ABDIMASNU: Jurnal Pengabdian kepada Masyarakat
HTTPS://EJOURNAL.IIKNUTUBAN.AC.ID/INDEX.PHP/ABDIMASNU
E-ISSN: 2774-3470
VOL. 6 NO.2, May, Page. 93 - 97

Health Screening for Early Detection of Degenerative Diseases UD Ridho Salsa Workers

Nastiti Trikurniadewi[1)*], Nugrahadi Dwi Pasca Budiono[1)], Sulasthial[1)], Dyah Eka Kurniawati[1)], Anindi Lupita Nasyanka[1)], Amalia Rahmal[1)], Endah Mulyanil[1)], Zufra Inayah[1)], Abdulhafiz Hile[2)]
[1]Health Faculty, Universitas Muhammadiyah Gresik
[2]Asociación of Muhammadiyah Thailand
Email: nastititrikurniadewi@umg.ac.id

Article Info:
Submitted: January 14, 2026
Accepted: April 25, 2026
Published: May 10, 2026

Editor's Note:

Keywords:
Degenerative diseases; Early detection; Health screening; Medical check-up; Occupational health

ABSTRACT

Background: Degenerative diseases (non-communicable diseases), such as hypertension, diabetes mellitus, and dyslipidemia, contribute substantially to morbidity and mortality among productive-age adults and are often asymptomatic in the early stages. Limited awareness and low uptake of periodic health checks among informal-sector workers may delay early detection. Method: This community service activity was conducted using an educational approach combined with direct health screening, including measurements of blood pressure, random blood glucose levels, and total cholesterol levels. The participants were workers of UD Ridho Salsa in Gresik Regency. The collected data were analyzed descriptively to illustrate the health status and trends of the examination results. Result: Most UD Ridho Salsa workers were classified as hypertension (70%), while a smaller proportion had diabetes mellitus and hypercholesterolemia (10%). Conclusion: Workplace medical check-ups combined with health education are effective strategies for the early detection of degenerative diseases among workers. The integration of routine medical check-ups into occupational health programs is essential to prevent an increased burden of degenerative diseases in the future.

1. INTRODUCTION

Degenerative diseases or non-communicable diseases (NCDs) are a major global public health problem, accounting for more than 70% of deaths worldwide, particularly in the productive age group.[1] Conditions such as hypertension, diabetes mellitus, and metabolic disorders reduce quality of life, decrease productivity, and increase healthcare costs. Health is a fundamental right as well as a shared responsibility to maintain and improve public health status.[2]

In Indonesia, the prevalence of degenerative diseases continues to increase, as shown by the 2018 Basic Health Research, which reported higher rates of hypertension, diabetes mellitus, and hypercholesterolemia compared to 2013.[3] This trend is influenced by the low utilization of routine health check-ups and the dominance of curative over preventive approaches.

*Author Correspondence: Nastiti Trikurniadewi, nastititrikurniadewi@umg.ac.id, Universitas Muhammadiyah Gresik, +628563421021

ABDIMASNU: Jurnal Pengabdian kepada Masyarakat
HTTPS://EJOURNAL.IIKNUTUBAN.AC.ID/INDEX.PHP/ABDIMASNU
E-ISSN: 2774-3470
VOL. 6 NO.2, May, Page. 93 - 97

At the local level, Gresik Regency, with its rapidly growing small and medium enterprise sector, faces similar challenges. Many workers, including those at UD Ridho Salsa, have limited access to occupational health services and early disease detection. UD Ridho Salsa, a small-scale sarong-producing enterprise in Gresik, represents informal workers with limited access to early detection of degenerative diseases. In fact, the workplace is a strategic setting for the implementing preventive and promotive health progrms.[4]

Community-based screening programs, including simple medical check-ups and health education, have proven effective in improving early detection and increasing awareness of NCD prevention.[5] Free health check-ups and education activities have been proven to increase public awareness of the importance of NCD control,[6] especially as immune function declines with age, increasing susceptibility to disease.[7]

This community service activity aims to enhance awareness of early detection, provide basic health screening, identify risk factors such as hyperglycemia, and hypercholesterolemia, and deliver appropriate education and follow-up based on examination results.

2. METHOD

This community service activity was conducted at UD Ridho Salsa, Wedani Village, Cerme District, Gresik Regency, Indonesia. Activities included on-site health screening (blood pressure measurement, random blood glucose, and total cholesterol) using Point of Care Testing (POCT) method, brief health education or counseling, and referral suggestions for participants with abnormal results; data were analyzed descriptively.

3. RESULTS AND DISCUSSION

A total of 10 workers participated. Screening showed that 7/10 (70%) were categorized as hypertension, 1/10 (10%) had random blood glucose in the diabetes category, and 1/10 (10%) had high total cholesterol. The results of the health checks that have been carried out are presented in tables 1, 2, and 3 below.

