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Evaluation of the Re-emerging Infectious Diseases Awareness Program Implementation of Department of Health (DOH): Basis for Advocacy Program

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ABSTRACT

This study assessed the implementation of the Department of Health (DOH) Awareness Program in the coastal community of Barangay Molocaboc, Sagay City. It aimed to evaluate the program's effectiveness in improving public health knowledge, communication reach, response preparedness, and policy implications among local residents. A quantitative-descriptive survey design was used, and data were gathered from 293 respondents through a structured questionnaire. The majority of participants were female, aged 40 years and below, and had attained a high school level of education. Findings showed that the overall implementation of the DOH Awareness Program was rated favorably (M = 4.08). Participants strongly agreed with the program's effectiveness (M = 4.34), communication strategies (M = 4.22), and efforts to address awareness disparities (M = 4.52). However, lower ratings were observed in response preparedness (M = 3.47) and policy implications (M = 3.86). Statistical analysis revealed no significant differences in program evaluation based on age and sex, except for policy implications, which varied significantly by sex (p = .030). Awareness disparities also showed a significant difference based on educational attainment (p =.000), suggesting varied perceptions of information accessibility. The results highlight the need to strengthen policy-related efforts and response mechanisms, while tailoring communication strategies to address educational gaps in health awareness.

Keywords: DOH Awareness Program, public health, coastal community, infectious diseases, response preparedness

INTRODUCTION

Infectious diseases are illnesses caused by pathogens such as bacteria, viruses, fungi or parasites, which can spread directly from one person to another (WHO,2023) and it remain an ongoing health concern, with re-emerging infectious diseases posing a threat due to factors such as global travel, climate change and anti-microbial resistance. Re-emerging infectious diseases involve diseases which showed lower incidence rates before returning to affect populations again due to various factors (Wang et al., 2021). The Environmental Literacy Council (2025) points tuberculosis, measles and dengue as re-emerging infectious diseases. The Department of Health (DOH) has applied an awareness program which targets group knowledge about these conditions. An awareness program established by the DOH supplies information to the public about diseases while promoting prevention strategies.

Continued evaluation of healthcare programs faces limitations when specifically applied to rural areas where healthcare access is restricted. Barangay Molocaboc in Sagay City constitutes one of the coastal regions with sanitation and accessibility issues. The community faces exclusive health obstacles because it resides in a remote area while experiencing restricted health facility availability and higher environmental hazards (Garcia et al., 2019). While infection rates in Brgy. Molocaboc remain low, health officials acknowledge that continuously poor sanitation conditions lead to increased transmission risk for diseases. According to Sagay City Health Office (2023). The area of Molocaboc ranks as the place with the lowest sanitation conditions in the city and needs priority for public health interventions. Such sanitary conditions endanger public health because they could result in incorrect disease surveillance numbers or inadequate reporting of health issues (WHO, 2022).

Our current scientific research proves that disease prevention depends heavily on public awareness but lacks localized findings. A thorough analysis of this program matters because it allows researchers to enhance their approaches and verify public health initiatives to reduce infection threats. The effectiveness of reduction measures against infections requires analysis to develop evidence-based guidelines for an advocacy program. This study, which evaluates a national health initiative at the community level, solves the existing research gap. The way people perceive and implement health-related initiatives within their community provides essential knowledge for improved health promotion, disease prevention and policy planning.

The study determines how population characteristics, including age and sex, alongside educational attainment, influence residents' perceptions of the program's effectiveness. Studies suggest that individuals from different socioeconomic positions, along with their information access levels, determine their participation in health initiatives, according to Smith & Brown (2020). Through its variance analysis, the research uncovers crucial information about public health understanding among the community. Public health campaigns need adjustments to provide improved services for communities at high risk.

OBJECTIVES OF THE STUDY

This research investigates how the Department of Health implements its re-emerging awareness program.
The research will investigate three essential elements, namely (1) participant demographic statistics by age and sex, and educational level. (2) To assess DOH awareness program implementation at different effectiveness levels while analyzing how awareness distribution impacts program results along with performance readiness and media evaluation and policy implementation assessments.
Response preparedness, Evaluation of media and communication channels, Policy implications. (3) To determine if The socio-demographic profile shows a major difference from the level of implementation for DOH awareness programs in terms of Effectiveness, Awareness disparities, Response preparedness, Evaluation of media and communication channels, and Policy implications.

Hypotheses

There is no significant difference between the socio-demographic profile and the level of the DOH Awareness Program implementation in terms of Effectiveness, Awareness disparities, Response preparedness, Evaluation of media and communication channels, Policy implications.

Literature Review

Health awareness programs hold significant importance according to reviewed literature because they reduce infectious disease outbreaks while reinforcing community public health initiatives. Effective communication acts as the foundational theory of this research as per Malikhao (2020) while proving essential for enhancing health comprehension and behavioral patterns of people. The Department of Health (DOH) bases awareness campaign structures on this theoretical model to encourage people to discover illnesses early and establish preventive actions.

Public health awareness campaigns play a critical role in managing emerging and re-emerging infectious diseases according to studies which focus both nationally and internationally. The World Health Organization (WHO, 2022) and DOH (2023) endorse prevention measures in areas with high-risk potential especially those reporting few infections while being vulnerable such as Brgy. Molocaboc located near the coast. Global research findings show that human pathogens relocated throughout the world because of three main factors: globalization, urbanization, and environmental changes (Smith & Guégan, 2010; Roser & Ritchie, 2023).

