

All Disasters Great and Small: One Health Preparedness for Veterinarians

Speakers:

- Hugh Mainzer, DVM, MS; National Center for Environmental Health, CDC
- Kristi Henderson, DVM; American Veterinary Medical Association
- Stephanie Ostrowski, DVM, MPVM, DACVPM; Office of Public Health Preparedness and Response, CDC
- Mark D. Miller, BS. MPH; National Center for Environmental Health, CDC
- Renee Funk, DVM, MPH; National Institute For Occupational Safety And Health, CDC

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Coordinator: Welcome and thank you for standing by. All participants will remain on listen only until the question and answer session of today's conference. As a reminder, the conference call is being recorded. If you have any objections please disconnect at this time.

I would now like to turn the call over to Miss Conne Ward-Cameron. Ma'am, you may begin.

Conne Ward-Cameron: Thank you (Tanya) and good afternoon everyone. Welcome to today's conference call from COCA, the Clinician Outreach and Communication Activity of the Emergency Communication System at the Centers for Disease Control and Prevention.

We're very pleased to present this call on "All Disasters Great and Small: One Health Preparedness for Veterinarians". The video portion of this call is available through Live Meeting. If you need help accessing the video, the URL can be found on our Web site, emergency.cdc.gov/coca/callinfo.

The objectives of today's call are that participants will be able to describe issues that will impact veterinary medicine during public health emergencies

or disasters, describe the programs of the American Veterinary Medical Association that support disaster and emergency response, discuss the Pets Evacuation and Transportation Standards Act of 2006 and its impact on public health/human healthcare activities, list the core environmental health system priorities and describe occupational health issues relevant for the veterinary community.

If you have questions, the presenters will take those at the end of the call. Dialing star 1 will put you into the queue for questions or you can enter them via the Q&A tab at the top of the Live Meeting screen.

In compliance with continuing education requirements, all presenters must disclose any financial or other relationships with the manufacturers of commercial products, suppliers of commercial services or commercial supporters as well as any use of unlabeled product or products under investigational use.

This presentation will not include any discussion of the unlabeled use of a product or products under investigational use. CDC, our planners and our presenters wish to disclose that they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services or commercial supporters, and there is no commercial support for this presentation.

We are fortunate to have a really wonderful group of speakers for today's call. The first is Dr. Hugh Mainzer. Dr. Mainzer is the ninth Chief Veterinary Officer of the United States Public Health Service and responsible for providing leadership and coordination of veterinary professional affairs for the Office of the Surgeon General and the Department of Health and Human Services. He is a supervisory preventative medicine officer and epidemiologist

in the National Center for Environmental Health a component for the Centers for Disease Control and Prevention.

Our second speaker is Dr. Kristi Henderson, Assistant Director within the Scientific Activities Division of the American Veterinary Medical Association. She works with AVMA's Committee on Disasters and Emergency Issues and the Veterinary Medical Assistance Teams both of which are deeply involved with aspects of emergency preparedness within and beyond the veterinary profession.

Next up will be Dr. Stephanie Ostrowski. Dr. Ostrowski is a Career Epidemiology Field Officer in CDC's Office of Public Health Preparedness and Response. She has extensive experience in public health emergencies including her work during the Hurricane Katrina emergency response.

Dr. Renee Funk will be our next speaker. Dr. Funk is an Epidemiologist in the National Institute for Occupational Safety and Health, or NIOSH, in their Emergency Preparedness and Response Office. She has responded or coordinated the NIOSH response for many big events including in the past year H1N1, the Haiti earthquake and the current response to the oil spill in the Gulf of Mexico.

And our final speaker for today will be Mark Miller. Captain Miller is a Senior Environmental Health Officer with CDC who has 22 years of environmental health experience including water, waste water, food safety, injury prevention and hazardous waste.

Thanks to you our speakers and to you our participants for being with us today. If you have a question during the presentation, please either hold it

until all presentations are completed or you can submit your question via the Q&A tab at the top of your video screen.

Be sure to include your email address if you submit a written question since we - if we don't have time to get to all the written questions during the call we'll ask our presenters to respond afterwards.

You may submit your questions to COCA@cdc.gov as well. Our Webinar is being recorded and the recording as well as the transcript will be available by Monday, July 12 on our Web site at emergency.cdc.gov/coca that's C-O-C-A forward slash callinfo.

And we'll start our presentations today with Dr. Mainzer. Dr. Mainzer?

Hugh Mainzer: Good afternoon. This presentation and this session as a whole is intended to give a big picture overview. And to some of you this may be a bit too basic and seem a bit like a dog and pony show. But for those of us here at CDC, this is one of our first opportunities as a unified agency to reach out to the veterinary profession and to lay the ground work to be a more understanding and inclusive of the veterinary medical community as a valued public health partner.

At CDC, we are collaborating to create the expertise, information and tools that people in communities need to protect their health through health promotion, prevention of disease, injury and disability and preparedness for new health threats that include avian and H1N1 influenza as well as exposures to hazardous materials as we are now seeing resulting from the oil spill in the Gulf of Mexico.

CDC seeks to accomplish its mission by working with partners throughout the nation and the world to monitor health throughout - to monitor health, to detect and investigate health problems, conduct research to enhance prevention, develop and advocate sound public health policies, implement prevention strategies, promote health behaviors, foster safe and healthful environments and provide leadership and training for the public health workforce which include many health professionals including those in the veterinary medical field.

