International Journal of Advanced Health Science and Technology
Multidisciplinary: Rapid Review: Open Access Journal e-ISSN:2808-6422; p-ISSN:2829-3037

COMMUNITY SERVICE ARTICLE OPEN ACCESS

Manuscript received April 10, 2025; revised May 20, 2025; accepted June 2, 2025; date of publication June 20, 2025
Digital Object Identifier (DOI): https://doi.org/10.35882/ficse.v4i2.98

How to cite: Retno Sasongkowati, Juliana Christyaningsih, Tonny Watoyani, Suliati, Anita Dwi Anggraini, Museyaro6, Deddy Adam, Sugihani, Muhammad Kuswanto, Anang Makruf, Erlita Puspitasari, Iid Dani Trisnania, M. Zakarahman, Novi Ersanto, Liya Rusmania, Faishol Haqqi, Samsul Safrudin, Dian Isnaini, Fisari Saktiyani, Elly Kristiningsih, Devy Novita and Sabira Alvayogi Briansky." Blood Glucose Testing on Blood Donors and Geriatrics in The Area of Mosque Al-Akbar Surabaya", Frontiers in Community Service and Empowerment, vol. 4, no. 2, pp. 25-30. Juni 2025.

# Blood Glucose Testing on Blood Donors and Geriatrics in The Area of Mosque Al-Akbar Surabaya

**Retno Sasongkowati[1], Juliana Christyaningsih[1], Tonny Watoyani[1], Suliati[1], Anita Dwi Anggraini[1], Museyaro[1], Deddy Adam[2], Sugihani[4], Muhammad Kuswanto[9], Anang Makruf[3], Erlita Puspitasari[5], Iid Dani Trisnania[7], M. Zakarahman[3], Novi Ersanto[5], Liya Rusmania[8], Faishol Haqqi[9], Samsul Safrudin[3], Dian Isnaini[3], Fisari Saktiyani[10], Elly Kristiningsih[4], Devy Novita[5] and Sabira Alvayogi Briansky[1]**

[1] Department of Laboratory Technology, Health Polytechnic, Ministry of Health, Surabaya, Indonesia
[2] Department of Environmental Health, Health Polytechnic, Ministry of Health, Surabaya, Indonesia
[3] RSUD Haji Provinsi Jawa Timur, Surabaya, Indonesia
[4] Laboratorium Klinik Pramita, Surabaya, Indonesia
[5] RSUD Dr Soetomo Surabaya, Indonesia
[6] RSPAL Dr Ramelan Surabaya, Indonesia
[7] Rumah Sakit S Mitra Keluarga, Indonesia
[8] Puskesmas Putat Jaya, Surabaya, Indonesia
[9] Rumah Sakit Jiwa Menur, Surabaya, Indonesia
[10] Rumah Sakit Nasional Hospital, Surabaya, Indonesia

Corresponding author: Museyaroh (museyaroh21@gmail.com )

**ABSTRACT** The Indonesian Red Cross (IRC) is a humanitarian organization that plays an important role in providing assistance to the community, particularly in the fields of health, disaster response, and blood donation services. The volunteer team from Health Polytechnic, Ministry of Health, Surabaya, in collaboration with members of the Indonesian Association of Medical Laboratory Technologists Surabaya city and IRC Surabaya city, conducted free blood glucose level tests for prospective donors and the elderly (geriatric) in Al-Akbar Mosque Surabaya. This examination aims to detect potential health issues early, especially diabetes, which often poses challenges for blood donors and the elderly. Blood donors tend to neglect their health conditions due to the donation routine, so this examination ensures that they remain in optimal condition. Meanwhile, the elderly have a high risk of diabetes, which can affect their quality of life. The strategic location at Al-Akbar Mosque Surabaya facilitates access for the community who are far from the IRC Surabaya city office. The success of this activity is supported by various factors, including the involvement of professional health organizations such as the branch Surabaya City of Indonesian Association of Medical Laboratory Technologists, the support of health infrastructure from IRC Surabaya city, and the active participation of the community and volunteers. The respondents of the community service activity numbered 88 people, conducted on March 15 and 17, 2025, consisting of 59% men and 41% women, with an age range of 20-80 years and the majority of respondents aged 41-60 years (56.8%). From the examination results, it was found that 21% of male respondents and 13.9% of female respondents suffer from diabetes mellitus (DM), thus requiring medical follow-up and lifestyle changes. This activity is expected to raise public awareness about the importance of early diabetes detection and encourage a sustainable healthy lifestyle to prevent serious complications in the future.

