

Animal hoarding: The challenge for mental health, law enforcement, and animal welfare professionals

Randall Lockwood

American Society for the Prevention of Cruelty to Animals, Response and Engagement, Anti-Cruelty Special Projects/Policy, Falls Church, VA, USA

Correspondence

Randall Lockwood, Ph.D., American Society for the Prevention of Cruelty to Animals, 2214 Tulip Drive, Falls Church, VA 22046, USA.
Email: randall.lockwood@aspca.org

Abstract

Animal hoarding has been considered a significant problem by animal welfare and law enforcement professionals for over a century. However, it has only been recognized as an indication of a mental disorder in the last decade. I review the different forms that animal hoarding can take and the current understanding of the prevalence, demographics and possible etiology of this disorder. Conventional animal cruelty laws have often been inadequate to respond to animal hoarding cases until they reach levels that may involve serious harm to animals and people. I document how prosecution of such cases can be difficult and often does not adequately consider the mental health issues underlying the problem or the high likelihood of recidivism. Attempts to solve these problems by enacting new laws specifically addressing animal hoarding have been controversial and ineffective. I explore new approaches that coordinate a variety of community resources in response to hoarding cases that offer the best opportunity to respond to both the human and animal problems associated with animal hoarding.

1 | INTRODUCTION

Reports of cases of people who keep large numbers of animals in unsanitary conditions date back more than 150 years. I will review the history of awareness of hoarding in general and animal hoarding in particular and the recent recognition of this behavior as a mental disorder. I will examine the prevalence and demographics of hoarding, the various forms it can take and theories about the psychological and biological origins of the disorder. Finally, I will review the challenges presented by animal hoarding cases to the legal system and new approaches to responding to animal hoarding as a complex issue requiring the coordinated engagement of a network of professionals in mental health, social services, animal care and control and law enforcement.

One of the earliest documented cases of animal hoarding is reported by Hartwell (2014) who traced detailed press accounts of the story of Mary Chantrell, beginning with a simple item in the *Luton (England) Times and Advertiser* from July 1855 that “At Brighton, on Monday, a lady named Mary Chantrell was fined £5 and costs for keeping cats in a state of starvation.” Over the next 20 years there were multiple complaints and legal actions against her and her husband who claimed the animals were kept as models for his wife's artwork. Hartwell cited an investigator's report from 1866 which noted “In the house and premises I found about 150 cats, and about 50 dead ones, some dried up, some putrefying, and several dead dogs in the same state. There were six dead cats in [the] bedroom. There were fifteen dogs in the house, and a fox. The whole place was in a very filthy state, and the stench was awful.”

Like many of today's animal hoarders, Mary Chantrell saw herself as a rescuer, claiming in 1867 that she had “established a sort of asylum for cats in consequence which she saw lying dead upon the beach, and even offered premiums to anyone who would bring any animals of the feline species to her city of refuge.” In 1872 Chantrell (née Mary Dear) now a widow, was prosecuted by the Royal Society for the Prevention of Cruelty to Animals for cruelly treating 43 cats and 27 dogs kept in filthy and starving condition at a trial that attracted more than 100 spectators. She blamed the condition of the animals on her servants who had not cared for the animals in her absence. She was found guilty and ordered to pay £5 with the provision that she would be imprisoned for 2 months if she defaulted. The RSPCA argued that they had spent nearly £20 on the care of the animals seized and were granted that by the court.

Chantrell was again charged with animal cruelty in 1874 and was described in press accounts as having “a *mania* for collecting cats and dogs” and again in 1875 when, according to press reports in the *New York Times* cited by Hartwell, “Mrs. Chantrell obstructed the search with threats of violence, and persistently refused to permit any of the animals to be destroyed.” She was again arrested for animal neglect in 1885. In 1898 she was found homeless, sleeping in a doorway. She was described as “a woman of refinement and education” who appeared in court with a portfolio of her drawings ... and two cats under her coat.

Almost every element of this case is echoed on a regular basis in incidents responded to by law enforcement and animal protection professionals (Arluke et al., 2002). A common scenario is that the court is presented with serious charges against a well-educated and reportedly well-intentioned person who has kept a large number of animals in conditions of extreme neglect with little insight into the harm that was being done. Response to the case is costly for animal agencies that respond and results in lengthy proceedings that attract enormous public attention ... only to be repeated again and again. What has changed in the ensuing century and a half is the gradual recognition that this “mania for collecting cats and dogs” is a true mental disorder that presents enormous challenges to those who try to intervene to help both the people and animals involved.

2 | HOARDING AS A MENTAL DISORDER

Despite considerable attention to object hoarding in the media and popular culture throughout the 20th century, there was little formal research prior to 1993 when the first paper on hoarding appeared in the psychological literature (Frost & Gross, 1993). This article was followed by a formal definition and cognitive behavioral model (Frost & Hartl, 1996). Surprisingly, this work was predated by 15 years by discussions of cases of animal hoarding, which were first described in the public health literature by Worth and Beck (1981), who characterized it as “multiple animal ownership” in describing 31 case histories of problems presented to the New York City Department of Health and the American Society for the Prevention of Cruelty to Animals (ASPCA).

Such individuals were later characterized as “animal collectors” in publications aimed at animal welfare professionals (Lockwood & Cassidy, 1988) and veterinarians (Lockwood, 1994). Later, Patronek (1999) and the Hoarding of Animals Research Consortium (HARC) introduced the term “animal hoarding” as a designation that was more consistent with existing medical, psychological, and psychiatric nomenclature, since the term “collecting”

more appropriately described accumulations associated with benign hobbies (Frost, Steketee, & Williams, 2000; Nordsletten & Mataix-Cols, 2012).

The HARC formally defined animal hoarding using the following criteria (HARC, 2002):

- Having more than the typical number of companion animals.
- Failing to provide even minimal standards of nutrition, sanitation, shelter, and veterinary care, with this neglect often resulting in illness and death from starvation, spread of infectious disease, and untreated injury or medical condition.
- Denial of the inability to provide this minimum care and the impact of that failure on the animals, the household, and human occupants of the dwelling.
- Persistence, despite this failure, in accumulating and controlling animals.

