

RESEARCH NOTE**CURRENT STATUS OF THE ANTI-RABIES ACT OF 2007 THROUGH THE LENS OF KEY LOCAL GOVERNMENT OFFICIALS IN THE PROVINCE OF PAMPANGA, PHILIPPINES: A QUALITATIVE STUDY**

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ABSTRACT

In this study, the status of the implementation of the Anti-Rabies Act of 2007 as perceived by key LGU officials in the different municipalities of the province of Pampanga was determined. Qualitative research through a small group discussion was conducted among key city/municipality officials. All interviews, with the consent of the participants, were audio-recorded, transcribed, and collated. All relevant information related to the implementation of the Anti-Rabies Act of 2007 was consolidated and interpreted. Based on this interview, the implementation of the Anti-Rabies Act of 2007 in terms of compliance with the provisions in the law and the different animal rabies-related programs implemented in the city/municipality were also identified. In addition, the perceived needs of the participating officials to effectively control and eliminate animal rabies in the city/municipality were identified. Based on the results, the province of Pampanga has a long way to go with regards to animal rabies elimination. The majority of the LGUs in the province still need improvement in the implementation of the Anti-Rabies Act.

Keywords: *Anti-Rabies Act of 2007, Pampanga, Animal rabies*

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INTRODUCTION

Rabies still causes a considerable global burden resulting in an estimated annual loss of 59,000 human lives. The burden of rabies is highest in Asia, with an annual 35,172 human deaths (59.6% of global deaths) and loss of 2.2 million disability-adjusted life years (Hampson *et al.*, 2015). At least 200 Filipinos are confirmed to die from rabies annually (Department of Health Philippines, 2019). Human rabies infection is considered a major threat to public health in the Philippines and is responsible for approximately 200 to 300 fatalities annually (Research Institute for Tropical Medicine, 2014).

Republic Act 9482, or the Anti-Rabies Act of 2007, is the main law in the country that aims to eliminate rabies by the year 2020 using a multi-sectoral approach. This law empowers the

National Rabies Prevention and Control Committee (NRPCC) to oversee various programs to eliminate rabies infection in the Philippines by 2020. The committee implements several programs based on the implementing rules and regulations of RA 9482. Some of these approaches focus on the immunization of dogs and humans and creating rabies awareness campaigns (Department of Health, 2012, 2018; Leonardo *et al.*, 2020). Achieving these targets is challenging due to the failure of the LGUs to impose and implement the recommended policies (Leonardo *et al.*, 2020). Some of the problems faced by the NRPPCC are the following: (i) lack of a standardized test for rabies; (ii) poor enforcement of laws and policies by LGUs; (iii) failure to

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provide rabies vaccines; (iv) high treatment cost; (v) poor access to treatment, and (vi) dependence on traditional healers (Barroga *et al.*, 2018). With the growing burden of rabies in the country, it is crucial to assess if LGUs are actively engaged in the implementation of the Anti-Rabies Act hence, in this study, the status of the implementation of the Anti-Rabies Act of 2007 as perceived by key LGU officials in the different municipalities and highly urbanized cities within the province of Pampanga was determined. According to RA 9482, the LGUs in their respective localities should implement all the responsibilities stated in Section 7 of the law. The province was chosen since Central Luzon has had the highest cases of human rabies infections in the last five years ($n = 185$) as depicted by the latest statistics of the Philippine Department of Health in 2018. The results of the study will also be shared with the LGUs to serve as a reference in improving the implementation of the national rabies program.

MATERIALS AND METHODS

The study was reviewed and approved by the Pampanga State Agricultural University Ethics Review Committee (Ethical Approval no. 0010605 issued last July 5, 2018). A qualitative research design was used wherein a small group discussion with key officials from different LGUs within the province of Pampanga was scheduled. The study started in August of 2018 and ended after almost a year (August 2019).

Key individuals were interviewed from the 22 municipalities and cities within the province of Pampanga. These key individuals were involved in the actual implementation of RA 9482 in the LGU. Some of the key persons present were the city or municipal mayor/vice mayor/administrator, Department of Interior and Local Government Officer, health officer, agriculturist/veterinarian. Overall, there were a total of 82 representatives interviewed with about two to six people (average of four) present per municipality or city.

The respondents were informed in writing about the nature and purpose of the study. Interviews were audio-recorded with consent from the respondents only after assuring them of the confidentiality of the information shared. It was also emphasized that their participation is voluntary and no coercion of whatever nature has transpired. Participants can terminate their involvement at any time with no need for explanations.

