

Original Article

Community-Based Practices for Dengue Control in Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu

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Abstract: Dengue, a mosquito-borne viral disease, has become a major contributor to the global burden of rising cases of human infectious diseases. The virus has four different serotypes (DEN-1, DEN-2, DEN-3, DEN-4) and is transmitted through the bite of the female *Aedes aegypti* mosquito. This study explored the effectiveness of community-based practices in dengue control within Sitio Ibabao, Basak, Lapu – Lapu City, Cebu. It investigated how local knowledge and resident participation can be leveraged to reduce mosquito breeding sites and promote preventative behaviors. It used a descriptive-correlational design, utilizing a researcher-developed survey questionnaire to collect data. Data analysis involved calculating frequencies and percentages. Conducted in Sitio Ibabao, Basak, Lapu – Lapu City, the study involves N=155 households selected through a stratified random sampling approach. This method ensures an unbiased selection by assigning a unique identification number to each household. The analysis of respondent profiles revealed a significant relationship between variables such as age, waste disposal practices, and community-based dengue control practices. In contrast, no significant relationships were found between gender, educational attainment, and economic status. Overall, the findings of the study indicates that there is no statistically significant relationship between the respondents' profiles and the community-based practices for dengue control in Sitio Ibabao, Barangay Basak, Lapu-Lapu City. While residents demonstrate excellent practices in water container management, there is a notable gap in the utilization of chemical interventions like abate in water storage containers. The study identified significant correlations between age and waste disposal practices with dengue control measures, suggesting that targeted interventions should consider these demographic factors. However, the overall analysis revealed no statistically significant relationship between respondent profiles and community-based dengue control practices, indicating that socioeconomic factors such as gender, education, and income level may not be primary determinants of dengue prevention behaviors in this community.

Keywords: community-based practices, dengue control, barangay, descriptive research design

1. INTRODUCTION

Dengue, a mosquito-borne viral disease, has become a major contributor to the global burden of rising cases of human infectious diseases. This virus has four different serotypes (DEN-1, DEN-2, DEN-3, DEN-4) and is transmitted through the bite of the female *Aedes aegypti* mosquito [1]. According to the Centers for Disease Control [CDC] and Prevention (2023), an estimated 400 million people are infected, approximately 100 million get sick, and 40,000 die from the dengue virus each year. Its presenting signs and symptoms may range from asymptomatic fever, muscle and joint pain, and rashes to, in severe cases, progression to dengue hemorrhagic fever and dengue shock syndrome. With its widespread endemicity and limited vector control practices, the potential for fatal outcomes continues to be a