A historical review demonstrates that infectious diseases continue to exist alongside the fundamental requirement for dynamic public health programs that maintain readiness (Wang et al., 2021; Snowden, 2008; Harrison, 2015). The socioeconomic factors of educational attainment alongside personal income levels together with medical service accessibility demonstrate major effects on health comprehension and success (Adler et al., 1994; Braveman et al., 2011; Cutler & Lleras-Muney, 2010). Health inequalities lead to diverse levels of preventive care availability while affecting the effectiveness of program-based health interventions.

The review evaluates age-related demographic factors at play when delivering programs and keeping information within patients' memories. People require distinct information tailored to their life stage since different age groups need different health materials (Piette & Kerr, 2006; Patel et al., 2007). Women tend to take part in health programs more frequently than men while males show lower engagement rates according to Courtenay (2000) and WHO (2014) research findings.

Health literacy and program comprehension had a direct connection with educational attainment. Society members with limited academic education tend to communicate using pictures and spoken messages and traditional cultural patterns as alternatives to written content (Paek et al., 2016). Geographic circumstances involving rural areas or urban zones determine the delivery and participation of health awareness programs because such areas possess varying resource distribution and access limitations (Hartley, 2004; Lavoie et al., 2016).

Health programs receive their public reception from both cultural beliefs and community dynamics. Development of trust as well as sustained behavioral change occurs through the combination of community leader engagement and culturally sensitive program methods (Israel et al., 1998; Kale et al., 2023).

According to literature there is a recommendation for using multiple media platforms that include digital channels for tech-oriented groups while utilizing both conventional media outlets and personal contacts for non-tech users (Noar, 2006; Thackeray et al., 2008). Such an approach extends communication reach and strengthens memory retention of messages.

Medical awareness programs show proven effectiveness through research for teaching patients while changing behaviors to achieve better health outcomes. Research by Fibbins et al. (2024), Rodriguez et al. (2017), and Smith et al. (2019) demonstrate the effectiveness of programs that aim to help smokers stop smoking, train people about diabetes management and perform cancer screenings. Major obstacles to preparedness exist because certain groups do not have enough confidence or resources to implement learning from preparedness programs (Burkle, 2020; Gostin et al., 2020).

Philippines adopts a DOH program combining the Emerging and Re-emerging Infectious Diseases Program with One Health approach to address related health hazards in these three domains (WHO, n.d.). The implementation of these efforts failed to address the burdened facilities in Sagay City alongside inadequate sanitation in Brgy. Molocaboc. The Molocaboc situation demonstrates why local and adaptable and inclusive health approaches are necessary (Beltran, 2023).

METHODS

Research Design

The study uses a descriptive-quantitative research design. This assesses the evaluation of the implementation of the program by collecting numerical data and examines the relationship between the participants' socio-demographic profile and their evaluation of the program. This method ensures objectivity and minimizes biases using survey questionnaires, allowing consistent and comparable data collection (Creswell, 2014)

Respondents of the Study

The study targets the residents of Brgy. Molocaboc 2, Sagay City, Negros Occidental, a rural coastal community with the lowest number of reported infectious cases and has the lowest sanitation level in the city (0% access to basic safe water and uses rainwater). According to World Health Organization (WHO), poor sanitation and water quality are directly linked to the spread of infectious diseases, thus, Brgy. Molocaboc is vulnerable to re-emerging infectious diseases. The DOH's National Objectives 2023-2028 stress that interventions should prioritize communities with high environmental risks, even if they do not have high case numbers.

Sampling Method

A stratified sampling method employed to ensure proportional representation across different age groups, sex and educational backgrounds. The sample size was determined using Modified cochran, with a population of 1,071 and a 5% margin of error and 95% confidence level, resulting in a required sample of 293 respondents, ensuring a balance between accuracy and feasibility in data collection. Eligible respondents are those who are at least 18 years old and resident of the barangay for at least 1 year. This is to ensure familiarity in local health initiatives. Individuals with cognitive impairments and are non-residents or temporary visitors were excluded in this study to maintain integrity of the responses. These criteria help ensure that the findings accurately reflect the perspectives of long-term community members who have direct experience with the local health programs.

Research Instrument

The research utilized a structured survey questionnaire (see appendix B) as a data collection instrument consisting close-ended questions measured on a Likert scale (1=strongly disagree to 5=strongly agree) with 2 sections in the questionnaire. The questionnaire was validated by nine experts using a structured validation form (see appendix A), achieving a Content Validity Index (CVI) score of .98 (see Appendix E) using Content Validity Index by C.H Lawshe (1975). To assess its reliability, a pilot test was conducted with 30 respondents from Brgy. Molocaboc 1, yielding a Cronbach's alpha reliability score of .990, indicating a high level of internal consistency. 2 Sections of the questionnaire: (1) Demographic profile (Age, sex, and educational attainment) (2) Evaluation of the DOH awareness program in terms of effectiveness, awareness disparities, response preparedness, media and communication channels and policy implications. Descriptive statistics will be analysed using mean.

To ensure the comprehensibility and accuracy of the survey instrument and prevent misinterpretation and for survey questions to remain intact across languages (Brislin, 1970), the questionnaire was translated from English into Hiligaynon (see Appendix C), the primary dialect spoken in Brgy. Molocaboc 2. The translation aimed to enhance participant understanding and minimize misinterpretation of questions.

