

## Effectiveness of veterinary office campaign and education and attitude of pet owners towards animal rabies vaccination

Airish Rozenne J. Samatra<sup>1</sup>, Danilo S. Vargas<sup>2</sup>, Parsons N. Hail<sup>3</sup>

Central Luzon State University<sup>1</sup>

Central Luzon State University<sup>2</sup>

Central Luzon State University<sup>3</sup>

---

---

### Abstract

*The study was conducted to determine the Effectiveness of the Veterinary Office Campaign and Education on Animal Rabies Vaccination. The researcher used the descriptive type of research design and simple random sampling in selecting respondents from the selected barangays. The researcher decided to use a survey questionnaire to gather data from the 195 pet owners' respondents. The study revealed that the extent of animal rabies and vaccination done by the veterinary office were very effective. All the activities were conducted in a very effective way that respondents gave a good and excellent answers. Findings also showed that Veterinary Office Education Program in animal rabies vaccination had performed well to educate those respondents. The majority of the respondents answered excellently and most of them responded well. These suggest that different programs of the Veterinary Office create a good platform to disseminate information and educate people, especially pet owners. Moreover, findings found that Communication characteristics that fall into three categories such as interpersonal, broadcast media, and print media reveal that interpersonal media was the respondent's main source of information. It means that the veterinarian performed well to give knowledge and awareness on rabies and proper medication. Furthermore, most of the respondents received a message on awareness about animal rabies and vaccination. Additionally, more than half of the respondents have acquired new knowledge and proper medication. In general, interpersonal communication became more effective than other communication media. This implies that respondents get to be more aware of animal rabies and gain new knowledge about proper medication with interpersonal communication. Furthermore, the study revealed the level of awareness that the majority of the respondents were highly knowledgeable regarding animal rabies vaccination. These imply that pet owners become wiser and more knowledgeable on how they handle animal rabies and*

*vaccination program under Veterinary office activities. The study found that the effectiveness of campaigns and education programson animal rabies resulted very effectively. Moreover, results showed that the significance level of the relationship between sociodemographic and communication characteristics of respondents was low. The research study found that the significant level of awareness between communication characteristics and awareness of the respondents toward animal rabies and vaccination was low. To summarize, the Effectiveness of Veterinary Office Campaign and Education on Animal Rabies Vaccinationwas effective in that respondents gained knowledge and awareness about animal rabies and vaccination.*

**Keywords:** *1.effectiveness, 2.veterinary, 3.campaign, 4.education, 5.animal rabies, 6.vaccination, 7.communication characteristics,8.attitude,9.pet owners*

---

---

## Introduction

Many developing countries like the Philippines experience major problems with animal rabies which has become a serious public health problem. Animal rabies has become endemic, furthermore, pets may carry dangerous Rabies, a zoonotic disease. According to the World Health Organization diagnosis of rabies among humans and animals has been traditionally restricted to the symptoms of acute fatal encephalomyelitis caused by rabies virus, of the genus Lyssavirus and Rhabditida.

A zoonotic disease is a viral infection that infects all mammals. Moreover, 59,000 cases of human deaths per year, an estimation that conducts the global burden of rabies, will be a huge 3.7 million per year and about 8.6 billion USD for economic loss due to premature deaths by rabies. (Beyene et al., 2018). Rabid animals transmitted through bite and saliva are alarming and remain a health problem that costs a thousand deaths. Wherein, the Department of Science in Technology conducts studies and seminars on diseases caused by lyssavirusduring animal rabies awareness month which began in 2018. Canine rabies virus remains a public health problem in the country, accounting for 200 to 300 deaths each year.

Meanwhile, low participation of dog owners to take their dogs on vaccination and lack of information contributes to the high number of rabies cases. Right, and Effective communication channels and adaptation of vaccination need to be reinforced to increase people's awareness of the importance of animal vaccination. Moreover, children get a high risk of death caused by rabies. According to Muthiani et al., (2015).

In countries like the Philippines, animal bites and rabies are rampant because considering that most animals were never considered for anti-rabies vaccines. The Department of Health (DOH) defines rabies as a human

infection that occurs after a transdermal bite or scratch by an infected animal, like cats and dogs. Rabies is considered to be a neglected disease in the Philippines, which is 100% fatal making it one of the deadliest infections known to humans, however, it is 100% preventable. It is not among the leading causes of mortality and morbidity in the country. In developing countries like the Philippines, rabies is dangerous but it is a vaccine-prevented viral disease; information and awareness matter. Ignorance on this matter keeps increasing the number of deaths of at least 200 Filipinos every year.

Therefore, this study will provide a new body of knowledge about the perceived effectiveness of veterinary office campaigns and education to address the research gap in this field of research on misinformation on Animal rabies vaccination which is not given clear and easy-to-understand information on its severity and prevention.

### **Objectives of the Study**

The objectives of the study were:

1. To describe the socio-demographic and communication characteristics of the respondents.
2. To determine the extent of animal rabies vaccination done by the Veterinary Office.
3. To describe the campaign and Education Program in animal rabies vaccination.
4. To find out the awareness and knowledge of the respondents regarding animal rabies vaccination. To determine the attitudes of pet owners towards animal vaccination.
5. To determine the effectiveness of the Campaign and Education Program in Animal rabies and vaccination.
6. To determine the relationship between the socio-demographic and communication characteristics of the respondents.
7. To determine the relationship between the communication characteristics and awareness of the respondents towards animal rabies and vaccination.

### **Research Methodology**

The researcher used a descriptive quantitative research design. A total of 195 respondents were randomly selected from the population of the selected rural Barangays who owned pets. Data were collected using a questionnaire. The collected data from the survey questionnaire was analyzed by the researcher using Descriptive statistics such as frequency count, percentage, and mode to determine and describe the gathered data. Furthermore, Correlation analysis

was used to describe the relationship between the independent and the dependent variables.

