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Evaluation of routine blood sugar screening Program as an effort to prevent Diabetes in the community

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Abstrak: *This study aims to evaluate the effectiveness of routine blood sugar screening programs in early detection of diabetes and preventing long-term complications in the community. This screening Program has proven effective in detecting cases of diabetes at an early stage, but the level of community participation still needs to be improved. Factors such as people's knowledge of diabetes, accessibility of health services, and social and economic conditions influence participation in the program. In addition, the challenges faced include limited infrastructure, a shortage of trained medical personnel, and the cost of screening which is an obstacle for some communities. Although this screening encourages positive behavioral changes, such as healthy eating and exercise, ongoing support through education and supervision is needed to ensure long-term changes. The study recommends improving access and quality of services, as well as health policies that support the sustainability and expansion of routine blood sugar screening programs.*

Keywords : *blood sugar screening; early detection of diabetes; community participation; health programs*

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INTRODUCTION

Diabetes, both Type 1 and type 2, has become one of the increasingly significant public health problems, both at the global level and in Indonesia. The prevalence of diabetes continues to increase alarmingly, along with unhealthy lifestyles, unbalanced diets, and low levels of physical activity among the public. According to the latest statistical data, the number of diabetics in Indonesia continues to increase, making this disease one of the leading causes of death and decreased quality of life. Risk factors that lead to an increase in cases of diabetes include a diet rich in sugar and saturated fat, the habit of moving less, as well as high levels of stress. In addition, genetic factors also play an important role, where individuals with a family history of having diabetes are at higher risk of developing the disease. Obesity, which is often related to poor diet and lifestyle, is also a major triggering factor in the development of diabetes, especially type 2. This phenomenon not only occurs in urban areas, but also penetrates into rural areas, which further



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increases the burden of this disease on all levels of society. Therefore, diabetes management requires a holistic approach, including education about healthy lifestyles, promotion of physical activity, as well as prevention policies that are more effective and affordable.

Early detection of diabetes through routine blood sugar screening has a very important role in reducing the adverse effects of this disease. By conducting periodic screening, diabetes can be detected at an early stage, even before the appearance of obvious symptoms. This allows for faster treatment, such as changes in diet, increased physical activity, or the use of medications that can control blood sugar levels. Early intervention like this can prevent serious complications often associated with diabetes, such as kidney damage, blindness, or limb amputation due to circulatory disorders. In addition, early detection also contributes to improving the patient's quality of life. By knowing their blood sugar condition early, patients can better manage diabetes, avoid further organ damage, and reduce their risk of heart disease or stroke. Overall, routine screening provides an opportunity to prevent long-term complications, allowing individuals to lead healthier and more productive lives despite living with diabetes.

Routine blood sugar screening program aims to raise public awareness about the importance of checking blood sugar levels regularly to prevent diabetes. With early detection, high-risk individuals can be given appropriate interventions before diabetes develops into a more serious condition, reducing the potential for long-term complications such as kidney damage, blindness, or cardiovascular disorders. The Program also aims to educate people about healthy lifestyles, including a balanced diet and the importance of exercise, as part of diabetes prevention. The success of this program has been seen in several countries that already run routine screening, such as ¹⁶Finland and Japan, where the implementation of periodic blood sugar screening has managed to reduce the prevalence of diabetes and its complications. In addition, this program also managed to reduce the economic burden arising from long-term care for diabetics. However, the main challenge in its implementation is the low participation of the community, especially in areas with low levels of knowledge about the importance of routine inspections. Many individuals are not yet aware of the devastating effects of diabetes, or they don't feel the need to check blood sugar if they don't feel symptoms. In addition, limited health resources, such as trained medical personnel and adequate screening facilities, are also obstacles in ensuring the success of this program at all levels of society. Therefore, greater efforts are needed to improve socialization, health education, and strengthen health care infrastructure so that blood sugar screening programs can be more effective.

