

# Health Promotion among Fish Sellers in Kedonganan, Bali

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**Abstract.** Bali is internationally known as a top tourist destination. In this community service program, the target group consisted of fish vendors affiliated with the KUD Mina Segara. The main goal was to provide education and mentoring, focusing on environmental cleanliness and promoting clean and healthy living behaviors in the workplace. The methods used included direct counseling and continuous assistance. Program success was measured by two key indicators: the implementation of one educational session and improvement in posttest scores compared to pretest results. A total of 17 partners participated in the program, most of whom reside in Kedonganan, with a few from Tuban, Renon, and Imam Bonjol. The participants were predominantly male (58.82%), with the majority aged between 51–60 years (41.18%). Most had low educational backgrounds, with 48.83% having completed only primary school, and some never attending formal education. The pretest results showed an average score of 18.82, which increased to 40 after the intervention. Although the posttest scores were not yet optimal, every participant showed improvement. These results indicate that the educational activity effectively increased their knowledge. The program was assessed as 'Good' for meeting all its intended indicators. Moving forward, continuous education and monitoring are considered necessary to reinforce and sustain the adoption of clean and healthy living practices among the fish vendor community in their working environment.

**Keywords:** clean and healthy living behaviors; clean water and sanitation; fish seller, good health and well-being; health promotion

## Introduction

Bali is widely recognized as one of the world's premier tourist destinations. The island's natural landscapes, cultural richness, traditional customs, and historical depth contribute significantly to its appeal among both domestic and international visitors. In addition to its cultural and environmental attractions, Bali is also distinguished by its seafood-based culinary offerings, such as grilled fish, crabs, clams, and squid, which are typically served fresh. This culinary prominence is largely influenced by Bali's coastal geography, which features an abundance of beaches. One notable example is Kedonganan Beach, situated in the village of Kedonganan. (Yukitasari & Mahagangga, 2018)

Kedonganan Village is located within the administrative area of Kuta District. This village is well-known for its coastal tourism, particularly for its culinary attractions centered around fresh seafood products. (Juniari & Pranadewi, 2021; Mandasari et al., 2020) Along the shoreline,

numerous aesthetically designed restaurants and cafés cater to visitors seeking both local cuisine and a pleasant dining atmosphere. In addition, Kedonganan is home to a traditional fish market, locally known as the Kedonganan Fish Market. (Permatananda et al., 2022) This market serves as a central hub for the sale and distribution of fresh fish, sourced both from local fishermen and from other regions, such as Banyuwangi. The market is managed directly by the Kedonganan Traditional Village authority and operates under the supervision of the Koperasi Unit Desa (KUD) Mina Segara. (P N Cahyawati, Kasih, et al., 2022; Pandit et al., 2021)

The community partner in this service activity is a group of fish vendors affiliated with the KUD Mina Segara. Initial discussions with representatives of the partner group revealed several challenges faced by the vendors, encompassing both health-related and non-health-related issues. These include concerns regarding sanitation, personal hygiene and healthy living practices, occupational safety, fish marketing strategies, and the spatial organization of the market. To date, no direct health education initiatives have been implemented within this community. Furthermore, the physical condition of the market, characterized by damp, unclean surroundings and persistent unpleasant odors poses additional difficulties that are challenging to manage. This condition is consistent with findings from previous studies, which indicate that an individual's clean and healthy living behavior is influenced by their physical environment or location. The average implementation of clean and healthy living practices has been reported to be significantly higher at home, reaching 73.97%, compared to only 58.2% in the workplace. (Putu Nita Cahyawati & Saniathi, 2022) Another study also found that the application of clean and healthy living behavior in the family and the public has not been carried out consistently. (P N Cahyawati & Saniathi, 2021) One of the factors in these cases is the lack of health information to the public. (P N Cahyawati, Lestarini, et al., 2021) The adoption of this behavior should ideally be introduced at an early stage and practiced consistently to foster the development of positive habits. (Anak Agung Sri Agung Aryastuti et al., 2024)

In response to the identified issues, the service team and the community partner agreed to prioritize health-related concerns as the main focus of the program. The primary objective of this community service activity is to provide education and assistance to the fish vendor group, with an emphasis on environmental hygiene and the promotion of clean and healthy living behaviors.