In recent years, discussion of features of hoarding behavior in the psychological and psychiatric literature suggested differences from other related problems such as obsessive-compulsive disorder (OCD; Bloch et al., 2014; Mataix-Cols et al., 2010; Pertusa et al., 2010; Tolin, Witt, & Stevens, 2014). This discussion led to the introduction of the term “hoarding disorder” in the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (DSM-5) in the category of obsessive-compulsive and related disorders (American Psychiatric Association, 2013). The primary characteristic of hoarding disorder is “persistent difficulties discarding or parting with possessions, regardless of their actual value.” (p. 247). This diagnosis excludes hoarding behavior associated with other mental disorders, including obsessions in OCD, major depressive disorder, schizophrenia or other psychotic disorder, or major neurocognitive disorders that may co-occur with hoarding (Grisham & Norberg, 2010).

The DSM-5 definition of hoarding disorder specifically addresses animal hoarding, using the criteria given in the HARC definition, while suggesting that it may be a special manifestation of the disorder. The DSM-5 notes that most people who hoard animals also hoard objects, as reported by Patronek (1999) and Steketee et al. (2011). It is suggested, however, that animal hoarding is associated with a greater extent of unsanitary conditions and poorer insight into the problem. The prevalence of this disorder, demographics of hoarders, types of animals hoarded, forms of animal hoarders, and etiological explanations for this disorder are discussed below.

2.1 | Prevalence

There is currently no centralized record keeping for animal cruelty cases in the US (Lockwood, 2008). The FBI added animal cruelty to the crimes tracked within the National Incident Based Reporting System (NIBRS) beginning in 2016. The NIBRS uses a generic definition of animal cruelty as:

Intentionally, knowingly, or recklessly taking an action that mistreats or kills any animal without just cause, such as torturing, tormenting, mutilation, maiming, poisoning, or abandonment. Included are instances of duty to provide care, e.g., shelter, food, water, care if sick or injured; transporting or confining an animal in a manner likely to cause injury or death; causing an animal to fight with another; inflicting excessive or repeated unnecessary pain or suffering, e.g., uses objects to beat or injure an animal (DeSousa, 2016, p. 2).

The NIBRS further categorizes animal cruelty cases as either intentional abuse/torture, organized abuse (dogfighting and cockfighting), animal sexual abuse or simple/gross neglect, defined as “the failure of a person to provide for the needs of an animal (lack of food, water, shelter grooming or veterinary care)” (DeSousa, 2016, p. 2).

Unfortunately, the NIBRS system does not identify the species or numbers of animals involved in each incident, so there is no capability within NIBRS reports for distinguishing between large-scale hoarding cases with gross neglect of many animals and instances of simple neglect of a single animal. The NIBRS considers the victim in each incident to be “society.” In addition, current participation in reporting animal cruelty cases to NIBRS is extremely low. The 2016

NIBRS report lists only 1,126 animal cruelty cases from 13 states, with only three states accounting for nearly 75% of reports. Neglect cases account for 599 (53%) of these cases (Federal Bureau of Investigation, 2017).

The American Psychiatric Association indicates that hoarding disorder may affect 2–5% of the adult population, a minimum of 5 million individuals in the US. Since about 68% of US households have pets, that suggests a potential population of 3.4 million individuals with hoarding disorder with close access to animals. Estimates based on actual caseloads handled by animal protection authorities are significantly lower. Original estimates suggested 2,000–3,000 new animal hoarding cases per year in the US (Patronek, 1999, 2006; Patronek & Nathanson, 2009).

A survey of health officers in Massachusetts asked about reported cases of all types of hoarding (object and animal) estimated the 5-year prevalence rate of 26.3 per 100,000 population, or 5.3 per 100,000 per year (Frost et al., 2000). The authors reported that animals were hoarded in roughly a third of these cases, which suggest about 1.75 cases per 100,000 per year that involved animals, although the authors indicated that under-reporting was likely. Nevertheless, this figure, if extrapolated to the entire US population, would indicate a minimum of 5,100 reported cases per year. Presuming an average of 50 animals per case (Arluke, Patronek, Lockwood, & Cardona, 2017), it would not be unreasonable to suggest that nearly a quarter of a million animals are impacted by hoarding each year. As many of these animals are subjected to long-term neglect, starvation and painful and debilitating ailments, animal hoarding should be seen as causing more animal suffering than acts of intentional cruelty (Avery, 2005).

Animal hoarding is not limited to any one culture or country. Extreme cases have been reported in the UK (Lockette, 2016), Canada (Avery, 2005; Reinisch, 2009), Australia (Joffe, O'Shannessy, Dhand, Westman, & Fawcett, 2014; Ockenden, De Groef, & Marston, 2014), Serbia (Marijana & Dimitrijevic, 2007), Spain (Calvo, Duarte, Bowen, Bulbena, & Fatjó, 2014), Brazil (Cunha et al., 2017; Ferreira et al., 2017) and Japan (Anonymous, 2017). The widespread occurrence of this disorder across different cultures suggests the possibility that underlying biological factors contribute to a predisposition for such behavior.

2.2 | Demographics – who hoards

Animal hoarders come from varied backgrounds. In one study (Worth & Beck, 1981), 70% of the sample were unmarried women who had cats, while in another study (Patronek, 1999) 76% of the sample were women, 46% were over 60 years of age, most were single, divorced, or widowed, and cats were most commonly involved. In another study (HARC, 2002), 83% were women, with a median age of 55 years, and nearly three-quarters of the sample were single, widowed, or divorced. In the review of animal hoarders in Australia (Joffe et al., 2014), most were female (72.4%) and 79% were 40–64 years of age at their first offense. The analysis of 24 hoarding cases in Spain (Calvo et al., 2014) characterized these hoarders as elderly, socially isolated men and women who tended to hoard only one species (dog or cat).

Animal hoarding behavior cuts across all demographic and socioeconomic boundaries. As most hoarders are very secretive, many can lead a double life with a successful professional career. Animal hoarding behavior has been reported among doctors, nurses, public officials, teachers, college professors, social workers and veterinarians, as well as among a broad spectrum of socioeconomically disadvantaged individuals.

2.3 | What is hoarded

Cats and dogs are the most commonly hoarded species, but wildlife, exotic animals, and farm animals have been involved, even in urban situations. One study of 71 animal hoarders (HARC, 2002) found that approximately 82% of the cases involved cats, 55% dogs, 17% birds, 6% reptiles, 11% small mammals, 6% horses, and 6% cattle, sheep, or goats. A review of 56 cases of animal hoarding involving prosecution of the hoarder noted that 46% of cases involved dogs, 34% involved cats, with the remainder of the cases evenly divided between birds, farm animals, rabbits, and horses. The lower incidence of cat hoarding in this review suggests that cases involving dogs are more likely to attract prosecutorial attention, particularly if dead animals are found at the scene (Berry, Patronek, & Lockwood, 2005).