## **Results and discussions**

### **Socio-demographic and communication characteristics of the respondents**

#### **Age**

The results in Table 1, show that more than half (64.7 %) of the age range of the respondents were under 21-30 years old and 20.5% were under 20 years old and below the age bracket. On the other hand, 31-40-year-old respondents were 9.2%, while 41-50-year-olds were 4.1%. Lastly, 50 years old age brackets and above were in 1.5%. These simply imply that many of the Pet owners belong to the middle age group.

#### **Sex**

The results in Table 2 show that the majority (55.9%) of the respondents were females, while the other 43.1% were males and the remaining 1.0% preferred not to say their gender. That indicates that pet owners are mostly females.

#### **Educational Attainment**

In Table 3, the results indicate that the majority (54.4%) of the respondents are college undergraduates, while 17.4% of them are high school undergraduates. In addition, few respondents (1.0%) had no formal education. Therefore, probably most of the pet owners that are more educated can perform proper animal welfare than the few pet owners who had no formal education.

#### **Family Economic Status**

Table 4, disclosed the respondents with family economic status that ranges from below 10,000 to 50,000 pesos above. Wherein, the majority of the respondents (51.8%) had an economic status of 10,000 pesos and below. These imply that most of the pet owners belonged to the low-income group.

#### **Family Size**

The result in Table 5, shows that the majority (60.5%) of the respondents had a family size of 1 – 5 members, while 37.4% of them has 6 – 10 family members. The remaining 2.1% have 11 and above family members. The findings revealed that the small-sized families mostly owned pets.

### **The extent of animal rabies vaccination done by the Veterinary Office**

Table 6 exemplifies the extent of animal rabies and vaccination done by the Veterinary office. Some of the respondents said that it was excellent while the majority said it was good. The statements, “Free rabies vaccination did in 37 Barangay every year” and “Doing vaccination program four days in a week by the Veterinary office” found that they performed excellently in these activities that they conducted. On the other hand, statements “A total of 2,267 Animals vaccinated per year,” “Conducting yearly checkups and monitor for vaccinated animals,” “Conducting yearly program in celebrating rabies awareness month,” and “Conducting yearly symposium and training program by the Veterinary office in every Barangay” indicate that Veterinary office activities performed good and give people, especially pet owners additional knowledge. While the statement, “Conducting yearly symposium and training program by the Veterinary office in every school from Grade School level to Senior High school level” reveals that they are in between good and excellent in doing symposiums and programs in different schools to make sure that students become more knowledgeable about animal rabies and vaccination.

### **Veterinary Office campaign and Education Program in animal rabies vaccination.**

The result in Table 7 shows that the Veterinary office campaign and Education program on animal rabies and vaccination had excellent and mostly good results. The statements, “Giving Information Education and Communication Materials (IEC) like flyers, leaflets and posters that contain about animal rabies and Vaccination program,” and “Doing house-to-house campaigns where vaccination team systematically visit each household in every the Barangay,” reveal that veterinary office did a great job in this matter and become more excellent to educate and disseminate information to the people in terms of IEC materials and face to face campaign about animal rabies. Otherwise, the statements, “Posting banners and posters around the 37 Barangay about animal rabies and importance of animal vaccination,” “Conducting yearly symposium and training program by the Veterinary office in every Barangay,” and “Conducting yearly symposium and training program by the Veterinary office in every school from Grade School level to Senior High school level” reveal that it was performed good and the campaign and education program of Veterinary office were well-executed that pet owners are well informed and educated about the campaign and education program about animal rabies vaccination.

## **Communication Characteristics**

### **Interpersonal Media**

Table 8, presents the interpersonal media sources of information, messages received, and messages utilized by the respondents. The results revealed that the majority (71.3%) of the respondents got information from veterinarians, while

16.9% of them relied on the traditional healer as a source of information. Moreover, 5.6% of them get information from others, and a few 3.6% get the information from their neighbor. The other 2.6% of the respondents got information from their relatives. In addition, “message received” had the majority of 60.1% among the respondents that were on the “awareness about animal rabies and vaccination.” When asked, almost 61% of the respondents had acquired new knowledge and proper medication.

### **Broadcast Media**

Table 9, presents the source of information, message received and message utilized in broadcast media. The results revealed that social media was used by 41.0% of the respondents as their main source of information about campaigns and education programs in animal rabies vaccination. 31.8% of them relied on television, the other 20.5% mentioned the internet as their source of information. Few (5.6%) of the respondents relied on SMS while 1.0% of them get information from others. On the other hand, 45.6% of the respondents were on the awareness of animal rabies and vaccination. While more than half (53.8%) of the respondents had acquired new knowledge and proper medication.

### **Print Media**

Table 10 presents the print media as the source of information, message received and message utilized. The results found that most of the respondents (44.1%) used posters as their source of information. Many (31.3%) of the respondents relied on leaflets. While few (17.1%) of the respondents get information from the newspaper and (7.2%) relied on pamphlets. 45.6% of the respondents obtained information on awareness about animal rabies and vaccination. With that, almost half of the respondents (49.2%) acquired new knowledge and proper medication that will make their pets become healthier and increase their knowledge on how they respond if there was an incident dog bite.

### **Level of Awareness**

The results in Table 11 show that respondents' level of awareness about rabies was high with the highest mean of 3.52. The second was about the awareness of dog vaccination that can save pets and people's life was also high with a mean of 3.36. On the other hand, the statement, “are you aware that rabies is a fatal virus?” “Are you aware that rabies can be transmitted by dogs and cats thru scratch, bite, and saliva?” and “are you aware that animal rabies can be prevented by animal vaccination?” tells that respondents were aware having the mean of 3.20, 3.17, and 3.17 respectively. Meanwhile, the statement “are you aware that there are no other locally available practices or treatments for dog bites?” has the lowest mean of 2.94.

Additionally, a mean of 3.24 shows that the respondents were just aware of the given statements according to the level of awareness toward animal rabies vaccination, proper medication, and practices.

