

## Promoting Preventive Care: Social Health Screening during the Nutrition House Inauguration

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### ABSTRACT

Public health problems in Indonesia continue to be characterized by a high prevalence of non-communicable diseases, family nutrition issues, and low public awareness of the importance of early health detection. This community service aimed to promote preventive healthcare through basic health screening during the Nutrition House inauguration at PCA Lowokwaru. The activity involved 28 participants and included measurements of body mass index (BMI), blood pressure, and random blood glucose, followed by nutrition education for the elderly. Data were collected on February 14, 2026, using direct screening methods. Results showed that 36% of participants were overweight and 18% obese, while more than half had normal blood pressure, although 18 participants had controlled hypertension. Only one participant had diabetes mellitus. The program improved health awareness and highlighted the importance of early detection and community-based nutrition services.

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## INTRODUCTION

Public health problems in Indonesia continue to be characterized by a high prevalence of non-communicable diseases, family nutrition issues, and low public awareness of the importance of early health detection. Promotive and preventive community-based approaches have become key strategies for sustainably improving public health (Suharsono et al., 2025). One form of implementing such approaches is through simple health services accompanied by direct education to the community (Calundu, 2025).

From a public health perspective, basic health screenings – such as blood pressure measurement, blood glucose levels, and anthropometric status – have proven effective in detecting disease risk factors early. Community-based interventions centered on early detection can significantly reduce the risk of non-communicable disease complications by raising health awareness and promoting behavioral change. Moreover, community-based screenings can reach groups with limited access to formal healthcare services (Wisni et al., 2026)(Haq et al., 2024).

The Nutrition House (Rumah Gizi) is a community-based innovation that serves as a center for education, monitoring, and intervention of family nutrition problems. This community-based approach aligns with the concept of community-based health promotion, which emphasizes active community participation in maintaining one's own health (Rohman et al., 2026). Research shows that community-based interventions are highly effective in improving health literacy and encouraging healthy living practices, particularly among families and homemakers (Ihsan, 2026).

The role of civil society organizations in health development has been widely acknowledged in the literature. The Aisyiyah women's organization – such as the Lowokwaru Branch Leadership (PCA Lowokwaru) – has great potential in bridging healthcare needs through socially and culturally accepted approaches (Prasetyo, 2025). The involvement of community organizations in health programs enhances the sustainability of interventions and strengthens community ownership of the programs implemented (Nurjanah et al., 2026).

The Nutrition House inauguration serves as a strategic opportunity to introduce the facility's functions to the community while raising health awareness through a social health screening event. The integration of nutrition education and basic health screening services has been shown to improve public understanding of personal health conditions and encourage independent preventive action (Ethica & Larasaty, 2025).

The social health service during the Nutrition House inauguration was held at the Lowokwaru Branch Leadership office. This activity serves not only as a one-time service but also as a media for education and community empowerment. Direct interaction between health workers and the community enables knowledge transfer that enhances health literacy. Therefore, this activity is expected to strengthen the role of the Nutrition House as a community empowerment center for maintaining sustainable health and nutritional status.

## IMPLEMENTATION AND METHODS

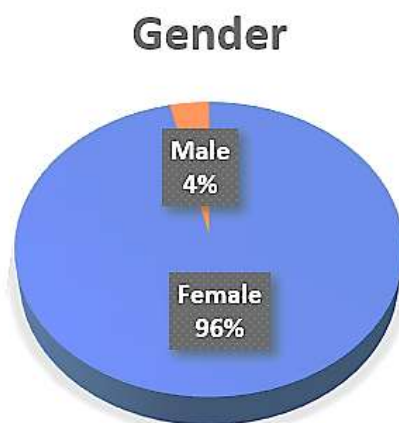
This community service activity began with a free health screening for participants attending the Nutrition House Inauguration event. The screening included blood pressure measurement, blood glucose testing, and body weight measurement. The results served as a reference for subsequent examinations to obtain health data for PCA Lowokwaru members.

The next activity was the official inauguration of PCA Lowokwaru's Nutrition House, which provides educational and nutritional services for both toddlers and the elderly. The Nutrition House will function as a health and nutrition service center for toddlers and the elderly, while also accepting orders for healthy food for the general public as a form of community service. Following the inauguration, a session titled "Proper Nutrition for Healthy Elderly" was delivered.

The activity was closed with a religious gathering (pengajian) and a communal prayer, expressing hope that the opening of the Nutrition House would bring blessings to members and the surrounding community.