## Method

The implementation of the activity was based on previous studies. (Udiyani et al., 2025) The method in this service activity is direct counseling and continuous mentoring. The activity begins with a discussion with partner representatives to find out the problems experienced by partners from various aspects. (P N Cahyawati, Pradnyawati, et al., 2022; Putu Nita Cahyawati et al., 2021) In this activity, the team and partners also agreed on the timing of the activity, the parties involved, and the number of partners to be included. The education program was carried out once. This activity aims to increase the knowledge of partners. (P N Cahyawati & Saniathi, 2022) The educational material is focused on occupational health and clean and living behavior. (Putu Nita Cahyawati & Saniathi, 2022) Evaluation of knowledge using pretest and posttest questionnaires. The pretest and post-test questions consist of 5 questions. The type of question used is a Multiple Choice Question (MCQ) with four answer choices. (P N Cahyawati et al., 2019) Monitoring activities are carried out one month after the implementation of educational activities. This activity aims to evaluate the obstacles found during the implementation of the given material. (Lestarini et al., 2023)

The indicators of program achievement are based on several indicators, namely: the implementation of education as much as one time and an increase in the post-test score compared to the pretest. Program implementation is categorized as "Good" if both indicators are achieved, "Enough" if only one indicator is achieved, and "Poor" if none of the indicators is achieved. (Handayani & Cahyawati, 2022; Wiguna & Cahyawati, 2022).

## Result and Discussion

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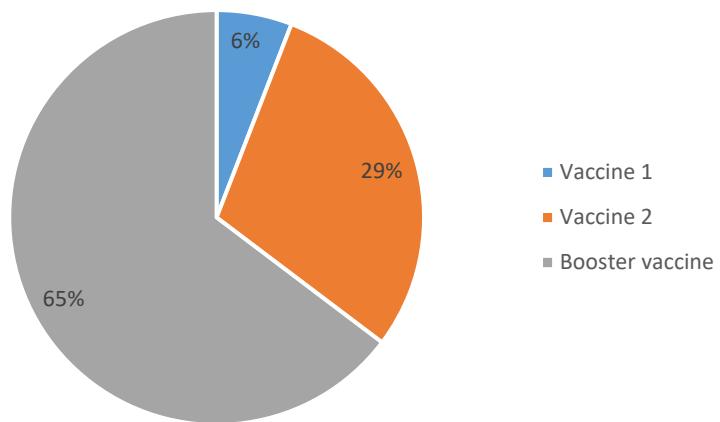
There are 17 partners in this service activity. The majority of partners live in the Kedongan area. However, some partners live in the Tuban, Renon, and Imam Bonjol areas. Partners were dominated by men (58.82%) and the age group 51-60 years (41.18%). Partners generally come from a low level of education that is not in school and 48.83% of primary schools (Table 1). This condition is probably related to the trader's activity who use physical strength to lift goods and burn/process seafood. Different characteristics are found in other markets. In the Gianyar area, more women traders (51.76%) were reported than men (48.27%). Likewise with age. Traders are generally of productive age between 35-44 years. (Mithaswari & Wenagama, 2018)

**Table 1.** Characteristics of Community Partners

Characteristics	Category	n (%)
Age (years)	20-30	1 (5.88)
	31-40	2 (11.76)
	41-50	6 (35.29)
	51-60	7 (41.18)
	61-70	1 (5.88)
Gender	Male	10 (58.82)
	Female	7 (41.18)
Educational Level	No formal schooling	3 (17.65)
	Primary school	7 (41.18)
	Junior high school	6 (35.29)
	Senior high school	1 (5.88)
Marital Status	Unmarried	0 (0.00)
	Married	17 (100.00)
Religion	Hindu	3 (17.65)
	Islam	14 (82.35)

All community partners have received the COVID-19 vaccination, although none were able to specify the type of vaccine administered. Additionally, 65% of the participants reported having received a COVID-19 booster dose. (Figure 1) These findings suggest that the partners possess a reasonable level of awareness regarding the importance of self-protection through vaccination. The government's vaccination program plays a vital role in strengthening individual immunity and minimizing the risk of COVID-19 infection. These findings are consistent with previous reports, which indicated that COVID-19 vaccination coverage among community groups in Gianyar was satisfactory, with 100% of participants having received the vaccine. (Santosa et al., 2023)

Health education is given for approximately 1 hour (Figure 3). Prior to providing education, partners took a pretest to assess their initial understanding. During the provision of education partners are involved in active discussions with resource persons. Education model using power point, pictures, and videos to facilitate understanding of partners. At the end of the activity, partners also did a posttest to assess the improvement in their understanding.



