



## Free Medical Treatment and Early Health Detection for Residents of RT 16, Sendang Mulyo Village, Semarang

Nana Noviada Kwartawaty<sup>1\*</sup>, Albertus Setyo Sumargo<sup>2</sup>, Swanny Trikajanti Widyatmadja<sup>3</sup>

Universitas Telogorejo Semarang

**Corresponding Author:** Nana Noviada Kwartawaty

[nana\\_noviada@universitastelogorejo.ac.id](mailto:nana_noviada@universitastelogorejo.ac.id)

### ARTICLE INFO

*Kata Kunci:* Community Service, Primary Healthcare, Early Detection, Random Blood Glucose, Eye Examination

*Received :* 5 February 2026

*Revised :* 19 March 2026

*Accepted:* 21 April 2026

©2026 Kwartawaty, Sumargo, Widyatmadja: This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



### ABSTRAK

Limited access to basic healthcare services remains a significant issue in densely populated urban areas, especially among residents with low participation in routine health screenings. This community service program aimed to improve healthcare access, promote early disease detection, and increase public awareness of healthy lifestyles. Conducted on November 16, 2025, in RT 16, Sendang Mulyo Village, Semarang, the program provided free medical services, including blood pressure and random blood glucose checks, eye examinations, medication distribution, and health education. The program involved a multidisciplinary team of general practitioners, an ophthalmologist, nurses, pharmacists, health educators, and university lecturers. A total of 141 residents participated. The most common health issues identified were hypertension, myalgia, acute respiratory infections, osteoarthritis, vertigo, neuropathy, diabetes mellitus, and eye disorders. Screening results showed that 8 residents had elevated blood glucose levels, while 3 required referrals for further eye treatment due to refractive errors or cataracts. Overall, the program demonstrated that community-based healthcare initiatives effectively improve access, support early diagnosis, and enhance public health awareness through collaborative engagement

## **INTRODUCTION**

Health is a basic need that must be accessible to all levels of society. However, in practice, there are still groups of people who have not received optimal health services, especially in urban areas with high population density. These access barriers are not only related to financing but also to time constraints, low habits of regular check-ups, and limited preventive health education. This condition causes many health problems to be identified only after they have reached a more severe stage.

Non-communicable diseases such as hypertension and diabetes mellitus remain major health issues at the community level. These two diseases often develop without clear early symptoms, making early detection through simple examinations very important. In addition, eye health disorders such as refractive errors, cataracts, and dry eye are also often under-detected, even though they can affect quality of life, productivity, and community independence. Therefore, community-based healthcare services that combine treatment, screening, and education have strategic value in promotive and preventive efforts.

RT 16 Sendang Mulyo Subdistrict, Semarang, is one of the areas that shows a need for closer and more accessible basic health services. Based on initial observations, some residents have not routinely checked their blood pressure, blood sugar, or eye health. In addition, education on healthy lifestyles, prevention of chronic diseases, and the importance of regular check-ups also still needs to be strengthened. This situation drives the need for direct intervention in the form of community service activities that are practical and have a real impact.

As part of the implementation of the Tri Dharma of Higher Education, Telogorejo University Semarang, in collaboration with Telogorejo Peduli, Telogorejo Hospital, and Puri Waras Pharmacy, organized a free medical treatment and early health detection activity for residents of RT 16 Sendang Mulyo Village. This activity is aimed not only at providing temporary medical services but also at improving public health literacy, strengthening early detection, and building sustainable cross-sector collaboration patterns. The basic manuscript of this activity is sourced from the attached article.

Based on this background, the purpose of this activity is to improve community access to basic health services, to early identify health problems experienced by residents, and to provide preventive and promotive health education through a community-based health service approach.

## **IMPLEMENTATION AND METHOD**

### **Activity Design**

This activity is a community service program with a direct community health service approach. The activity design is descriptive-participatory, focusing on providing basic health services, early detection of health problems, health education, and documentation of activity results. This approach is chosen because it is suitable for addressing community health needs practically while also generating field data that can be used as material for evaluating further activities.

### **Location and Time of Implementation**

The activity was carried out on Sunday, November 16, 2025, from 09:00 to 12:00 WIB, at RT 16, Sendang Mulyo Subdistrict, Semarang. The location was chosen based on the community's need for easily accessible health services in their residential area.

### **Activity Targets**

The target of the activity is all residents of RT 16 Sendang Mulyo Village without age restrictions. This inclusive approach is used so that the activity can reach the community widely, both residents who come for general health check-ups and those who need health consultations and eye examinations.