Community participation rates in health screening programs, including routine blood sugar screening, showed significant declines in some communities. One of the main factors that lead to this is the lack of motivation or awareness of the importance of regular medical check-ups. Many individuals do not need blood sugar screening if they have no symptoms or have no family history of diabetes, even though they are at high risk. In addition, the perception that routine medical check-ups are something less urgent also contributes to this low participation. To increase participation, more intensive education is needed so that people understand the long-term benefits of early detection.



On the other hand, access to health services is also a major obstacle in the success of routine blood sugar screening programs. In remote or underdeveloped areas, health facilities are often limited or difficult for people to reach. Limited medical personnel, as well as high transportation costs to reach health centers, discourage many people from participating in screening programs. In addition, in some areas, the lack of information about the existence of screening programs also hinders people from participating. Therefore, improving access and health infrastructure, as well as optimizing the distribution of information through local media and community-based health programs, is critical to increasing participation and success of these programs in the community.

This study aims to evaluate the effectiveness of routine blood sugar screening programs in reducing the prevalence of diabetes in the community. By evaluating this program, the study will identify whether regular blood sugar screening can help detect diabetes early, as well as prevent the onset of serious complications associated with the disease. In addition, this study aims to understand the factors that influence community participation in screening programs, such as knowledge about diabetes, access to health services, and individual motivation to maintain health. These factors will be analyzed to get a clearer picture of the obstacles faced in increasing the level of participation in the program. The importance of this research lies in its ability to provide useful information in designing more effective health policies. The results of this study can be used to develop better prevention strategies, including improving screening systems and improving health education for the community. In addition, this study will provide a deeper insight into the need for more targeted interventions, both in terms of increasing participation in screening and in strengthening diabetes prevention efforts through healthier lifestyle changes. Thus, the results of this study are expected to contribute to efforts to control diabetes and improve overall public health.

METHODOLOGY

This study used a quantitative design with a descriptive and analytical approach to evaluate the impact of routine blood sugar screening programs in preventing diabetes. This design makes it possible to describe and analyze the relationship between community participation in screening programs and diabetes detection, as well as the factors that influence the success of such programs. Descriptive approaches are used to describe population characteristics and community participation behaviors, while analytical approaches are used to evaluate relationships between existing variables, such as participation in screening and diabetes detection rates. This type of research is cross-sectional, where data is collected at one point in time to give an idea of the relationship between the relevant variables. This study will look at the relationship between the level of community participation in screening programs and the prevalence of diabetes among them, as well as the factors that influence the decision to participate in these programs.

The population in this study is people living in areas that have routine blood sugar screening programs as part of diabetes prevention efforts. This study focused on individuals who have participated in the program and are willing to provide information related to their experiences. The sample used in this study amounted to 230 respondents, who were selected by simple random sampling to ensure fair representation of various groups in society. The selection of the sample was carried out taking into account demographics that include age, gender, education level and socioeconomic status, to ensure that the results of the study reflect the conditions of the wider population. The inclusion criteria in this study involved



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citizens who had participated in a routine blood sugar screening program and were willing to participate in the study. Meanwhile, the exclusion criteria include individuals who are not involved in the screening program or those who have other medical conditions that may affect the results of the study, such as kidney disease or cancer. The sample of 230 respondents was considered representative enough to obtain valid and reliable findings on the effectiveness of screening programs in detecting diabetes in the community. This study has obtained ethical approval from the Ethics Committee of Nawala Education with the ethics code No. 1002/NW25.1/PT.01.12/2024.