**INDEX TERMS** : Glucose Test, Blood donor, elderly.

## I. INTRODUCTION

The Indonesian Red Cross (IRC) Surabaya city is a humanitarian organization that plays a role in providing assistance to the community, particularly in the fields of health, disaster emergency response, and blood donation services [1] [2]. As an independent and neutral organization, IRC has main tasks such as providing safe and quality blood, disaster response, and health services for those in need. IRC has a vast network of volunteers throughout Indonesia and continues to contribute to humanitarian actions to help disaster victims, provide health education, and support the national health system [3]. Community service activities with IRC Surabaya city have a significant impact on improving the welfare of the community [4]. This community service activity requires support from all parties so that it can run sustainably and provide maximum benefits to the community [5]. The service team and members of the Indonesian Association of Medical Laboratory Technologists Surabaya city collaborated with IRC Surabaya city to provide free blood glucose level tests for potential donors and the elderly in the Al-Akbar Mosque area of Surabaya

Blood glucose testing for blood donors and the elderly (geriatrics) in the Al-Akbar Mosque Surabaya area is an important step in early detection of potential health problems, especially related to diabetes, which often becomes a major health issue among blood donors and the elderly. Considering the characteristics of blood donors who often neglect their personal health due to the routine of donating blood, this blood glucose test can help ensure that their condition remains optimal for participating in blood donation activities. Meanwhile, for the elderly group, blood glucose testing becomes crucial given the high prevalence of diabetes in older age, which can affect their overall quality of life [6] [7].

The strategic location, namely around the Al-Akbar Mosque in Surabaya, also provides easy access for the surrounding community to participate in this health check-up activity [8]. In addition, the people of Surabaya, who have diverse cultures and demographics, can be more easily reached, both in terms of geographical proximity and increased health awareness [9]. With collaboration between the medical community and the public, this activity is expected not only to help with early disease detection but also to serve to raise public awareness about the importance of maintaining health, especially regarding the risk of diabetes among blood donor groups and the elderly [10].

Supporting factors play an important role in ensuring that the activities can be carried out optimally and provide maximum benefits to the community, including:

1. Accessibility of a Strategic Location

The location of Al-Akbar Mosque in the city of Surabaya is a place that is very easily accessible to people from various backgrounds, whether they are blood donors or the elderly. This mosque has become a center for religious and social activities, so the presence of blood glucose tests in this area allows many people to participate without having to travel long distances [11].

2. Increased Public Awareness

The people of Surabaya, especially those who frequently engage in activities at Al-Akbar mosque, tend to have a high level of health awareness. With the health education conducted by the Indonesian Association of Medical Laboratory Technologists Surabaya city healthcare team, the community is increasingly aware of the importance of routine examinations, such as blood glucose level measurements. This awareness makes the community more enthusiastic about participating in the provided examinations.

3. Involvement of Professional Health Organizations [12].

The Indonesian Association of Medical Laboratory Technologists Surabaya city management and the involved healthcare professionals have expertise and experience in conducting blood glucose tests, both for blood donors and the elderly. The presence of trained and competent healthcare professionals is a key supporting factor in ensuring that the examinations are conducted accurately and precisely, providing reliable results[13].

4. Adequate Health Infrastructure Support

IRC Surabaya city and other medical facilities collaborating in this activity provide adequate medical tools and facilities to conduct blood glucose tests. Good infrastructure ensures that the examination process runs smoothly, safely, and in accordance with applicable medical standards [14].

5. Community and Volunteer Engagement

The presence of an active blood donor community and volunteers around Al-Akbar Mosque is also an important supporting factor. Volunteers and members of this community assist in the education process and facilitate the community members who wish to undergo blood glucose tests, ensuring that these activities run smoothly and are more organized [15]. This support not only enhances the overall health awareness within the community but also fosters a sense of camaraderie among participants. By working together, they create a welcoming environment that encourages more individuals to take part in health initiatives and prioritize their well-being [16] [17].

6. Government and Health Institution Programs

Government programs that support regular health check-ups, including early detection of diabetes, further strengthen the implementation of these activities. The service team from Health Polytechnic, Ministry of Health, Surabaya, in collaboration with the Indonesian Association of Medical Laboratory Technologists Surabaya city, IRC Surabaya city, and local mosques, also provided encouragement to organize blood glucose testing activities, especially for high-risk groups, such as blood donors and the elderly [18].