persistent challenge in both tropical and subtropical countries [2]. The transmission of dengue is influenced by various factors, including population increase, urbanization, lack of vector control, and improper waste management practices. While there is no specific cure for dengue, effective prevention and control practices are crucial to reduce its impact. Eliminating domestic breeding grounds of the mosquito vector, community-wide education, vaccination, case management, and surveillance are among the vital community awareness and strategic implementation practices that play a vital role in mitigating the spread of the disease and protecting public health [3]. The European Centre for Disease Prevention and Control [ECDC] (2023) reported over 4.5 million cases of dengue, with an estimated 40,000 deaths annually. This has resulted in substantial healthcare costs and productivity losses. The World Health Organization [WHO] (2023) stated that the Americas, Asia, and Africa are the regions with the highest burden of dengue, accounting for over 90% of all reported cases. In the Americas, Brazil reported 2,909,404 dengue cases with 1,011 deaths; Mexico, 235,616 cases with 132 deaths; Argentina, 124,007 cases with 65 deaths; Colombia, 101,308 cases with 74 deaths; and Paraguay, 10,361 cases with 15 deaths. In Asia, the Philippines reported 167,355 dengue cases with 575 deaths; Vietnam, 135,879 cases with 35 deaths; Thailand, 115,028 cases with 119 deaths; Malaysia, 100,936 cases with 78 deaths; and Indonesia, 68,996 cases with 498 deaths [4]. In the African Union, Burkina Faso reported 176,841 dengue cases with 511 deaths; Ethiopia, 18,789 cases with 16 deaths; Mali, 4,404 cases with 6 deaths; and Sao Tome and Principe, 1,227 cases with 11 deaths [5]. Dengue fever is a significant public health concern in the Philippines. Tracking the number of cases reported from sentinel sites is worryingly 95% of respondents showed several negative attitudes towards dengue prevention crucial for understanding the disease's prevalence and impact. A nationwide effort to raise awareness and advocate for dengue prevention can help reshape attitudes toward vector control and subsequently increase the uptake of preventive practices, thereby reducing dengue incidences in the Philippines [6]. During the years 2000-2011, all 17 administrative regions of the Philippines reported increased incidences of dengue, especially in the most populated urban areas, with all four virus serotypes co-circulating and exhibiting temporal and spatial variation. It is estimated that 80% of dengue-related deaths occurred in individuals ≤ 20 years old, with the highest number of cases in children between 5-14 years of age [7]. In 2019, the Department of Health [DOH] issued a dengue alert in several regions of the Philippines due to its drastically elevated clinical case load of about 85% within a six – month period [8]. The occurrence of erratic weather patterns as characterized by alternating cold and warm temperatures has been identified as a contributing factor to an increase in dengue cases in Central Visayas. According to the data gathered by DOH-7's Regional Epidemiology and Surveillance Unit [RESU], the total number of mosquito-borne infection disease cases in Central Visayas, specifically in Cebu, has reached 8,293 with 52 fatalities since the beginning of 2022. Based on the records of the Disease Reporting Units in the province [DRU], local governments in the region with high active reported cases of dengue include Lapu-Lapu with 237 cases, Mandaue with 164 cases, and Consolacion with 108 cases [9]. While there has been a rise in public awareness regarding dengue fever, it remains uncertain if this knowledge has translated into practical measures to decrease the mosquito population effectively. An author [10] stated that even though both genders are equally susceptible to dengue fever, the age group that is most vulnerable to the infection are individuals aged 21 years and above. Furthermore, other contributing factors for the spread of the disease also include the locality's limited resources, uneven community engagement, and ineffective collaboration in the fight against dengue [11]. Hence, a multifaceted approach is necessary to combat the epidemic of mosquito-borne diseases. This includes targeting treatments to protect the most vulnerable age group, educating the public about effective mosquito control, and reducing climate change to stabilize weather patterns. An author [12] strengthened the awareness and capacity of each household's knowledge of and ability to carry out a routine search and destruction of mosquito breeding and resting areas in their neighborhood. An author [13] characterized the socioeconomic characteristics and the Bangladeshi population's

knowledge, attitude, and practice [KAP] status regarding dengue. A study [14] assessed the evaluated information, determining the consciousness level, and precautions taken to educate locals in a particular barrio in Laguna about dengue, and being aware of the relationship between awareness, knowledge, and preventive actions. A study [15] explored the community's present level of dengue prevention knowledge and behaviors in relation to their sociodemographic status in an urban Selangor area, [16] examined the effectiveness of a novel dengue control intervention in the capital city of Ouagadougou. Corresponding trends emerge from various research looking at barangay-based, community-based dengue management strategies. Even though the general public is aware of dengue, there is still a gap between awareness and practical prevention measures. Every study highlight how important communication and education are to increasing knowledge and changing behavior. Nonetheless, there are still several unanswered questions. The research does not attempt to look at ways to make sure these behaviors are sustainable over the long run. Additionally, the impact of socioeconomic determinants on behavior and knowledge gaps is the subject of only one study. Lastly, even though one study examined an intervention, more investigation is required to determine the efficacy of other community-based tactics in diverse settings. The authors who are currently studying at the University of Cebu-Bani lad College of Nursing, have a solid grasp of nursing principles, community health interventions, and disease control measures. The researchers' academic foundation, coupled with exposure to diverse Community Health Nursing courses, has prepared the researchers to undertake a thorough research study on strategies for preventing dengue. The common thread across this globe is the persistence of dengue outbreaks and the need for comprehensive, community-driven approaches to address the multifaceted factors contributing to the disease's transmission. Despite existing efforts, the incidence of dengue continues to rise, highlighting the need for innovative strategies that actively engage and empower communities in the fight against this public health threat. This study determined the community-based practices for dengue control in Sitio Ibabao, Barangay Basak, Lapu – Lapu City, Cebu. The findings served as a bases for a proposed community health action plan.

2. MATERIALS & METHOD

This study utilized a descriptive–correlational research design that determined the community-based practices for dengue control in Sitio Ibabao, Barangay Basak, Lapu – Lapu City, Cebu. The findings served as a bases for a proposed action plan.

