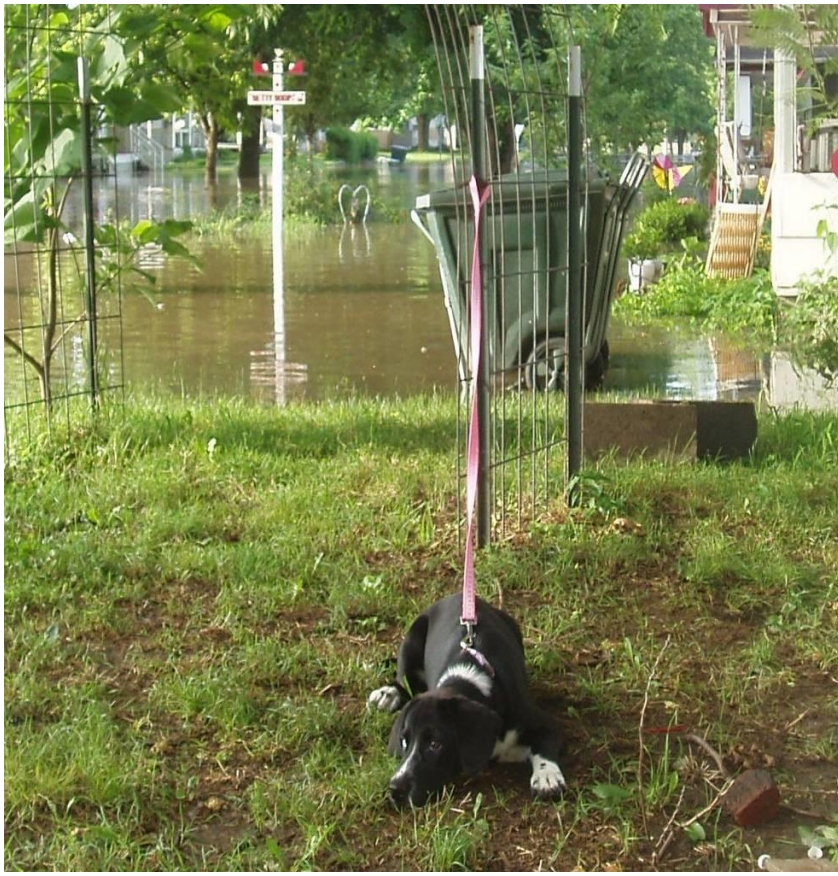


Colorado Community Animal Response Training

Module 5: Introduction to