Emergency and Disaster Planning at Ohio Animal Shelters

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Abstract

Results of a cross-sectional study to determine the level of emergency and disaster response planning at Ohio animal shelters and the role Ohio agencies have in emergency and disaster response planning in their communities indicated a lack of preparedness coupled with under-utilization of the agencies ax a resource. A total of `115 agencies (68%) responded to a standardized survey mailed to 170 Ohio agencies. Most (68%) agencies agreed that emergency and disaster response planning was important to their organization, although only 13% of agencies had completed a written emergency and disaster response plan. The majority (80%) of agencies indicated they would provide critical resources in an emergency or disaster in their community. Only 38 (33%) of the responding agencies were aware of the PETS Act of 2006. Although many agencies indicated the importance of an emergency and disaster plan, there may be insufficient resources, including time and proper training available to ensure plans are developed. Improved coordination among veterinarians, local veterinary medical associations, emergency preparedness agencies, and animal shelters would enhance the relief efforts in a crisis.

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Events such as September 11, 2001, and Hurricane Katrina in 2005 have led to advances in emergency and disaster response planning to ensure the safety of humans in event of an emergency or disaster. At the community level, county Emergency Management Agencies (EMA), county Emergency Management Departments (EMD), and Community Emergency Response Teams (CERT) are developing plans for humans in addition to their nonhuman animal companions. Many barriers and challenges exist for emergency and disaster response in the United States because of the difficulty of integrating local, state, and federal government efforts and resources.

In the aftermath of Hurricane Katrina, the American Red Cross and other agencies set up shelters for families and individuals, but their animal companions were often turned away from those facilities. A survey from the American Animal Hospital Association (AAHA) in 2004 indicated that 56% of

respondents would risk their lives to save their pets (AAHA, 2004). Many pet owners stayed behind to care for their animals after Hurricane Katrina, while others were forced to evacuate and abandon their animals (Humane Society of the United States [HSUS]) 2008). The failure to include companion animals in evacuation planning in recent history has lead to 50% of animals not being evacuated in the event of an emergency or disaster (Heath et al., 2001). Abandoned animals pose a risk to themselves and to the people who may be trying to rescue them. Free-roaming dogs are likely to form packs who may threaten people or livestock and may serve as reservoirs for disease transmission, such as rabies (Slater, 2001). Free-roaming cats pose many similar public health concerns (Slater).

The important role that animals play in society has resulted in increased efforts to include companion animals in emergency and disaster response planning. With the formation in 1992 of the Veterinary Medical Assistance Team (VMAT), The American Veterinary Medical Association (AVMA) has recognized the necessity to include animals in emergency and disaster response planning (AVMA, 2008). In addition to the formation of VMAT, there are many resources available in print and on their website for veterinarians and the public (AVMA a, b, c, 2008).

After Hurricane Katrina and retrospective analysis of other natural disasters, the United States developed the Pets Evacuation and Transportation Standards Act of 2006 (PETS Act of 2006). The PETS Act of 2006 mandates that state governments include companion animals and assistance animals in emergency and disaster response planning in order to receive federal funding from the Federal Emergency Management Agency (FEMA).

Because this act is relatively recent, there is little formal knowledge on the effect it has had on state and local governments and animal shelters in Ohio. Ohio is the seventh most populous state in the country, comprising 3.8 % (approximately 11.5 million people) of the U.S. population (Ohio Department of Development, 2006). Ohio is approximately 41,000 square miles, and nearly one-half the population lives in one of the three largest metropolitan areas: Cincinnati, Cleveland, and Columbus (Ohio Department of Development; U.S. Census Bureau, 2008). The objectives of this study were to determine the level of the emergency and disaster response planning that has been done for animals housed in Ohio animal shelters and the role that Ohio animal shelters have in emergency and disaster response planning in their communities.

Material and Methods

In 2007 August through November, the study surveyed 170 animal care and control agencies in Ohio. The agencies included in the population were Ohio county dog wardens, humane societies, and municipal animal control agencies that were described in Lord et al. (2006). Ten respondents operated as combined dog warden and humane society agencies. The completed database was compiled from previous list frames and Internet sources (Lord et al.).

For the purpose of this study, only agencies housed in a permanent facility were considered eligible for participation. The study excluded breed-specific and mall rescue groups that operated out of private homes, based on the assumption that their resources would be limited in the event of a disaster or emergency. Several veterinarians at Ohio State University and one veterinarian at the Ohio Department of Health reviewed a draft of the survey questions. A standardized survey method was used (Dillman, 2007).