### **Implementation Team**

The implementation of activities involves a multidisciplinary team consisting of:

- 3 general practitioners
- 1 ophthalmologist
- 40 nurses
- 5 pharmacy staff
- 2 Telogorejo Peduli counselors
- 5 lecturers from Telogorejo University Semarang

The involvement of various health professional and academic elements is intended to ensure that the services provided are comprehensive, ranging from screening, clinical examinations, health education, to the administration of medication and follow-up recommendations.

### **Implementation Procedure**

The activities are carried out through several stages. First, participants register as a basis for recording the number of residents taking part in the activities. Second, residents undergo an initial examination consisting of blood pressure measurement and random blood sugar test. Third, participants receive a general practitioner examination to identify complaints, establish an initial diagnosis, and determine therapy needs.

Fourth, participants with vision complaints or requiring further examination undergo an eye examination by an ophthalmologist. Fifth, participants receive medication according to the examination results through the pharmacy service. Sixth, the team provides health education related to a healthy lifestyle, prevention of chronic diseases, prevention of infectious diseases, and the importance of regular health check-ups. The final stage is documentation and evaluation of the activity results.

### **Data Collection and Analysis**

Activity data were collected from participant registration results, records of the types of services provided, findings from general health examinations, results of random blood sugar tests, eye examination results, as well as health education documentation. The data were then analyzed descriptively, presenting the

number of participants, the distribution of types of health findings, and the achievement of health services during the activities. Descriptive analysis was used to describe the effectiveness of activity implementation and the health needs of the community identified in the field.

## **RESULTS AND DISCUSSION**

### **Characteristics of Activity Achievements**

This community service activity was attended by 141 residents of RT 16, Sendang Mulyo Village. This number shows the high enthusiasm of the community for free healthcare services and indicates that the need for community-based health services is still quite significant. The presence of a large number of residents reflects that healthcare services which are nearby, easily accessible, and provided directly in the residential area have a strong appeal to the community.

Table 1. Summary of Activity Implementation

<b>Component</b>	<b>Description</b>
Activity name	Free Treatment and Early Health Detection
Location	RT 16 Kelurahan Sendang Mulyo, Semarang
Time	16 November 2025, at 09.00 -12.00 WIB
Target	All residents of RT 16
Number of participants	141 citizen
Form of service	Registration, initial examination, general practitioner examination, eye examination, medication administration, health counseling
Activity partner	Telogorejo University Semarang, Telogorejo Cares, Telogorejo Hospital, Puri Waras Pharmacy

### **General Health Examination Findings**

The results of the general health examination showed that the most commonly found complaints and diagnoses were hypertension, myalgia, acute respiratory tract infections, osteoarthritis, vertigo, neuropathy, and diabetes mellitus. This pattern indicates that residents' health problems are not only related to minor acute illnesses, but also to chronic and degenerative diseases that require ongoing attention.

Table 2. General Health Examination Findings

No	Type of Findings	Number of Cases
1	Hipertensi	19
2	Myalgia	13
3	ISPA	11
4	Osteoarthritis	8
5	Vertigo	7
6	Neuropati	6
7	Diabetes Mellitus	6

The finding of hypertension as the most common case emphasizes the importance of blood pressure screening in community service activities. Hypertension often does not cause symptoms in the early stages, so residents only become aware of their condition after undergoing an examination. The same also applies to diabetes mellitus, which in this activity was found both through general diagnosis and the results of random blood sugar screening.

#### Random Blood Sugar Screening Result

Random blood sugar testing found 8 residents with high blood sugar levels. This finding is important because it can be an early indicator of the risk of diabetes or poor glycemic control. Simple screenings like this are very helpful in identifying residents who require further education, lifestyle changes, or further examination at health facilities.

Table 3. Results of Random Blood Glucose Screening

Component	Result
Number of residents with high blood sugar	8 people
Recommended follow-up	Education, regular monitoring, follow-up examination

These results show that community-based activities can function as an entry point for early detection of non-communicable diseases. On the other hand, the results also indicate the need for program continuity so that residents who have been identified receive regular health monitoring.

#### Eye Examination Results

An eye examination by a specialist doctor showed that there were 3 residents who required further referral due to refractive disorders or cataracts. In addition, several residents also showed complaints of dry eye, presbyopia, and other refractive abnormalities. These findings emphasize that eye examinations are an important component of public health services, as vision problems often develop slowly and are not immediately noticed by the patients.