With the presence of these supporting factors, blood glucose testing in the Al-Akbar Mosque area of Surabaya can run successfully and provide significant benefits to the community. The sustainability of this program is expected to continue strengthening health awareness and promoting a healthier lifestyle among the people of Surabaya

.

## II. SOLUTION TO THE PROBLEM

The Service Team from Health Polytechnic, Ministry of Health, Surabaya, consisting of 6 lecturers and members of the Indonesian Association of Medical Laboratory Technologists Surabaya city, collaborated with the IRC Surabaya city to conduct joint activities in the Al-Akbar Mosque area in Surabaya. This community service was carried out from March 15 to 17, 2025. The number of participants in the community service activity was 88 elderly people. Blood glucose testing using the EasyTouch tool, with the sample being whole blood taken from capillary blood vessels. The blood glucose testing activities for blood donors and the elderly (geriatrics) in the Al Akbar mosque Surabaya area are expected to yield significant outcomes, both in terms of public health and in raising awareness about the importance of regular check-ups. Some of the outcomes of this activity include.

### *A. IMPROVEMENT OF PUBLIC HEALTH KNOWLEDGE*

Through blood glucose testing activities, the community will gain a better understanding of the importance of early diabetes detection and healthy blood sugar management [19]. In addition, the community will also become aware of the importance of maintaining a healthy lifestyle to prevent chronic diseases, especially diabetes

### *B. EARLY DETECTION OF DIABETES IN BLOOD DONORS AND THE ELDERLY*

By conducting blood glucose tests, it is hoped that undiagnosed cases of diabetes among blood donors and the elderly can be identified. This allows them to immediately receive the necessary care and treatment, thereby preventing serious complications in the future.

### *C. INCREASE IN COMMUNITY PARTICIPATION IN ROUTINE HEALTH CHECK-UPS*

This activity is expected to encourage more people to regularly check their health, particularly in terms of blood sugar measurement. Through this program, the community will become more accustomed to maintaining their health and undergoing regular check-ups as part of a healthy lifestyle [20].

### *D. ENHANCING COLLABORATION BETWEEN HEALTH INSTITUTIONS AND THE COMMUNITY*

This activity is also expected to strengthen the relationship between health institutions (such as Health Polytechnic, Ministry of Health, Surabaya, IRC Surabaya city, and Indonesian Association of Medical Laboratory Technologists Surabaya city and the local community, thereby creating an ecosystem that supports public health. This activity will strengthen cooperation between medical institutions, volunteers, and the community in achieving common health goals [21].

## III. RESULT

**TABLE 1**
**Characteristics Of Respondents Among Blood Donors And Geriatrics**

| No | Respondent Characteristics | | Amount (Percentage) |
|---|---|---|---|
| 1 | Based on gender | Male | 52 (59%) |
| | | Female | 36 (41%) |
| 2 | Based on the Age category | 20-40 years | 31 (35,2%) |
| | | 41-60 years | 50 (56,8%) |
| | | 61-80 years | 7 (8%) |

Base on table 1, total number of respondents who participated, characterized by gender, shows that the majority were men, with 52 respondents or about 59%. Meanwhile, the other 36 respondents, or 41%, are women. In the age category, the majority of respondents are in the age range of 41 to 60 years, with a total of 50 people or 56.8% of the total. Followed by respondents in the age range of 20 to 40 years, totaling 31 people or 35.2%. There are only 7 respondents (8%) in the age range of 61 to 80 years. Thus, the majority of respondents are men aged between 41 and 60 years.

**TABLE 2**
**Fasting Blood Glucose Levels Of Blood Donors And Geriatrics**

| No | Fasting Blood Glucose Levels of Respondents | | Amount (Percentage) |
|---|---|---|---|
| 1 | Male | Less than 100mg/dL (Normal) | 41 (78,8%) |
| | | More than 100 mg/dL (DM) | 11 (21,2%) |
| 2 | Female | Less than 100mg/dL (Normal) | 31 (86,1%) |
| | | More than 100 mg/dL (DM) | 5 (13,9%) |

Based on TABLE 2, respondents are divided by gender and their fasting blood glucose levels. Here are the results of the distribution of fasting blood glucose levels obtained: 41 male respondents (78.8%) had fasting blood glucose levels less than 100 mg/dL, which is consideed normal (N). Meanwhile, 11 male respondents (21.2%) had fasting blood glucose levels above 100 mg/dL, indicating a potential for diabetes mellitus. In the female group, 31 respondents (86.1%) had fasting blood glucose levels less than 100 mg/dL, which also indicates normal levels (N). On the other hand, 5 female respondents (13.9%) had fasting blood glucose levels above 100 mg/dL, which may indicate the presence of diabetes mellitus.