### **Level of Knowledge**

In Table 12, the respondents were highly knowledgeable with the statements, “Do you know what rabies is?” and “Do you know that Animal rabies can kill people?” garnered the highest mean of 3.52. The second was “dog vaccination can save your pets and people’s lives;” it shows that they were also highly knowledgeable having a mean of 3.49. Meanwhile, “dog bite wounds should wash immediately with soap and running water” obtained a mean of 3.44. Likewise, attending a program like animal rabies and Vaccination increased respondents' level of awareness wherein it was also highly knowledgeable with a mean of 3.42.

Moreover, respondents’ knowledge of the statement “rabies is a fatal virus and animal rabies can be prevented by animal vaccination” show that they were highly knowledgeable having a mean of 3.37. Meanwhile, the statement, “do you know that rabies can be transmitted by dogs and cats?” “Do you know that there are no other locally available practices or treatments for dog bites?” “Did you visit your veterinarian regularly for a checkup and Vaccination?” and “do you participate in any program concerning animal rabies and Vaccination?” show that they were also knowledgeable with it garnering the mean of 3.08, 3.19, 3.02, and 3.15 respectively.

### **Attitudes of pet owners towards animal rabies vaccination**

Table 13 shows that the respondents agreed and strongly agreed with all the statements about animal rabies vaccination. The findings revealed with the highest mean of 3.50 the “veterinary office animal rabies and vaccination every year is a very effective way to prevent the spread of rabies disease.” The lowest mean, which is 2.74 of the respondents agreed that “many pet owners afford animal vaccination such as vaccination and monthly check-up.”

Based on these results, it implies that pet owners had positive and negative attitudes toward the rabies vaccination campaign and education program of the veterinary office having an overall mean of 3.14. This represents that the respondents agree that they have positive and negative attitudes.

### **Effectiveness of Campaign and Education Program in Animal rabies and vaccination**

Table 14 shows that the respondents’ answers have resulted very effectively with a mean of 3.50 showing that the “veterinary office campaign and education program” became very effective to decrease rabies cases. In line with “the strategy of veterinary office that becomes very effective too in educating pet owners about animal rabies and vaccination,” it garnered a

mean of 3.29. Meanwhile, with a mean of 3.20, it shows that the “program of veterinary office become effective to encourage pet owners to get their pets vaccinated regularly.” About the third statement that “the veterinary office programs become effective to help animals and pet owners,” a 3.20 mean belief that the veterinary office offers and creates effective programs.

Moreover, its connection to the previous statement that “veterinary office delivered informational campaigns materials that can be shared thru social media and print media” may result very effectively garnered a mean of 3.30. It implies that the veterinary office performs campaigns and programs that are very effective so that pet owners will be enlightened about animal rabies and vaccination. In addition, rabies vaccination every year conducted by the veterinary office to prevent the spread of rabies disease resulted very effectively with a mean of 3.50.

Therefore, with an overall mean of 3.33, the results were very effective. It was an indication that the veterinary office campaign and education program have been successfully imparted to the pet owners.

### **Relationship between Socio-demographic and Communication Characteristics of the Respondents**

As seen in Table 15, shows that age is significantly related to interpersonal and how pet owners received messages. While the sex of the respondents was significantly related to interpersonal communication. Educational attainment and family economic status, it was found significantly related both to interpersonal and how respondents received message. It was also revealed that Family size was significantly related to interpersonal communication. The level of significance was low between the Socio-demographic and interpersonal communication.

Moreover, respondents’ family economic status reveals that it was the only one that significantly related to broadcast media with a low level of significance. Likewise, “print media” shows that educational attainment was significantly related to it and how respondents utilized the message. On the other hand, family and economic status reveal that they were significantly related to print media and how respondents received and utilized the message from the print media. In general, the significance level of the relationship between the Communication characteristics of the respondents was low. This means that communication characteristics need to be improved depending on the age, sex, educational attainment, family economic status, and family size of the respondents.

## **Relationship between the communication characteristics and awareness of the respondents towards animal rabies and vaccination.**

### **Interpersonal**

Table 16 shows that the awareness of rabies was significantly related to interpersonal communication and how the respondents received the message. While the next statement about the respondents' awareness of how fatal the rabies virus is was significantly related to how respondents received the message and utilized the message. It was also found the statement about the awareness that rabies can be transmitted by dogs and cats thru scratch, bite, and saliva was found significantly related to the message received. In addition, the statement about the awareness that bite wounds should wash immediately with soap and running water was significantly related to the message received. Therefore, the significant level of awareness of the respondents toward animal rabies and vaccination and interpersonal communication was low.

### **Broadcast Media**

Table 17 reveals that the statement "awareness about rabies" was significantly related to the message received and the message utilized. While awareness about how fatal the rabies virus is was found significantly related to how respondents utilized the message. On the other hand, respondents' awareness that "bite wounds should immediately wash with soap and running water" was significantly related to the message received.

Moreover, the statement about the awareness that "there are no locally available practices or treatment for dog bites" was significantly related to the message utilized. Likewise, awareness about "dog vaccination that can save pets and people's life" was found significantly related to the message utilized. This implies that the significance level of Broadcast media and the awareness of the respondents toward animal rabies and vaccination was low. In general, broadcast media should improve to increase the awareness level of the respondents toward animal rabies and vaccination.

### **Print Media**

As seen in this table 18, awareness of the respondents toward animal rabies and vaccination statement awareness about rabies was significantly related to print media. In line with awareness of how fatal the rabies virus was significantly related to print media. In addition, the statement about the awareness of rabies that can be transmitted by dogs and cats thru scratch, bite, and saliva was significantly related to print and how respondents received the message.

Moreover, print media was found significantly related to the statement on the respondents' awareness on "animal rabies can be prevented by animal vaccination." About this, the statement about the "awareness of respondents the dog bite should be immediate with soap and running water" was significantly related to print media. To sum it all up, the level of significance between awareness of the respondents toward animal rabies and vaccination and print media was low. These indicate that print media should create more informative output to increase awareness and significance level.