The results of this community service activity indicate that some workers at UD Ridho Salsa have risk factors for degenerative diseases, including hypertension, abnormal blood glucose levels, and hypercholesterolemia. These findings are consistent with trends observed in the general population and highlight the importance of medical screening for early detection of abnormalities in blood chemical profiles, particularly among individuals of productive age.[8]

Table 1 Blood tension category in workers

No.	Blood Tension Category	Frequency (n)	Percentage (%)
1	Normal	3	30%
2	Hypertension	7	70%
	Total	10	100%

Source: Primary Data

Table 2 Blood glucose category in workers

No.	Blood Glucose Category	Frequency (n)	Percentage (%)
1	Normal	9	90%
2	Diabetic	1	10%
	Total	10	100%

Source: Primary Data

Table 3 Cholesterol category in workers

No.	Cholesterol Category	Frequency (n)	Percentage (%)
1	Normal	9	90%
2	Hypercholesterolemia	1	10%
	Total	10	100%

Source: Primary Data

Compared to the formal industrial sector, a similar pattern of risk factors was observed; however, access to occupational health services in the informal sector remains limited. Informal workers are at

*Author Correspondence: Nastiti Trikurniadewi, nastititrikurniadewi@umg.ac.id, Universitas Muhammadiyah Gresik, +628563421021

ABDIMASNU: Jurnal Pengabdian kepada Masyarakat
HTTPS://EJOURNAL.IIKNUTUBAN.AC.ID/INDEX.PHP/ABDIMASNU
E-ISSN: 2774-3470
VOL. 6 NO.2, May, Page. 93 - 97

higher risk of hypertension due to the lack of preventive services and workplace health promotion programs, indicating a shift of degenerative diseases toward the productive age group.[9] This underscores the vulnerability of informal sector workers, particularly due to the low frequency of health check-ups and limited exposure to health education.

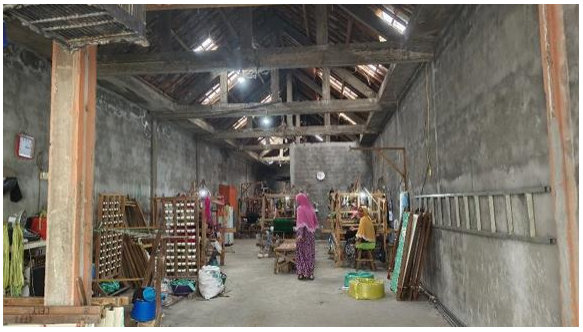


Figure 1 UD Ridho Salsa's sarong manufacturing work location in Wedani Village, Gresik Regency



Figure 2 The worker health checks included measuring blood pressure, blood sugar levels, and total cholesterol, with assistance from students from the Health Faculty, UMG

The health education provided in this activity improved participants' understanding of the relationship between lifestyle, metabolic risk factors, and degenerative diseases, and encouraged positive behavioral changes, including proactive management of blood pressure and blood glucose.[10] Early detection combined with counseling have been proven to increase workers' awareness of the importance of routine health check-ups and risk factor management.[11] These findings support health promotion theory, which emphasizes knowledge as a key determinant of behavior change. From a practical perspective, this activity demonstrates that simple and relatively low-cost health screening be effectively implemented in small-scale workplaces. Screening accompanied by counseling contributes to improving quality of life and supports the implementation of primary and secondary prevention in occupational health, particularly in the informal sector.[12]

The implications of this activity highlight the need to integrate periodic medical check-ups and health education into routine occupational health programs, including strengthening collaboration between primary healthcare facilities and small enterprises.[13] Early detection, health promotion, and NCD prevention must be continuously improved.[14] Practically, this activity provides a basis for stakeholders to integrate routine medical check-up programs and health education into occupational health policies in small and medium enterprises. This approach is relevant to be applied sustainably in other communities because it offers a simple but impactful method in NCD prevention. Based on the results of activities and empirical evidence, community-based health screening needs to be integrated into public health programs to maximize NCD prevention. This model also supports national strategies in reducing the prevalence of NCDs through prevention and early detection.[15]

4. CONCLUSION

Workplace-based screening accompanied by education is feasible for identifying metabolic risk factors among informal workers. Integrating routine screening and follow-up into occupational health efforts is recommended to support early detection and prevention of degenerative diseases

*Author Correspondence: Nastiti Trikurniadewi, nastititrikurniadewi@umg.ac.id, Universitas Muhammadiyah Gresik, +628563421021

5. ACKNOWLEDGMENTS

We would like to thank the Directorate of Research and Community Service, Universitas Muhammadiyah Gresik, and the owner and workers of UD Ridho Salsa, for their support and cooperation in this activity.