The selected participants were informed regarding the nature of the study, the topic to be

covered, and the extent of their involvement. After obtaining their consent, the schedule for a small group discussion based on their convenience and the availability of the municipality or city representatives was identified. The focus group discussion (FGD) was conducted on separate days depending on the availability of the municipality or city representatives. The interviews were guided by a local professional facilitator. The interview questions revolved around the contents of RA 9482. Items asked were related to (1) the responsibilities of the LGUs as stated in Section 7 of the law, (2) programs implemented in the LGU to support the implementation of RA 9482, and (3) perceived needs of the municipality or city in order to strengthen the implementation of the law. Aside from these, the facilitator also asked questions for clarification and to probe deeper with regards to the responses.

All interviews were audio-recorded with the respondents' consent and transcribed by the researchers in a verbatim text format. Data were read and read again several times to extract significant statements from each verbalization that are common among the respondents' views. Articulations given in other dialects (Tagalog or Kapampangan) were carefully translated to English and cross-checked to preserve the original meaning of the shared experience. Since the interviews were done in groups, whole group analysis was used to analyze the data obtained. The researchers took notes on the important discussions done in the FGD. The LGUs were coded for anonymity (labelled as A to V). The results were then presented in tables and were mainly focused on answering the following concerns: (1) which among the provisions of Section 7 of RA 9482 are being implemented by each LGU; (2) what programs are being implemented to support RA 9482; and (3) what are the perceived needs of the municipality or city in order to strengthen the implementation of the law.

When applicable, descriptive statistics such as frequencies and percentages were used to summarize the results.

RESULTS AND DISCUSSION

Tables 1 and 2 summarize the rabies-related programs and activities implemented per LGU. All surveyed LGUs have active vaccination programs. Some of which are coordinated with the Bureau of Animal Industry (BAI) of the Department of Agriculture. The BAI helps the LGUs either by facilitating the actual vaccination or by providing the needed vaccines.

According to some LGUs, vaccinations usually take place in the municipal veterinary clinic. On the other hand, only one to three LGUs implement both responsible pet ownership and dog impounding. Some LGUs claim that the reason for the non-implementation or non-maintenance of dog impounding is the lack of facilities. In addition, six out of the 22 (27.3%) LGUs have spaying, castration, and neutering services. Other LGUs are implementing as well various strategies for rabies control such as rabies campaigns in schools and during symposia. Furthermore, others have dog shows where lectures on rabies are also delivered. Certain LGUs also celebrate rabies control and awareness month during March.

Republic Act No. 9482 or also known as the Anti-Rabies Act of 2007, is an act that aims to control and eliminate rabies infection in both humans and animals thus, penalizing individuals who violate and assign funds for the enactment of such. This contains 15 sections that consolidate the provisions of both Senate Bill No. 2541 and House Bill No. 4654. RA 9482 was approved last May 25, 2007, and took effect 15 days after its approval (Philippine Animal Welfare Society, n.d.). Compliance with the provisions of RA 9482 is anticipated to deliberately control and rule out rabies infection in both humans and animals or transmission of the virus from one animal to another and or from animals to humans. In the Philippines, Pampanga is one of the provinces that

Table 1. Provisions of the anti-rabies act implemented by each municipality or city.

Provisions of Anti-Rabies Act	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	TOTAL
1. data on dog and cat population	X	X	X	X	X	X	X	X	X	X			X		X	X	X	X	X	X		X	18 (81.8%)
2. number of dogs and cats vaccinated	X	X	X		X	X			X	X			X		X	X	X	X		X			13 (59.1%)
3. data on dog and cat registration and impounding	X												X		X	X							4 (18.2%)
4. local ordinance on stray dogs	X	X	X			X	X	X	X	X		X	X		X	X		X		X	X		15 (68.2%)
5. local ordinance on enforcement of Section 6 of RA 8485 (Animal Welfare Act of 1998)	X	X	X		X	X			X	X		X	X		X	X							11 (50.0%)
6. local ordinance on regulation of local treatment known as <i>Tandok</i>				X											X								2 (9.1%)
7. local ordinance on prohibition of trade of dog meat	X		X						X						X								4 (18.2%)
8. local ordinance requiring pet shops to post information regarding rabies and responsible pet ownership	X		X						X						X								4 (18.2%)
9. allocated funds for vaccines	X	X						X	X	X	X	X	X		X	X	X				X		12 (54.5%)
10. allocated funds for infrastructure, workforce, and IEC materials for the proper implementation of RA 9482	X	X							X	X			X		X	X	X	X		X			10 (45.5%)

*Letter A to V corresponds to different municipality or city (names of cities and municipalities were anonymized to adhere to confidentiality provisions)

Table 2. Rabies-related programs and initiatives implemented in each city or municipality.