In general, the significant level of Communication characteristics and Awareness of the respondents towards animal rabies and vaccination was low. It was an indication that interpersonal media, broadcast media, and print media should intensify their program to amplify the awareness level of the respondents.

## **Conclusion**

The extent of animal rabies vaccination done by the veterinary office was highly inculcated in the respective barangays.

Respondents' main source of information was interpersonal communication.

The respondents were aware of the veterinary office campaigns and education on animal rabies vaccination.

The respondents were highly knowledgeable about the campaign and education on the animal rabies vaccination of the veterinary office.

Pet owners have positive and negative attitudes toward animal rabies vaccination.

The significant level of relationship between sociodemographic and communication characteristics of respondents was low.

The significance level of awareness between communication characteristics and awareness of the respondents toward animal rabies and vaccination was low.

## **Recommendations**

Based on the summary of findings and conclusions, the following recommendations are given:

1. Since Veterinary offices have used different communication media, the pet owner's main sources of information are veterinarians, television, and

posters. Veterinary offices must intensify information dissemination in far-flung barangays to create awareness of animal rabies and vaccination campaigns and programs.

2. The Veterinary office campaigns and programs have a great extent in doing their jobs. These suggest that Veterinary office activities should maintain, strengthen, and create more programs.
3. Since Pet owners have positive and negative attitudes, Veterinary offices must create programs and training that will provide further knowledge and assistance to pet owners regarding animal rabies.
4. Veterinary Offices should maintain and have provisions of programs and campaigns regarding animal rabies and vaccination to create awareness and knowledge about animal rabies and vaccination.
5. Local Government Units (LGU) must assist and support the program of Veterinary offices regarding their campaign toward animal rabies and vaccination.

## References

1. Ahmed, T., Hussain, S., Zia, U. U. R., Rinchen, S., Yasir, A., Ahmed, S., Khan, W. A., Tahir, M. F., & Ricketson, R. (2020). *Knowledge, attitude, and practice (KAP) survey of canine rabies in Khyber Pakhtunkhwa and Punjab Province of Pakistan*. *BMC Public Health*, 20(1).
2. Alam, A. N., Siddiqua, M., & Casal, J. (2020). *Knowledge and attitudes about rabies in dog-bite victims in Bangladesh*. *One Health*, 9, 100126.([www.sciencedirect.com](http://www.sciencedirect.com))
3. Amparo, A. C. B., Mendoza, E. C. B., Licuan, D. A., Valenzuela, L. M., Madalipay, J. D., Jayme, S. I., & Taylor, L. H. (2019). *Impact of Integrating Rabies Education into the Curriculum of Public Elementary Schools in Ilocos Norte, the Philippines on Rabies Knowledge, and Animal Bite Incidence*. *Frontiers in Public Health*, 7.
4. Bandura, A. (1986). *Social cognitive theory: Toward a unifying theory of behavioral change*. *Psychological Review*, 84, 191-215.
5. Baghi, H., Alinezhad, F., Kuzmin, I., & Rupperecht, C. (2018). *A Perspective on Rabies in the Middle East—Beyond Neglect*. *Veterinary Sciences*, 5(3), 67. Retrieved from ([www.mdpi.com](http://www.mdpi.com))
6. Barbosa Costa, G., Gilbert, A., Monroe, B., Blanton, J., NgamNgam, S., Recuenco, S., & Wallace, R. (2018). *The influence of poverty and rabies knowledge on healthcare-seeking behaviors and dog ownership, Cameroon*. *PLOS ONE*, 13(6)

7. Beyene, T. J., Mourits, M. C., Kidane, A. H., & Hogeveen, H. (2018). *Estimating the burden of rabies in Ethiopia by tracing dog bite victims*. *PLOS ONE*, 13(2).
8. BBirhane, M. G., Miranda, M. E. G., Dyer, J. L., Blanton, J. D., & Recuenco, S. (2016). *Willingness to Pay for Dog Rabies Vaccine and Registration in Ilocos Norte, Philippines (2012)*. *PLOS Neglected Tropical Diseases*, 10(3)
9. Broban, A., Tejiokem, M. C., Tiembré, I., Druelles, S., & L'Azou, M. (2018). *Bolstering human rabies surveillance in Africa is crucial to eliminating canine-mediated rabies*. *PLOS Neglected Tropical Diseases*, 12(9),
10. Davlin, S., Lapiz, S. M., Miranda, M. E., & Murray, K. (2012). *Factors Associated with Dog Rabies Vaccination in Bohol, Philippines: Results of a Cross-Sectional Cluster Survey Conducted Following the Island-Wide Rabies Elimination Campaign*. *Zoonoses and Public Health*, 60(7), 494–503. ([onlinelibrary.wiley.com](http://onlinelibrary.wiley.com))
11. Digafe, R. T., Kifelew, L. G., & Mechesso, A. F. (2015). *Knowledge, attitudes, and practices towards rabies: a questionnaire survey in rural household heads of Gondar Zuria District, Ethiopia*. *BMC Research Notes*, 8(1). ([bmcresearchnotes.biomedcentral.com](http://bmcresearchnotes.biomedcentral.com))
12. Diamante, E. O., Herrada, N. J., Lachica, Z. P., Oguis, G. R., Alviola, P. A., & Mata, M. A. (2021, June). *Cost Optimization of the Intensified Rabies Control Program in Davao City, Philippines Using Linear Programming*. *Philippine Journal of Science*. ([philjournalsci.dost.gov.ph](http://philjournalsci.dost.gov.ph))
13. KJanke, N., Coe, J. B., Bernardo, T. M., Dewey, C. E., & Stone, E. A. (2021). *Pet owners' and veterinarians' perceptions of information exchange and clinical decision-making in companion animal practice*. *PLOS ONE*, 16(2), e0245632.
14. Kata, A. (2010). *A postmodern Pandora's Box: Anti-vaccination misinformation on the Internet*. *Vaccine*, 28(7), 1709–1716. ([www.sciencedirect.com](http://www.sciencedirect.com))
15. Knesl, O., Hart, B. L., Fine, A. H., & Cooper, L. (2016). *Opportunities for incorporating the human-animal bond in companion animal practice*. *Journal of the American Veterinary Medical Association*, 249(1), 42–44
16. Léchenne, M., Oussiguere, A., Naissengar, K., Mindekem, R., Mosimann, L., Rives, G., Hattendorf, J., Moto, D. D., Alfaroukh, I. O., & Zinsstag, J. (2016). *Operational performance and analysis of two rabies vaccination campaigns in N'Djamena, Chad*. *Vaccine*, 34(4), 571–577.
17. Lembo, T., Atitlan, M., Bury, H., Cleaveland, S., Costa, P., de Balogh, K., ... Briggs, D. J. (2011, June 1). *Renewed Global Partnerships and*