A forward-back translation was employed to maintain linguistic accuracy and conceptual equivalence. The initial translation was conducted by a bilingual expert fluent in English and Hiligaynon. A separate bilingual expert then performed a back-translation into English to assess consistency and accuracy. Any discrepancies were addressed through consultations with local community leaders and language experts to ensure cultural and contextual appropriateness and that an instrument must be validated in the target language to maintain reliability (Sousa and Rojjanasrirat, 2011).

To validate the translated survey, a pilot test was conducted with a sample of 30 residents of Barangay Molocaboc 1. Participants provided feedback on the clarity, relevance, and ease of understanding of the questions. Adjustments were made as necessary before the final survey administration.

Data Collection Procedure

The data collection for the study was conducted in Brgy. Molocaboc 2, Sagay City, which was selected due to its low number of reported in infectious cases but poor sanitation status. The total population of the barangay was 1,071 residents, and the sampling was based on population size to ensure representativeness.

Before conducting the study, the researcher sought assistance from the City Health Office of Sagay to gather relevant data on re-emerging infectious diseases (dengue, measles, TB) and the sanitation status of each barangay in the city. The data revealed that Molocaboc 2 had the lowest number of reported cases but also the lowest sanitation level, making it the focus of the study. Researcher started coordinating with the barangay health office (midwife and 4 barangay health workers) to identify target respondents and facilitate the survey process. Conducted an orientation for data collectors to ensure consistency in administering questionnaires and interviews.

The survey was administered in two ways (1) self-administered questionnaires for literate respondents and (2) interview schedule for participants with reading difficulties. The researcher and data collectors ensure neutrality by reading questions without influencing responses.

The data collection process took place over 25 days ensuring sufficient time and follow-ups were conducted to maximize response rates. The first set of questionnaires was distributed to individuals attending a barangay-led health program initiative, where I personally explained the study's objectives. To reach a broader population, the remaining questionnaires were distributed house-to-house with the assistance of the BHWs.

Data Analysis Procedure

Descriptive and inferential statistics were utilized (see appendix D). Specifically, frequency and percentages were computed to summarize the distribution of participants according to age, sex and educational attainment. To determine the central tendency and variability of responses for each dimension, mean and standard deviation were computed. To determine significant difference between the socio-demographic profile and the level of DOH Awareness Program implementation, inferential statistic was used. Age of respondents were categorized into two age groups: those aged 40 years old and below, and those above 40 years old. Thus, age and sex where analysed using mean and standard deviation to describe central tendencies and variations in responses. Given that the normality test result is not normally distributed, non-parametric Mann-Whitney U test was applied to compare two groups' in age and sex categories across areas of evaluation and a P-value of $< .05$ was considered statistically significant indicating a meaningful difference between groups. Kruskal-Wallis test, a non-parametric test was then used to obtain ordinal data from Likert-scale survey responses in comparing categories under educational attainment in a not normally distributed dataset.

Ethical Considerations

Ethical considerations were fundamental in guiding this study on the evaluation of infectious diseases awareness program implementation of the Department of Health (DOH), ensuring the protection of respondents' rights, privacy and well-being while maintaining research integrity. The primary ethical importance during this research consisted of receiving informed consent from all respondents. The community researcher acquired ethical permission from the Institutional Review Board (IRB) before starting the study. The research obtained approval from both the Institutional Review Board (IRB) and the ethics committee prior to initiating operations in order to uphold ethical research requirements. The research strictly honored participants' rights, along with data protection standards during research, while serving as an ethical priority for responsible conduct. The guidelines established by the IRB served as the basis for ethical research practices throughout the duration of the study.

The research involved Barangay Health Workers (BHWs) who came from the same neighborhood of the barangay. I introduced a detailed description of the research intentions to these local health workers. This study features its major investigative goal since it examines how infectious disease awareness programs affect their implementation. One of the main research goals was to collect consent from participants through strict confidentiality

and privacy measures. The participants received full notification about their rights, which included their right to be free. The respondents maintained the right to withdraw whenever they want from the survey and could skip questions and ask anything without negative consequences. They were also briefed about potential dangers, discomfort, as well as advantages of contributing research data. The participants provided important data that will help enhance community health programs.

All gathered responses were placed directly into a coded format for secure storage in a laptop using a password-protected document with restricted access. The researcher secured the coding data within a protected document platform accessible only by her on a password-protected laptop. To maintain the integrity of the study, honest and transparent communication in reporting was upheld. A data retention policy was established, ensuring that all data would be securely store for five years following the study's conclusion. After this period, all personally identifiable data will be permanently erased using secure deletion methods. Electronic files will be deleted from the system and overwritten to prevent recovery, while any physical documents containing sensitive information will be shredded and disposed of properly.

By strictly, adhering to the IRB guidelines, this study upheld the highest ethical standard, ensuring the privacy, rights, and well-being of all respondents while maintaining the credibility and integrity of the research.

RESULT AND DISCUSSION

Demographic profile of respondents

Table 1 present the socio-demographic characteristics of the participants, including age, sex and educational attainment.