2.4 | Forms of animal hoarding

Animal hoarding appears to be more complex than object hoarding in the forms it can take and the range of underlying motivations. Several useful categories have been identified that go beyond the original basic definition used by HARC and the DSM-5 (Arluke et al., 2017; Frost, Patronek, Arluke, & Steketee, 2015; Patronek, 1999; Patronek, Loar, & Nathanson, 2006)

2.4.1 | Overwhelmed caregiver

The overwhelmed caregiver minimizes rather than denies animal care problems that result from economic, social, medical, or domestic changes, such as loss of job or health, but cannot remedy these problems. Despite their strong attachment to animals, the overwhelmed caregivers' compromised situation gradually leads to a deterioration of animal care. Although sometimes socially isolated, they are less secretive and more cooperative with authorities than are most hoarders, and prosecution is considered unnecessary or counterproductive. Such individuals generally do not show significant impairment in social, occupational, or other areas of functioning and thus might not fit the diagnostic criteria for hoarding disorder. Legal response to such cases, if any, is usually limited to citation for violations of housing, sanitation, or public nuisance ordinances.

2.4.2 | Rescue hoarder

The rescue hoarder often presents the largest and most costly problem to law enforcement and animal control agencies. Such cases often involve large numbers of animals, sometimes in excess of 500 cats or dogs. As many as one-quarter of cases now may involve some sort of formal quasi-rescue effort or institutional situation (Manning, 2011), and virtually all of the large-scale animal hoarding cases responded to by the ASPCA involve "rescue" situations. The rescue hoarder has a missionary zeal to save all animals. They generally reject any prospect of euthanasia, even for animals that are incurably ill and suffering.

Rescue hoarders present significant challenges to mental health and law enforcement professionals. Their self-perception as being uniquely qualified to meet the needs of animals and their almost complete lack of insight into the harm they cause generally renders them completely uncooperative when any authorities attempt to intervene on behalf of the animals or the hoarders themselves. They view legitimate animal care and control agencies as the enemy and often disparage conventional veterinary medicine and make use of unconventional and ineffective approaches to medical care – if any. Their beliefs almost guarantee recidivism, regardless of any legal or financial consequences of their previous hoarding behavior.

The resistance to change in animal hoarders in general, and rescue hoarders in particular, is associated with the central role played by animal rescue in defining their sense of self. Brown (2011) noted that animals can provide an ideal resource for building a strong, idealized, but ultimately erroneous self-image.

2.4.3 | Exploiter hoarder

Finally, the exploiter hoarder is the most challenging type to manage. Considered to be sociopaths and/or to have severe personality disorders, their lack of empathy for people or animals means they are indifferent to harm they cause to animals. They may be motivated by financial gain from illegitimately soliciting funds that are not used for animal care. Exploiter hoarders can be charismatic and articulate, presenting an appearance that suggests competence to the public, the media, officials, and even the courts. They display many characteristics of psychopathy, including superficial charm and charisma; they are manipulative and cunning, narcissistic, and appear to lack guilt or remorse. They show hostility toward anyone threatening their deep-seated need to exert control over their animals (Patronek & Nathanson, 2009). The absence of emotional attachment to their animals suggests that these individuals may not fit the diagnostic criteria for hoarding disorder (Frost et al., 2015). As their actions impact human and animal victims, they are more likely to face prosecution than other types of animal hoarders.

2.5 | Etiology

The description of animal hoarding within the DSM-5 is a diagnostic tool rather than an attempt to clarify the nature and origins of the problem. A variety of approaches have been used to reconcile behaviors seen in animal hoarding with existing recognized disorders. These include addiction models, OCD, and attachment disorder models.

2.5.1 | Addiction models

When animal hoarding was first recognized as a problem for the animal welfare community, it was noted that parallels with addiction seem to fit the thinking and behavior of many hoarders (Lockwood, 1994). As with substance abusers, hoarders are preoccupied with animals, are in denial over their problems, have many excuses for their situation, may be socially isolated, claim to be persecuted, and neglect themselves and their surroundings. Other evidence consistent with an addictions model is the similarity of hoarders to people suffering from impulse control problems, such as compulsive shopping (Frost, 1998), compulsive gambling (Meagher, Frost, & Riskind, 1999), and significantly higher levels of smoking (Raines, Unruh, Zvolensky, & Schmidt, 2014). Flores (2004) has noted how addictions can be viewed as rooted in attachment problems, a concept which seems to help weave some of these seemingly disparate features together and overcome some of the issues associated with applying overly simplistic diagnostic labels to a complex problem.

2.5.2 | Obsessive-compulsive disorder

Prior to 2010, hoarding had often been conceptualized as a variant of OCD. However, additional research suggested a more complex pattern of overlap with attention deficit-hyperactivity disorder, organic brain disease, depression, anxiety, personality disorders, and impulsivity, eventually leading to the designation of hoarding disorder as a distinct malady (Bloch et al., 2014; Mataix-Cols et al., 2010; Pertusa et al., 2010; Tolin et al., 2014; Tolin, Villavicencio, Umbach, & Kurtz, 2011). Some have suggested the possibility of hoarding subtypes. One such proposal is that "pure" hoarding patients are distinct from those with comorbid OCD. In support of this hypothesis, "pure hoarding" patients report significantly less negative affect than do those with hoarding and OCD or OCD alone (Grisham, Brown, Liverant, & Campbell-Sills, 2005).

2.5.3 | Attachment disorder models

Animal hoarding is usually accompanied by a history of disordered or inadequate attachments to people. Most hoarders have psychological and social histories beginning in childhood that are chaotic and traumatic. Preliminary research (HARC, 2002) suggested that hoarders grew up in households with inconsistent parenting, in which animals may have been the only stable feature. The vast majority report feelings of insecurity and disruptive and experiences in early life, including frequent relocations, parental separation and divorce, and isolation from peers. In addition, there may be underlying genetic or physiological predisposition to hoarding behavior, an issue that is discussed further below.