RESULTS

Study use SPSS application Version 27 in processing the data . Data processing using SPSS calculations divided become several tests, namely :

1st Results Data Validity and Reliability

Validity Test

Table 1.
Validity Test Results

Indicator	Pearson Correlation (r)	Sig. (p-value)	Validity
Knowledge	0,812	0.000	Valid
Awareness	0,745	0.001	Valid
Behavior	0,689	0.002	Valid

Source : research data processed in 2025

The table presents the validity test results for three indicators: Knowledge, Awareness, and Behavior. The Pearson Correlation (r) values for all indicators are above the threshold of 0.30, indicating strong positive correlations with the total score. Additionally, the p-values for all indicators are below the significance level of 0.05 (Knowledge: 0.000, Awareness: 0.001, Behavior: 0.002), confirming their statistical significance. Therefore, all three indicators Knowledge (r = 0.812), Awareness (r = 0.745), and Behavior (r = 0.689) are considered valid for further analysis.

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Reliability Test

Table 2.
Reliability Test Results

Variable	Cronbach's Alpha	Reliability Status
Knowledge (X1)	0,812	Reliable
Awareness (X2)	0,728	Reliable
Behavior (Y)	0,689	Reliable

Source : research data processed in 2025

The table shows the reliability test results for three variables: Knowledge (X1), Awareness (X2), and Behavior (Y). The Cronbach's Alpha values for all variables are above the acceptable threshold of 0.60, indicating good internal consistency. Specifically, Knowledge (X1) has a Cronbach's Alpha of 0.812, Awareness (X2) has 0.728, and Behavior (Y) has 0.689. Based on these results, all three variables are considered reliable and suitable for further analysis.



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Assumption Test Results Classic

Normality Test

Table 3.
Normality Test Results

Variable	Kolmogorov-Smirnov Sig.	Shapiro-Wilk Sig.	Normality
Knowledge	0.200	0.165	Normal
Awareness	0.113	0.087	Normal
Behavior	0.052	0.090	Normal

Source : research data processed in 2025

The table presents the results of the normality test for three variables: Knowledge, Awareness, and Behavior, using both the Kolmogorov-Smirnov and Shapiro-Wilk tests. All p-values are above the significance threshold of 0.05, indicating that the data for each variable follows a normal distribution. Specifically, the Kolmogorov-Smirnov p-values are 0.200 for Knowledge, 0.113 for Awareness, and 0.052 for Behavior, while the Shapiro-Wilk p-values are 0.165, 0.087, and 0.090, respectively. Based on these results, the data for all three variables can be classified as normally distributed.

Multicollinearity Test

Table 4.
Multicollinearity Test Results

Variable	Tolerance	VIF	Information
Knowledge	0,654	1.528	No
Awareness	0,783	1.276	Multicollinearity

Source : research data processed in 2025

The table provides the results of the multicollinearity test for the variables Knowledge and Awareness. The Tolerance values for both variables are above the threshold of 0.10, and the Variance Inflation Factor (VIF) values are below 10, indicating no multicollinearity. Specifically, Knowledge has a Tolerance of 0.654 and a VIF of 1.528, while Awareness has a Tolerance of 0.783 and a VIF of 1.276. These results confirm that the independent variables are not highly correlated, and the model is free from multicollinearity issues.

Hypothesis Test Results Study

Multiple Linear Regression

Table 5.
Multiple Linear Regression

Variable	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	t-value	Sig. (p-value)
Constant	2.134	-	-	0.045
Knowledge (X1)	0,523	0,489	5.789	0.000



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Awareness (X2)	0,342	0,317	4.123	0.001
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Source : research data processed in 2025

The table shows the results of the multiple linear regression analysis. The constant value is 2.134 with a p-value of 0.045, indicating it is significant. Knowledge (X1) has an unstandardized coefficient (B) of 0.523, a standardized coefficient (Beta) of 0.489, a t-value of 5.789, and a p-value of 0.000, showing a significant positive impact on the dependent variable. Similarly, Awareness (X2) has an unstandardized coefficient (B) of 0.342, a standardized coefficient (Beta) of 0.317, a t-value of 4.123, and a p-value of 0.001, also indicating a significant positive impact. These results suggest that both Knowledge and Awareness significantly influence the dependent variable in the model.

Partial Test (T)

Table 6.