The convergence of people, animals and our environment has created a new dynamic in which the health of each group is most assuredly interconnected. The challenges associated with this dynamic are demanding, profound and unprecedented.

There is a growing concern that the world's latest generation could be the first in history to experience a reduction in life expectancy and health in general. One strategy to better understand and address the contemporary health issues created by the convergence of human, animal and environmental health systems is the concept of One Health.

Although One Health is not new, increasing interactions between humans and animal populations influenced by the physical and social environment has spurred several of the health professions to reinvigorate such an approach.

This approach would encourage the collaborative efforts of multiple disciplines working locally, nationally and globally to obtain optimal health for people, animals and our environment.

We're becoming more aware that in order to better protect and improve animal and human health that veterinary medicine is also a human health

activity. Veterinarians serve many public health as well as direct clinical care provider roles.

And we understand that veterinarians are valuable One Health practitioners because they are highly trained medical professionals with the unique ability to respond to the unknown.

To bring the overview back to the topic of public health preparedness, we have seen increasingly larger populations being impacted by natural and technological disaster and communicable disease concerns such as H1N1 influenza and West Nile virus.

When disaster strikes, many of the health risks that occur are shared by human beings and animals. It is important for veterinarians, whether members of a community impacted by a health emergency or members of a team or organization providing assistance, to recognize the complex interaction during response recovery and reconstruction.

The complexity of response and the resources that are activated and deployed is dependent on the type, magnitude, severity and location of the public health emergency or disaster.

During more complex responses, whether local or international, there's a great deal of participation and collaboration that occurs based on some formalized operational structures or frameworks which is usually organized as emergency support functions that provide coordinating structure and group functions and help organize scopes of roles, responsibilities, authorities, actions and partnerships. Veterinarians and other health providers should be aware of those functions.

As veterinarians we have learned about and now often participate in animal health response activities that involve our profession at local, state or national levels such as community emergency response teams, state animal response teams or national veterinary response teams.

Less well communicated and emphasized is that veterinarians are also important members and leaders for public health and environmental emergency response functions including in areas of general preventive medicine, services local or a state designated public health veterinarians, experts in epidemiology and disease surveillance, toxicology and pharmacology, pathology and microbiology.

As important and urgent as the need for coordinated reaction and response to a public health emergency is the concept of disaster preparedness. This involves pre-planning, training and exercising, public awareness and our professional involvement.

With enough - important understanding that in addition to caring for and about animals that you as a veterinarian have preparedness responsibility for yourself and others.

For you as emerging One Health practitioners, there's some important One Health response knowledge and practice domains and competencies for you to understand and develop. These include general principles and scenarios related to terrorism response, response to natural and technological disasters and awareness and understanding of environmental health systems and of occupational health and safety issues, support and augmentation of human healthcare as well as search and rescue activities and importantly awareness of regulatory issues and incident management principles.

As partners in population health protection and promotion, clinically trained veterinarians improve well-being by using their knowledge, skills and understanding of the complex interactions that affect environmental, animal and human health. These abilities are essential during public health emergency or disaster response.

I thank you for your attention today and hope you enjoy the rest of this session. I now turn the discussion over to Dr. Kristi Henderson from the American Veterinarian Medical Association.

Kristi Henderson: Hello? Hello?

Coordinator: Would you like to take questions?

Conne Ward-Cameron: No. We're ready for Dr. Henderson. Kristi, don't forget to un-mute your phone.

Coordinator: It is un-muted.

Kristi Henderson: Hello?

Conne Ward-Cameron: We hear you.

Kristi Henderson: Oh okay. Can you hear me?

Conne Ward-Cameron: Yes, ma'am.

Kristi Henderson: Sorry about that. Anyway, well at least I got my glitch out of the way for the day so I'm good for the rest of the day and I apologize for that. And thank you all for joining us today.

Dr. Heather Case who is the Director of AVMA Scientific Activities Division and who has been immersed in this subject for the past several years was the intended speaker. However, she had a previous commitment. She was unable to attend. But she does want to send her regards and appreciation for all those who are attending.

Because today's program has so much information to convey in such a short period of time - excuse me - I only want to go over a broad overview of AVMA's efforts. And we're not going to dive into the deep detail.

Okay. So with the AVMA's Leadership in Disaster and Emergency Preparedness, basically the AVMA was established in 1863 and is one of the largest or is the largest veterinary medical association in the world. It has more than 80,000 members which basically correlates to about 83% of US veterinarians.

The Committee on Disaster and Emergency Issues, Publications and Communications, Veterinary Medical Assistance Teams and the AVMF are major areas of activities relative to disaster and emergency preparedness within the AVMA.

And the photo on that slide - I believe that the rescuers had put out a little bit of hay to try to gather those. And they are feeding on some floating feed basically.

The CDEI is a committee within the AVMA that - basically within the AVMA there are several councils and committees each comprised of subject matter experts who provide guidance to the AVMA.

The Committee on Disaster and Emergency Issues which is CDEI is one that works specifically on issues related to its namesake. And again, they're rescuing cattle that are in the flood. I believe that was in Missouri.

The AVMA has an entire communications division as well as a publications division which have been instrumental in conveying AVMA's message to its members and to the general public.