*Redesigned Roadmaps for Rabies Prevention and Control. Veterinary Medicine International.*

18. Marron, O., Thomas, G., Burdon Bailey, J. L., Mayer, D., Grossman, P. O., Lohr, F., Gibson, A. D., Gamble, L., Chikungwa, P., Chulu, J., Handel, I. G., de C Bronsvort, B. M., Mellanby, R. J., & Mazeri, S. (2020). Factors associated with mobile phone ownership and potential use for rabies vaccination campaigns in southern Malawi. *Infectious Diseases of Poverty*, 9(1).
19. L., Baquilod, M. S., Hernandez, L. M., Villalon, E. E. S., & Nel, L. D. (2016). World Rabies Day campaign in the Philippines. *Tropical Diseases, Travel Medicine and Vaccines*, 2(1). [link.springer.com](https://link.springer.com)
20. Miranda, L. M., Miranda, M. E., Hatch, B., Deray, R., Shwiff, S., Roces, M. C., & Rupprecht, C. E. (2015). Towards Canine Rabies Elimination in Cebu, Philippines: Assessment of Health Economic Data. *Transboundary and Emerging Diseases*, 64(1), 121–129. ([onlinelibrary.wiley.com](https://onlinelibrary.wiley.com))
21. Miranda, L. M., Miranda, M. E., Hatch, B., Deray, R., Shwiff, S., Roces, M. C., & Rupprecht, C. E. (2015). Towards Canine Rabies Elimination in Cebu, Philippines: Assessment of Health Economic Data. *Transboundary and Emerging Diseases*, 64(1), 121–129. ([onlinelibrary.wiley.com](https://onlinelibrary.wiley.com))
22. Mbilo, C., Kabongo, J. B., Pyana, P. P., Nlonda, L., Nzita, R. W., Luntadila, B., Badibanga, B., Hattendorf, J., & Zinsstag, J. (2019). Dog Ecology, Bite Incidence, and Disease Awareness: A Cross-Sectional Survey among a Rabies-Affected Community in the Democratic Republic of the Congo. *Vaccines*, 7(3), 98.
23. Mishara, A. & Bansal, M., (2018). Across Sectional Study of Patient Satisfaction among those Attending Anti-rabies Clinic of a Tertiary Care Hospital of Gwalior City. ([www.njcmindia.org](http://www.njcmindia.org))
24. Mustiana, A., Toribio, J. A., Abdurrahman, M., Suadnya, I. W., Hernandez-Jover, M., Putra, A. A. G., & Ward, M. P. (2015). Owned and Unowned Dog Population Estimation, Dog Management, and Dog Bites to Inform Rabies Prevention and Response on Lombok Island, Indonesia. *PLOS ONE*, 10(5), e0124092
25. Muthiani, Y., Traoré, A., Mauti, S., Zinsstag, J., & Hattendorf, J. (2015). Low coverage of central point vaccination against dog rabies in Bamako, Mali. *Preventive Veterinary Medicine*, 120(2), 203–209
26. Roth, J. A. (2011). Veterinary Vaccines and Their Importance to Animal Health and Public Health. *Procedia in Vaccinology*, 5, 127–136. ([www.sciencedirect.com](http://www.sciencedirect.com))
27. Spigelman, R. (2015). Veterinarian communication and its impact on dog and cat owners' satisfaction with care, trust, compliance, and the

- veterinary care a pet receives. Hungarian Veterinary Archive. (www.huveta.hu)*
28. Tapdasan, E. P., & Salces, C. B. (2018, June 24). *Knowledge and Practices regarding Rabies and Responsible dog ownership in Panglao ISLAND, Bohol, Philippines | Tapdasan | Philippine Journal of Veterinary and Animal Sciences. Philippine Journal of Veterinary and Animal Sciences. (www.pjvas.org)*
  29. Taylor, L. H., & Knopf, L. (2015). *Surveillance of Human Rabies by National Authorities - A Global Survey. Zoonoses and Public Health, 62(7), 543–552.*
  30. Tiwari, H. K., Robertson, I. D., O’Dea, M., & Vanak, A. T. (2019). *Knowledge, attitudes, and practices (KAP) towards rabies and free-roaming dogs (FRD) in Panchkula district of north India: A cross-sectional study of urban residents. PLOS Neglected Tropical Diseases, 13(4), e0007384.*
  31. Hmed, H., Chen, J., Zou, L., Zheng, L., Zhang, W., Meng, Z., Magalhaes, R. J. S., Wang, Y., Kang, J., & Sun, X. (2016). *Community-based interventions to enhance knowledge, protective attitudes, and behaviors towards canine rabies: results from a health communication intervention study in Guangxi, China. BMC Infectious Diseases, 16(1). (bmcinfectdis.biomedcentral.com)*