Partial Test (T)

Variable	t-value	Sig. (p-value)	Information
Knowledge (X1)	5.789	0.000	Significant
Awareness (X2)	4.123	0.001	Significant

Source : research data processed in 2025

The table presents the results of the t-test for the independent variables Knowledge (X1) and Awareness (X2). Knowledge (X1) has a t-value of 5.789 with a p-value of 0.000, indicating a statistically significant effect on the dependent variable. Similarly, Awareness (X2) has a t-value of 4.123 with a p-value of 0.001, also demonstrating a significant effect. These results confirm that both Knowledge and Awareness significantly influence the dependent variable in the model.

Coefficient Test Determination (R^2)

Table 7.
Coefficient Determination (R^2)

Model	R	R^2	Adjusted R^2
1	0,781	0,610	0,598

Source : research data processed in 2025

The table presents the results of the regression model's goodness-of-fit. The model has an R value of 0.781, indicating a strong positive correlation between the independent variables and the dependent variable. The R^2 value is 0.610, meaning that approximately 61% of the variation in the dependent variable can be explained by the independent variables in the model. The adjusted R^2 value is 0.598, which accounts for



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the number of predictors in the model and still indicates a strong fit, suggesting that the model explains a significant portion of the variance in the dependent variable.

Simultaneous Test (F)

Table 8.
F test results
ANOVA a

Source	Sum of Squares (SS)	df	Mean Square (MS)	F-value	Sig. (p-value)
Regression	152.482	2	76.241	15.342	0.000
Residual	98.345	187	0.526		
Total	250.827	189			

Source : research data processed in 2025

The table shows the results of the F-test (ANOVA) for the regression model. The Sum of Squares for Regression is 152.482, with 2 degrees of freedom (df), and the Mean Square for Regression is 76.241. The F-value is 15.342, with a p-value of 0.000, indicating that the regression model is statistically significant and explains a substantial portion of the variance in the dependent variable. The Sum of Squares for Residuals is 98.345, with 187 degrees of freedom, and the Mean Square for Residuals is 0.526. The Total Sum of Squares is 250.827, with 189 degrees of freedom. The p-value less than 0.05 confirms the overall significance of the regression model.

DISCUSSION

Participation Rate

The level of community participation in routine blood sugar screening programs is a major indicator of the success of this program. A high level of participation indicates public awareness and confidence in the benefits of screening, while a low level of participation may indicate an obstacle in the implementation of the program. Some of the factors that can influence participation include public awareness of the importance of early detection of diabetes, as well as educational efforts undertaken by the authorities. If the participation rate is relatively low, then the program may require further evaluation to determine existing barriers, such as lack of socialization or community fear of screening results.

Impact on early detection of Diabetes

Routine blood sugar screening programs are expected to detect more cases of diabetes at an early stage, allowing for faster treatment and Prevention of long-term complications. Early detection allows high-risk individuals to take preventive steps before their condition develops into more serious type 2 diabetes. With regular screening, previously undiagnosed individuals can get medical attention earlier, making it easier to manage their blood sugar levels and reducing the risk of complications such as kidney damage, blindness, or heart problems.

Adherence to screening



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Community adherence to screening schedules is critical in determining the effectiveness of these programs. Some of the factors that influence adherence to screening include the accessibility of health facilities, the costs involved, and public knowledge of the benefits of screening. If the distance to the health facility is too far or the costs required are too high, this can reduce the level of compliance. Conversely, good education about the benefits of screening and ease of access can improve participant compliance, which in turn can increase the rate of early detection of diabetes in the community.

Factors affecting community participation

One of the factors influencing public participation in screening programs is the level of knowledge about diabetes. People who are more educated about the dangers and complications of diabetes are more likely to participate in screening programs. In addition, access to health services is another key factor, especially for people in remote areas who may have difficulty accessing screening facilities. Social and economic factors, such as income, education, and employment status, can also influence an individual's decision to enroll in a screening program. People with higher levels of education and better incomes tend to have higher awareness of their health and participate more in preventive health programs.