Table 1
Demographic profile of the respondents

Profile	Categories	Frequency	Percentage
Age	40 years old and below	153	52.2
	41 years old and above	140	47.8
	Total	293	100
Sex	Male	30	10.2
	Female	263	89.8
	Total	293	100
Educational Attainment	elementary school level	30	10.2
	elementary school graduate	57	19.5
	high school level	71	24.2
	high school graduate	87	29.7
	college level	19	6.5
	college graduate	29	9.9
	Total	293	100

Table 1 presents the demographic characteristics of the participants. In terms of age, 52.2% were 40 years old and below, while 47.8% were aged 41 and above, indicating a near-even distribution across age groups. The majority of respondents were female (89.8%), with only 10.2% identifying as male. Regarding educational attainment, 54.5% of participants reported having a high school education or lower, whereas 45.5% had attained college-level education or higher.

The relatively balanced distribution of age groups suggests that health awareness campaigns should equally target both younger and older individuals. As noted in existing literature, younger populations are generally more receptive to digital health initiatives, such as social media campaigns and mobile apps, whereas older adults often respond better to traditional, face-to-face educational strategies (Trinidad & Loyola, 2020). Therefore, utilizing a combination of both digital and interpersonal approaches may enhance the overall effectiveness of health programs.

Research shows that female participants consistently outnumber male participants in health programs with these demographics that match statistics from Kawi et al. (2024). Most females demonstrate higher involvement with

community health initiatives because they actively participate in health and awareness campaigns (Kawi et al., 2024). The finding indicates that women act as essential healthcare promoters for boosting health literacy among both families and communities. The current data reveals women constitute the majority of participants (89.8%) while underscoring the necessity for targeted strategies to engage men properly in health initiatives.
Health departments should adopt a strategy of sharing health messages directly in locations particular to male audiences, including workplaces along sports associations

Health awareness levels depend heavily on the educational level one has achieved. With over half of the respondents, the results show that fifty-three point nine percent (53.9%) of the population holds only a high school education level or below, which stresses potential health literacy barriers. The Health Promotion and Literacy Study (2021) showed that higher educational levels among the population matter for health awareness. People without extensive educational backgrounds gain better health understanding through spoken communication methods along with visual resources and local community initiatives instead of written educational materials. Acceptable health messages need straightforward presentation, while interactive community-based programs deliver better outcomes.

In sum, the demographic data underscore the need for tailored, inclusive strategies in health promotion efforts. Age-appropriate platforms, gender-sensitive approaches, and literacy-aware communication methods should be considered to ensure that awareness campaigns reach and resonate with diverse population groups.

Level of DOH awareness program implementation

Table 2 presents the overall assessment of the DOH Awareness Program across different areas.

Table 2
Level of DOH Awareness program Implementation when taken as a whole

Areas	Mean	Std. Deviation	Description
Effectiveness	4.3413	.98292	Strongly Agree
Awareness Disparities	4.5222	.63888	Strongly Agree
Response Preparedness	3.4703	.77414	Agree
Evaluation of Media and Communication Channels	4.2246	.70687	Strongly Agree
Policy Implications	3.8580	.96460	Agree
When taken as a whole	**4.0846**	**.53669**	**Agree**

Table 2 presents the mean scores and standard deviations for the level of implementation of the DOH Awareness Program across five key areas. The results show that respondents strongly agreed on the effectiveness of the program (M = 4.34, SD = 0.98), the reduction of awareness disparities (M = 4.52, SD = 0.64), and the evaluation of media and communication channels (M = 4.22, SD = 0.71).

In contrast, the level of agreement was slightly lower in the areas of response preparedness (M = 3.47, SD = 0.77) and policy implications (M = 3.86, SD = 0.96), both receiving a rating of agree. When assessed as a whole, the implementation of the DOH Awareness Program achieved an overall mean score of 4.08 (SD = 0.54), corresponding to a general agreement among respondents.

The results from this study demonstrate that the Department of Health (DOH) Awareness Program shows effective performance across most implemented areas especially in the areas of Awareness Disparities, Effectiveness, and Media and Communication Channels, all receiving high mean scores. Research evidence shows today that there is increasing acknowledgment of the implementation of health communication strategies that include every member of the community creates better result for public engagement and health outcomes (Schoch-Spana et al., 2021).

Evaluation results show that the Department of Health has successfully utilized communication platforms to target wide audiences. Through its chosen platforms, the organization establishes connectivity to reach multiple audience channels. Different communication channels work in harmony to deliver information consistently with other studies about multi-platform communication that focus on health behavior change (Kemp et al., 2021). The use of communication channels effectively improves health literacy and shapes health behaviors, according to Kemp et al. 2021.

Response Preparedness received the minimum rating which signals potential weaknesses in emergency response translation into actionable emergency responses. The research noted this gap worldwide throughout the COVID-19 crisis. The pandemic revealed that raising awareness was insufficient because communities needed formal training and simulation exercises with adequate support systems (Burkle, 2020). Building a culture of preparedness requires investment in not only informing the public but also equipping them with the necessary tools and practice for real-life emergencies.

Meanwhile, the moderate score in Policy Implications suggests that while public awareness campaigns are visible, their integration into health governance and policy enforcement may need strengthening. Effective health programs require robust policy alignment to ensure long-term sustainability and institutional support (Gostin et al., 2020).

Overall, while the program has strong foundational elements, particularly in outreach and communication, efforts should now shift toward reinforcing preparedness activities and embedding the program into a stronger policy framework.

Table 3
Level of DOH Awareness Program implementation when assessed each questions in the instrument per areas.