Within the AVMA Web site is a whole micro-site developed and devoted to AVMA disaster preparedness materials that I hope you all have the chance to explore.

For the sake of the presentation, we're not going to go through them all, we're just going to hit a few of the highlights. And I apologize for the coloring format of the URLs. They will be available on the Web site of the Webinar later this afternoon or at least by Monday. And again, I apologize.

The Save the Whole Family is a small pamphlet. It's about 13 pages long that provides generalized as well as specific guidance for animal owners in preparing for, working through and recovering after disasters. It includes vital measures to be taken by owners of pets which include, you know, the typical dog and cat but also had instructions for bird owners, reptile owners, amphibians and others.

Also includes directions for horse owners and livestock owners. So it's an excellent resource for all animal owners.

From Katrina, some estimate that about a quarter of the population will not leave an emergency or a disaster if they cannot take their animals with them.

This is why planning in advance is so important. And again, these URLs are available in the additional resources that are going to be posted on the Web.

The publication of “Emergency and preparedness Response guide”, this is basically the grand poobah of our documents on disaster preparedness. A tremendous amount of work has gone into this guide which is about 420 pages long.

It covers and provides information on extensive list of topics. Some of those are like agency coordination, working within the incident command system, the national response framework. There’s sample forms that can be used within this. There’s model veterinary service and animal care annexes to state emergency operation plans. Emergency preparedness plans for private practices. Ways to prepare an emergency action plan. I mean the list just goes on.

And you can download this for free online or you can order a copy. And again, if you follow the URL it will take you there or you can just go to our Web site, avma.org.

Okay. And in addition to paper publications or electronic publications that you can download like this, we actually - we have videos. And there are several on the AVMA-TV that help explain further our interactions with other agencies in disaster responses and then also some of the publications that we talked about.

The two listed here, one explains the Veterinary Medical Assistance Teams that I'm going to explain next and then another really good video - and I apologize that the URL is blending into the background at the end - but lessons learned for Katrina is an excellent video for those who are interested.

Oops, and I just skipped past that. I apologize. Basically this is just the landing page for the Veterinary Medical Assistance Teams. They were established in 1993 and these are trained teams of veterinarians that can at the request of disaster affected state or states assist with the disaster efforts.

They do not self deploy. And the states that request them in have in advance signed a memorandum of understanding which basically helps iron out all the issues for them coming in, especially licensure with veterinarians crossing state lines.

With this one, the VMAT this is just one of the trainings that I attended which is AgERT down in Anniston, Alabama. There's a lot of trainings that we go to, but basically multiple small teams of veterinarians trained and equipped to perform their duties in adverse situations, a lot of different situations.

With - how the VMAT expenses for that are paid - through AVMF which is our foundation or they can be reimbursed. To get reimbursed, again, through existing memorandums of understanding by following the PETS Act and then also the Emergency Management Assistant Compact Agreement. So those are a couple of different ways for the funding to follow.

VMAT can provide early assessment. Basically when they are deployed, early assessment, basic treatment and then they can also provide training to those who are interested and obviously the training is an advance of the situation.

With early assessment, basically the states could call in, and they're available, the VMAT teams are available 24/7 upon request or if like a hurricane coming in advance, VMAT, if the state requested them, they could go down and help in advance of that.

They're self-sufficient basically means that they've got everything that they need with them on a trailer and ready to go. And that video that I referenced earlier shows the trailer and a lot of the equipment that they have. And basically they want to assist the states. They augment. They don't replace or anything like that. They're just helping to fill in needs of the states if they are requested.

With the basic veterinary care, you see several different items listed there. And we talked about the deployment and they're deployed at a state's request for a maximum 72 hours, but they can go beyond that if the state needs them to be there longer.

And they can also be tailored to what the state actually needs. The key point is that the VMAT's role with basic veterinary care is to help support existing efforts within the framework established at the incident. They meld within the incident command or the system that is being utilized at that response.

If someone's interested in training by VMAT, they would contact us. And VMAT offers training to - you can see there it's got state veterinary associations, veterinary professionals and veterinary colleges. And it's at a 50/50 cost sharing between AVMF, our foundation, and the requesting organization. So that does help out with the funds quite a bit.

And let's see training by VMAT - this just lists several of the different topics. So, you know, if you know your area and what kind of hazards or disasters may occur there, you can definitely call us and then we can try to customize something for you or fit what you need to be done.

So here's our contact information with AVMA.org. If nothing else sticks with you through this, know our Web site and our phone number and everything else will follow afterwards. We'll be able to get the information to you.

So and I thank you again for your time and I would like to transfer to Dr. Stephanie Ostrowski.

Stephanie Ostrowski: Hi. This is Stephanie. I'm going to talk for a few minutes about the legal framework and what a difference a law makes, in particular the Federal PETS Act of 2006 and the Post-Katrina Emergency Management Reform Act. The next slide please.

Before the PETS Act, or in other words from Hurricane Katrina 2005 and before, under the national response plan, the NRP and the language of the annexes did not address service animals or pets at all. There was no annex specific to animal emergency management.

Stafford Act funds could not be used to support pet-related emergency response except for a very limited support of VMAT as part of ESF Number 8.

Service animals have always been covered by the American with Disabilities Act or ADA, but first responders were given no training regarding their legal responsibility to keep guide dogs with their disabled owners throughout rescue and recovery. And so there were a few incidents where guide dogs were separated from their owners. And it usually ended up on Oprah, you know. Just to make sure the rest of us didn't miss that.