Nathanson and Patronek (2011), Patronek and Nathanson (2009), and Steketee et al. (2011) have woven these disparate models and approaches together and suggested that the problem is better understood by focusing on the thoughts and actions exhibited by hoarders. From this perspective, animal hoarders often manifest axis II traits (personality disorder) such as suspiciousness, mistrust, fear of abandonment leading to unstable and intense interpersonal relationships, feelings of emptiness, difficulty with anger, and paranoia (see DSM-IV; APA, 1994). Those having these traits often come from families where they had a history of unresolved grief due to tragic, untimely deaths or losses and emotional or physical abuse (Cassidy & Mohr, 2001; Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006). Nathanson (2009) has suggested that a primary feature of animal hoarding may be less about love than about animals providing a conflict-free relationship to the hoarder. Absence of nurturing relationships in childhood cause these people to have a deep sense of aloneness in adulthood that can never be filled.

Animals may provide what their caretakers perceive to be unconditional love. However, just as their own need to be loved was not met by their parents, so too do they neglect the needs of animals dependent on them. Some animals die from lack of care or natural causes. Thus, the hoarder's fear of being abandoned and sense of unworthiness are confirmed, in this case by the dying animals. It is not uncommon to find many deceased animals kept by hoarders in freezers, outbuildings, or otherwise preserved. In addition, some animal hoarding investigations have revealed the presence of unreported deceased relatives kept in the same location (Worth & Beck, 1981).

The DSM-5 suggests the possibility that animal hoarding may be a special manifestation of hoarding disorder. Frost, Patronek, and Rosenfield (2011) described similarities and differences between object hoarding and animal hoarding. Both involve much clutter and disorganization, a need for control, excessive acquisition, and difficulty in giving up items or animals that are hoarded. Both animal and object hoarders attribute human characteristics to the things they hoard. One unique aspect of animal hoarding is that this attachment is, in many cases, reciprocal in that the animal may be very responsive to and dependent upon the hoarder – reinforcing the individual's definition of self as a good person.

In addition to these etiological models, biological factors, including genetics, neurophysiology, and infection disease, have been suggested as possible explanations for this disorder. These factors are discussed in the following section.

3 | BIOLOGICAL FACTORS IN HOARDING

As noted earlier, the occurrence of animal hoarding in a variety of countries and cultures suggests that there may be underlying physiological or genetic contributors to this disorder, including possible genetic, neurophysiological or infectious disease-based factors.

3.1 | Genetics

Family studies show that object hoarding is more common among first-degree relatives of people with hoarding when compared with non-hoarding controls. Pedigree and twin studies suggest that hoarding has a strong genetic component and complex pattern of inheritance. However, most of these studies have involved subjects with OCD or other disorders in addition to hoarding symptoms (Hirschtritt & Mathews, 2014). Other studies suggest that hoarding symptoms are heritable from adolescence throughout young adulthood. The findings indicate that dynamic developmental etiological effects may be operating across the life span (Iervolino et al., 2009; Ivanov et al., 2017; Taylor, Jang, & Asmundson, 2010). There have been no studies to date specifically looking at possible genetic contributors specific to animal hoarding.

3.2 | Neurophysiology

Pathological hoarding behavior potentially involves disruption of brain mechanisms associated with decision-making, general cognitive function, impulsivity, assignment of emotional significance to possessions, and anxiety associated with decision-making or separation from such objects or animals. The earliest studies of brain function in hoarding patients (Saxena et al., 2004) found that, compared to non-hoarding OCD patients, OCD patients with compulsive hoarding had significantly lower glucose metabolism in the dorsal anterior and posterior cingulate gyrus. Contemporary studies continue to elucidate other brain regions associated with hoarding symptoms (Slyne & Tolin, 2014), but, as with genetic studies, there have, as yet, been no analyses specific to animal hoarding.

3.3 | Infectious disease/parasites

There have been periodic media reports drawing a potential connection between hoarding behavior and infection with the protozoan parasite *Toxoplasma gondii*, commonly associated with cats and cat feces. Popular media have

suggested such infections may be partly responsible for “crazy cat ladies” (Gibson, 2015). *Toxoplasma gondii* has been associated with several psychiatric conditions, including schizophrenia, OCD, mood disorders, personality changes, and cognitive impairments (Fekadu, Shibre, & Cleare, 2010; Miman et al., 2010).

The specific association of *Toxoplasmosis* with animal hoarding, however, is questionable. Although the definitive hosts are felines such as cats, *T. gondii* can affect almost all warm-blooded animals, including humans. Many hoarding cases involve non-feline or non-mammalian species (e.g., birds, reptiles, insects). Psychiatric disorders theoretically associated with *T. gondii* are not particularly prevalent in high-seroprevalence areas. In addition, it has been difficult to demonstrate *T. gondii* in the brain of patients with mental disorders (Fekadu et al., 2010). To date, there have been no specific studies of *T. gondii* seroprevalence levels in animal hoarders (Patronek, 2013).

The many factors that can be associated with animal hoarding are not mutually exclusive. Genetic predisposition and/or neurological impairment may interact with disrupted childhood attachments, abuse, trauma, or other triggers. These factors, when coupled with societal reinforcement and reliance on interactions with animals to create a positive self-image, can create conditions conducive to animal hoarding. The law must respond to the individuals and conditions associated with animal hoarding.

4 | HOARDING AND THE LAW

For decades object hoarding was largely ignored by law enforcement authorities, who considered it a “lifestyle choice” or a rare eccentricity and not a mental disorder. The potential impact of this behavior on the individuals involved, those dependent upon them and the community as a whole was beyond the scope of concern of most public agencies. If any action was taken it usually involved enforcement of local sanitation codes. This practice began to change in the 1990s as more agencies recognized the complexity of the problem.

The experience of Fairfax County, Virginia, is illustrative of the changing view of hoarding that began to take place around the country as enforcement agencies increasingly saw hoarding as a serious and costly issue. In 1998, a fire in a heavily cluttered building killed four people. The Fire and Rescue Department, lead agency on hoarding matters, realized that a multi-agency task force was needed to address a growing problem. In response, the Fairfax County Hoarding Task Force was created, one of the first such partnerships in the country (Congleton, 2012). The Task Force included the Community Services Board, the Office of Mental Health Services Mobile Crisis Unit, the Office of the Sheriff, the County Attorney, and the Animal Services Division of the Fairfax County Police Department. This approach recognized that hoarding in general, and animal hoarding in particular, demands the coordinated attention of all these disciplines. Today there are such task forces at local and state levels throughout the US.