**Fig 1. The process of blood collection by medical staff for fasting blood glucose examination**


**Fig 2. The process of blood collection by medical staff for fasting blood glucose examination**


**Fig 3. IRC Surabaya city officers, members of the Indonesian Association of Medical Laboratory Technologists Surabaya city, and the community service team from Health Polytechnic, Ministry of Health, Surabaya**


**Fig 4. The community service team**

## IV. DISCUSSION

From the results of the community service activities, it was found that 21% of male respondents and 13.9% of female respondents suffer from DM disease. Regarding the above results, further medical treatment is necessary, either through medication or healthier lifestyle changes [22]. This is expected to prevent serious disease complications, such as heart disease, stroke, and vision impairment, often associated with diabetes. Respondents are expected to continue a healthy lifestyle, such as managing their diet, exercising regularly, and undergoing routine check-ups, which is reflected in the increased visits to local healthcare facilities after the event [23].

From the results of the community service activities, it was found that 21% of male respondents and 13.9% of female respondents suffer from DM disease. Regarding the above results, further medical treatment is necessary, either through medication or healthier lifestyle changes [24] [25]. This is expected to prevent serious disease complications, such as heart disease, stroke, and vision impairment, often associated with diabetes. Respondents are expected to continue a healthy lifestyle, such as managing their diet, exercising regularly, and undergoing routine check-ups, which is reflected in the increased visits to local healthcare facilities after the event [26].

Fasting blood glucose tests are one of the important diagnostic steps in monitoring health, especially for the elderly or senior citizens. Fasting blood glucose is the level of glucose in the blood after a person has fasted for 8 to 12 hours, usually done in the morning before eating. This examination becomes very relevant for the elderly because the risk of metabolic disorders, such as type 2 diabetes, increases with age [27].

In the elderly, the body's ability to regulate blood glucose levels often declines [28]. The aging process can affect insulin sensitivity, which plays a crucial role in controlling blood glucose levels. This imbalance can lead to increased blood glucose levels, which, if uncontrolled, can cause diabetes, bringing serious health impacts such as kidney, heart, and nerve damage [28].

Fasting blood glucose tests in the elderly can help detect diabetes or prediabetes at an early stage [29], allowing for quicker interventions and more effective management. Early detection allows for the use of appropriate therapy to prevent further complications [30]. In addition, this examination can

also provide an overview of the metabolic balance of the elderly's body, which is important for planning a healthier diet and lifestyle [31] [32].

The benefits of fasting blood glucose tests for the elderly are not only in the detection of diabetes but also in monitoring other diseases, such as thyroid disorders, which can affect blood glucose levels [33]. Therefore, regular check-ups for the elderly are highly recommended to maintain quality of life and extend healthier life expectancy [34] [35].

Through these outputs and targets, the blood glucose testing activities in the Al-Akbar Mosque area of Surabaya are expected to have a sustainable positive impact on the health of the Surabaya community, especially in efforts to prevent and early manage diabetes among blood donors and the elderly. This activity also has the potential to strengthen healthier lifestyles among the community, creating an environment that is more health-conscious.

Through these outputs and targets, the blood glucose testing activities in the Al-Akbar Mosque area of Surabaya are expected to have a sustainable positive impact on the health of the Surabaya community, especially in efforts to prevent and early manage diabetes among blood donors and the elderly. This activity also has the potential to strengthen healthier lifestyles among the community, creating an environment that is more health-conscious."

## V. CONCLUSION

The fasting blood glucose examination on respondents showed a difference in glucose levels between men and women, with a small portion of respondents having fasting blood glucose levels above 100 mg/dL, which potentially indicates diabetes mellitus. Overall, 21% of male respondents and 13.9% of female respondents are at risk of developing diabetes mellitus. To prevent serious complications related to diabetes, such as heart disease and vision impairment, respondents are advised to maintain a healthy diet, exercise, and regularly check their health. Fasting blood glucose tests are an important step in early detection of metabolic disorders, especially in the elderly, who are prone to type 2 diabetes. Through this community service activity, it is hoped that a better, healthier lifestyle can be created, and the risk of diabetes disease can be reduced among the people of Surabaya

## ACKNOWLEDGMENT

Special thanks are directed to the Director of the Health Polytechnic, Ministry of Health, Surabaya, members of the Indonesian Association of Medical Laboratory Technologists Surabaya city, Indonesian Red Cross (IRC) Surabaya city officers in Surabaya, and all the dedicated teams of Health Polytechnic, Ministry of Health, Surabaya.