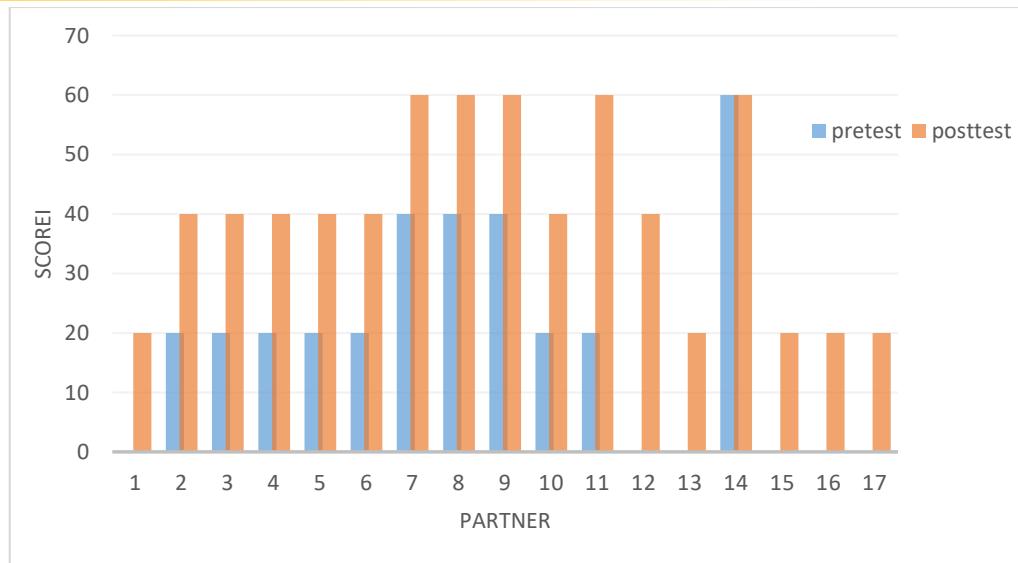
**Figure 1.** COVID-19 Vaccination Coverage Among Community Partners



**Figure 3.** Collaborative Educational Session with Partner Participation (A and B)

The results of the pretest evaluation indicated that the average score among all participants was 18.82 points. This relatively low score reflects limited understanding among the partners regarding occupational health and clean and healthy behavior in the workplace. Individual analysis further revealed that some participants were unable to answer even a single question correctly (Figure 3).

In contrast, the posttest results demonstrated a substantial improvement, with the average score increasing to 40 points—more than double the pretest average. Although the score has not yet reached an optimal level, individual analyses confirmed that all participants experienced an increase in their test scores. These findings suggest that the educational intervention effectively enhanced participants' knowledge. The use of a combined audio-visual approach in delivering the material likely contributed to the improved outcomes. This approach aligns with similar educational programs previously implemented with different community groups, which also reported positive impacts on knowledge acquisition. (P N Cahyawati, Pradnyawati, et al., 2021; Putu Nita Cahyawati et al., 2021)



**Figure 3.** Enhancement of Participants' Knowledge Based on Pretest and Posttest Scores

A monitoring session was conducted one month after the educational intervention. This activity was attended by representatives from the partner group (Figure 4). The monitoring process primarily took the form of a discussion aimed at identifying any challenges encountered during the implementation of the educational program. During the session, the partners reported that no significant issues had arisen in applying the information provided during the intervention. They also expressed hope that similar initiatives could be conducted in the following year, involving expertise from other academic disciplines. This suggestion was based on the recognition that several existing issues had not been addressed in the current year's program. Furthermore, given the relatively low posttest scores, the partners emphasized the need for continued assistance and mentoring in the future. The monitoring process in this activity is slightly different from other activities, which are generally conducted over a period of three months. However, the objective remains the same. (Lestarini et al., 2024).



**Figure 4.** Discussion and Monitoring Process

## Conclusion

This activity successfully enhanced the partners' knowledge, as evidenced by the improvement in pretest and posttest scores. The program was evaluated as 'Good' for meeting all

predetermined indicators. Continuous education and monitoring are essential to ensure sustained observation of the partners' adherence to clean and healthy living behaviour within their workplace environment.

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