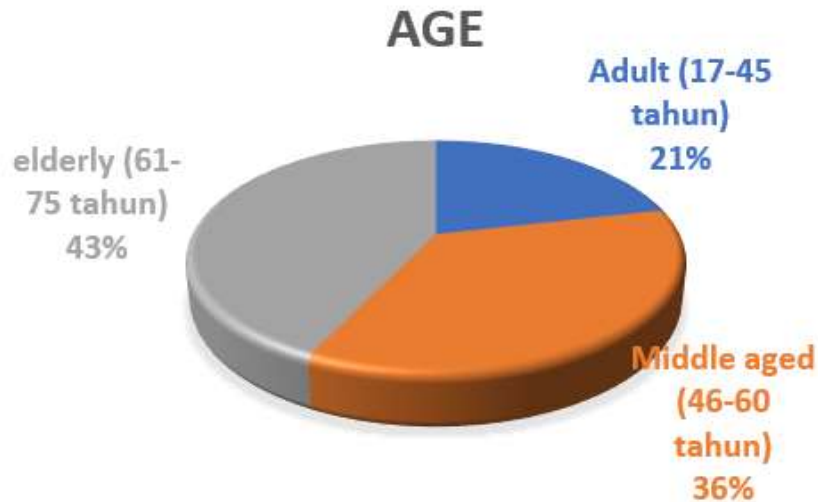
## RESULTS AND DISCUSSION

The social health service held during the PCA Lowokwaru Nutrition House Inauguration on February 14, 2026 was attended by 28 participants from PCM Lowokwaru, branch leaders and assembly members, heads of the Aisyiyah Branch Health Assembly, and principals of Aisyiyah Elementary Schools and ABA Kindergartens. In terms of gender distribution, 27 participants were female and 1 was male the Chairman of the Muhammadiyah Branch Leadership (PCM) Lowokwaru. Results are shown in Figure 1.



**Figure 1. Gender Distribution of Participants**

Participants were grouped by age according to the Ministry of Health classification: adults (17–45 years), middle-aged (46–60 years), and elderly (61–75 years) (Heryanti, 2021). The majority of participants at the Nutrition House Inauguration were in the elderly group at 43%. This is likely because this age group has reduced work activity, allowing more time for community gatherings. The age distribution is shown in Figure 2.

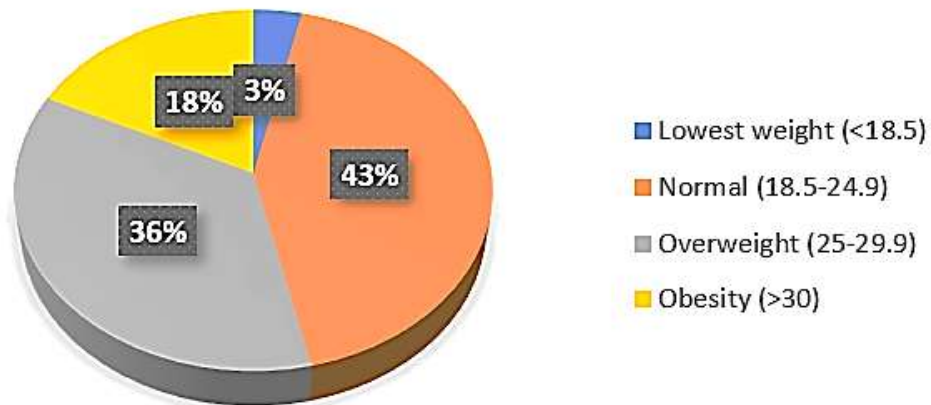


**Figure 2. Age Distribution**

In the initial phase, participants' weight and height were measured, followed by the calculation of the Body Mass Index (BMI). BMI was mathematically validated by Lambert Adolphe Francois Quetelet (1796–1874) to estimate human body size independently of height, also referred to as the "Quetelet Index." BMI is calculated as body weight (kg) divided by the square of height (m<sup>2</sup>). BMI classification: Underweight if BMI < 18.5, Normal if BMI is 18.5–24.9, Overweight if BMI is 25–29.9, and Obese if BMI exceeds 30 (Khanna et al., 2022). As shown in Figure 3, 36% of participants were overweight and 18% were classified as obese.

BMI is an important indicator for assessing the risk of metabolic diseases such as type 2 diabetes mellitus and hypertension. Various studies show that increased BMI is directly proportional to the increased risk of both diseases, whereby individuals with high BMI are more likely to experience insulin resistance and impaired blood pressure regulation. Diabetes risk is known to increase significantly in individuals with BMI  $\geq 35$  kg/m<sup>2</sup>, while each increase in BMI also contributes to higher diabetes incidence across populations. Similarly, a positive relationship between BMI and hypertension is demonstrated through a gradual increase in risk as BMI categories rise, with obese individuals facing far greater risk compared to those with normal BMI. Nevertheless, using BMI as a standalone indicator has limitations since it does not account for body fat distribution; it is therefore recommended to be combined with other parameters such as waist circumference to improve the accuracy of metabolic disease risk prediction (Khanna et al., 2022)(Angelina et al., 2024).