4.1 | The special case of animal hoarding

Although animals are considered property for the purposes of the law, the hoarding of animals differs substantially from object hoarding. Unlike newspapers, bottles, and hoarded objects, animals can move, reproduce, urinate, defecate, bite, scratch, make noise, become ill, suffer, and die or have long-term behavioral problems (McMillan, 2013; Polak, Levy, Crawford, Leutenegger, & Moriello, 2014). Thus, problems produced by hoarding of animals inevitably escalate and often spread to neighboring properties. In addition, animals involved in legal actions against alleged hoarders are victims and, at the same time, constitute evidence that must be housed, fed, treated and cared for, often for extended periods of time at considerable expense to responding agencies (Arluke et al., 2017; Bernstein & Wolf, 2005).

From a legal perspective, a primary distinction between object and animal hoarding is that object hoarding usually involves primarily code violations, possible eviction and property condemnation (Frost et al., 2000). Animal hoarding frequently involves conditions that can lead to criminal prosecution (Berry et al., 2005; Patronek, 2001). By definition (HARC, 2002), animal hoarding includes “failing to provide even minimal standards of nutrition, sanitation, shelter, and veterinary care, with this neglect often resulting in illness and death from starvation, spread of

infectious disease, and untreated injury or medical condition.” This situation echoes legal definitions of some elements of animal cruelty in most state laws, including animal neglect and, in some cases, animal abuse.

Every state law offers its own definition of “animal” and “animal cruelty,” usually within the criminal codes (Arkow & Lockwood, 2013). The mistreatment of animals takes many forms and is generally codified statutorily under one catch-all term of “cruelty to animals” which may include acts of physical abuse, abandonment, neglect, or torture. More specialized subsets of animal harm, such as bestiality or animal fighting, are often codified in separate statutes or sections. In some states, certain species or categories of animals are excluded from consideration under cruelty laws, such as wildlife, cold-blooded animals, or livestock, while other states apply animal cruelty laws to “all living things with exception of human beings.”

Neglect is usually viewed as an act of omission characterized by a lack of care. Neglect may often result from ignorance regarding appropriate animal husbandry or from extenuating circumstances such as poverty, family crises, substance abuse, or physical or mental illness. Most jurisdictions see neglect as a less serious offense, usually carrying only misdemeanor penalties.

In contrast, most laws define animal abuse as a more serious, potentially felony offense involving knowing or intentional infliction of harm or permitting conditions that predictably result in serious injury, disability or death. Many state statutes have attempted to clarify the distinction between abuse and neglect through the insertion of qualifying adjectives, defining cruelty as intentional, willful, or reckless acts. The unintended consequence of this strategy, however, is to force prosecutors to prove that the alleged perpetrator intended to harm the animal, or was knowingly reckless, as opposed to merely having to prove that the abuse occurred under the perpetrator's control without regard for his or her motivations. This requirement becomes complicated when it can be argued that the alleged offender lacked insight into the consequences of her or his actions as a result of a mental disorder.

4.2 | Animal hoarders in court

Animal hoarding cases are typically very complex, starting from the initial investigation, through the response and rescue of animals, evidence collection and analysis, animal care, housing and disposition, and the consideration of any potential prosecution or other legal action (Lockwood & Touroo, 2016; Merck & LeCouteur, 2013). Professionals from many disciplines are usually involved, including law enforcement, forensic veterinarians, animal care and control, emergency response, social services, and mental health.

The major objectives in responding to animal hoarding cases are as follows (Arluke et al., 2017):

1. Remove animals from harm and begin the process of rehabilitation and placement when possible.
2. Remove any people (e.g. children, dependent adults) affected by living in conditions created by animal hoarding.
3. Address the physical and psychological needs of the hoarder himself/herself.
4. Respond to environmental issues (e.g., condemnation or repair of property).
5. Institute provisions for monitoring and preventing a recurrence of the situation.

The various professionals involved in responding to animal hoarding may have different and sometimes conflicting objectives and priorities (Lee, 2017). Animal welfare professionals have a primary concern for the welfare of the animal victims and will want to expedite seizure, treatment, and potential placement. Social services and mental health workers will have a primary concern for the welfare of the hoarder and may be concerned about the impact of removal and legal action on the hoarder. Other officials may have primary concerns about environmental and safety issues related to the housing conditions.

From a legal perspective, the first important decision to be made is whether the hoarding situation requires criminal charges or if there are potential civil remedies. It may be possible to accomplish some of the main objectives by using civil forfeiture laws to seize animals without bringing criminal charges against the hoarder. Civil

forfeiture procedures give the hoarder the opportunity to appeal the seizure at a hearing. Such procedures can usually significantly reduce the amount of time animals are held.

Another civil procedure that has been used to respond to hoarding situations is to issue an injunction to stop an action or inaction that is causing harm. North Carolina has such a provision that permits any person, firm, corporation, town, city, or county to bring civil suits to enjoin animal cruelty (N.C. GEN. STAT. ANN. §§ 19A-1-19A-4, 2006). This provision was not intended to specifically deal with hoarding cases, but it has been used several times to remove animals from hoarding situations (Lee, 2017).

Voluntary surrender of animals by hoarders can be difficult to accomplish as they see themselves as having done nothing wrong, despite the poor condition of the animals and their surroundings. The prospect of removal of the animals can be very traumatic to the hoarder's sense of self. Hoarders frequently express feelings that they will die without their animals, so it is common to have mental health crisis teams on site during any removal.

Criminal charges may be indicated if there is evidence of serious animal cruelty (e.g., many animals affected; injured, sick, dying, or dead animals on the scene) or other possible crimes including financial fraud or illegal practice of veterinary medicine. Civil procedures that potentially allow for the removal of animals from harm neither address the mental health problems that underlie animal hoarding nor provide for long-term monitoring of a situation that is likely to reoccur. The Texas District Attorneys Association suggests using both civil and criminal warrants in animal hoarding cases since seizing animals civilly allows swifter disposition of the animals and can require posting of bond to provide care (Smith, 2013). Criminal procedures, if successfully prosecuted, can then address other issues such as limits to, or prohibition of, keeping of animals, monitoring of the offender's property, mandated psychological assessment, treatment, and restitution to agencies that have cared for seized animals. If animals are seized under warrant as part of a criminal investigation, they potentially become evidence, which can result in lengthy hold periods that can be costly for responding agencies and harmful to animals that are held for long periods of time, often in already overburdened shelters (Bernstein & Wolf, 2005; Hettinger, 2013; Reppy, 2005).

One mechanism to address this issue is Cost of Animal Care laws, also known as "bonding and forfeiture" or "unfit owner" laws (ASPCA, 2018). Such laws provide for a judicial hearing in which someone whose animals have been seized based on evidence of cruelty may be required to either post a bond up front to pay a reasonable amount for ongoing animal care, or relinquish the animals to a shelter to be placed for adoption. Some laws require such payments on a regular (e.g., monthly) basis, with a provision that failure to pay will result in the animal being surrendered. Other laws only require for payment of costs after conviction. However, post-conviction recovery of such costs in hoarding cases has been extremely rare (Berry et al., 2005).