Areas	Mean	Std. Deviation	Description
The program has increased my knowledge about infectious diseases.	4.0341	1.60015	Strongly Agree
The program made me feel more informed about preventive measures.	4.0444	1.60097	Strongly Agree
The program has helped me understand the importance of early detection of diseases.	4.0375	1.59471	Strongly Agree
The program's information provided is clear and easy to understand.	4.8635	.42418	Strongly Agree
The program has made me satisfied with its overall effectiveness.	4.7270	.51070	Strongly Agree
Mean for Effectiveness of the DOH Awareness Program Implementation	**4.3413**	**.98292**	**Strongly Agree**
The program's information is accessible to all groups in my community.	4.4778	.74738	Strongly Agree
The program's information awareness differs among age groups in the community.	4.4881	.67033	Strongly Agree
The program effectively reaches people from different socioeconomic backgrounds.	4.5017	.68559	Strongly Agree
The program ensures that the information is equally available to both urban and rural residents.	4.5802	.67073	Strongly Agree
The program ensures that minority communities are well-informed.	4.6041	.65185	Strongly Agree
Mean Awareness Disparities	**4.5222**	**.63888**	**Strongly Agree**
The program has prepared me to recognize the symptoms of infectious diseases.	3.0717	1.98409	Agree
The program helps me understand what actions to take if an infectious disease outbreak happens.	3.2526	1.93145	Agree
The program has given me the resources to respond to an outbreak.	3.0546	1.95421	Agree
The program made me feel confident protecting myself and my family during an outbreak.	3.8942	1.70988	Agree
The program has increased my community's preparedness for outbreaks.	4.0785	1.61669	Agree
Mean Response Preparedness	**3.4703**	**.77414**	**Agree**
The program's messages are effectively delivered through social media.	4.0034	1.62914	Agree
The program's messages are effectively communicated through traditional media (TV, radio, newspapers).	3.7884	1.58857	Agree
The program's messages are effectively spread through mobile apps.	4.6280	.60379	Strongly Agree
The program's messages are effectively conveyed through public service announcements in my community.	3.8976	1.56254	Agree
The program's information are effectively communicated through community outreach programs and events.	4.8055	.50987	Strongly Agree
Mean Evaluation of Media and Communication Channels	**4.2246**	**.70687**	**Strongly Agree**
The program has positively influenced local public health policies.	4.6724	.65309	Strongly Agree
The program's findings should inform future public health policies.	3.6962	1.56805	Agree
The program's data and recommendations are considered by policymakers.	3.0853	1.82155	Agree

The program has led to policy changes in my community.	3.8771	1.55886	Agree
The program's impact on policy has improved community readiness for outbreaks.	3.9590	1.57627	Agree
Policy Implications	**3.8580**	**.96460**	**Agree**
WHEN TAKEN AS A WHOLE	4.0846	.53669	Agree

Table 3 presents the level of implementation of the Department of Health (DOH) Awareness Program as assessed per individual question across five thematic areas: Effectiveness, Awareness Disparities, Response Preparedness, Evaluation of Media and Communication Channels, and Policy Implications.

In the Effectiveness area, all items received high mean scores indicating strong agreement. The statement *"The program's information provided is clear and easy to understand"* received the highest mean (M = 4.86, SD = 0.42), followed by *"The program has made me satisfied with its overall effectiveness"* (M = 4.73, SD = 0.51). Overall, the area had a mean score of 4.34 (SD = 0.98), indicating that respondents strongly agree on the program's effectiveness.

In the Awareness Disparities area, results also reflected strong agreement across all items. The program successfully delivers information to minority communities based on survey results (M = 4.60, SD = 0.65) yet exhibits the lowest evaluation for accessibility of information among all groups of my community (M = 4.48, SD = 0.75). "*The program maintains openness of information for every social group in my community* according to survey respondents who rated it 4.48 on a scale from 1 to 5 with a standard deviation of 0.75. The area had survey respondents displayed strong agreement that the program does a successful job of dealing with awareness disparities.

The findings reveal that Response Preparedness receives modest consensus among respondents. The item *"The program has increased my community's preparedness for outbreaks"* which achieved a mean score of 4.08 with a standard deviation of 1.62. The statement "*The program has given me the resources to respond to an outbreak*" generated the most minimal agreement (M = 3.05, SD = 1.95). The overall measurement score in preparedness came out to 3.47 (SD = 0.77), which indicated that respondents agreed to the preparedness aspects but also showed room for better preparedness support.

Respondents showed favorable attitudes toward the media and communication channels' performance. The program's community outreach programs and events successfully transmit program information effectively, according to respondent assessment. The responses were highest for "*The program's messages are effectively spread through mobile apps*," with participants scoring M = 4.63 (SD = 0.60). Respondents gave the lowest grade to the effectiveness of using traditional media (TV, radio, and newspapers) to communicate program messages.
The respondents rated the overall area at 4.22 (SD = 0.71). Respondents strongly agreed that communication effectiveness was a viable approach based on survey results.

The area of Policy Implications received moderate agreement from participants. "*The program has positively influenced local public health policies*" scored the highest (M = 4.67, SD = 0.65) while "*The program's data and recommendations*" ranked lowest (M = 3.09, SD = 1.82) among all assessments in this section. The respondents marked "*The program's data and recommendations are considered by policymakers*" with the least agreement (M = 3.09, SD = 1.82). The area's overall mean for program's policy relevance received average agreement from respondents according to their perceived level at 3.86 (SD = 0.96).