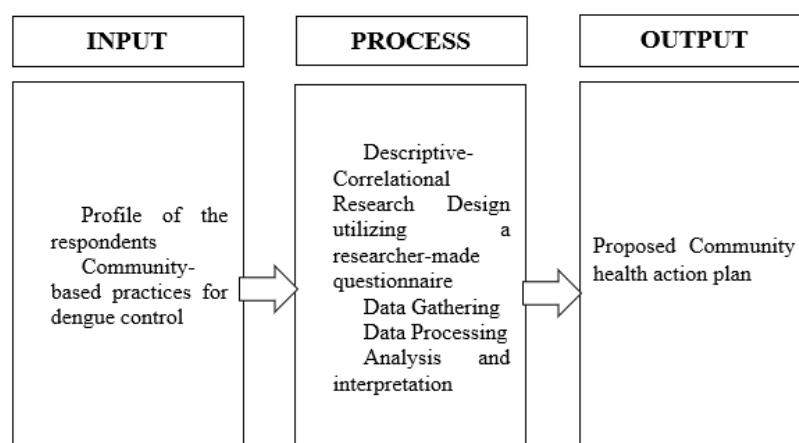


Figure 01: Research Flow

Descriptive correlational research strives to explain the link between two or more variables without establishing a cause-and-effect relationship. To determine whether there is a relationship between at

least two variables, it entails gathering and evaluating data about them [17]. The research was conducted in Sitio Ibabao, Barangay Basak, Lapu – Lapu City, Cebu. The choice to conduct the study in Ibabao Basak, Lapu-Lapu City was primarily motivated by the significant incidence of dengue fever within this locality. Specifically, in the year 2022, Lapu-Lapu City, where barangay Basak is located, had a concerning surge, totaling 667 reported cases of dengue. This sudden escalation was notably linked to sanitation challenges exacerbated by the aftermath of Typhoon Odette. It is also worth noting that countless of records and geospatial analysis indicate the prevalence of flood hazards. The disruption of waste management systems resulting from flood events constitutes a significant predisposing factor for dengue transmission by promoting the creation of stagnant water bodies and breeding sites for the *Aedes* mosquito vector. Mactan Doctor's Hospital, located in Brgy. Basak, serves as a primary healthcare facility, making it accessible to the local community. Barangay Basak, Lapu-Lapu City has a total household population of 15, 212 households with an average of 3.94 members per household with a sample size of 155 households residing in Sitio Ibabao, Barangay Basak, Lapu-Lapu City. For this specific study, the researchers employed a precise methodology known as stratified random sampling. Stratified random sampling is a technique used for selecting sample units from a population. It involves dividing the population into smaller subgroups or "strata" based on shared characteristics like age or education level. The selection process was guided by Slovin's formula leading to a calculated total of 155 respondents. Significantly, this sample size established with a confidence level of 95%, is designed to provide a comprehensive representation of the community, ensuring that the study's findings can be confidently generalized to the broader population. In gathering the data relevant to the study, the researchers used a researchers-made questionnaire as a survey instrument to elicit pertinent information from the principal respondents of Sitio Ibabao, Barangay Basak, Lapu-Lapu City. The research instrument consists of 2 parts: Part I involves the profile data on the respondents in terms of age, gender, educational attainment, economic status, and garbage disposal. Part II consists of a checklist that has 15 items with the certain practices to control dengue in the community. To interpret the community-based practice for the dengue control, the following parametric scores and interpretations will be used in the study:

Table 01: Parametric scores and interpretations

Scale	Response	Descriptive Equivalent	Interpretation
4	Always	Excellent	This means that the respondent performs the community-based practices at all times.
3	Almost Always	Very Good	This means that the respondent performs the community-based practices most of the times.
2	Rarely	Fair	This means that the respondent performs community-based practices few times.
1	Never	Poor	This means that the respondent never performs the community-based practices.