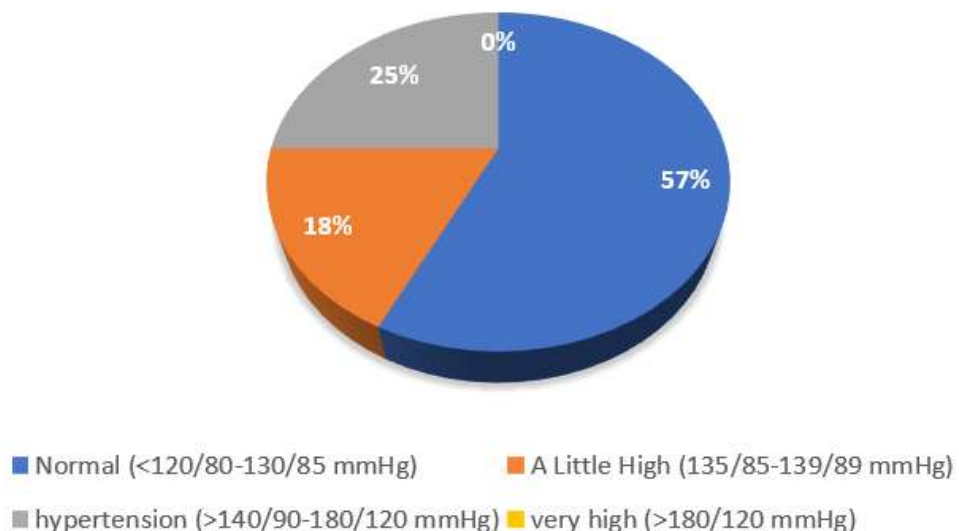
## Body Mass Index



**Figure 3. Body Mass Index (BMI) Measurement Results**

Blood pressure was measured at the start of the activity following BMI assessment. As shown in Figure 4, more than half of the participants had normal blood pressure. Among the 18 participants with hypertension, all were under medical supervision and their condition was controlled, with none reaching the very high category. Of these 18 participants, 4 had obese BMI (approximately 14% of hypertensive participants), and 3 of them fell within the elderly age group (Tiara et al., 2026).

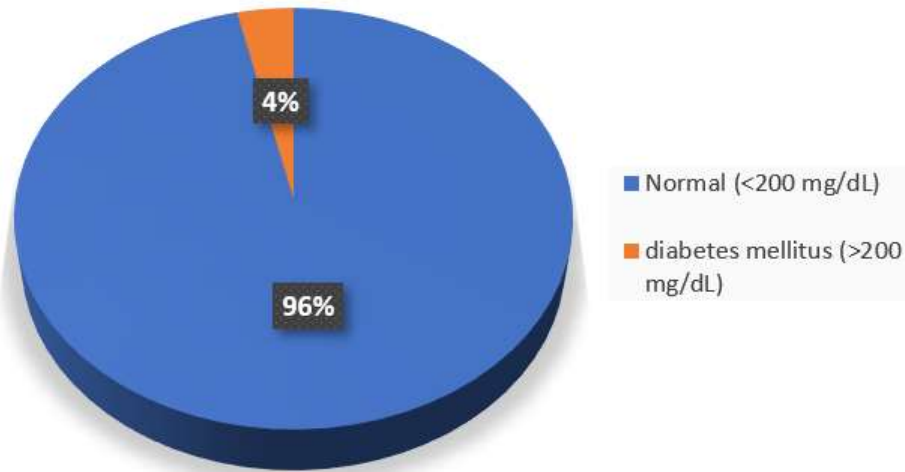
## Blood Pressure



**Figure 4. Blood Pressure Measurement Results**

The final examination of this social service was random blood glucose testing. Results showed that only 1 participant had diabetes mellitus and was under monthly medical supervision. Results are shown in Figure 5.

## Random Blood Glucose



**Figure 5. Random Blood Glucose Measurement Results**

Following the health screening, the formal inauguration of the Nutrition House was conducted with a symbolic ceremony presided over by the Chairwoman of the Malang City Women's Leadership (PDA) Malang, Mrs. Dra. Hj. Sri Herawati. Through this Nutrition House, it is hoped to support the national health pillar by targeting two age groups – toddlers and the elderly – so as to create a comprehensive family health ecosystem within the PCA Lowokwaru community. After the inauguration, a presentation titled "Proper Nutrition for Healthy Elderly" was delivered, explaining nutritional principles for the elderly, comprising balanced menus that are satisfying and enjoyable to eat. All activities are documented in Figures 6, 7, and 8.



**Figure 6. Documentation of Social Health Service**



Figure 7. Documentation of Nutrition Education Session



Figure 8. Documentation of Nutrition House Inauguration

## CONCLUSIONS AND RECOMMENDATIONS

The social health service held during the PCA Lowokwaru Nutrition House Inauguration successfully served as a promotive and preventive measure in raising community health awareness. Screening results revealed a still-high prevalence of overweight, obesity, and hypertension among participants, although most cases were in a controlled condition. The combination of health screening and nutrition education proved effective in providing individuals with an initial understanding of their health status. Furthermore, the inauguration of the Nutrition House is expected to become a sustainable community-based health and nutrition service center, particularly for toddlers and the elderly. The Nutrition House is encouraged to develop integrated service programs including nutrition consultations, health monitoring, and the provision of healthy food and to collaborate with health professionals and relevant institutions to expand the reach and impact of the program.

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