6. REFERENCES

1. Hotmarito H, Ardiansyah A, Arjuna A. Faktor-faktor yang Berhubungan dengan Pemamfaatan Posbindu PTM. *Indones J Nurs Heal Sci*. 2023;4(2 SE-Articles). doi:10.37287/ijnhs.v4i2.1561
2. Rivai A, Budiono NDP, Mahmudah AN. Penapisan dan Promosi Kesehatan Diabetes Melitus pada Karang Werda Sejahtera Surabaya. *Indones J Community Dedication Heal*. 2020;1(1 SE-Articles):1-7. doi:10.30587/ijcdh.v1i01.1980
3. Maranata, Liddya Ganda Asmara SR. Upaya Meningkatkan Pengetahuan Tentang Penyakit Tidak Menular Pada Remaja Di SMK ICB Cinta Teknika. *J Community Engagem Heal Nurs*. 2024;2(1 SE-Articles). doi:10.30643/jcehn.v2i1.370
4. Aisyah Amini, Shofi Nilamsari. Implementasi Promosi Kesehatan di Tempat Kerja (Studi di Corporate Human Resource Kompas Gramedia) : Implementation of Health Promotion in the Workplace (Study at Kompas Gramedia Corporate Human Resource). *Media Publ Promosi Kesehat Indones*. 2023;6(2 SE-Research Article):296-306. doi:10.56338/mppki.v6i2.3037
5. Fritz M, Grimm M, Thi H, et al. Effectiveness of community- - based diabetes and hypertension prevention and management programmes in Indonesia and Viet Nam : a quasi- - experimental study. Published online 2024. doi:10.1136/bmjgh-2024-015053
6. Asna AF, Trimulyono A, Kurrohman F, et al. Pemeriksaan Kesehatan Gratis sebagai Upaya Deteksi Dini Penyakit Tidak Menular di Komunitas. *Kolaborasi J Pengabdi Masy*. 2025;5(5 SE-Artikel):726-736. doi:10.56359/kolaborasi.v5i5.633
7. Budiono N, Rivai A. Factors affecting the quality of life the elderly people. *J Ilm Kesehat Sandi Husada*. 2021;10(2 SE-Articles). doi:10.35816/jiskh.v10i2.621
8. Karwiti W, Rezekiyah S, Nasrazuhdy N, Lestari WS, Nurhayati N, Asrori A. Blood Chemistry Profile as Early Detection of Degenerative Diseases in the Productive Age Group. *J Kesehat komunitas (Journal community Heal*. 2023;9(3 SE-Articles):494-503. doi:10.25311/keskom.Vol9.Iss3.1389
9. Fahrurodzi DS, Tsurayya A, Santi AR, Satrya BA. Studi Prevalensi Kejadian Hipertensi pada Pekerja Informal di Indonesia (Analisis Data Riskesdas 2018). *Prepotif J Kesehat Masy*. 2025;9(3 SE-Articles):8091-8097. doi:10.31004/prepotif.v9i3.52286
10. Effendy L, Arisanti RRS, Alim DP, et al. Deteksi Dini Hipertensi, Diabetes Mellitus, dan Hiperkolesterolemia di Desa Setro dan Desa Sambikerep. *Community Dev J J Pengabdi Masy*. 2024;5(4 SE-Articles):7005-7010. doi:10.31004/cdj.v5i4.30651
11. Aliza Puziawati, Ninda Aulia Fitriani, Risma Amelia, Zilfa Auliyaa Faidah, Zahra Bilqis Syahidah, Fajar Permana. Hypertension and Diabetes Mellitus Screening as an Effort to Prevent Degenerative Diseases in Matahari Pan Factory Workers in Cikoneng District, Ciamis Regency. *J Pengabdi Bid Kesehat*. 2025;3(2 SE-Articles):10-18. doi:10.57214/jpbidkes.v3i2.183
12. Eva Inayatul Faiza, Riski Akbarani IM. Peningkatan kualitas hidup melalui deteksi dini penyakit degeneratif melalui pemeriksaan tekanan darah dan glukosa darah. *J Pengabdi Kpd Masy Wahana Usada*. 2025;7(1):23-31.
13. Rochany Septiyaningsih, Dhiah Dwi Kusumawati, Septiana Indratmoko,

*Author Correspondence: Nastiti Trikurniadewi, nastititrikurniadewi@umg.ac.id, Universitas Muhammadiyah Gresik, +628563421021

Aprillia Khoerunnisa, Nafisatunnisa. Deteksi Dini Penyakit Degeneratif Pada Masyarakat Di Desa Welahan Wetan Kabupaten Cilacap. *J Pengabdi Masy Mandira Cendikia*. 2025;4(8 SE-Articles):59-64. doi:10.70570/jpkmmc.v4i8.1855

14. Syahadat DS, Buchair NH, Sari NF. Skrining dan Edukasi Kesehatan Tentang Penyakit Tidak Menular pada Pedagang di Pasar Inpres Kota Palu: Screening and Health Education on Non-Communicable Diseases among Traders at Inpres Market, Palu City. *J Pengabdi dan Pengemb Masy Indones*. 2025;4(1 SE-Articles):58-65. doi:10.56303/jppmi.v4i1.339
15. Olina Y Ben, Aisah S, Setyawati D, et al. Meningkatkan Kesadaran Hidup Sehat Melalui Skrining Deteksi Dini Penyakit Tidak Menular di Lingkungan Universitas Muhammadiyah Semarang. *Salut J Pengabdi Kpd Masy*. 2024;4(1).

*Author Correspondence: Nastiti Trikurniadewi, nastititrikurniadewi@umg.ac.id, Universitas Muhammadiyah Gresik, +628563421021