But first responders were not authorized to rescue pets with owners.

Fortunately I found out as I worked with FEMA and the other - and with the

search and rescue units - that they had a culture of doing so anyway as incidental to the rescue of the citizens who were at peril so long as those animals did not put anyone in the rescuing boat or plane at risk.

The captain's always responsible for safety first so that was always a judgment call on their part.

And before 2005, veterinary medical associations and humane non-government organizations such as animal rescue groups provided all emergency field services for animals as a charitable undertaking following disasters.

They were not - they had no Federal acknowledgement - no formal Federal acknowledgement for their role. There were not engaged - involved in any of the coordination activities at the state or Federal level nor did they receive Stafford Act funding assistance. Next slide.

That all changed with some new Federal legislation. In October 2006, President George Bush signed the PETS Act and PKEMRA into law. And the PETS Act stands for the Pet Evacuation and Transportation Standards Act. It involved more than this, but briefly it amended Section 403 of the Stafford Disaster and Relief Emergency Assistance Act to ensure that state and local emergency preparedness operational plans addressed the needs of individuals with household pets and service animals following a major disaster or emergency and it authorized use of Stafford Act funds.

The Post-Katrina Emergency Management Reform Act, which we refer to as PKEMRA, modified the Stafford Act with PETS Act language, actually made the change in the document, and placed significant new responsibilities on DHS/FEMA for coordinating implementation of the PETS Act.

I will say that this sort of slipped passed a lot of us who were actively working that field until several months had passed. But it became - it's very important. And the next few slides will show you why. Next slide please.

Okay. The PETS Act - let's see, and PKEMRA not only amended the Stafford Act to allow and actually provide for emergency management to service animals and pets, but it required that FEMA provide coordination of Federal responders to support and enable rescue, decon, evacuation, sheltering, mass care and emergency veterinary services utilizing response partners from many different sources.

A regulatory document called the FEMA Disaster Assistance Policy number 9523.19 issued in 2007 defined the actual eligible costs related to pet evacuation and sheltering that could be reimbursed with Stafford Act funds. I'll talk a little bit more about that later.

And then the new the National Response Act became the National Response Framework in 2008. And portion of the annexes for emergency support functions 6, 8, 9 and 11 now mention now mention support for companion animals and for service animals.

And finally, it's not a law but the American Bar Association worked and put out a model act with their recommended standards for care and disposition of disaster animals which basically dealt with holding periods under different circumstances.

And as I said, it's not a law. It's not binding on any state or government or local government but it does provide some rec - basically some

recommendations and a model - some model language in case any states want to adapt it - adopt it and use it. Next slide.

As I said, PKEMRA asked FEMA to be the lead Federal agency for implementation and overall coordination of animal response operations and resources. Next slide.

And the way FEMA interprets the provisions of the PETS Act is that the provision does not place the responsibility for evacuation and sheltering activities with FEMA. These responsibilities continue to reside with the state, tribal and local authorities.

What FEMA does is coordinate with USDA/APHIS Animal Care and with the states to ensure that state and local emergency response operational plans address household pets and service animals. And then FEMA provides Federal coordination and support as requested. Next slide.

So this - this meant that there's been a significant integration of PETS Act responsibilities in the National Response Framework. In particular, ESF Number 6 or Mass Care, Emergency Assistance, Housing, and Human Services, sometimes referred to as Mass Care Sheltering is actually in FEMA and they are the lead for assuring that coordination and implementation.

ESF Number 8 or the public - or public health has a few of us who are veterinary officers and also we have the National Veterinary Response Teams as part of the Office of Force Readiness & Deployment.

ESF Number 9 is - are the search and rescue teams and they have incorporated language for pet search and rescue and for utilizing expert resources from the NGO communities to assist them in search and rescue.

And then of course ESF Number 14, long term community recovery is an aspect - is an emergency support function that had never before addressed any pet issues as part of dealing with the citizen's recovery and long term community response. Next slide.

But the two primary ESFs that we want to be aware of are - as I said mass care and sheltering under which the NRF states that emergency assistance is assistance required by individuals, families and the communities to ensure that immediate needs beyond the scope of the traditional mass care services provided at the local level are addressed.

These services now include evacuation, sheltering and other emergency services for household pets and service animals. And ESF Number 11 where USDA has responsibility under the NRF for Federal level coordination of the safety and well-being of household pets as coordinated by USDA. USDA works directly with state and local governments to ensure their compliance with Federal laws and regulations. Next slide.

This is - this section is very important for people who are actually implementing this at the state and local level because FEMA Disaster Assistance Policy 9523.19 sets the parameters for reimbursement of post-impact expenses, not pre-impact.

It identifies under eligible costs related to pet evacuation and sheltering, it identifies specific expenses related to the state and local government's emergency pet evacuation and sheltering activities that are eligible for reimbursement or may be eligible for reimbursement following a major disaster or emergency declaration.

It provides definitions of congregate pet shelters. It defines the eligible parties for reimbursement. And I want to point out that state and local governments are the only eligible applicants. Contractors and private non-profits such as animal rescue groups and humane societies cannot be directly reimbursed and may not be applicants for these funds.