**TABLES**

**Table 1. Distribution of respondents by Age**

<b>AGE RANGE</b> (years)	<b>Frequency</b>	<b>PERCENTAGE</b>
20 years old and below	40	20.5
21-30 years old	126	64.6
31-40 years old	18	9.2
41-50 years old	8	4.1
Above 50 years old	3	1.5
<b>Total</b>	<b>195</b>	<b>100.00</b>

**Table 2. Distribution of respondents by Sex**

<b>SEX</b>	<b>Frequency</b>	<b>PERCENTAGE</b>
Male	84	43.1
Female	109	55.9
Prefer not to say the gender	2	1.0
<b>Total</b>	<b>195</b>	<b>100.00</b>

**Table 3. Distribution of respondents by Educational Attainment**

<b>EDUCATIONAL ATTAINMENT</b>	<b>Frequency</b>	<b>PERCENTAGE</b>
No Formal Education	2	1.0
Elementary Undergraduate	0	0.0
Elementary Graduate	1	0.5
High School Undergraduate	34	17.4
High School Graduate	24	12.3
College Undergraduate	106	54.4
College Graduate	28	14.4
<b>Total</b>	<b>195</b>	<b>100.00</b>

**Table 4. Distribution of respondents by Family Economic Status**

<b>FAMILY ECONOMIC STATUS</b>	<b>Frequency</b>	<b>PERCENTAGE</b>
Below 10,000.00	101	51.8
11,000.00-20,000.00	71	36.4
21,000.00-30,000.00	23	11.8
31,000.00-40,000.00	0	0
41,000.00-50,000.00	0	0
Above 50,000.00	0	0
<b>Total</b>	<b>195</b>	<b>100.00</b>

**Table 5. Distribution of respondents by Family size**

<b>FAMILY SIZE</b>	<b>Frequency</b>	<b>PERCENTAGE</b>
1-5 family members	118	60.5
6-10 family members	73	37.4
11 and above family members	4	2.1
<b>Total</b>	<b>195</b>	<b>100.00</b>

**Table 6. The extent of animal rabies and vaccination done by the Veterinary office**

<b>The extent of animal rabies and vaccination done by the Veterinary office</b>	<b>Mode</b>	<b>Description</b>
Free rabies vaccination is done in 37 Barangay every year.	4	Excellent
A total of 2,267 Animals are vaccinated per year.	3	Good
Doing vaccination program four days a week by the Veterinary office.	4	Excellent
Conducting yearly checkups and monitoring for vaccinated animals.	3	Good
Conducting yearly program in celebrating rabies awareness month.	3	Good
Conducting yearly symposium and training program by the Veterinary office in every Barangay.	3	Good
Conducting yearly symposium and training program by the Veterinary office in every school from Grade School level to Senior High school level.	3 & 4	Good & Excellent

**Table 7. Veterinary Office Campaign and Education program in animal rabies vaccination**

<b>Veterinary Office Campaign and Education program in animal rabies vaccination</b>	<b>Mode</b>	<b>Description</b>
Giving Information Education and Communication Materials (IEC) like flyers, leaflets, and posters that contain about animal rabies and Vaccination program.	4	Excellent
Doing house-to-house campaigns where the vaccination team systematically visits each household in every Barangay.	4	Excellent
Posting banners and posters around the 37 Barangay about animal rabies and the importance of animal vaccination.	3	Good
Airing video about rabies awareness and free vaccination program in Muñoz Cable.	3	Good
Conducting yearly symposium and training program by the Veterinary office in every Barangay.	3	Good
Conducting yearly symposium and training program by the Veterinary office in every school from Grade School level to Senior High school level.	3	Good

**Table 8. Interpersonal Media**

<b>COMMUNICATION FACTORS</b>	<b>Frequency</b>	<b>PERCENTAGE</b>
<b>Source of Information</b>		
Veterinary	139	71.3
Traditional Healer	33	16.9
Relatives	5	2.6
Neighbor	7	3.6
Others	11	5.6
<b>Total</b>	<b>195</b>	<b>100.00</b>
Proper practice of animal vaccination	45	23.1
Awareness about animal rabies and vaccination	118	60.1
Program campaign about animal rabies and vaccination	32	16.4
<b>Total</b>	<b>195</b>	<b>100.00</b>
<b>Message Utilized</b>		
Learn Increase awareness	44	22.6
Acquire new knowledge and proper medication	119	61.0
Increase awareness of animal rabies and vaccination	32	16.4
<b>Total</b>	<b>195</b>	<b>100.00</b>

**Table 9. Broadcast Media**

<b>COMMUNICATION FACTORS</b>	<b>Frequency (n=195)</b>	<b>PERCENTAGE</b>
<b>Source of Information</b>		
SMS (Short message services)	11	5.6
Television	62	31.8
Internet	40	20.5
Social Media	80	41.0
Others	2	1.0
<b>Total</b>	<b>195</b>	<b>100.00</b>
<b>Message Received</b>		
Proper practice of animal vaccination	41	21.0
Awareness about animal rabies and vaccination	89	45.6
Program campaign about animal rabies and vaccination	65	33.3
<b>Total</b>	<b>195</b>	<b>100.00</b>
<b>Message Utilized</b>		
Learn Increase awareness	55	28.2
Acquire new knowledge and proper medication	105	53.8
Increase awareness of animal rabies and vaccination	35	17.9
<b>Total</b>	<b>195</b>	<b>100.00</b>

**Table 10. Print Media**

<b>COMMUNICATION FACTORS</b>	<b>Frequency (n=195)</b>	<b>PERCENTAGE</b>
<b>Source of Information</b>		
News Paper	34	17.4
Leaflets	61	31.3
Pamphlets	14	7.2
Posters	86	44.1
<b>Total</b>	<b>195</b>	<b>100.00</b>
<b>Message Received</b>		
Proper practice of animal vaccination	39	20.0
Awareness about animal rabies and vaccination	89	45.6
Program campaign about animal rabies and vaccination	67	34.4
<b>Total</b>	<b>195</b>	<b>100.00</b>
<b>Message Utilized</b>		
Learn Increase awareness	55	28.2
Acquire new knowledge and proper medication	96	49.2
Increase awareness of animal rabies and vaccination	44	22.6
<b>Total</b>	<b>195</b>	<b>100.00</b>