The total scores from respondents for the DOH Awareness Program amounted to 4.08 (SD = 0.54). They find approval of both the program's execution as well as its effects on the population.

Table 3 reveals specific data that evaluates the DOH Awareness Program through five key assessment points. Respondents showed the most acknowledgment for the Effectiveness and Awareness Disparities areas, which reflected positive assessments of these aspects. The implementation strategy has achieved its purpose of enhancing knowledge acquisition while offering inclusive communication services for population groups. The public received messaging that was direct and easy to understand, and the DOH conducted outreach efforts within minority and rural communities. WHO embraces these findings, which confirm their suggestions regarding fair health communication principles (WHO, 2020).

The results of the Evaluation of Media and Communication Channels assessment proved promising because community outreach and mobile apps as the most effective mediums. Mobile applications, together with local strategies, emerge as the most efficient methods according to modern public health experiences as per how Kemp et al. (2021) report. More organizations choose locally embedded approaches as they provide both accessibility and user engagement to the public (Kemp et al., 2021).

The ratings for Response Preparedness proved lower when compared to the other areas of the survey. While respondents felt more informed, more people lacked the confidence and skills to handle a public health outbreak

situation properly. Public health emergencies present an extensive issue regarding knowledge transfer since information alone fails to create readiness or motivate response execution (Burkle, 2020). The gap in community preparedness can be filled through simulations that occur at specific locations accompanied by workshops and preparedness toolkits.

People held an average view about the way the program shapes public health policy development. The recognized program effects, yet they could not establish clear evidence about recommendations' translation to public health policies. When they move to the implementation stage, program recommendations show consistent translation. This situation demonstrates how essential it is to develop better feedback systems. There exists a need for improved feedback methods to link community programming with policy development at the decision-making level (Gostin et al., 2020).

All elements of the DOH Awareness Program create a strong implementation quality assessment. Future improvements should focus on enhancing practical preparedness components and strengthening its integration with policymaking structures to ensure lasting, systemic impact.

Significant difference in Awareness Program Implementation

Table 4
Comparison on the level of DOH Awareness Program implementation when grouped according Age

Areas	Age	Mean	Std. Deviation	Mann-Whitney U-test	P-value	INTERPRETATION
Effectiveness	40 years old and below	4.4183	.90854	9884.000	.216	Not Significant
	41 years old and above	4.2571	1.05511			
Awareness Disparities	40 years old and below	4.4797	.59795	9428.000	.054	Not Significant
	41 years old and above	4.5686	.67994			
Response Preparedness	40 years old and below	3.4654	.76324	10613.500	.887	Not Significant
	41 years old and above	3.4757	.78858			
Evaluation of Media and Communication Channels	40 years old and below	4.2052	.68439	10115.500	.402	Not Significant
	41 years old and above	4.2457	.73253			
Policy Implications	40 years old and below	3.8353	.97795	10335.000	.598	Not Significant
	41 years old and above	3.8829	.95269			
When taken as a whole	40 years old and below	4.0808	.51359	10432.000	.701	Not Significant
	41 years old and above	4.0889	.56267			

Table 4 shows the comparison of the level of DOH Awareness Program implementation when respondents are grouped according to age: 40 years old and below and 41 years old and above. Across all five program areas, the differences in mean scores between the two age groups were minimal. In the Effectiveness area, younger respondents had a slightly higher mean (M = 4.42, SD = 0.91) compared to the older group (M = 4.26, SD = 1.06), but the difference was not statistically significant (p = 0.216). For Awareness Disparities, the older group rated the program marginally higher (M = 4.57) than the younger group (M = 4.48), with a p-value of 0.054, which is close to significance but still above the 0.05 threshold.

Similarly, for Response Preparedness, Evaluation of Media and Communication Channels, and Policy Implications, both groups reported similar levels of agreement with slight variations in mean scores. All p-values across these areas were well above 0.05, indicating no statistically significant difference between age groups in how they perceive the implementation of the awareness program. When taken as a whole, the younger group had a mean score of 4.08 (SD = 0.51) and the older group had 4.09 (SD = 0.56), again with no significant difference (p = 0.701).

Discussion: The results suggest that age is not a significant factor in how respondents perceive the implementation of the DOH Awareness Program. This uniformity across age groups indicates that the program was likely designed

and delivered in a manner that effectively reached both younger and older populations. This is consistent with best practices in public health communication, where inclusive messaging that spans various age demographics. Public understanding and public engagement increase because of such inclusive communication methods (Schoch-Spana et al., 2021).

Although not statistically significant, the marginal difference in rating scores among older individuals in awareness disparity and policy implications suggests they believe the program relates more accurately to their healthcare needs. The research findings parallel those of Kemp et al. (2021) because the analysis showed no substantial differences between groups. The study mentioned that equitable strategies in digital outreach and community engagement reduce gaps in public (et al. 2021). Such initiatives demonstrate equivalent acceptance throughout all demographic segments as long as they function properly.

Public health programs must prioritize universal design principles which were confirmed by these discovery outcomes. The program must ensure accessibility and relevance for all age groups when delivering information. Current findings show no requirement for immediate changes to the program since
Process evaluation should be carried out to follow the effects of the program while also considering the development of age-specific content and delivery modes. The program needs improvement through strategic adjustments before implementing new versions.