The author submitted the protocol for review at the University of Cebu-Academic Research Ethics Committee [UCAREC] in obtaining the Certificate of Approval prior to gathering data from the respondents. The researchers had asked permission to the Dean of the College of Nursing in University of Cebu – Bani lad. The researchers had also submitted a transmittal letter to the good office of the Barangay Captain. Afterwards, the researchers had conducted an orientation about the study with the barangay officials, RHU and discussed with them the approach or method in distributing the questionnaires to the respondents. The researchers had conducted a pilot test with 30 households

among the residents of Sitio Ibabao, Barangay Basak, Lapu-Lapu City. The researchers had met and greeted them and introduced themselves before discussing the informed consent as well as the study. The respondents had the option of choosing whether to participate or declining the invitation to partake in the study. Additionally, it was imperatively noted that the respondents be granted the autonomy to voluntarily withdraw from the study if they deem it necessary. Once the respondent granted the approval to participate the study, the researchers gave a copy of the Informed Consent Form and asked them to sign. Subsequently, the researchers distributed the questionnaires to the respondents, following their agreement to partake in the study. The respondents then be allotted a time period of 30 minutes to complete the questionnaire. After answering the two – part questionnaire, the author had collected, tabulated, and analyzed the data provided. Following the completion of the analysis, the reliability of the adapted questionnaire was evaluated through the utilization of Cronbach's alpha value. The procedures commenced by sending a letter of intent to the Dean of the College of Nursing of University of Cebu – Bani lad. Once approved, the study was submitted to a panel of experts for design hearing and approval. After the approval by the panel during the proposal hearing, the study was submitted to the University of Cebu Academic and Research Ethics Committee [UCAREC] for protocol and ethics review. After the notice to conduct the study is granted by the committee, the researcher had sent out a transmittal letter to the Barangay Captain of Basak, Lapu – Lapu City, Cebu for permission to conduct the study. After the transmittal letter asking for permission and approval has been approved by the key persons in pilot and actual environment, the researcher had now formally conducted the data collection process. During data gathering, the inclusion and exclusion criteria was revisited to appropriately select the respondents who was given the questionnaire. The actual respondents of the study were approached for their consent to participate in the study. The details of the informed consent as well as the aim of the study was explained to the respondents. Once the respondents consented to the study, they were asked to sign the Informed Consent Form, then researcher asked the respondent to answer the research instrument. The researchers ensured that the respondents understood the statements in the questionnaire by explaining to them the items that the respondents might find difficult to comprehend. Since data collection was done using face-to-face intercept, safety protocols such as wearing of face mask was strictly implemented throughout the data collection process. All answered questionnaires was double-checked for possible missed or unanswered items before closing the data collection to ensure the completeness of the information. The questionnaires were then collected and the gathered information was collated. Responses were tallied, tabulated, and subjected to treatments using both descriptive and inferential statistics. At the end of the study, the answered questionnaires were shredded to maintain confidentiality. A soft copy of the tabulated responses was kept for reference but was deleted as soon as the study is completed. The responses of the respondents were subjected to statistical treatment using different statistical tools. A statistician was commissioned for the treatment of data while the interpretation was a collaborative effort between the statistician and the researchers. The respondents' answers that were recorded and grouped according to their category were computed using the following statistical tools. Simple Percentage was used to determine the personal characteristics of the respondents in terms of age, gender, educational attainment, economic status, and garbage disposal. Weighted mean was used to measure community-based practices for dengue control. Chi-Square was used to determine the significant relationship between the profile and the community-based practices of the respondents for dengue control. Ethical considerations were strictly followed in the conduct of this research work. There are be four ethical standards that were followed for this research endeavor. These included the principles of respect, confidentiality, beneficence, and justice.

3. RESULTS & DISCUSSION

The profile covers the mean score of the socio-demographic profile of the respondents. A total of 155 respondents were interviewed and their responses were categorized into age, gender, highest educational attainment, economic status, and garbage disposal methods with its corresponding frequency and equivalent percentages.

Table 02: Demographic Profile of the Respondents

Indicator	Frequency (<i>f</i>)	Percentage (%)
Age		
18-33	80	51.6
34-49	56	36.1
50-65	19	12.3
66-81	0	0
Gender		
Male	68	43.9
Female	87	56.1
Educational Attainment		
Elementary Level	0	0
Elementary Graduate	5	3.2
Some Years in High School	9	5.8
High School Graduate	41	26.5
Undergraduate	25	16.1
College Graduate	66	42.6
Master's Degree Holder	9	5.8
Ph.D.	0	0
Economic Status		
Low	93	60
Middle	62	40
High	0	0
Garbage Disposal		
Dump in the river	0	0
Dump directly in the garbage bins	97	62.6
Burning the waste	25	16.1
Using sanitary landfills	33	21.3