**Table 11. Level of Awareness**

<b>Level of Awareness</b>	<b>Mean</b>	<b>Description</b>
Level of awareness on rabies	3.52	Highly Aware
Level of awareness that rabies is a fatal virus	3.20	Aware
Level of awareness that rabies can be transmitted by dogs and cats thru scratch, bite, and saliva	3.17	Aware
Level of awareness on animal rabies that can be prevented by animal vaccination	3.17	Aware
Level of awareness on bite wounds should wash immediately with soap and running water	3.29	Highly Aware
Level of awareness that there are no other locally available practices or treatments for dog bites	2.94	Aware
Level of awareness on dog vaccination can save your pets and people's life	3.36	Highly Aware
<b>Overall Mean</b>	<b>3.24</b>	<b>Aware</b>

**Legend:** 3.26 – 4:00 Highly Aware  
 2.51 – 3.25 Aware  
 1.76 – 2.50 Moderately Aware  
 1 .00– 1.75 Not Aware

**Table 12. Level of Knowledge**

<b>Level of Knowledge</b>	<b>Mean</b>	<b>Description</b>
Level of Knowledge on rabies	3.52	Highly Knowledgeable
Level of knowledge on animal rabies that can kill people	3.52	Highly Knowledgeable
Level of knowledge on how rabies is a fatal virus	3.37	Highly Knowledgeable
Level of knowledge on how rabies can be transmitted by dogs and cats	3.08	Knowledgeable
Knowledgeable about animal rabies that can be prevented by animal vaccination	3.37	Highly Knowledgeable
Level of knowledge on bite wounds that wash immediately with soap and running water	3.44	Highly Knowledgeable
Level of knowledge that there are no other locally available practices or treatments for dog bites	3.19	Knowledgeable
Level of knowledge that Dog vaccination can save your pets and people's life	3.49	Highly Knowledgeable
Level of knowledge on visiting veterinarians regularly for a checkup and Vaccination?	3.02	Knowledgeable
Knowledgeable about participating in any program concerning animal rabies and Vaccination	3.15	Knowledgeable
Knowledge of programs like animal rabies and Vaccination increase your level of awareness	3.42	Highly Knowledgeable
<b>Overall Mean</b>	<b>3.32</b>	<b>Highly Knowledgeable</b>

**Legend:**3.26 – 4.00 Highly Knowledgeable

2.51 – 3.25 Knowledgeable

1.76 – 2.50 Moderately Knowledgeable

1 .00– 1.75 No Knowledge

**Table 13. Attitudes of pet owners towards animal rabies vaccination**

<b>Attitudes of pet owners towards animal rabies vaccination</b>	<b>Mean</b>	<b>Description</b>
Attitudes of pet owners to visiting the veterinary clinic once a month	3.03	Agree
Many pet owners cannot afford animal welfare such as vaccination and monthly check-up	2.97	Agree
Many pet owners afford animal vaccination such as vaccination and monthly check-up	2.74	Agree
Attitudes of pet owners on Free animal vaccination	3.33	Strongly Agree
Attitudes of pet owners supporting dog campaigns and education program	3.30	Strongly Agree
Attitudes of pet owners toward Programs and Campaigns about animal rabies that increase pet owners' awareness.	3.34	Strongly Agree

Pet owners have positive attitudes toward animal vaccination and awareness of animal rabies and vaccination	3.32	Strongly Agree
Do Pet owners have negative attitudes on animal vaccination and awareness of animal rabies and vaccination?	2.62	Agree
Attitudes of pet owners on treating their pet for companionship	3.33	Strongly Agree
Attitudes of pet owners on proper animal vaccination for the safety of their pets and family	3.26	Strongly Agree
Attitudes of pet owners to attend programs about animal rabies and vaccination to increase the level of awareness and proper animal Vaccination	3.29	Strongly Agree
<b>Overall Mean</b>	<b>3.14</b>	<b>Agree</b>

**Legend:**3.26 – 4:00 Strongly Agree  
 2.51 – 3.25 Agree  
 1.76 – 2.50 Neutral  
 1 .00– 1.75 Dis Agree

**Table 14. Effectiveness of Campaign and Education program in Animal rabies and vaccination**

<b>Effectiveness of Campaign and Education program in Animal rabies and vaccination</b>	<b>Mean</b>	<b>Description</b>
The Campaign and Education program of the veterinary office become effective to decrease rabies cases.	3.50	Very effective
The strategy of the Veterinary office becomes more effective to educate pet owners about animal rabies and vaccination.	3.29	Very Effective
The program that conducts in every barangay becomes more effective to persuade pet owners to get their pets regularly vaccinated.	3.20	Effective
Veterinary Office creates programs and campaigns that will surely help animals and pet owners.	3.20	Effective
Veterinary offices become effective to delivered informational campaigns and programs that can be shared thru social media and Leaflets.	3.30	Very effective
Veterinary Office animal rabies vaccination every year is an effective way to prevent the spread of rabies diseases.	3.50	Very effective
<b>Overall Mean</b>	<b>3.33</b>	<b>Very effective</b>

**Legend:**3.26 – 4:00 Very Effective  
 2.51 – 3.25 Effective  
 1.76 – 2.50 Moderately Effective  
 1 .00– 1.75 Not Effective