They - in order to receive reimbursement, they must work through written agreements or memorandums of agreement, MOAs whereby, they provide assistance to the responsible state and local agencies and work under their coordination. Next slide.

FEMA and USDA undertake collaborative planning and have a Household Pet Support Task Force established. It's coordinated by and with USDA/APHIS Animal Care. Animal Care is the specific element of USDA/APHIS that has the lead for this. They have people who are technical experts in transportation and sheltering of small animal species which is why they're a really nice fit for this.

It incorporates other Federal agencies, ESFs, non-governmental organizations, private sector and state and local staff into this task force. And it will - it ensures that support for household pet and service animal needs are coordinated as one part of large mass evacuations or large sheltering events during presidentially declared disasters and emergencies.

When I get - got this slide last year, they were still developing the charter and protocols and other implementation mechanisms to speed establishment of an HPSTF staff for assessment and for determination of further needs in support of field operations. Next slide.

It's good that all these agencies are making the connection now. This is something that as veterinarians we've been working towards for a long time. And I'm really proud that it's actually - (Mark Kinsman) was my colleague at FEMA who came up with these - with this slide and these words for us.

“It's not a question of putting animals above people. It is about supporting people by taking care of what is most important to them. And the human animal bond is never more important to people than in situations of extreme stress. Household pet issues are people issues.” Next slide.

I wanted to - the USDA/APHIS Animal Care provided a couple of slides here. They wanted to share their vision for their animal care emergency programs. USDA/APHIS Animal Care envisions a nation working together to protect the public through ensuring the safety and well-being of animals during disasters.

Emergency Programs maintains consistency with Animal Care's traditional regulatory goals in advocating for animal safety and well-being which improves the safety and well-being for people. Next slide.

And some of the things that they've been doing with their - as part of their emergency programs is sponsor joint exercises with the states that have a pet focus as opposed to an agricultural focus. They did this in 2008 in Louisiana, 2009 in California and North Carolina and in 2010 they've got exercises - field exercises dealing with Georgia, Utah, Massachusetts, and Louisiana.

They organize and sponsor a national meeting annually of state emergency responders. They've organized a number of best practice working groups. And they provide technical support for pets in response situations. Next slide.

All right. I'm done and now Dr. Renee Funk from NIOSH is going to talk to you about veterinary occupational health and safety.

Renee Funk: Yes. Thanks Stephanie. I'll go to the next slide here, I see. Yes. So I'm going to talk now a little bit about occupational safety and health as it relates to veterinarians particularly with disasters and emergency preparedness.

So, one of the things is that all veterinary clinics should consider developing an emergency management plan in addition to their regular occupational safety and health plans. I'm not going to go into a lot of detail about that, but just to focus on the employee health and safety aspect.

There is a good reference to look at - a recently published book if you're not aware of it called the "Human-Animal Medicine" by Peter Rabinowitz and Lisa Conti. And it has a nice chapter in there about occupational health and safety as well as a public health chapter.

So some of the things that you want to think about with employee health and safety plans are to identify the hazards that are in your clinic and then to use the hierarchy of controls to eliminate those hazards.

If you're not familiar with that, the idea is that if you could eliminate or substitute a hazard is the best way to go. Also, then the next would be engineering controls which would be something like, you know, having separate ventilation for infection control or a isolation room separate from the rest of the clinic or something like that.

Administrative controls are things like rabies vaccination for all of your employees. And then the last is personal protective equipment. And I just

wanted to highlight this because I think a lot of people immediately jump to personal protective equipment.

And it is something that can be fairly cheaply instituted, but over time if you're expecting people to use it over all day over a long period of time, you know, their compliance tends to fall off. And so since we can use one of these other methods to eliminate the hazard, it's usually a better way to go.

Another important thing is then to educate the workers about the hazards that you've identified and the control plans you've implemented. You also want to look into performing medical pre-screening and then instituting surveillance which would meet your requirements for OSHA reporting.

It's - a subset of an employee health and safety plan would be an infection control plan. There's a great document available from the National Association of State Public Health Veterinarians called the Veterinary Standard Precautions Compendium - the link is on the bottom of this slide - that goes into more detail about this.

But the basic idea is to eliminate or reduce zoonotic disease transmission in veterinary clinics by using standard precautions whenever you're in contact with blood or bodily fluids and doing those precautions regardless of the potential diagnosis. And I would refer to the document for more details.

So, in looking - in focusing more now on disasters and emergency response, some of the common hazards that we see are noise, bites and scratches, dermatologic conditions, sharps injuries, allergens. You can see all of them listed on a slide there.

So these are the sort of things that you would want to include in your emergency plan even in advance of the event.

On the next slide, there is, called Developing a Health and Safety Plan for Pet Shelters, I just wanted to draw your attention to some of these resources. There actually is several things available in case you ever are put in the position of setting up an emergency pet shelter. There are several guidelines here that you can use to help you with implementing that.

And one of the things in this situation is to remember that we - you need to employ good occupational health and safety practices even for volunteers. So it isn't necessarily just for employees. In some situations you would also include anyone that was working for you basically.

On the next slide, I wanted to draw your attention to the National Institute for Occupational Safety and Health, Health Hazard Evaluation program. I'm not sure whether you all are aware of this or not, but it's a Federally mandated program that provides assistance to companies throughout the US who request assistance.