Animal Emergency Response

Module 6: Bio Safety and Zoonoses



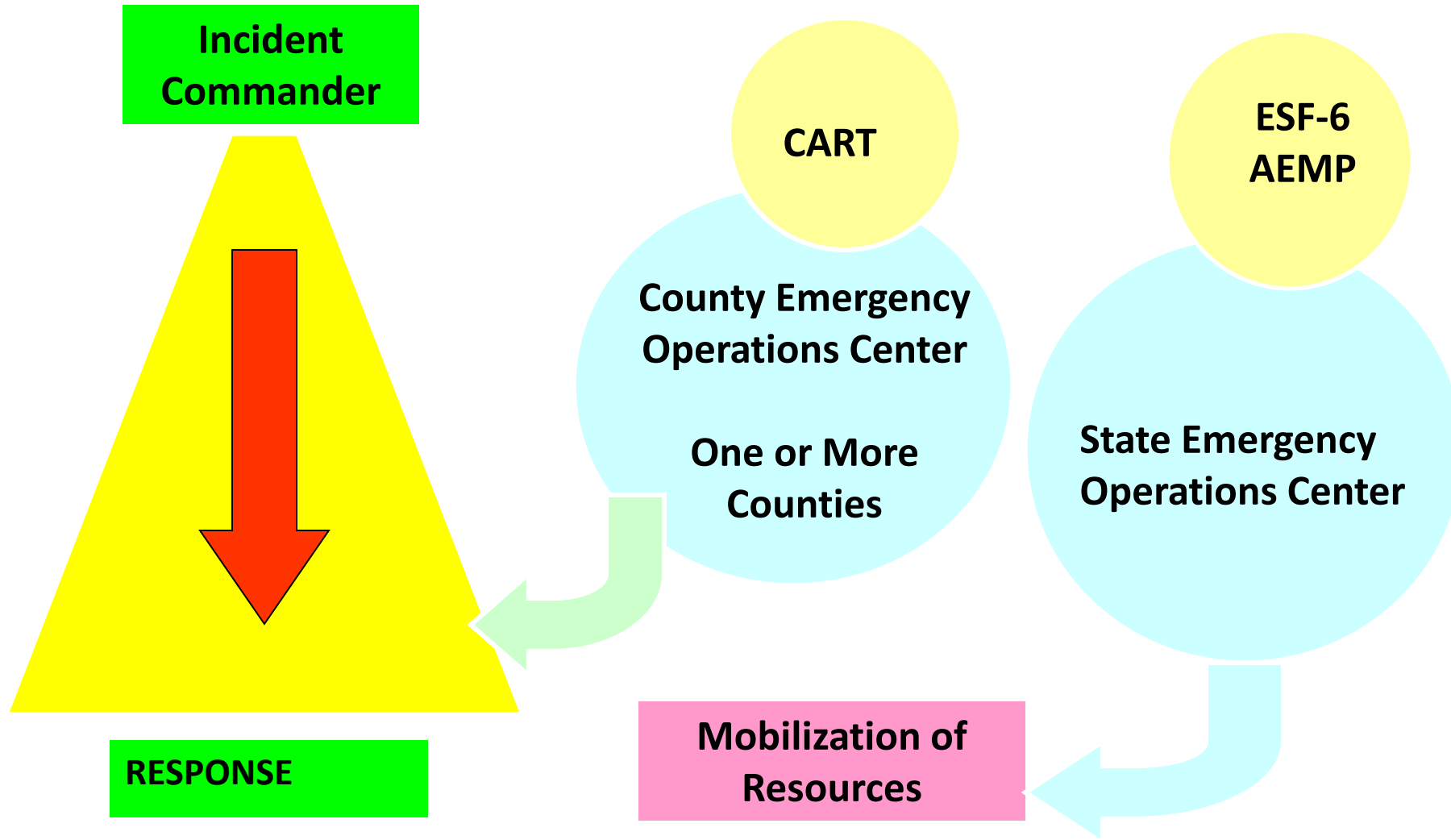
MODULE 5:

INTRODUCTION TO ANIMAL EMERGENCY RESPONSE

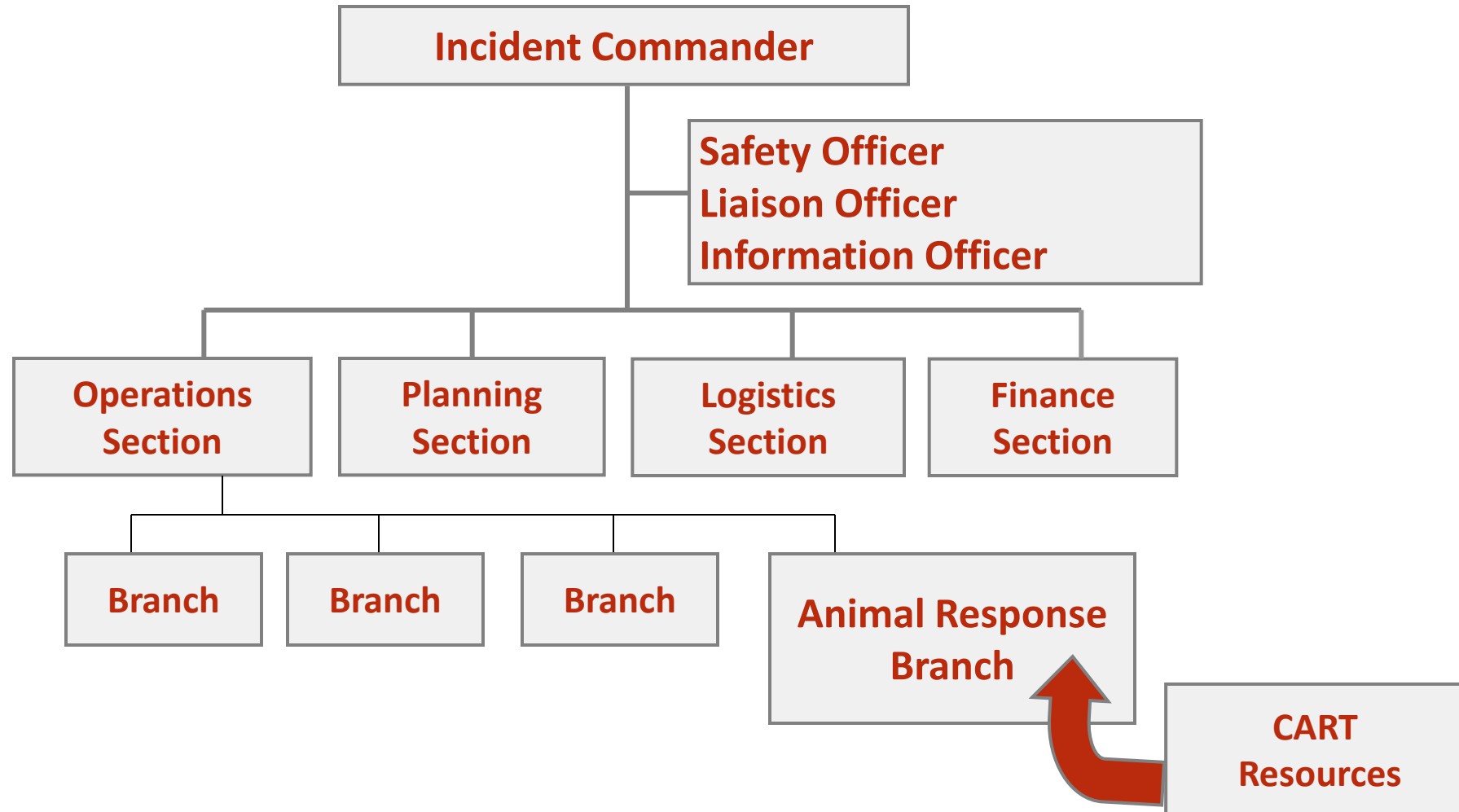
Module Objectives

1. Describe how CART networks can provide resources into an incident
2. List the 14 mission essential tasks
3. Identify key issues related to volunteer management in emergencies
4. Identify key issues related to donation management in emergencies

Management and Support Summary



Typical destination for CART resources in ICS



Mission Essential Tasks: Animal Response

1. Rapid Need Assessment
2. Animal Control
3. Evacuation
4. Transportation
 - Animals/Materials
5. Animal Search and Rescue
 - Technical Animal Rescue
6. Sheltering
 - Existing Facilities
 - Temporary
 - Co-Located
 - Service Animals
7. Owner-Animal Reunion
8. Animal Feed and Water
9. Veterinary Care
 - Triage/Clinical Care
 - Biological Risk Management
 - Public Health Support
10. Wildlife Management
11. Animal Decontamination
12. Mortality Management
13. Disease Management
14. Zoonotic Disease

General Tasks with Animal Concerns

Multi-agency coordination

Donation/volunteer management

Citizen preparedness and participation

Training and exercises

Credentialing

Resource typing

Responder health and safety

Animal Control and Stray Management

Animal control responsibilities will be **magnified** in disasters

- Stray Animals
- Dangerous Animals



Rapid needs assessment



1965, Denver, CO

- Livestock Operations
- Veterinary Facilities
- Animal Shelters
- Kennels/Stables
- Feed/Support Services
- Wildlife/Zoological Facilities
- Biomedical Facilities