In the first week of August 2007, the study mailed an introductory letter to all agencies in the population. The introductory letter detailed the people performing the study, the purpose of the study, the individual agency's benefit for completion of the questionnaire, and the expected arrival date of the questionnaire. Agencies were removed from the database if their introductory letter was undeliverable. One week following the introductory mailing, a questionnaire was mailed to all the agencies. A postcard reminder was mailed to all agencies that had not responded to the previous mailing within two weeks. One week following the postcard reminder, an additional questionnaire was mailed to all remaining non-respondents. The study accepted completed questionnaires through November 2007.

The standardized questionnaire consisted of four sections that included: contact information, facility information, veterinary services, and emergency preparedness (copies of the survey available from the author on request). A contact-information section was included to ensure an accurate database for follow-up and future research. The facility-information section included questions on the following:

1. types of animals housed at the facility;
2. number of cages available for cats and dogs;
3. age of the facility;
4. remodeled or non-remodeled facility;
5. square footage of the facility; and
6. usable land area available in the event of an emergency or disaster.

The veterinary services section included questions on the following:

1. agency's utilization of veterinary services;
2. availability of space for veterinary services;
3. number of veterinarians available in event of an emergency or disaster; and
4. agency's knowledge of its local veterinary medical association.

The emergency-preparedness section included questions on the following:

1. agency-contact by any groups pertaining to emergency and disaster planning;
2. level of emergency and disaster planning that had been done at the agency;
3. agency's view on the importance of developing a plan;
4. resources an agency would provide in the event of an emergency or disaster;
5. employees trained or not trained by agency on implementing a plan at home; and

6. agency's awareness of the PETS Act of 2006.

The survey was given exempt approval status by The Ohio State University Institutional Review Board. Median and range were calculated for responses that consisted of continuous data. Proportions were calculated for responses that consisted of categorical data: Standard software(Stata, version 10.0, StataCorp, College Station, TX) was used.

Results

The study mailed a standardized survey to 170 Ohio animal shelters and humane societies, of which 115 (68%) responded. In addition, 84 % (67/80) of dog wardens, 52% (44/84) of humane societies, and 75% (12/16) of municipal animal control agencies responded. Ten county dog wardens and humane societies provided one response for the survey; these responses were counted in both categories for calculations of response rate by type of agency. For all other analyses, combined agencies were grouped with humane societies on the assumption that the humane society played a more dominant role at their agency.

Facility Information

The 115 responding agencies had the capability to house the following:

1. 110 (96%) housed dogs;
2. 66 (57%) housed cats'
3. 13 (11%) housed livestock;
4. 20 (17%) housed poultry;
5. 31 (27%) housed exotic birds;
6. 40 (35%) housed pocket pets; and
7. 29 (25%) housed reptiles or amphibians.

The typical agency reported a median of 29 cages (range, 0 to 330 cages) available for dogs and 5 cages (range, 0 to 306 cages) for cats. The median age of facilities was 24 years (range, 1 to 105 years) with a median size of 3000 square feet (range, 100 to 208,800 square feet). Of the responding agencies, 32 of 111 (29%) agencies reported that they had been significantly remodeled.

Veterinary Relationship

Overall, 84 of 115 (73%) animal care and control agencies reported that they utilized veterinary services, and some agencies had more than one type of veterinary relationship, The 84 agencies reported utilizing veterinary services as follows:

1. 7 (8%) had a full-time veterinarian;
2. 11 (13%) had a part-time veterinarian;
3. 19 (23%) used volunteer veterinarians;
4. 55 (65%) used an independently contracted veterinarian; and
5. 9 (11%) reported alternative veterinary care sources.

A room or area dedicated to veterinary care was available in 42 of 115 (37%) facilities. Of the 42 agencies reporting that they had a room or area available for veterinary care, 26 (62%) provided spay-neuter services, 37 (88%) performed wellness examinations, 12 (29%) provided emergency care, and 4 (10%) reported that other services also took place in that room or area (some agencies utilized the room or area for more than one purpose). In the event of an emergency or disaster, 107 agencies indicated they could contact a median of 5 veterinarians (range, 0-35 veterinarians) for assistance. Overall, 36 of the 113 (32%) agencies reported that their community has a local veterinary medical association, 19 (17%) reported that their community did not, and 58 (51%) were unsure if their community had a local veterinary medical association. Of the 36 agencies that reported their area had a local veterinary medical association, 23 (64%) agencies reported contact and 13 (36%) reported lack of contact with their local veterinary medical association.