If criminal charges are to be filed, prosecutors must decide which charges to file and on how many animals. Animals that are likely to recover with proper care usually are the basis of simple misdemeanor neglect charges. If some animals have died or suffered permanent injury or debilitation, their maltreatment may lead to felony animal abuse charges. Some state laws allow for charges at a higher level if multiple animals are involved or if the suspect is a repeat offender, which is frequently the situation in hoarding cases.

Attending veterinarians will usually be required to testify about the medical condition of each individual animal for which there is a cruelty charge, although some courts have allowed summary reports of the medical issues seen in a large population of hoarded animals. Judges may be unwilling to hear testimony about numerous animals, so prosecutors may choose to base their case on a small sample of the animal victims with the most serious problems. However, combining counts for judicial expediency may reduce the perceived severity of the suffering involved (Lee, 2017).

Hoarders often insist on presenting information on healthy animals that were seized along with those in distress to demonstrate their attachment to the animals and the care they have provided. Such evidence can actually be helpful to the prosecution as it can demonstrate that the defendant knew what was needed to provide proper care, but intentionally chose to withhold this care from the animals that suffered or died.

The alleged hoarder's competence to stand trial can also be a factor in deciding whether to pursue criminal charges. Hoarding behavior can be symptomatic of other disorders, including schizophrenia or organic brain disorders, that can compromise the defendant's capacity to participate in his or her defense. However, most animal hoarders function at a

very high level in demanding professions including teaching, nursing and the law. Only rarely have animal hoarders been found incompetent due to a cognitive impairment (Animal Legal & Historical Center, 2005).

The inclusion of hoarding disorder in the DSM-5 has added another potential obstacle to the prosecution of some animal hoarders living in public housing, who may be classified as having a disability requiring reasonable accommodation even if the hoarder does not ask for an accommodation or admit to having a disability. The accommodation needed may include time or assistance to clean up the clutter enough to be in compliance with the lease. It does not mean the hoarder is allowed to violate safety, health and animal welfare rules indefinitely (Dryden-Mason, 2017).

In addition to the logistical issues associated with seizing and caring for the many animal victims in a hoarding case, legal action in such cases is complicated by the psychological dynamics underlying animal hoarding. A common characteristic of animal hoarders is their use of denial or other methods of justification for their situation (Nathanson, 2009) and the refusal to acknowledge that a problem exists (Nathanson, 2009; Patronek, 1999). Vaca-Guzman and Arluke (2005) describe three types of common justifications offered by animal hoarders, including total denial, professing to be a good Samaritan, and being "victims of the system" that just wanted to steal their animals. Thus, when drawn into the legal system, animal hoarders are often extremely uncooperative.

Marquis (1996) detailed the challenges of prosecuting an alleged animal hoarder in his account of the trial of Vickie Kittles, arrested in Oregon in April of 1993 for having 115 dogs kept on a school bus. She had had prior encounters with authorities in Florida, Mississippi, Colorado, and Washington. She did not go to trial until February 1995, charged with multiple counts of animal neglect. In the interim, the dogs were held and cared for at a temporary facility, but Kittles did not surrender ownership or allow medical treatment for them. She chose to represent herself after dismissing eight court-appointed lawyers. In addition, six judges and two prosecutors removed themselves from the case. Marquis was the third prosecutor assigned to the case.

The trial lasted 5 weeks. Kittles was held in contempt 17 times for harassment of witnesses during her cross-examination, for which she received additional days in jail. Her defense was that her hoarding of animals was a "lifestyle choice" and, at one point, she claimed that collecting dogs was her religion. Marquis easily convinced the jury that her lifestyle was her choice, but it was not the animals' choice.

Kittles was convicted on 42 counts of animal neglect and sentenced to 4 months in jail, in addition to the 71 days for contempt of court and was ordered to serve 4 years on probation during which she was not to possess any animals. She refused to be evaluated or treated for any mental disorder, but authorities decided not to hold her in jail for this additional contempt as she was reportedly a continuing annoyance to other inmates. About 80% of the dogs seized in the case were eventually rehabilitated and placed in homes. The remainder succumbed to illnesses that Kittles had denied permission to treat. Upon release, Kittles fled to Wyoming where she continued to have multiple encounters with authorities for neglect of many dogs, cats, and horses over the next several years.

Marquis (1996) noted that this case was more time-consuming, costly, and frustrating than many of the capital murder cases he prosecutes. The problems made evident in this case led directly to revisions of Oregon's animal cruelty law. The state passed House Bill 3377, termed "the Kittles Bill," which made serious animal cruelty a felony. It also gave the state the right to treat and care for animals pending resolution and require the posting of a security bond for reasonable costs of care. It also requires that a person convicted of misdemeanor animal cruelty may not possess a domestic animal or any animal of the same genus for 5 years, or 15 years if convicted of a felony.

The Kittles case illustrates common difficulties in addressing animal hoarding offenses. The application of animal cruelty laws to cases of animal hoarding has been inconsistent. Berry et al. (2005) reviewed the outcomes of 56 prosecuted animal hoarding cases. In 41 of these, the primary defendant was charged with at least one misdemeanor count of animal cruelty. The number of counts ranged from one to 182. In only five of these cases was the defendant also charged with at least one felony count of animal cruelty. The number of felony counts charged ranged from one to 128. In eight cases, including one case in which deceased animals were found, the defendants did not receive any form of animal cruelty charge. In addition to animal cruelty charges, defendants were also charged with failure to maintain sanitary conditions, violation of pet limitation ordinances, failure to provide rabies vaccinations, failure to license animals, and other miscellaneous charges, including criminal nuisance and business and zoning violations.

Three-quarters of the defendants either were found guilty (48.2%) or entered a plea agreement (26.8%). Five cases were dismissed for unrelated reasons. Only one defendant was found not guilty. Dead animals were found on the hoarder's property in 76.5% of the cases in which the defendant was found guilty. Dead animals were found on the property in 23.5% of the cases in which the defendant entered a plea agreement. Of the 42 cases in which there was either a guilty verdict or plea bargain, 40.5% of the defendants were sentenced to time in jail. Almost one-half (47.1%) of those sentenced were sentenced to less than 6 months in jail, with as little as 15 days being ordered. Twenty-five percent of the defendants were ordered to pay restitution to the state and/or agencies that cared for the seized animals. The amount of restitution ordered ranged from \$500 to \$44,106. None of the agencies that were ordered to receive restitution from a defendant received payment.