Table 4. Eye Examination Results

Component	Result
Residents who require further referral	3 orang
Key findings	Refractive disorders, cataracts
Keluhan lain Other complaints	Dry eye, presbyopia, other refractive disorders

Eye health services in this activity provide double benefits, namely helping to recognize vision disorders early and encouraging residents to promptly receive more appropriate treatment at referral facilities.

### Health Education and the Impact of Activities

Health counseling is provided to residents as an important part of the activities. The material presented includes healthy lifestyle, chronic disease management, prevention of infectious diseases, and the importance of regular health check-ups. This education is intended to transform activities from merely temporary medical services into a process of community empowerment so that people are more aware of their own and their family's health.

In general, this activity produces several positive impacts. Residents become more aware of their health conditions, increase their awareness of the importance of early detection, and receive initial guidance for health follow-up. This activity also strengthens the relationship between educational institutions, hospitals, social institutions, and the community in a concrete collaborative service model.

Table 5. Impact of Community Service Activities

No	Impact of Activities	Description
1	Improvement of access to health services	Residents receive healthcare services for free and close to their homes
2	Deteksi dini masalah kesehatan Early detection of health problems	Cases of hypertension, diabetes, and eye disorders were found
3	Increasing health awareness	Residents receive education about healthy living and routine check-ups
4	Health follow-up	Residents in need are directed for further examination
5	Strengthening collaboration	A collaboration is formed between universities, hospitals, social institutions, and the community

Overall, the results of this activity show that community-based health service models are highly relevant for directly addressing public health needs. The success of the activity is not only demonstrated by the high number of participants, but also by the health findings that were successfully identified and the educational benefits gained by the residents.

## CONCLUSION AND RECOMMENDATIONS

Free medical treatment activities and early health detection for the residents of RT 16 Sendang Mulyo Village, Semarang, were successfully carried out and showed real benefits for the community. This program was able to increase residents' access to basic health services, identify health problems early, and strengthen the community's understanding of the importance of healthy living habits and regular health check-ups.

The findings of cases of hypertension, diabetes mellitus, and eye disorders indicate that the need for health screening at the community level is still quite high. The implementation of this activity also proves that collaboration between universities, hospitals, healthcare workers, and social institutions can produce an effective, responsive, and applicable model of community service.

For future development, similar activities need to be carried out periodically with the strengthening of the referral system, more systematic health recording, and follow-up post-activity education. In this way, community service activities will not only stop at temporary service, but can contribute more sustainably to the improvement of public health.

## REFERENCES

- Ali, M. A., Tesfaye, Y. A., Hussen, M. S., & Mulugeta, H. (2025). Community-based type 2 diabetes screening programmes in low-income and middle-income countries: A scoping review. *BMJ Open*, 15(6), e090787.
- Abebe, M. G., Mulugeta, D. D., Kassa, T., & Endris, B. S. (2024). Prevalence and associated factors of refractive error among adults in Hawassa City, South Ethiopia: A community-based cross-sectional study. *PLOS ONE*, 19(3), e0298960.
- Fritz, M., Heller, O., Geldsetzer, P., et al. (2024). Effectiveness of community-based diabetes and hypertension prevention and management programmes: An umbrella review. *BMJ Global Health*, 9(5), e015053.
- Kementerian Kesehatan Republik Indonesia. (2024). *Profil Kesehatan Indonesia 2023*. Jakarta: Kemenkes RI.
- Kementerian Kesehatan Republik Indonesia. (2025). *Data skrining penyakit tidak menular dan pemeriksaan kesehatan masyarakat*. Jakarta: Kemenkes RI.
- Mashuri, Y. A., Widyaningsih, V., Premanawasti, A., Koot, J., Pardoel, Z., Landsman-Dijkstra, J., et al. (2024). Differences in knowledge, attitude, and practice regarding hypertension by access to a community-based screening program (POSBINDU): A cross-sectional study from four districts in Indonesia. *PLOS ONE*, 19(5), e0303503.
- World Health Organization. (2024). *Monitoring progress on universal health coverage and the health-related Sustainable Development Goals in the South-East Asia Region: 2024 update*. Geneva: WHO.

World Health Organization. (2025). Hypertension. Geneva: WHO.

World Health Organization. (2025). Noncommunicable diseases. Geneva: WHO.

World Health Organization. (2026). Blindness and vision impairment. Geneva: WHO.