Emergency Preparedness

Of the 114 agencies that responded, 56 (49%) indicated they had been in contact with other agencies or groups regarding emergency and disaster response planning for owned animals in their community. Animal care and control agencies that indicated contact listed some of the following groups with whom they were in contact:

1. American Red Cross, Disaster Assistance and Rescue Teams (DART);
2. County Emergency Management Agencies (EMA); \
3. County Emergency Management Departments (EMD); and
4. Community Emergency Response Teams (CERT).

Twenty-seven of 59 (46%) county dog wardens, 26 of 43 (60%) humane societies, and three of 12 (25%) municipal animal control agencies reported having contact with outside agencies regarding emergency and disaster response planning for owned animals in their community.

Overall, 27 of 113 (24%) agencies reported that emergency and disaster response planning had not been discussed at their agency, while 47 (42%) indicated that emergency and disaster response planning had been discussed. A total of 22 (19%) indicated that their agency was in the process of developing a written plan, while 13 (12%) indicated that their agency had developed a completed written plan. One (1%) indicated that its agency had completed a written plan and simulated a disaster event. Three (3%) indicated that their level of planning did not fall into any of these categories.

Agencies were asked whether they felt that the development of an emergency and disaster response plan was critical to their organization. The 113 that responded provided the following information

1. 46 (41%) strongly agreed;

2. 30 (27%) somewhat agreed;
3. 31 (27%) neither agreed nor disagreed;
4. 4 (4%) somewhat disagreed; and
5. 2 (2%) strongly disagreed.

Of 115 agencies, ability to assist in the event of an emergency or disaster varied as follows:

1. 23 (20%) would not be able to provide any resources;
2. 60 (52%) would be able to provide personnel;
3. 66 (57%) would be able to provide temporary housing;
4. 17 (15%) would be able to provide veterinary care;
5. 8 (7%) would be able to provide monetary support;
6. 47 (41%) would be able to provide medical and/or food supplies; and
7. five (4%) would be able to provide other unspecified resources.

Some agencies could provide more than one resource).

Overall, 14 of 113 (12%) agencies trained their employees on how to successfully implement an emergency and disaster response plan for their personal pets. Overall, 38 of 114 (33%) agencies indicated that they were aware of the PETS Act of 2006. When agencies were classified according to their level of planning, 14 of 74 (19%) agencies that had not begun writing an emergency and disaster plan were aware of the PETS Act of 2006; 16 of 22 (73%) agencies that were in the process of developing an emergency and disaster plan were aware of the PETS Act of 2006; and 7 of 14 (50%) agencies that had completed a written emergency and disaster plan were aware of the PETS Act of 2006.

When agencies were asked whether they felt the development of an emergency and disaster plan was critical to their organization, 2 of 6 (33%) agencies that disagreed were aware of the PETS Act of 2006; of 31 (19%), 6 agencies that neither agreed nor disagreed were aware of the PETS Act of 2006; and 30 of 76 (39%) agencies that felt the development of an emergency and disaster plan was critical to their organization were aware of the PETS Act of 2006.

Discussion

Results of this study suggest that contact exists between approximately one-half of animal care and control agencies and local and state emergency and disaster response coordinators. While most Ohio animal care and control agencies agreed that emergency and disaster response planning was important to their organization, very few agencies had completed a written emergency and disaster response plan for their agency.

Of the agencies that were aware of a local veterinary medical association (VMA), almost two-thirds of Ohio animal care and control agencies reported to have some form of contact with their local association. However, most agencies indicated that there was either not a local VMA or that they were not

aware of one in their community. There are 31 local VMAs in Ohio, and some less-populated areas may be under-represented (OVMA, 2008).

In the event of an emergency or disaster where there may be a large amount of injured and abandoned animals, it will be necessary to provide adequate veterinary care. Although most Ohio animal care and control agencies utilized veterinary care in some capacity, a large-scale crisis would require coordination from multiple resources, such as county and state emergency management agencies and local VMAs. Relying on only a few local veterinarians may be inadequate to support many animals affected by an emergency or disaster. Local VMAs may be able to provide contact with veterinarians who have been specifically trained in emergency and disaster response planning inside and outside their communities. Local VMAs may also have the ability to effectively communicate with a large number of veterinary personnel efficiently to reinforce the relief efforts. Enhanced communication between animal care and control agencies and local VMAs would benefit both parties by allowing more involvement in community emergency and disaster response planning.