Table 02 shows that most of the residents of Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu are young adults aged 18-33 years old, with eighty (80) out of one hundred fifty-five (155) respondents that has a percentage of 51.6%. This means that these young adults are active, likely to engage in community efforts, and can easily spread important information about preventing dengue. Whereas the demographic of individuals aged 50 to 65 years, which comprises of merely 12.3% of the population, suggests that this group may be less engaged in physically demanding tasks related to dengue control. Nevertheless, they contribute significantly by imparting their knowledge and experience while motivating others to engage in community initiatives. In terms of gender, the results had shown that most of the respondents of Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu are female, comprising about eighty-seven (87) out of one hundred fifty-five (155) making up 56.1% of the total respondents. This indicates that women play an important role in community dynamics, particularly in initiatives aimed at controlling dengue. This was supported with [18] in their discussion of woman and their

central roles in household management and caregiving. He stated that women are likely to take an active part in ensuring clean environments and mitigating mosquito breeding. Their involvement is essential, as they have the capacity to shape family practices, educate peers about dengue prevention, and spearhead community efforts. In contrast, there are sixty-eight (68) males out of one hundred fifty-five (155) respondents of Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu consisting of 43.9%. This means that men also have a significant presence in the community, though they are fewer than women. This was reinforced by [19] who assessed that men's involvement in dengue control is important as men can contribute to physically demanding tasks like clearing potential mosquito breeding sites and participating in community clean-up drives. Encouraging male involvement may result in more thorough and persistent efforts in dengue management. In terms of educational attainment, the results had shown that there were sixty-six (66) out of one hundred fifty-five (155) respondents who were college graduates, which made up 42.6%. The findings suggest that a considerable segment of the community has achieved a high level of education. This educational background may enhance community initiatives aimed at controlling dengue fever, as individuals with higher education, such as college graduates, tend to have a better understanding of effective dengue prevention strategies. This was demonstrated by [20] that college graduates are capable of disseminating this knowledge within the community, thereby increasing awareness and encouraging active participation in preventive measures. Furthermore, their educational experiences may predispose them to assume leadership roles, organize community activities, and implement informed strategies to address the dengue threat effectively. On the other hand, 41 respondents out of 155, representing approximately 26.5% of the total population, were high school graduates. This indicates that a considerable portion of the community possesses a foundational level of education, though not as extensive as those with college degrees. With their basic understanding of dengue and its transmission, they are able to undertake preventive measures, such as eliminating stagnant water sources, organizing community clean-up activities, and raising awareness about the importance of mosquito control. However, their level of involvement may vary significantly due to factors like community support, resource availability, and individual motivation. In terms of economic status, the table presents that there are ninety-three (93) out of one hundred one hundred fifty-five (155) respondents who fall to low socioeconomic status, that has an equivalent of 60% on the total data. Many community members, particularly those that are economically disadvantaged, may encounter significant barriers, such as limited access to essential resources and healthcare services. This was confirmed by [21] as such limitations may hinder their efforts to effectively control the spread of dengue, as individuals from lower-income households often face challenges in affording mosquito repellents, maintaining adequate sanitation, or accessing timely medical care and treatment. Furthermore, there were sixty-two (62) out of one hundred fifty-five (155) respondents that falls into the middle class of socioeconomic status with over 40% of the total respondents. This signifies that middle-class populations have better access to education and information and are therefore more likely to be aware of dengue prevention strategies. In terms of waste disposal practices, the data indicates that 97 respondents, representing approximately 62.6% of the total 155 participants, are correctly disposing of their waste in designated bins. In regions where small, discarded water containers serve as breeding sites for dengue vectors, community engagement in waste management is a practical and sustainable approach to controlling these vectors at the household level. Effective waste management not only simplifies the process for communities but also plays a crucial role in preventing the spread of dengue by removing potential mosquito habitats. In contrast, thirty-three (33) out of one hundred fifty-five (155) respondents indicated that they dispose of their waste in landfills. This common disposal method raises several environmental concerns, such as groundwater contamination, methane emissions, and land degradation. This is validated by [22] as they classify landfills as major methane sources, a potent greenhouse gas that contributes significantly to climate change. Additionally, leachate from landfills may seep into local water supplies, posing serious

risks to human health and ecosystems. Social impacts are also significant, as communities near landfills often experience reduced property values and elevated health risks due to pollution.