And assistance can be requested by an employer, three employees or a labor union or that sort of thing. And we get a lot of requests, so, I mean we can't possibly view all of them but we have done several that were related either to veterinary clinics or to animals in the past. And I'm just going to go through on the next slide talking about one specific one related to the Hurricane Katrina event at St. Bernard Parish outdoor shelter.

So, our health hazard evaluation team was called out to evaluate this setting. And so they observed the work practices. The complaint was about noise which was kind of interesting considering it's an outdoor shelter. And so - and

I'm not sure it's ever been evaluated before. So, that was why this was a really great opportunity.

So they did nine instantaneous noise readings and then also looked at personal noise monitors on four workers for five hours. And I just want to explain to you a little bit about how noise testing works.

I think you're familiar with the decibel scale. So, they - the instantaneous noise levels were between 90 and 96 decibels in the dog tent. And this is about the level of a jet aircraft. And I also need to explain to you the exposure limits.

So there's a couple of different exposure limits out there, one term in NIOSH that we've put together called the Recommended Exposure Limit or the REL. And these tend to be more protective.

And then OSHA, the Occupational Safety and Health Administration, put together Permissible Exposure Limits or PELs. And this is used for OSHA compliance.

And then for developing a hearing protection program, there is something called the OSHA Action Limit. And for noise, it's 85 decibels over a time weighted average for a 8 hour period or 50 - a 50% dose of that.

And so on the next slide is the noise readings for the four personal monitors that were done at this animal shelter. And you can see, all of them are over the NIOSH recommended exposure limit.

And then the one circled in red at the bottom is actually above the 50% dose for the OSHA Action Limit. So they - we recommended that they implement a hearing protection program for the shelter.

And so what that involves is wearing hearing protectors when working with dogs and that they would also need to enroll volunteers who are regularly working there. And part of a hearing protection program involves monitoring employee notification of the hazard, observation of the setting and doing periodic audiometric tests - audiometric testing - there you go - and then wearing hearing protectors and receiving training and then doing record keeping about that.

So that's just one example. This is one of our medical officers who worked on this. So that's just one example of what a Health Hazard Evaluation is like. Some of the reasons why you might want to consider requesting one is workers with illnesses from an unknown cause, exposures to an unregulated hazard, adverse health effects and exposure that's below the permissible exposure limit, in cases where you think that medical or epidemiological studies are needed, and then higher than expected illness rates in an exposed group or exposure to a new or unrecognized hazard.

So those are all the sorts of things we're really interested in looking at. And if you're ever interested in requesting a Health Hazard Evaluation, here is the contact information for that program. And that concludes my talk.

And the next speaker is Mark Miller from the National Center for Environmental Health.

Mark Miller: Thank you Renee.

Renee Funk: Um-hmm.

Mark Miller: And good afternoon to everyone. When we think about disasters, you know, they certainly can create many challenges for families and communities due to the impact on environment and the community infrastructure such as damaged homes, loss of utilities such as electrical or gas, water or sewage, garbage collection. So many things within the community certainly are affected by disasters depending on the severity of the disaster.

And these systems certainly are interconnected. Systems such as with our water can create problems with food that we don't deal with waste immediately and effectively. We can have vector-related issues as well. So, certainly we need to be focusing on these particular areas.

Before disaster strikes, there are many public health and environmental health and other services that are provided in a community. And these are carried out by many groups and organizations both at the local, state and federal level. Some are public and some are private as well.

But the aim here is to actually protect the public health by preventing exposure to harmful elements in the environment. And every time I look at this slide I think well there's something missing. And certainly one area here that we need to consider is to think about animal control, animal shelters and rescue, veterinary service programs certainly could be added to this picture because these services actually are services that are protective of public health and are a valuable part of the community and a part of response as well.

To better prepare public health and environmental health, emergency management and other responders, CDC has developed an Environmental Health Training and Emergency Response course. It's a ten module course which is focused on key areas of environmental health response.

The aim here is to create a better understanding of the impact of disasters and a clearer understanding of environmental health and public health role in disasters. Through a clearer understanding of how the disaster impacts communities, we can understand how to better prepare.

And we know that a better prepared family, community and businesses creates resiliency against the impacts of disasters. And this resiliency certainly lessens the impact and enables communities to recover more quickly.

We've provided a link here to the training. So if you're interested, check that out after you listen to the session. It may be valuable to you.

Certainly damaged homes and communities create a need for sheltering. After Katrina, public health and many other volunteer organizations came together to care for 29,000 people that we're seeing here at the Reliant Park in Houston just to give you an idea of the scope and magnitude that certainly disasters can have on communities.

And we learned a lot of lessons from Katrina and during sheltering. And certainly one of the lessons we learned involved pets. And this has been mentioned in other presentations. But since Katrina, we've seen more focus on pet issues and sheltering and I'm excited about that. It takes a lot of planning and coordination between emergency management, volunteer organizations, public health to do this right.

I'm encouraged by the progress that we've seen in training and resources that have been developed in this area. But also as Stephanie mentioned, the ability of organizations to workers - work within the structure of emergency response is very important as well. And there's been a lot of progress in that area.

The vector control and pest management - we see that tremendous amounts of debris certainly can create any rodent problems if not properly addressed. Pests often suffer the same consequences as mentioned before of disasters as humans do. And certainly their numbers can be initially reduced.