Programs and Activities	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	TOTAL
1. Rabies policy	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X		19 (86.4%)
2. Vaccination	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22 (100.0%)
3. Responsible pet ownership	X						X				X												3 (13.6%)
4. Dog impounding	X																						1 (4.5%)
5. Spaying, castration, and neutering	X								X	X	X					X	X						6 (27.3%)
6. Information, education, and communication	X								X	X						X	X						5 (22.7%)

*Letter A to V corresponds to different municipality or city (names of cities and municipalities were anonymized to adhere to confidentiality provisions)

exhibits high cases of animal rabies infection. This may be due to the inefficient or difficulty in implementing RA 9482. This can be explained by some of the study results where most of the Pampanga LGUs have incomplete provisions to enforce the said Act entirely. Provisions of this Act include the availability of data on dog population, number of dogs and cats vaccinated, and data on dog and cat registration and impounding. Implementation of local ordinances on stray dogs, on enforcement of Section 6 of RA 8485 (Animal Welfare Act of 1998), on the regulation of the practice of *tandok* or the removal of venom, rabies, or tetanus from a wound by using an animal horn (Benjamin O. Sosa III, 2016), on the prohibition of trade of dog meat, and on requiring pet shops to post information regarding rabies and responsible pet ownership are also included. Allocation of funds for rabies vaccines and infrastructure, workforce, and IEC materials for the proper implementation of RA 9482 is also one of the highlights of this Act.

The success of rabies control and elimination programs requires a lot of effort and support to attain its success. Aside from mass rabies vaccination, components of an effective rabies control and elimination program include the active participation of the community and policymakers in promoting programs and statutes, estimation and regulation of dog population, and assessment of the government's competence and legislation to manage rabies in the country (Department of Health, 2012). This coincides with the results of the analysis of the cities and municipalities of the Province of Pampanga's perceived needs assessment to effectively control and eliminate rabies where key individuals involved in the rabies program of the community recognized that to achieve program success, beyond rabies vaccination, development and proper enactment of local statutes about rabies, budget allocation for programs, facilities for animal treatment and pounding are

necessary.

Successful rabies control programs, both locally and internationally, showed that strong political support is of utmost importance. It also requires permanent funding with full commitment from both the government and the people. Most of the LGUs in Pampanga have limited budgets for mass vaccination programs, canine population control programs, dog impounds, and IEC campaigns, thus, resulting in leading cases of human and canine rabies. Several provinces in the Philippines have shown in the past that strong government support, especially at the provincial and local levels, has a tremendous impact on a successful decline of rabies in their localities (Lapiz *et al.*, 2012; Lachica *et al.*, 2019).

Predominantly, LGUs of Pampanga do not have an ordinance to control the practice of *tandok* and on the prohibition of dog meat trade and the requirement of pet shops to post information regarding rabies and responsible pet ownership. The practice of *tandok* is still prevalent in some of the provinces of the Philippines. Reasons for patronizing this practice include the high cost of the anti-rabies vaccine and vaccine unavailability and the belief that *tandok* is as effective as the anti-rabies vaccine. With this, a serious threat may arise and can tragically affect the health of the people. Furthermore, as stated in the study, the practice of *tandok* is still common in some areas of the country due to the inefficiency of information dissemination about rabies and animal bites (Amparo *et al.*, 2018).

As reported in this study, another probable reason for the high number of rabies cases in Pampanga is the lack of a statute of LGUs in controlling the trade of dog meat. Another poor compliance by the LGUs is the lack of ordinances on the prohibition of the dog meat trade. Infected dog meat highly contributes to the spread of rabies infection, as reported by the study of Dimaano *et al.* (Dimaano, Scholand, Alera, and

Belandres, 2011) in the Philippines, where the major cause of non-bite rabies cases is acquired from eating rabies-infected dog meat and exposure during slaughtering. This factor contributing to the increased rabies cases can be controlled if an effective measure is implemented in the community, such as regulations in selling and eating dog meat and accurate information dissemination regarding this matter.

By law, pet shops are required to post information regarding rabies and responsible pet ownership. However, only one to three of the LGUs are imposing such an ordinance. One of the highlights of the Animal Welfare Act of 1998 is responsible pet ownership. Pet owners must have their dogs regularly vaccinated against rabies, and for record purposes, other vaccines given to the pet should be recorded on a registration card. In addition, the law requires the owners to register their dogs and control pets without a leash from roaming in public areas. In the same law, owners are encouraged to be responsible by providing their pets with enough food, clean shelter, and grooming. If there is any, the pet owners should also report biting incidence to concerned officials for immediate investigation. The victim(s) should be assisted to acquire medical attention as soon as possible, and expenses incurred should be shouldered by the pet owner (Philippine Animal Welfare Society, n.d.). Pet shops and other veterinary clinics are instigated to post some of

the items found in RA 9482 to promote and help in information dissemination. Thus, this contributes to a higher impact in lowering rabies cases in the area where these establishments are situated. As reported in the result of this study, where the majority of the LGUs of the province are not stern in implementing the promotion of responsible pet ownership by the pet shops and veterinary clinics in the area, might be one of the contributing factors why there are increasing cases of rabies in the province of Pampanga.