The court ordered the defendant to undergo a pretrial psychological assessment or mental health evaluation in just over one-quarter (26%) of the cases in which charges were pressed. Only one was found to be mentally unsound. Pretrial psychological evaluations were more common among defendants who had dead animals on their properties.

Such results point out some of the difficulties of using existing animal abuse and neglect laws to deal with animal hoarding cases:

1. The language of state anti-cruelty statutes often fails to capture the severity of the crime. Under the typical state anti-cruelty statute, a hoarder could be cited for failure to provide proper food, water, shelter, and a sanitary environment. Potentially these could be separate counts for each animal involved, but often charges are reduced because of redundancy (Berry et al., 2005).
2. Prosecutors are often reluctant to move forward with criminal prosecution of crimes that only carry low-level misdemeanor penalties and little opportunity for long-term consequences.
3. Animal hoarding cases may not trigger appropriate investigation and response until they reach conditions in which many animals are dead or dying or dependent people in the environment are put at risk.
4. Animal cruelty laws address only the symptoms of animal hoarding and do not deal with the underlying psychological problems and may not recognize the need for assessment and treatment.
5. Misdemeanor penalties usually seen in neglect cases do not allow for long-term probation or other monitoring that is essential to prevent recidivism. If the hoarder leaves the state it is unlikely that authorities would seek extradition for a misdemeanor offense.

4.3 | Hoarding-specific laws

In recent years several states have attempted to respond to these problems by drafting laws specific to animal hoarding, despite criticisms that such laws are redundant (Schwalm, 2009). The main focus of hoarding laws is to distinguish hoarding from other forms of cruelty, particularly traditional laws on neglect that do not usually consider the number of victims, duration of cruelty, costs of response, mental health complications, and high recidivism rate.

Illinois was the first state to do so in 2001 with the passage of the Humane Animal Care Act (510 ILCS 70/2.10). The revised act did not specifically criminalize animal hoarding, but it added the term "companion animal hoarder" to the neglect statute – essentially using the existing HARC definition previously described (HARC, 2002). The law stipulates that a violation of the act is a Class B misdemeanor. A second or subsequent violation is a Class 4 felony with every day that a violation continues constituting a separate offense. In addition to any other penalty provided by law, the court may order the convicted person to undergo "a psychological or psychiatric evaluation and to undergo any treatment at the convicted person's expense that the court determines to be appropriate after due consideration of the evaluation."

The Illinois law does not specifically *prohibit* animal hoarding. A prosecutor must still show a violation of the neglect provision of the Humane Care for Animals Act. The revised law merely defines hoarding and mandates

psychological counseling for those who violate the statute and meet the description of animal hoarder. The law is limited to “companion animals,” and thus does not include many of the non-traditional species frequently seen in hoarding cases. In addition, the definition specifically defined a hoarder as someone who “keeps the companion animals in a severely overcrowded environment,” which would exclude many cases where large numbers of animals were kept in outdoor environments in unhealthy, but not overcrowded, conditions.

In 2008 Hawaii became the first state to expressly criminalize animal hoarding as a misdemeanor in response to several instances of dog and cat hoarding (Lee, 2017). Similar to the Illinois law, an animal hoarder was defined as follows:

- (1) A person commits the offense of animal hoarding if the person intentionally, knowingly, or recklessly;
 - (a) Possesses more than fifteen dogs, cats, or a combination of dogs and cats;
 - (b) Fails to provide necessary sustenance for each dog or cat; and
 - (c) Fails to correct the conditions under which the dogs or cats are living, where conditions injurious to the dogs', cats', or owner's health and well-being result from the person's failure to provide necessary sustenance.

This law was unusual in that it applied the definition to a specific number of animals, an approach avoided by HARC and others. It did not mandate psychological counseling for convicted hoarders or restrict future animal ownership and, like the Illinois law, was limited to companion animals.

The office of the State Attorney General raised several concerns about the initial bill. It was noted that the law potentially criminalized a mental disorder, noting in testimony (Bennet, 2008) that “it makes it an offense if the person displays an inability to recognize or understand the nature of the conditions under which the pet animals are living and the deleterious impact the conditions are having upon the pet animals' and owner's health and well-being.” As this lack of insight is one of the diagnostic characteristics of hoarding disorder, this law arguably criminalizes a specific disorder. The bill was also challenged by the Office of the Public Defender, arguing that it unnecessarily duplicated the existing animal cruelty law and would be harder to prove. The law was repealed in July 2015.

Rhode Island passed a similar law in early 2017 (Rhode Island General Laws 4.1), which initially added “animal hoarding” to the list of animal cruelty offenses. The law was opposed by several mental health associations, the National Association of Social Workers Rhode Island Chapter, and the American Civil Liberties Union (Clingham et al., 2017). In a letter opposing the bill they argued: “we believe this bill will mark a giant step backward in the way individuals with mental illness are regarded. Hoarding of animals is a psychiatric disorder, and recognized as such in the DSM-5, and needs to be approached as a community health issue rather than a criminal one.”

The bill's definition of “animal hoarding” was stricken in an amended version and replaced throughout with the term “hazardous accumulation of animals,” which is defined as:

“the accumulation of a large number of animals, to a point where the owner, possessor or person having the charge of custody of the aforementioned animals fails to or is unable to provide ‘adequate living conditions’ as defined herein, resulting in harm or danger to the health and wellbeing of the animals.” Adequate living conditions are defined as “a sanitary environment which is dry and free of accumulated feces and free of debris and garbage that may clutter the environment, pose a danger or entangle the animal,” a characterization that would find most hoarding environments in violation.

The law is not limited to companion animals, but specifically excludes livestock. It does address mental health aspects of hoarding by instructing that: “the court shall, in imposing a penalty under this section, take into account whether the defendant's conduct could be considered to be the result of a mental health disorder.”

Several other state animal hoarding laws have been proposed but, in general, they have not had the support of law enforcement, mental health or animal care and control professionals. Schwalm (2009) characterized animal hoarding laws as clumsy, redundant, and potentially unconstitutional. He suggested refinements to existing anti-cruelty statutes that change the demand for a malicious *mens rea* to one that only requires prosecutors to show that a defendant acted intentionally.