But the numbers can quickly explode if the right conditions with solid waste and food supplies exist. And the answer here is integrated pest management provides the best solution through control of water, food, and harborage. And that's certainly something that the veterinarian community understands.

The need for mosquito and fly control certainly may be necessary especially in areas where we have endemic diseases that exist in community. Displaced, stray or abandoned animals can present risk to the public. Displacement of animals can create situations where the contact of wild animals and humans is more likely. It certainly occurs in disasters.

The drinking water - on to kind of familiar structures and infrastructure we have in communities. The water infrastructure can be severely impacted as seen by this picture of the Plaquemines Parish storage tank completely downed by Hurricane Katrina.

Certainly treatment systems themselves with treatment plants can be impacted. We can have storage facilities as seen here that are impacted. The distribution system that conveys the water through the community certainly can be impacted as well. And in addition, source water, such as lakes and rivers, are impacted by disasters as well. So we need to be prepared to deal with these situations.

As a responder and a community member, you know, the water may not be safe or water may not be available in certain areas. So if you plan to be a

responder, you need to think about your supply of water and how to obtain safe water during the response.

Remember, you want to keep yourself healthy as you're responding to the community's needs. So maybe businesses, we ask do we have in place to address the need for water or have the ability to treat water to make it safe in disaster events are questions we certainly need to ask ourselves.

Sometimes water is provided. Is the container safe that the water's being hauled in, is it monitored, is the source safe - are all the questions that you should ask even if whether you're in a local community or a responder.

Many business and homes rely upon private wells. Approximately 46 million people in the United States rely upon private wells. These wells can be damaged in disasters, floods. Earthquakes can impact the quality of water making it necessary either to repair or to chlorinate wells after those types of conditions.

Certainly the pumps rely upon electricity. Do we have the ability to operate? What is necessary to get our operations back running? Where do we get safe water?

And certainly again here, responders should not have the assumption that safe water will be provided. We should be prepared to supply our own water and deal with that situation.

With waste water, certainly can impact our operations. Treatment plants, flood waters can overtake treatment plants. Collection pipes, damage by earthquakes or erosions from storms or surge water. On site systems can be

saturated and drain fills can be collapsed, anyway many different areas that can be impacted.

Floods - flood waters, it will be contaminated with sewage. That's something that we should assume. But again, how are we prepared to deal with the loss of waste water infrastructure within communities or actually as a responder? What are our plans for excreted disposal?

And we think about our emergency operations for humans, what about for animals as well? How do we deal with situations where we have pet shelter and we're dealing with maybe a landfill that's not in operation or other types of facilities that are not in operation? How do we deal with excreted disposal for pets as well?

And certainly no one likes to see these until an emergency occurs and then you can't find one. But certainly we rely upon portable or temporary facilities during emergencies. We want to ensure that certainly these are clean and they're kept sanitary and serviced regularly and that hand washing is provided.

And this could be an operation set up for a pet shelter. It could be a business. It could be a human shelter. All that we need to make sure that this infrastructure is provided and it's kept in a way that keeps our responders and our community healthy.

Food safety - food safety is a major focus of public health and one of our major areas of involvement. With food facilities damaged, again don't expect the food be initially provided as a responder and prepared.

Volunteer organizations such as the Red Cross and Southern Baptists and others work very hard to provide food for communities and responders. Our job as public health is to ensure that it's kept safe to keep you moving and keep you working in the field during disaster.

Buildings - certainly damaged facilities create a tremendous challenge. What are we able to do with a building that has been partially damaged? Do we have alternative facilities identified or plans in place to maintain operations if we have damaged facilities?

Can we obtain portable facilities or temporary facilities for operation? All will lead to a better resilient community and a resilient work force.

So in closing, we think about the disasters impacting many areas of the environment. You may be a responder or you may be a recovering business or organization. And we know that when we think about the loss of infrastructure and impact to different areas of the environment, we need to be prepared for the loss of those and be able to operate in those environments.

Now this takes preparedness and preparedness creates resiliency in communities. Think about how you would prepare for the loss of water, excreta, waste water disposal and electrical power for these impacts on the environment and your ability to respond to your community's needs in the time of the disaster.

That concludes my presentation. Now we're back to Conne.

Conne Ward-Cameron: Well thank you Captain Miller and thank you to all of our speakers for a really - this was a fascinating call. I really appreciate everyone's time.

Just a note for our participants that the Webinar links that Dr. Henderson and Captain Miller and others have presented will be posted to our Web site, emergency.cdc.gov/coca/callinfo so that you can link to those directly and don't have to pull them out of our slides.

It's now time to open up the phone lines for questions and answers. If you'll dial star 1, that will put you into the queue for the questions. Dr. Funk unfortunately has had to leave us. So if you have a question specifically for her, or for NIOSH, please send the question to our coca@cdc.gov email address. That's coca C-O-C-A at CDC dot gov.

If you wish to write your question and not ask it over the phone, you can go to the Q&A tab and type it there. Be sure to include your email address so we can respond if there's not time to answer during the call.

(Tanya) do we have any questions?

Coordinator: Again, please press star 1 if you would like to ask a question. We do have a question from (Steven Amberblum). Your line is open.

(Steven Amberblum): Yes hi. Does the FEMA reimbursement under the PETS Act apply to local municipalities, cities, towns, villages or does it only apply to states and county governments?