Aside from the status of the implementation of the Anti-Rabies Act in their city/municipality, key LGU officials were also asked what the perceived needs of their locale are to control and eliminate rabies effectively. Their responses are summarized in Table 3. Most of their needs are concerned with the resources for implementing the Anti-Rabies Act such as vaccines, budget for vaccination and pet population control programs, an area for a dog pound, and treatment facilities. The participants also stated that local chief executives should issue local ordinances to control and eliminate rabies effectively. Training of personnel in animal handling should also be explored to ensure no animal-to-human transmission of the disease. Lastly, the community's involvement in this process should be enforced mainly through responsible pet ownership and proper information dissemination and education.

Table 3. Summary of the perceived needs of the key local officials to effectively control and eliminate

Area	Specific Needs
Administration	<ul style="list-style-type: none"> • Issuance and implementation of local ordinances
Resources	<ul style="list-style-type: none"> • Rabies vaccination and availability of vaccines • Allocation of budget for programs such as vaccination, spay and neuter • Area for dog pound • Facilities for animal treatment (Animal Bite Center)
Personnel	<ul style="list-style-type: none"> • Training of staff in animal handling
Community	<ul style="list-style-type: none"> • Responsible pet ownership • Information dissemination and education

One of the key milestones in successfully implementing rabies control and prevention programs in Latin America is the strategic administrative designation of the national rabies programs to the human health ministries. This ensured permanent funding for adequate vaccine supply for humans and animals, decentralized network for animal control, surveillance, and vaccination, decentralized diagnostic laboratories, and educational outreach programs for rabies control and prevention awareness (Velasco-Villa *et al.*, 2017). The Philippines may learn a great

lesson from the programs implemented in Latin America. Strategies such as decentralizing the different services of rabies control and prevention should also be applied to our setting. Currently, these services are being provided by the LGUs in specific locations only.

On the other hand, in the local setting, a successful, sustainable, intersectoral program to prevent and eliminate rabies in Bohol, Philippines, was implemented in 2007-2010 by empowering local communities and using the One Health Approach model by increasing social

Lastly, a study on the impact of an intensified rabies control program by the local government of Davao City, Philippines for ten years from 2006-2017 has implemented four intensified intervention strategies composed of mass dog vaccination and dog castration, dog impounding, and IEC campaigns. Results suggest that dog impounding and increasing canine vaccination coverage to at least 70% are important in controlling rabies (Lachica *et al.*, 2019). Overall, these local studies clearly emphasize the importance of herd immunity through mass vaccination campaigns and population control. In the absence of an effective population control program, vaccination remains ineffective due to the continuous dilution of the herd immunity level from a yearly mass vaccination program commonly observed in most municipalities.

Overall, based on the findings from the small group discussion with key LGU officials, the province of Pampanga has a long way to go in eliminating rabies. Many of the LGUs are still not implementing important provisions of the Anti-Rabies Act, such as data on dog and cat registration and impounding and the imposition of local ordinances on the regulation of *tandok*, prohibition of the dog meat trade, and requiring pet shops to post information on rabies and responsible pet ownership. The majority of the LGUs (14/22 or 63.6%) are implementing five or less of the provisions of the Anti-Rabies Act and therefore need improvement in its implementation. This may be due to the lack of funds of the LGUs to execute the programs. Moreover, staff training in the handling of animals and information dissemination and education, especially in responsible pet ownership, is also important. It is recommended that future researchers conduct a longitudinal study to better monitor the implementation of the law and to cover other respondents, especially those who are directly involved in implementing programs to support RA 9482. Furthermore, findings of this study may be used in crafting a provincial rabies control and prevention policy that can be adopted by the municipalities in the province to better harmonize the efforts and programs towards the effective control and prevention of rabies.

STATEMENT ON COMPETING INTEREST

The authors have no competing interests to declare.

AUTHOR'S CONTRIBUTION

MLL and RBJ conceptualized, designed,

and implemented the study. MLL, CB, RSJ, DRS, AG, and AA were all involved in the acquisition of the needed data. MLL, RBJ, RET, and MC participated in the analysis and interpretation of the data and writing of the initial draft of the paper. All authors edited the paper and approved its version for submission to the journal. RBJ supervised the research team in the implementation of the study. The study received funding from the Commission on Higher Education K-12 Program under the DARETO (Discovery- Applied Research and Extension Trans/Interdisciplinary Opportunities) program.

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