Table 5
Comparison on the level of DOH Awareness Program implementation when grouped according to Sex

Areas	Sex	Mean	Std. Deviation	Mann-Whitney U-test	P-value	INTERPRETATION
Effectiveness	Male	4.4267	.94793	3759.000	.647	Not Significant
	Female	4.3316	.98811			
Awareness Disparities	Male	4.5533	.53481	3827.000	.770	Not Significant
	Female	4.5186	.65048			
Response Preparedness	Male	3.4267	.72537	3783.500	.695	Not Significant
	Female	3.4753	.78066			
Evaluation of Media and Communication Channels	Male	4.0533	.78245	3418.000	.221	Not Significant
	Female	4.2441	.69669			
Policy Implications	Male	4.2467	.94931	3008.000	.030	Significant
	Female	3.8137	.95811			
When taken as a whole	Male	4.1413	.40408	3671.000	.532	Not Significant
	Female	4.0782	.55003			

(*Significant at P≤ 0.05)

Table 5 presents the comparison of the level of DOH Awareness Program implementation between male and female respondents. In all areas except one, there were no statistically significant differences observed between the two groups. For instance, in the Effectiveness area, males had a slightly higher mean score (M = 4.43, SD = 0.95) compared to females (M = 4.33, SD = 0.99), but the difference was not significant (p = 0.647). The same trend appeared in Awareness Disparities and Response Preparedness, where mean scores were close between sexes and p-values remained well above the 0.05 threshold.

In the Evaluation of Media and Communication Channels, females (M = 4.24, SD = 0.70) rated the program higher than males (M = 4.05, SD = 0.78), but again, the difference was not statistically significant (p = 0.221). However, a significant difference was found in the area of Policy Implications, where males (M = 4.25, SD = 0.95) rated the impact of the program on public health policies significantly higher than females (M = 3.81, SD = 0.96), with a p-value of 0.030. When considered as a whole, both males and females gave similar overall ratings (M = 4.14 and M = 4.08, respectively), and the difference was not significant (p = 0.532).

Discussion: The findings indicate that sex does not significantly influence most perceptions of the DOH Awareness Program's implementation, aligning with principles of gender-sensitive health communication that aim for inclusivity (WHO, 2020). A difference between these groups appeared solely in Policy Implications since male participants identified stronger policy effects from the program compared to female participants. Male participants assessed political outcomes from the program to be more substantial compared to female participants. Male respondents demonstrated different perceptions from female participants about the program's policy impact. They show higher sensitivity to public policy interpretations along with possible stronger involvement with policy interpretation than female participants. Females tend to allocate more importance to operational aspects and practical hands-on activities rather than the policy implications of the program.

Female respondents gave higher scores to media communication methods than male respondents but the difference between their ratings was not statistically significant. The study supports the research done by Schoch-Spana et al. (2021) which stressed that public health programs need gender-specific adjustments to address dismissal in both genders. Public health programs should be personalized to eliminate gender-related biases that affect participation levels and trust and restrict the perception of information.

Women require more active participation in policy engagement processes because their perception of policy impact stands at a notable divergence with others. The reduction of perception gaps between women and the program could enhance their trust in the program but also strengthen women's representation at policy-making points. Enhancing women's confidence in how the program influences health issues while creating equal conditions for their active participation in shaping upcoming healthcare decisions will happen (Gostin et al., 2020).

Table 6
Comparison on the level of DOH Awareness Program implementation when grouped according to their educational Attainment

Areas	Educational Attainment	Mean	Std. Deviation	Kruskal Wallis test	P-value	INTERPRETATION
Effectiveness	elementary school level	4.4133	1.03582	10.260	.068	Not Significant
	elementary school graduate	4.3439	1.09006			
	high school level	4.2423	.95134			
	high school graduate	4.4161	.94017			
	college level	4.2316	.97128			
	college graduate	4.3517	.97344			
Awareness Disparities	elementary school level	4.1862	.52080	47.912	.000	Significant
	elementary school graduate	4.2761	.74861			
	high school level	4.3661	.74861			
	high school graduate	4.6115	.47872			
	college level	4.6386	.72844			
	college graduate	4.9733	.06915			
Response Preparedness	elementary school level	4.2080	.41308	3.716	.591	Not Significant
	elementary school graduate	4.1361	.69852			
	high school level	4.0146	.54992			
	high school graduate	4.1136	.48585			
	college level	3.9958	.29451			
	college graduate	3.9986	.51442			
Evaluation of Media and Communication Channels	elementary school level	4.2080	.41308	4.370	.497	Not Significant
	elementary school graduate	4.1361	.69852			
	high school level	4.0146	.54992			
	high school graduate	4.1136	.48585			
	college level	3.9958	.29451			
	college graduate	3.9986	.51442			
Policy Implications	elementary school level	4.1600	.66312	5.622	.345	Not Significant
	elementary school graduate	4.2456	.85106			
	high school level	4.1690	.70399			
	high school graduate	4.3149	.63731			
	college level	4.2000	.69282			
	college graduate	4.1310	.68092			

when taken as a whole	elementary school level	4.2080	.41308	9.331	.097	Not Significant
	elementary school graduate	4.1361	.69852			
	high school level	4.0146	.54992			
	high school graduate	4.1136	.48585			
	college level	3.9958	.29451			
	college graduate	3.9986	.51442			

(*Significant at p $\leq$0.05)

Table 6 displays the comparison of the level of DOH Awareness Program implementation among respondents with different levels of educational attainment. The Kruskal-Wallis test was used to determine whether there were significant differences among the groups. In the Effectiveness area, while mean scores ranged from 4.23 (college level) to 4.42 (high school graduates), the variation was not statistically significant (p = 0.068). Likewise, no significant differences were found in Response Preparedness (p = 0.591), Evaluation of Media and Communication Channels (p = 0.497), Policy Implications (p = 0.345), and in the overall implementation of the program (p = 0.097).