Table 03: Community-Based Practices for the Control of Dengue

Indicators	Weighted Mean	Descriptive Equivalent	Interpretation
1. I cover and clean water containers on a regular basis	3.60	Excellent	Always
2. I keep the house clean and tidy by avoiding any junks inside or outside the house. (Example: old tires and storage containers)	3.52	Excellent	Always
3. I wear protective clothing like long sleeved clothes and pants when going out of the house	2.06	Fair	Rarely
4. I invest in mosquito nets so that I get protected when I sleep	2.35	Fair	Rarely
5. I drain and clean the roof gutters to avoid water build up	2.72	Excellent	Almost Always
6. I use mosquito repellents	2.50	Fair	Rarely
7. I burn leaves to prevent dengue infection	2.65	Very Good	Almost Always
8. Burn mosquito coils to stay away from dengue mosquitoes	2.67	Very Good	Almost Always
9. I use insecticides once a month	2.05	Fair	Rarely
10. I examine for mosquito larvae in the containers for storing water	3.14	Very Good	Almost Always
11. I put abate or chemical in water storage containers	1.59	Poor	Never
12. I clean up the surrounding area of our house. (Bushes)	3.45	Excellent	Always
13. I wear bright colored clothes to avoid mosquito bites	2.05	Fair	Rarely
14. I change stored water (i.e. tanks, pails etc.)	2.97	Very Good	Almost Always
15. I empty containers like flower pots, tires, and buckets	3.17	Very Good	Almost Always
Aggregate Mean:	2.70	Very Good	Almost Always

Legend: 1.00-1.75 - Never (N), 1.76-2.50 - Rarely (R), 2.51-3.25 - Almost Always (AA), 3.26-4.00 - Always (A)

The data presented in Table 02 reveals an aggregate mean score of 2.70, indicating a positive trend in the cleaning practices among respondents. These results suggest that the residents of Barangay Basak Lapu-Lapu demonstrate diligence in their cleaning efforts and actively engage in preventive measures aimed at mitigating the risk of dengue outbreaks. The highest weighted mean score of 3.60 is associated with the statement, *"I cover and clean water containers on a regular basis."* This suggests that the respondents demonstrate a strong commitment to maintaining cleanliness in their water storage practices. The proactive approach indicated by this result reflects a conscientious effort to prevent the accumulation of residual wastewater, thereby promoting safer water management. In contrast, the intervention with the lowest weighted mean score of 1.59 pertains to the application of abate or chemical treatments in water containers. This indicates that respondents rarely engage in the use of

abate or chemical treatments as part of their water storage practices. The results as presented by the table are supported by a research study conducted by [23] which emphasizes the intricate relationship between household wastewater management and the transmission of dengue fever. Their study highlights that stagnant water in various containers serves as a breeding ground for *Aedes* mosquitoes, the primary vectors of dengue. The authors advocate for community-based initiatives aimed at regular cleaning and maintenance of these water-holding containers as a critical strategy for controlling larval populations and mitigating dengue outbreaks within communities. This underscores the effectiveness of proactive community engagement in wastewater management as a best practice for dengue prevention. Moreover, authors [24] conducted a study that critically evaluates the efficacy of Abate, a chemical larvicide commonly used to treat water. Their research indicates that Abate's effectiveness is significantly diminished during the rainy season, a period when mosquito populations typically surge.

Table 04: Significant Relationship between the Profile of the Respondents and their Community - Based Practices for Dengue Control in Sitio Ibabao, Barangay Basak, Lapu - Lapu City, Cebu

Variables	Computed Chi - Square	df	Cramer's V	P-Value	Decision of HO	Interpretation
Age	25.007	15	0.240	0.050	Reject Ho	Significant Relationship
Gender	2.161	3	0.118	0.540	Accept Ho	No Significant Relationship
Educational Attainment	16.871	15	0.190	0.327	Accept Ho	No Significant Relationship
Economic Status	2/008	3	0.114	0.571	Accept Ho	No Significant Relationship
Garbage Disposal	10.037	4	0.181	0.040	Reject Ho	Significant Relationship
Overall Mean:	13.519	8	0.169	0.301	Accept Ho	No Significant Relationship