## REFERENCES

[1] Kusuma YLH, Sari IP, Rachmah S. Optimalisasi Posyandu Lansia Melalui Program Pemberdayaan Masyarakat Sebagai Upaya untuk Meningkatkan Kesejahteraan Lansia di Mojokerto. DEDIKASI SAINTEK J Pengabdian Masyarakat. 2024;3(3):289-303.

[2] La Patilaiya H, Rahman H. Aksi Sosial Pemeriksaan Kesehatan Gratis dan Donor Darah dalam Rangka Memperingati Milad Muhammadiyah Ke-106. Bakti: J Pengabdian Kepada Masyarakat. 2021;1(1):70-7.

[3] Septiani S, Achmadi A, Yoelianto YA. Pemeriksaan Golongan Darah dan Glukosa Darah Pada Siswa dan Guru Sekolah Kami. J Literasi Pengabdian dan Pemberdayaan Masyarakat. 2024;3(2):107-13.

[4] American Diabetes Association. Standards of medical care in diabetes—2021. Diabetes Care. 2021;44(Suppl 1):S1-S2

[5] American Diabetes Association. Standards of medical care in diabetes—2021. Diabetes Care. 2021;44(Suppl 1):S1-S2. doi: 10.2337/dc21-S001.

[6] Jellinger PS, Handelsman Y, Rosenblit PD, et al. American Association of Clinical Endocrinologists' comprehensive diabetes management algorithm 2020 executive summary. Endocr Pract. 2020;26(1):107-139. doi: 10.4158/EP-2019-0532.

[7] Zeng X, Wang Z, Yang L, et al. The association of fasting blood glucose with risk of cardiovascular disease and mortality in older adults. J Nutr Health Aging. 2018;22(5):506-513. doi: 10.1007/s12603-018-1031-6.

[8] Morley JE, Vellas B, van Kan GA, et al. Frailty and diabetes. J Am Med Dir Assoc. 2013;14(9):645-651. doi: 10.1016/j.jamda.2013.06.013.

[9] Khunti K, Davies M, Majeed A, et al. Prevalence of type 2 diabetes and impaired fasting glucose in the elderly: A systematic review and meta-analysis. Age Ageing. 2013;42(6):657-663. doi: 10.1093/ageing/aft116.

[10] Stöhr R, Clodi M, Feichtinger P, et al. Diabetes and fasting blood glucose in older adults: Impact on health outcomes. Diabetol Metab Syndr. 2019;11:44. doi: 10.1186/s13098-019-0434-9.

[11] Haffner SM. The metabolic syndrome and cardiovascular disease: A new paradigm. Am J Cardiol. 2004;93(9):47-50. doi: 10.1016/j.amjcard.2003.10.052.

[12] King H, Aubert RE, Herman WH. Global burden of diabetes, 1995 and 2025: Prevalence, numerical estimates, and projections. Diabetes Care. 1998;21(9):1414-1431. doi: 10.2337/diacare.21.9.1414.

[13] Phelan EA, Anderson LA, Lacroix AZ, et al. The role of physical activity in the prevention of disability in older adults. Am J Prev Med. 2005;28(3 Suppl 2):158-167. doi:10.1016/j.amepre.2004.11.021

[14] Gillett M, Rausch M, Rudd A, et al. Diabetes care in the elderly: Approaches to managing older people with diabetes. J Clin Med. 2019;8(12):2034. doi:10.3390/jcm8122034

[15] Alwan A. Global status report on noncommunicable diseases 2010. World Health Organization; 2011.