Stephanie Ostrowski: So this is Stephanie Ostrowski responding to that. It does apply to the cities and local governments. Generally that's coordinated through your state emergency management agency. They usually coordinate all those reimbursement claims.

So you would need to work with them, but the - like an individual animal control authority would submit that through their county EMA. And that would be passed with the state EMA. And depending on what stage of the response you're at, it may be handled directly by a FEMA field office that's authorized to go ahead and approve those reimbursements and those - in the field or it might have, if it's - if you're in the recovery phase and things are moving slower it may have to be - it may have to go up to - through FEMA different levels possibly and be centrally evaluated and acted on.

But it's - but if you have plans in place and if you have these - you can really pre-plan a lot of these expenses and expenditures and who's going to be the, you know, the authorizing person to sign off on them at the state or local government level.

(Steven Amberblum): Okay. I mean, the reason I ask is because I'm the team leader for local - for the county animal response team. And we have a reasonable degree of preparedness on a county level and I'm now trying to get some degree of preparedness on local levels as well.

And as I go around to town supervisors and speak at town supervisor meetings, I'm able - I want to be able to tell them that there's a chance that if they are - don't develop any level of preparedness, they may not be eligible for reimbursement funds. Is that the case?

Stephanie Ostrowski: I would say there's a chance. Again, it's going to, you know, you - they would bring their receipts and things probably to you as the county level of response team coordinator and you would take it on up to the state level, in, you know, in a catastrophic emergency.

Like it would be rare that anyone who is a - who has a regulatory or governmental official role would be denied, you know, reimbursement for appropriate expenditures that meet the criteria that are laid out in that - in the document.

But it would - but again it would be - it would have to go up through channels. Is that helpful?

(Steven Amberblum): Right. I mean what I'm trying to do is use the PETS Act to sort of, you know, pardon the expression, twist arms a little bit to get some of the local municipalities around here more prepared. And is it reasonable for me to tell them that that there's a chance that if you, you know, that - fail to develop any level of preparedness that you may not get expenses reimbursed?

Stephanie Ostrowski: I think it's, you know, you've tried the carrot I take it already and now you're having to...

((Crosstalk))

(Steven Amberblum): Sure. I'm not - believe me I'm only - I'm going to obviously do the carrots first.

Stephanie Ostrowski: Right.

(Steven Amberblum): And I have collections of wire crates and cages that I'm looking to distribute to local governments. I'm sure almost all will be cooperative. There's one or two in the county of the 40 some odd municipalities that seem recalcitrant to accept anything or to help develop any plans.

Every time we've been called out so far, it's been - I'm in Westchester County New York and it's been due to one large, you know, city in the south of the county with apartment building fires. And they...

Conne Ward-Cameron: I'm sorry. I'm sorry. We have to open the phone line for other people.

(Steven Amberblum): Okay.

Conne Ward-Cameron: Dr. Ostrowski do you have any more guidance for...

Stephanie Ostrowski: You know, I would say to try to engage at the state level with the state animal response team official...

(Steven Amberblum): Right.

Stephanie Ostrowski: ...and try to work those details out with him or her.

(Steven Amberblum): Okay.

Stephanie Ostrowski: Okay.

(Steven Amberblum): Okay. Good enough, thank you.

Conne Ward-Cameron: Thank you so much for your question. (Tanya) do we have anyone else on the line?

(Steven Amberblum): Thank you.

Coordinator: No I have no questions in queue.

Conne Ward-Cameron: Well we have a question that was written into us for Dr. Henderson. Dr. Henderson someone would like to know when you will be or are there plans to update the Emergency Preparedness and Response Guide.

Kristi Henderson: Actually - can you hear me?

Conne Ward-Cameron: We can.

Kristi Henderson: Good. No problems there. Actually it was just redone lately. Now if they have an old CD-rom, they might just want to either order another one or just download it from the site. It has just been redone. I don't have the date of that in front of me but it has been recent.

Conne Ward-Cameron: Thank you. And we've had several people ask about accessing the slides. The slides, an earlier version of the slides, is available currently on our Web site at emergency.cdc.gov/coca/callinfo. Later today the set of slides from the call as well as links to the additional resources will be posted to the Web site and the recorded call will go up by next Monday.

(Tanya) any other questions?

Coordinator: I have no questions in queue.

Conne Ward-Cameron: All right. Well thank you all very much. We've gone past our time. Thank you (Tanya) for facilitating today's call. Thank you Dr. Mainzer, Dr. Henderson, Dr. Ostrowski, Dr. Funk and Captain Miller and thanks to you all our participants for your time today.

If you have additional questions for our speakers, please email us at coca@cdc.gov. Put “veterinary preparedness” in the subject line of your email and we'll ensure that your email is forwarded to our presenters for a response. Again that email address is coca@cdc.gov.

The PowerPoint slides for today's call and additional resource information are posted to the Web site now and the recorded version of the call, as well as the transcript, will be available within the next two days. Our Web site is emergency.cdc.gov/coca/callinfo.

For those of you wishing to obtain continuing education credits, you'll have a year to do so. All continuing education credits and contact hours for COCA conference calls are issued online through the CDC training and continuing education online system at [www, the number 2, A, dot C-D-C dot gov forward slash T-C-E online forward slash](http://www.2a.cdc.gov/tce).

Thank you all again for being part of today's call.

Coordinator: Thank you. This concludes today's conference. You may disconnect at this time.

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