**Table 15. Socio-demographic and communication characteristics of the respondents.**

<b>COMMUNICATION CHARACTERISTICS</b>			
<b>PROFILE OF THE RESPONDENTS</b>	<b>Interpersonal</b>	<b>Message Received</b>	<b>Message Utilized</b>
Age	0.223 (0.001)**	0.238 (0.005)*	0.177 (0.142)
Sex	0.309 (<0.001)**	0.099 (0.435)	0.099 (0.428)
Educational Attainment	0.237 (0.002)**	0.260 (0.003)**	0.166 (0.374)
Family Economic Status	0.227 (0.010)**	0.192 (0.006)**	0.115 (0.271)
Family Size	0.291 (<0.001)**	0.081 (0.630)	0.061 (0.837)
<b>COMMUNICATION CHARACTERISTICS</b>			
<b>PROFILE OF THE RESPONDENTS</b>	<b>Broadcast Media</b>	<b>Message Received</b>	<b>Message Utilized</b>
Age	0.168 (0.145)	0.158 (0.282)	0.198 (0.053)
Sex	0.144 (0.426)	0.114 (0.752)	0.067 (0.783)
Educational Attainment	0.148 (0.645)	0.216 (0.052)	0.164 (0.402)
Family Economic Status	0.199 (0.050)*	0.086 (0.574)	0.124 (0.203)
Family Size	0.114 (0.752)	0.060 (0.845)	0.125 (0.195)
<b>COMMUNICATION CHARACTERISTICS</b>			
<b>PROFILE OF THE RESPONDENTS</b>	<b>Print Media</b>	<b>Message Received</b>	<b>Message Utilized</b>
Age	0.169 (0.164)	0.176 (0.148)	0.142 (0.446)
Sex	0.189 (0.031)*	0.147 (0.078)	0.200 (0.004)**
Educational Attainment	0.184 (0.182)	0.129 (0.770)	0.182 (0.232)
Family Economic Status	0.195 (0.022)*	0.157 (0.047)*	0.181 (0.013)*
Family Size	0.145 (0.221)	0.126 (0.185)	0.031 (0.985)

\* Significant at 0.05 level of significance

\*\* Significant at 0.01 level of significance

**Table 16. Relationship between the interpersonal communication and awareness of the respondents towards animal rabies and vaccination.**

Awareness of the respondents toward animal rabies and vaccination	COMMUNICATION		
	Interpersonal	Message Received	Message Utilized
Level of awareness on rabies	0.233 (0.002)**	0.254 (<0.001)**	0.120 (0.468)
Level of awareness that rabies is a fatal virus	0.155 (0.300)	0.194 (0.022)*	0.185 (0.037)*
Level of awareness that rabies can be transmitted by dogs and cats thru scratch, bite, and saliva	0.168 (0.168)	0.173 (0.071)	0.209 (0.009)**
Level of awareness on animal rabies that can be prevented by animal vaccination	0.159 (0.258)	0.112 (0.563)	0.119 (0.481)
Level of awareness on bite wounds should wash immediately with soap and running water	0.171 (0.146)	0.204 (0.013)*	0.149 (0.191)
Level of awareness that there are no other locally available practices or treatments for dog bites	0.132 (0.600)	0.146 (0.220)	0.099 (0.700)
Level of awareness on dog vaccination can save your pets and people's life	0.157 (0.278)	0.123 (0.433)	0.125 (0.413)

\* Significant at 0.05 level of significance

\*\* Significant at 0.01 level of significance

**Table 17. Relationship between the broadcast communication and awareness of the respondents towards animal rabies and vaccination.**

CHARACTERISTICS	COMMUNICATION		
	Broadcast Media	Message Received	Message Utilized
Awareness of the respondents toward animal rabies and vaccination			
Level of awareness on rabies	0.145 (0.427)	0.216 (0.006)**	0.182 (0.044)*
Level of awareness that rabies is a fatal virus	0.138 (0.518)	0.144 (0.230)	0.190 (0.029)*
Level of awareness that rabies can be transmitted by dogs and cats thru scratch, bite, and saliva	0.187 (0.059)	0.164 (0.108)	0.132 (0.342)
Level of awareness on animal rabies that can be prevented by animal vaccination	0.150 (0.364)	0.091 (0.776)	0.113 (0.549)
Level of awareness on bite wounds should wash immediately with soap and running water	0.136 (0.542)	0.243 (0.001)**	0.153 (0.163)
Level of awareness that there are no other locally available practices or treatments for dog bites	0.125 (0.685)	0.147 (0.212)	0.189 (0.030)*
Level of awareness on dog vaccination can save your pets and people's life	0.169 (0.158)	0.155 (0.152)	0.191 (0.28)*

**Table 18. Relationship between the print media and awareness of the respondents towards animal rabies and vaccination**

CHARACTERISTICS	COMMUNICATION		
	Print Media	Message Received	Message Utilized
Awareness of the respondents toward animal rabies and vaccination			
Level of awareness on rabies	0.213 (0.002)**	0.099 (0.703)	0.104 (0.648)
Level of awareness that rabies is a fatal virus	0.206 (0.003)**	0.125 (0.414)	0.143 (0.243)
Level of awareness that rabies can be transmitted by dogs and cats thru scratch, bite, and saliva	0.173 (0.040)*	0.181 (0.047)*	0.086 (0.825)

Level of awareness on animal rabies that can be prevented by animal vaccination	0.202 (0.004)**	0.093 (0.758)	0.137 (0.294)
Level of awareness on bite wounds should wash immediately with soap and running water	0.179 (0.027)*	0.116 (0.508)	0.133 (0.327)
Level of awareness that there are no other locally available practices or treatments for dog bites	0.155 (0.122)	0.104 (0.648)	0.069 (0.934)
Level of awareness on dog vaccination can save your pets and people's life	0.146 (0.184)	0.136 (0.303)	0.124 (0.423)

\* Significant at 0.05 level of significance

\*\* Significant at 0.01 level of significance

*Email: samatra.airish@clsu2.edu.ph<sup>1</sup>, dsvargas@clsu.edu.ph<sup>2</sup>,  
hail.parsons@clsu.edu.ph<sup>3</sup>*