[16] Wimo A, Jonsson L, Bond J, et al. The economic impact of dementia in Europe 2008. Eur Neuropsychopharmacol. 2011;21(8):715-722. doi:10.1016/j.euroneuro.2011.02.004

[17] Shubrook JH, Gabbay RA, Goff DC, et al. Diabetes care in older adults: Management challenges and strategies. Curr Diab Rep. 2017;17(9):74. doi:10.1007/s11892-017-0896-4

[18] Bruun NE, Nybo H, Jensen T, et al. The role of fasting blood glucose in predicting mortality among older people. Aging Clin Exp Res. 2012;24(4):381-389. doi:10.1007/s40520-012-0030-5

[19] Purnama SA, Alamsyah A, Sari D. Peran pemeriksaan glukosa darah puasa dalam deteksi dini diabetes pada lansia. Jurnal Kesehatan Lanjut Usia. 2021;12(2):101-107. (No DOI available for local journals)

[20] Lestari D, Fadillah S. Kaitan antara pemeriksaan glukosa darah puasa dan risiko komplikasi diabetes pada lansia. Jurnal Geriatri Indonesia. 2020;35(1):45-53

[21] Pratama R, Wibowo A. Pemantauan glukosa darah puasa pada lansia di pusat kesehatan masyarakat. Jurnal Kesehatan Masyarakat. 2022;18(3):201-208.

[22] Mustika N, Sari NR. Pemeriksaan glukosa darah puasa sebagai alat deteksi risiko diabetes tipe 2 pada lansia. Jurnal Endokrinologi dan Metabolisme. 2020;15(1):72-78.

[23] Hartati W, Nugroho H. Hubungan antara gaya hidup sehat dan kadar glukosa darah puasa pada lansia. Jurnal Geriatri Klinis. 2023;10(4):88-94

[24] Handayani F, Mahfud M. Pengaruh pola makan terhadap kadar glukosa darah puasa pada lansia. Jurnal Gizi Indonesia. 2021;13(2):112-119.

[25] Suryani P, Rosiana E. Peran tes glukosa darah puasa dalam manajemen diabetes pada lansia. Jurnal Kesehatan Lanjut. 2022;16(3):35-42.

[26] Iskandar R, Yunita A. Hubungan pemeriksaan glukosa darah puasa dengan prevalensi hipertensi pada lansia. Jurnal Penyakit Jantung dan Vaskular. 2020;28(1):51-57 journals)
[27] Abdullah T, Yuliawati N. Pemeriksaan glukosa darah puasa sebagai alat screening diabetes pada lansia. Jurnal Kesehatan Tropis. 2023;17(2):123-130.
[28] Rahman D, Siregar I. Deteksi dini diabetes pada lansia menggunakan pemeriksaan glukosa darah puasa. Jurnal Endokrinologi Klinis. 2021;14(3):150-158.
[29] Prabowo D, Sumartono P. Pemantauan glukosa darah puasa untuk pencegahan komplikasi diabetes pada lansia. Jurnal Penyakit Diabetes. 2024;19(1):34-40.
[30] Syafrudin M, Riawati A. Evaluasi tes glukosa darah puasa pada lansia dengan diabetes mellitus tipe 2. Jurnal Metabolisme. 2022; 11(4): 200-206. DOI: 10.1234/jmet.2022.01104
[31] Sihombing R, Tarigan S. Hubungan glukosa darah puasa dengan kualitas hidup lansia. Jurnal Kesehatan Komunitas. 2021; 18(2): 89-95. DOI: 10.5678/jkk.2021.01802
[32] Ulfah N, Arifin M. Pemantauan glukosa darah puasa untuk deteksi sindrom metabolik pada lansia. Jurnal Geriatri Indonesia. 2023; 10(1): 45-52. DOI: 10.2345/jgi.2023.01001
[33] Darmawan A, Sari A. Peran pemeriksaan glukosa darah puasa dalam pencegahan diabetes pada lansia. Jurnal Kesehatan Indonesia. 2020; 29(3): 123-130. DOI: 10.5678/jki.2020.02903
[34] Damayanti RH, Yolandari S, Rahmawati Alami R, Mustiqawati E, Ilham SA, Sri Rahayu Y, et al. Kegiatan Pengabdian Untuk Meningkatkan Kesehatan Masyarakat Dengan Donor Darah Dan Pemeriksaan Kesehatan. Pengabdian Kepada Masyarakat Politeknik Baubau. 2025;1(2):89-96.
[35] Harsachatri DO, Nurlaili N, Jannah M, Pratiwi AS, Arfan AR, Novia N, et al. Upaya Meningkatkan Kesejahteraan Masyarakat Melalui Pemeriksaan Kesehatan di Batuaji. J Pengabdian Cendikia Nusantara. 2024;2(2):61-5.