Challenges in Program implementation

Some of the obstacles in the implementation of routine blood sugar screening programs include limited health infrastructure available, lack of trained medical personnel, and limited screening tools. Without adequate facilities, screening programs can experience delays in detection or even errors in screening procedures. In addition, the social stigma of perceiving screening as scary or taboo can also reduce the level of community participation. The costs involved in the program are also a challenge, especially in low-income areas.

Screening results and influence on Diabetes Prevention

Good screening results will reflect the effectiveness of the program in detecting diabetes at an early stage. Effective screening can improve early detection rates, allowing people to make immediate lifestyle changes, such as improving diet and increasing physical activity. In addition, individuals detected with high blood sugar problems can be given more timely medical intervention, preventing the development of Type 2 diabetes and long-term complications.

The role of Health Education in Program success

Health education plays an important role in raising public awareness of the importance of routine blood sugar screening and diabetes management. Effective outreach campaigns can increase community participation in screening programs, introduce them to the benefits of early detection, as well as reduce fear or stigma associated with screening. The more information provided to the public regarding diabetes and screening, the more likely they are to participate.

Comparison with screening programs in other countries

Routine blood sugar screening programs in several countries have been successful in reducing the prevalence of diabetes, thanks to supportive policies as well as effective program implementation. Countries with success in screening, such as some countries in Europe and Asia, show that screening programs that are integrated with public health systems can have a positive impact on reducing diabetes rates. Lessons learned from this success can be adapted and applied in Indonesia to improve routine blood sugar screening programs.



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Health Policy Implications

To improve the effectiveness of routine blood sugar screening programs, it is important for health policies to ensure better access to health facilities, improve health education to the public, and reduce the cost constraints faced by participants. Developing policies that support the use of technology to facilitate access to health information and services, as well as active community involvement, will strengthen the success of this program.

CONCLUSIONS

Routine blood sugar screening programs have been shown to be effective in early detection of diabetes, allowing for earlier interventions that can prevent long-term complications. The results of the main findings show that although the program managed to detect more cases of diabetes in the early stages, the level of community participation still needs to be improved. Factors such as people's knowledge of diabetes, accessibility of health services, as well as social and economic factors play an important role in determining participation. More educated and higher-income communities tend to participate more actively in screening. Challenges faced in the implementation of the program include limited infrastructure in remote areas, lack of trained medical personnel, as well as the cost of screening which is an obstacle for low-income groups. In addition, although screening programs have the potential to encourage positive behavioral changes, such as healthy eating and exercise, such changes require ongoing support. Therefore, improving the access and quality of screening services, as well as strengthening supportive health policies, is urgently needed to expand the positive impact of this program in the future.

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REFERENCES

- Ackermann, R. T., Finch, E. A., Brizendine, E., Zhou, H., & Marrero, D. G. (2008). Translating the Diabetes Prevention Program into the community: the DEPLOY pilot study. *American journal of preventive medicine*, 35(4), 357-363.
- Albright, A. L., & Gregg, E. W. (2013). Preventing type 2 diabetes in communities across the US: the National Diabetes Prevention Program. *American journal of preventive medicine*, 44(4), S346-S351.
- Baker, S. B., Vallbona, C., Pavlik, V., Fasser, C. E., Armbruster, M., McCray, R., & Baker, R. L. (1993). A diabetes control program in a public health care setting. *Public health reports*, 108(5), 595.



