs in preventing NCDs as a whole.

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