Most agencies indicated that they would provide some resources, such as personnel, temporary housing, veterinary care, monetary support, and medical and/or food supplies in the event of an emergency or disaster. If these resources are available in the community, there must be a plan in place to ensure that they are accessed and used appropriately. The needs of victims affected by an emergency or disaster cannot be satisfied by the efforts of any one agency. Emergency responders at the local, state, and federal levels must strive to increase the coordination of all the resources available to them.

With less than half of Ohio animal shelters reporting contact with emergency and disaster response coordinators such as American Red Cross, county EMAs, county EMDs, FEMA, and State Animal Response Teams (SART), most emergency responders could be unaware that resources are available for the animals affected by an emergency or disaster from these agencies. Without coordinated communications, emergency responders may also falsely assume that animal shelters located near a disaster would have the resources available to assist them. Emergency and disaster response coordinators need to initiate contact with local animal care and control agencies to determine the resources available in Ohio communities.

Relatively few animal care and control agencies train their employees on how to implement an emergency and disaster plan for their personal pets. Adequate personnel is essential for response plans to work effectively, and this may result in a decreased number of personnel available to assist in the event of an emergency or disaster. The AVMA provides publications regarding the implementation of an emergency and disaster response plan (AVMA, 2008 a, c.). While training employees regarding their personnel pets is important, it is imperative that agencies train their staff on how to react in the event of an emergency or disaster.

The development of trained personnel can be accomplished using various resources, including: HSUS, United Animal Nations (UAN), and SART. These trained individuals may be used at the permanent facility or in the event that temporary housing is required as part of the response effort. If agencies fail to recognize the importance of adequate training and development, their personnel will not be a useful resource in the event of an emergency or disaster. In this study, we did not assess the availability or training of volunteers who serve important roles during an emergency or natural disaster. When assessing emergency and disaster planning and resources, the impact and contribution of volunteers as well as the amount of training they receive should be examined more critically. So that a relatively seamless integration into the response system may occur, volunteers should receive as much training in procedures and communication as is possible and practical.

A minority of agencies were aware of the PETS Act of 2006. Although agencies are not bound by the PETS Act, their resources may be relied on intensively in the event of an emergency or disaster. The lack of knowledge of the PETS Act may indicate a lack of involvement that Ohio animal shelters have in emergency and disaster response planning at the local and state levels, and they may subsequently be unprepared for an emergency or disaster that affects them or their community.

Perhaps the state and local governments organizing emergency and disaster response planning are not recognizing the animal care and control agencies as possible resources. Agencies that were aware of the PETS Act of 2006 more frequently indicated that the development of an emergency and disaster response plan for animals housed in their facilities was important to their agency. The awareness of the PETS Act may have helped to clarify the importance of developing a plan for animals housed in their facilities. It is vital that animal care and control agencies as well as veterinarians increase their awareness of this legislation. By increasing awareness, emergency and disaster planning should become a higher priority for animal care and control agencies. Increased awareness may also provoke local veterinarians and shelters to take a more active role in emergency and disaster response planning with regards to developing plans for their facilities and becoming trained emergency and disaster response.

There were several limitations in this study. The population of Ohio animal shelters included only those housed in permanent facilities. This eliminates smaller rescue groups whose resources may not be as centrally located in one facility but may be useful in a disaster. Another limitation of this study is that it was conducted in a limited geographic area (Ohio); therefore, it may be difficult to extrapolate the results to other areas, especially with regard to manmade and natural disasters. However, the importance of assessing the infrastructure related to emergency and disaster planning and facilitating interagency communication during all phases of planning and relief efforts is universal. Our study may serve as a template for other local, state, federal, and international agencies to follow when assessing these factors in a wide variety of geographic areas.

Conclusion

The results of this study indicate that Ohio animal care and control agencies are an underutilized resource in the development of emergency and disaster response plans and that most Ohio agencies may be under-prepared to respond should their own agency be affected by an emergency or disaster. Improved coordination among veterinarians, local veterinary medical associations, animal care and control agencies, and emergency responders would enhance the relief efforts in a crisis. Future research will allow us to characterize the development of emergency and disaster response plans in shelters, the roles that shelters have in emergency and disaster response planning, and multiple agencies' coordination or non-coordination of the resources available to them in a community.

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