4.4 | Mental health assessment and intervention strategies

The inclusion of hoarding disorder in the DSM-5 may lead to greater use of “mental health” or “problem solving” courts to address the animal hoarding rather than conventional animal cruelty criminal proceedings. Such courts maintain a specialized court docket established for defendants with mental illness that substitutes a problem-solving approach for the traditional adversarial criminal court processing. This approach may be useful for some animal hoarding cases (Muller-Harris, 2010). A therapeutically oriented intervention or negotiation, however, may not work with exploiter hoarders or others who are irrational and uncooperative.

The recognition of animal hoarding as a disorder has focused greater attention on incorporating assessment and treatment into any legal action in response to hoarding situations. This need not require legislation specific to hoarding. Several dozen states have legislated mandatory or discretionary evaluation of persons convicted of animal maltreatment (Phillips & Lockwood, 2013). However, legislatures provide little guidance on what the goals of such an evaluation might be (e.g., detection of danger to public safety, detection of mental illness, identification of being dangerous to self and others, identification of competency/capacity to care for animals).

There is a growing body of research on various treatment programs to aid recovery from object hoarding (Muroff, Steketee, Frost, & Tolin, 2014). However, treatment of compulsive hoarding is characterized by high dropout rates and poor treatment outcomes when compared with non-hoarding OCD patients (Frost, Tolin, & Maltby, 2010). Although courts may mandate counseling for animal hoarders, no validated therapy for animal hoarding disorder is currently available. In addition, most individuals who have been adjudicated for animal hoarding are reluctant to participate in therapy and resistant to change, making this strategy difficult to enforce (Frost et al., 2000; Nathanson, 2009). Compared with people with object hoarding, those who hoard animals are much less likely to seek treatment (Frost et al., 2015). Well-documented relapse rates are unknown, given the lack of treatment outcomes for animal hoarding. Although there are case examples of individuals who stopped hoarding animals and were able to keep from reacquiring them (Frost & Steketee, 2010), it is generally accepted that the recidivism approaches 100% (Patronek et al., 2006). Other approaches to managing hoarding may be applicable to some animal hoarders.

4.4.1 | Relapse prevention

One appropriate therapeutic model for this disorder is relapse prevention, a cognitive-behavioral approach with the goal of identifying and preventing high-risk situations that has generally been applied to substance abuse, obsessive-compulsive behavior, and sexual offending (Witkiewitz & Marlatt, 2004). However, animal hoarding presents significant challenges to a relapse-prevention approach. Most relapse of addictive behaviors has been associated with negative emotional states, interpersonal conflict, and social pressure, as well as cognitive distortions such as denial and rationalization (Marlatt & Gordon, 1985). All these obstacles are frequently encountered in dealing with animal hoarders, which may account for the unusually high recidivism rate in animal hoarding.

4.4.2 | Harm reduction

Another intervention model that can be an appropriate response to animal hoarding cases is harm reduction or harm minimization (Denning & Little, 2011), a range of public health policies designed to reduce the harmful consequences associated with various human behaviors, both legal and illegal. Harm reduction policies have traditionally been used to manage behaviors such as recreational drug use through efforts such as needle-exchange programs. This approach accepts the fact that it may not be possible to stop the “risky” behavior and instead attempts to prevent harm through close monitoring and “wraparound” support services. Given the high recidivism rate of animal hoarding, this approach could be an effective one, which would have to include frequent interaction with the client, spay/neuter assistance, veterinary care, environmental clean-up, and connection to various social services.

Ultimately the best response to animal hoarding is likely to be early detection and coordinated response to the diverse problems associated with these cases through establishment of local or regional hoarding task forces (Bratitotis, 2013; Bratitotis & Woody, 2014). In New York City there has been a concerted effort to provide a coordinated response

to hoarding cases. The ASPCA has instituted a program that combines the expertise of social workers, veterinary professionals, animal behaviorists, humane law enforcement agents, and others to work with a wide array of human and animal service agencies through the Mayor's Alliance to respond to cases at the earliest possible stage and monitor them on a regular basis. In addition to the ASPCA, agencies involved in this collective effort have included the New York City Health Department, Animal Control, Environmental Affairs, Agriculture Department, Humane Law Enforcement, Mental Health Services, Child Protection, Adult Protective Services, Housing Authority, Department of Homeless Services, Human Resources Administration, Community Affairs Bureau, the Salvation Army and Project Hope. Between 2010 and 2013 the ASPCA, working with these partners, handled more than 100 hoarding cases. Of these, 67% of the cases involved women, while 24% involved male owners, and 9% were couples. Cats comprised 76% of the cases while 13% involved dogs (Colangelo, 2013). This approach has proved to be an effective tool to respond to many hoarding cases without invoking the criminal justice system. It also furthers the recognition that animal hoarding is a human welfare, animal welfare, and community problem – not just an animal control issue.

5 | CONCLUSION

I have reviewed the history of recognizing animal hoarding as a serious human and animal welfare issue and, eventually, its recent classification as a mental disorder with possible predisposing biological factors. I have described the forms that animal hoarding can take and the difficulties of responding to it using animal cruelty laws alone. I have outlined attempts to draft laws that focus specifically on animal hoarding, and the opposition to such law by mental health and law enforcement professionals. Finally, I have reviewed new community-based approaches to recognizing, preventing, and responding to animal hoarding that may provide a faster and longer-lasting solution to the problem than legal action alone.

Animal hoarding is one of the most widespread, severe, and complex forms of animal cruelty, with no easy solutions. It is a complex disorder that spotlights many of the issues raised by the intersection of behavioral sciences and the law. Several steps are needed to improve the outcome of these cases for the people and animals involved:

1. Revision of animal cruelty statutes to be more responsive to problems of neglect as a willful act so that people are held accountable for the harm they have caused.
2. Easier application of bonding and forfeiture laws to quickly remove animals from harm and minimize hold times.
3. Education of mental health, social services, and veterinary professionals about the nature of animal hoarding and the individuals involved.
4. Education of prosecutors and judges about the nature of animal hoarding as a mental disorder with a high incidence of recidivism, no currently recognized treatment, and a need for long-term monitoring.
5. Better planning, communication, and coordination of all stakeholder agencies likely to be called upon to respond to hoarding situations.
6. Additional research into the etiology of hoarding disorders in general and animal hoarding in particular and assessment of treatment options.

Such changes will ideally lead to better informed interventions that can benefit the many people and animals affected and help alleviate or prevent the considerable suffering, community expense and legal complications associated with this widespread problem.

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