However, the area of Awareness Disparities showed a statistically significant difference (p = 0.000). Respondents with higher education levels, particularly college graduates (M = 4.97, SD = 0.07), perceived greater effectiveness in addressing awareness disparities than those with only elementary or high school education. In contrast, respondents with only elementary school education had the lowest mean score (M = 4.19), indicating a potential gap in how different educational groups experience or perceive equitable access to program information.
Discussion: The results reveal that educational attainment plays a significant role only in the perception of awareness disparities, suggesting that individuals with higher education are more likely to perceive the program as effectively bridging information gaps across communities. This aligns with previous research that suggests educational background influences health literacy and access to health information (Nutbeam, 2008; Sørensen et al., 2012). Graduates with college degrees possess stronger abilities to measure public health initiative coverage and client inclusivity while directly benefiting from channel information. Formal communication channels deliver information that benefits graduate college students more directly than other groups.

The DOH Awareness Program maintains a similar level of reception throughout all its operational aspects without demonstrating substantial variation. The program materials appear to have been developed for universal understanding, which leads people from all educational levels to welcome this initiative positively. The program design adopts an approach that suits different literacy levels. The WHO endorses this approach when creating health initiatives for all educational levels. Health programs need to combine cultural understanding with educational appropriateness, according to WHO (2020).

The significant outcome points to an urgent need to create specific programs that will provide equal information access and perception awareness particularly for individuals with lower educational attainment. The program should communicate with basic language terms yet present graphical information in addition to performing community outreach activities to improve its accessibility for all demographics. The program's outreach initiatives need to match public health equity targets (Berkman et al., 2011).

CONCLUSION AND RECOMMENDATION

Conclusion

Research analyzed Department of Health (DOH) awareness programs that address reemerging infectious diseases within Brgy. Molocaboc 2 of Sagay City. The research showed that program implementation received an effective evaluation (M = 4.08). The assessment of program implementation showed effectiveness (M = 4.08) yet different population groups display varying views on emergency responses and policy measures.

Key findings indicate that younger and older age groups perceived the program similarly, suggesting broad accessibility. However, women had lower perceptions of policy effectiveness than men, implying that current policies may not fully address gender-specific concerns. In addition, male participation in awareness efforts was notably low, indicating the need for more inclusive engagement strategies. Individuals with lower educational attainment perceived greater gaps in awareness dissemination, underscoring the importance of accessible and inclusive communication.

Despite strong ratings in Effectiveness, Awareness Disparities, and Communication Channels, relatively lower scores in Response Preparedness and Policy Implications reveal opportunities for enhancement. The purpose of this study illustrates the necessity to develop advanced awareness programs that establish fair access and equal representation and preparedness for public health emergencies. The DOH awareness program has achieved substantial milestones

despite its operational success. Although the Department of Health has achieved significant accomplishments, the system needs focused advancements to maximize effectiveness.

Recommendations

The findings of this study support multiple recommendations that will serve to enhance the Department of Health's (DOH) re-emerging infectious disease awareness programs. Emergency response programs aimed at preparedness need to develop practical disaster management scenarios that specifically address vulnerabilities of coastal communities like Brgy. Molocaboc 2 in Sagay City. The implementation process should contain practical training together with community drills and easily accessible emergency resources distributed throughout local communities.

Current gender inequalities in health participation need action, so experts agree that gender-inclusive strategies should be developed. Active promotion of male engagement should be implemented through cooperative alliances between fishing cooperatives and workplaces and culturally reflective outreach activities. Targeted male-focused campaigns alongside decision-making efforts require the integration of male and female perspectives to produce public health policies that remain equitable and truly representative of the community.

Enhancements in communication methods should target people who possess low educational abilities. Health materials need to present vital information through infographics and videos and storytelling accompanied by local dialects to achieve effective communication with limited education backgrounds. A combination of multi-channel communication strategies should be implemented through digital mobile apps and SMS services for youth audiences alongside direct face-to-face meetings through home visits and barangay events for senior citizens.

The community requires improved systems to monitor and report diseases because the current systems lack efficiency. Health systems operating locally must develop quick detection abilities of new health threats and cut down underreporting instances that stem from subpar health literacy or stigma, or insufficient care access. The combination of pharmacological and non-pharmacological interventions should receive support through regular follow-up services, which trained health workers must perform.

Residents must understand national and regional policies best by simplifying major health policy measures into community-specific information that people can translate into daily actions. Community-based orientations, along with continuous advocacy, need to establish these efforts as an institutional practice.

Public health programs achieve long-term sustainability only through meaningful implementation collaboration between local leaders and health volunteers along with educators. Participation of these leaders along with health volunteers and educators, develops trust and creates community ownership, which leads to programs that benefit all demographic groups. To uphold these standards, health institutions need to implement permanent assessment systems for evaluating inclusivity and equity in health initiatives alongside community need adjustments through feedback processes.

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