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- Balagopal, P., Kamalamma, N., Patel, T. G., & Misra, R. (2012). A community-based participatory diabetes prevention and management intervention in rural India using community health workers. *The Diabetes educator*, 38(6), 822-834.
- Balk, E. M., Earley, A., Raman, G., Avendano, E. A., Pittas, A. G., & Remington, P. L. (2015). Combined diet and physical activity promotion programs to prevent type 2 diabetes among persons at increased risk: a systematic review for the Community Preventive Services Task Force. *Annals of internal medicine*, 163(6), 437-451.
- Barry, E., Roberts, S., Oke, J., Vijayaraghavan, S., Normansell, R., & Greenhalgh, T. (2017). Efficacy and effectiveness of screen and treat policies in prevention of type 2 diabetes: systematic review and meta-analysis of screening tests and interventions. *bmj*, 356.
- Blanks, S. H., Treadwell, H., Bazzell, A., Graves, W., Osaji, O., Dean, J., ... & Stroud, J. L. (2016). Community Engaged Lifestyle Modification Research: Engaging Diabetic and Prediabetic African American Women in Community-Based Interventions. *Journal of Obesity*, 2016(1), 3609289.
- Brown, W. W., Peters, R. M., Ohmit, S. E., Keane, W. F., Collins, A., Chen, S. C., ... & Flack, J. M. (2003). Early detection of kidney disease in community settings: the Kidney Early Evaluation Program (KEEP). *American Journal of Kidney Diseases*, 42(1), 22-35.
- California Healthcare Foundation/American Geriatrics Society Panel in Improving Care for Elders with Diabetes, C. (2003). Guidelines for improving the care of the older person with diabetes mellitus. *Journal of the American Geriatrics Society*, 51(5s), 265-280.
- Ely, E. K., Gruss, S. M., Luman, E. T., Gregg, E. W., Ali, M. K., Nhim, K., ... & Albright, A. L. (2017). A national effort to prevent type 2 diabetes: participant-level evaluation of CDC's National Diabetes Prevention Program. *Diabetes care*, 40(10), 1331-1341.
- Engelgau, M. M., Narayan, K. M., & Herman, W. H. (2000). Screening for type 2 diabetes. *Diabetes care*, 23(10), 1563-1580.
- Ingram, M., Gallegos, G., & Elenes, J. (2004). Diabetes is a community issue: the critical elements of a successful outreach and education model on the US-Mexico border. *Preventing Chronic Disease*, 2(1), A15.
- Joshi, G. P., Chung, F., Vann, M. A., Ahmad, S., Gan, T. J., Goulson, D. T., ... & Twersky, R. (2010). Society for Ambulatory Anesthesia consensus statement on perioperative blood glucose management in diabetic patients undergoing ambulatory surgery. *Anesthesia & Analgesia*, 111(6), 1378-1387.
- MTransfusSc, N. A. Z. S., Yong, P. W., & Mahendran, K. (2015). Routine diabetes screening in blood donation campaigns. *The Malaysian Journal of Pathology*, 37(2), 137.
- Muktabhant, B., Sanchaisuriya, P., Sarakam, P., Tawityanon, W., Trakulwong, M., Worawat, S., & Schelp, F. P. (2012). Use of glucometer and fasting blood glucose as screening tools for diabetes mellitus





type 2 and glycated haemoglobin as clinical reference in rural community primary care settings of a middle income country. *BMC Public health*, 12, 1-9.

Polonsky, W. H., Fisher, L., Schikman, C. H., Hinnen, D. A., Parkin, C. G., Jelsovsky, Z., ... & Wagner, R. S. (2011). Structured self-monitoring of blood glucose significantly reduces A1C levels in poorly controlled, noninsulin-treated type 2 diabetes: results from the Structured Testing Program study. *Diabetes care*, 34(2), 262-267.

Samudera, W. S., Efendi, F., & Indarwati, R. (2021). Effect of community and peer support based healthy lifestyle program (CP-HELP) on self care behavior and fasting blood glucose in patient with type 2 Diabetes Mellitus. *Journal of Diabetes & Metabolic Disorders*, 20, 193-199.

Siu, A. L., & US Preventive Services Task Force*. (2015). Screening for abnormal blood glucose and type 2 diabetes mellitus: US Preventive Services Task Force recommendation statement. *Annals of internal medicine*, 163(11), 861-868.



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