*P - value is significant if it is equal or lower than 0.05

The findings presented in Table 04 provided an overall result of 13.519 after a thorough evaluation of the relationship between demographic variables and community-based practices for dengue control. This suggests no significant overall relationship between the combined demographic variables and community-based dengue control practices. These aggregate results emphasize the difficulty of public health behaviors, indicating that while individual variables may influence community participation in dengue prevention, the cumulative impact of these demographic factors may not strongly predict behavior. Hence, there is a need for comprehensive interventions that go beyond demographic profiling to enhance community-based dengue control practices effectively. The analysis highlights the strongest and weakest relationships among the individual variables. Age demonstrated the highest association with community-based dengue control practices, with a computed Chi-Square value of 25.007 ($p = 0.050$) and a moderate effect size (Cramer's $V = 0.240$). This indicates a significant relationship, suggesting that age is an influential factor in dengue prevention practices, likely due to varying levels of experience, awareness, and responsibility among age groups. On the other hand, gender had the weakest association, with a Chi-Square value of 2.161 ($p = 0.540$) and a very small effect size (Cramer's $V = 0.118$). This lack of significance reflects the minimal role that gender differences play in influencing dengue prevention behaviors within this community. The findings align with previous studies, further validating the relationships observed. For instance, [25] highlighted the importance of respondent profiles in community participation for dengue control, as seen in the significant relationship between

age and prevention practices. Additionally, [26] emphasized that age and socioeconomic status often shape individuals' awareness and capacity for implementing preventive measures. A study [27] supported this by noting that higher education and employment status enhance understanding of dengue prevention, driven by increased exposure to health education.

Table 05: community health action plan

COMMUNITY HEALTH ACTION PLAN	Current Year: 2025	Sector: Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu
Goal: To reduce the incidence and prevalence of dengue fever in Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu by implementing effective preventive measures, promoting community awareness and participation, and strengthening the capacity of local health systems to respond to dengue outbreaks.	Priority Area: High-risk neighborhoods or zones	Target Audience: All residents of Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu
		Target Reach: All residents of Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu
Lead Responsibility: Local officials of Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu	Justification: Implementing a comprehensive dengue prevention plan can lead to long-term sustainability. By addressing the root causes of dengue transmission, the community can reduce its vulnerability to future outbreaks and improve its overall health resilience.	
Barriers: Financial Management	Resources: Government Fund, fundraisers, donation	Source of Justification: of Sitio Ibabao, Barangay Basak, Lapu-Lapu City, Cebu

4. CONCLUSION

The study utilized a descriptive–correlational research design using a researcher-made questionnaire as a survey instrument to elicit pertinent information from the principal respondents of Sitio Ibabao, Barangay Basak, Lapu-Lapu City in terms of their demographic profile and community–based practices for dengue control. The study used a stratified random sampling; there were one hundred fifty – five (155) households in Sitio Ibabao, Barangay Basak, Lapu-Lapu City who served as the respondents in the study. This study used frequency count and simple percentage, weighted mean, and chi-square test of independence for statistical treatments. On the profile of the respondents, 51.6% of the sample population are young adults aged 18-33 years old, 56.1% of those are female, 42.6% are college graduates, 60% belong to a low-income family, and 62.6% are properly disposing their garbage in bins. The community-based practices for dengue control revealed that respondents demonstrated excellent adherence to regularly covering and cleaning water containers (Indicator #1), with a weighted mean of 3.60. However, the practice of using abate or chemicals in water storage containers was notably inadequate, with a weighted mean of only 1.59r. The analysis of respondent profiles revealed a

significant relationship between variables such as age, waste disposal practices, and community-based dengue control practices. In contrast, no significant relationships were found between gender, educational attainment, and economic status. Overall, the findings of the study indicates that there is no statistically significant relationship between the respondents' profiles and the community-based practices for dengue control in Sitio Ibabao, Barangay Basak, Lapu-Lapu City. While residents demonstrate excellent practices in water container management, there is a notable gap in the utilization of chemical interventions like abate in water storage containers. The study identified significant correlations between age and waste disposal practices with dengue control measures, suggesting that targeted interventions should consider these demographic factors. However, the overall analysis revealed no statistically significant relationship between respondent profiles and community-based dengue control practices, indicating that socioeconomic factors such as gender, education, and income level may not be primary determinants of dengue prevention behaviors in this community.

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