2013, Broomfield, CO

**Must plan WHO will perform assessments
and what they will assess.**

Animal Evacuation



At Risk Populations:

- Companion Animals
- Service Assistance Animals
- Commercial Livestock
- Small Operations/Backyard Livestock

Animal facilities

- Veterinary
- Animal Care/Control
- Boarding
- Bio-Medical
- Wildlife/Zoo

Human safety issue

Evacuation Issues

Owners have primary responsibility

Responder Safety and Accountability

Transportation

Credentialing and Identification

- Pre-credentialing Individuals/Teams
- Vehicle Prioritization and Traffic Issues

Communication, Mapping, GIS

Animal Identification and Record-keeping



Hi-Meadow Fire, June 2000



Transportation



Animals

- With or Without People
- Transport Standards
 - Ventilation
 - Temperature Control
 - Sanitation

Animal Support Materials

Donations

Animal Search and Rescue (ASAR)

Concurrent rescue of people with animals

Removal of animals from evacuated areas

- Owner request or area search
- Coordination with law enforcement
- ***Animal control authorized and trained teams***
- Dead animal recovery/ID



Technical Animal Rescue



Water Rescue

Ice Rescue

Large Animal Rope Rescue

Anderson Sling Air Rescue

Vehicle/Trailer Extraction

Transport of Down Animals

Animal Feed and Water

Pets Sheltering in Place

- Distribution to owners
- Delivery to properties where animals are stranded

Livestock Feeding

- Air drop of hay

Wildlife Feeding

Zoological and Research Facilities



Animal Transportation Accidents



Basic Priorities

- Scene control:
 - the safety of responders and bystanders
- Animal safety
 - Extraction
 - Euthanasia (when appropriate)
 - Treatment
 - Transportation

Disaster Animal Sheltering

Service/Assistance Animals

- Extension of the Person
- Not “Pets”
- Sheltered with the Person

Companion animals

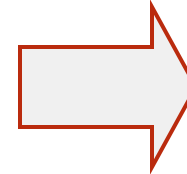
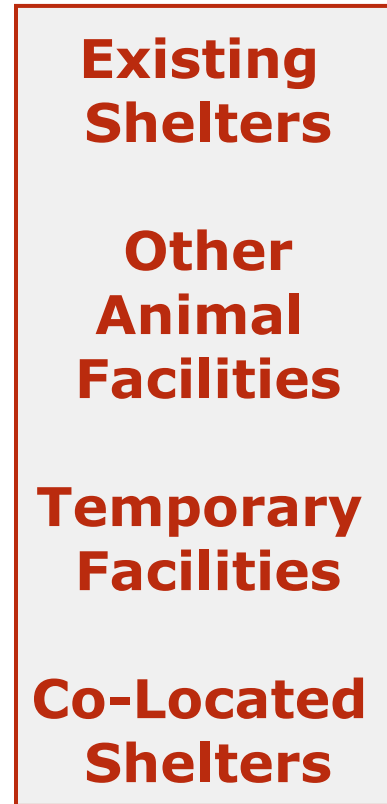
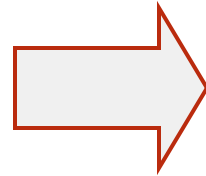
- Extension of the Population
- When possible, sheltered where owners can help care for their animals (co-location)

Livestock

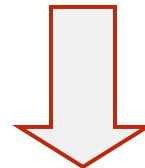


Emergency Sheltering Flow

- Owner evacuated
- Stray
(animal control)
- Owner surrendered
(permanent)
- Animal facilities
(kennels, vet hosp,
zoos, sanctuaries,
farms and others)
- ASAR

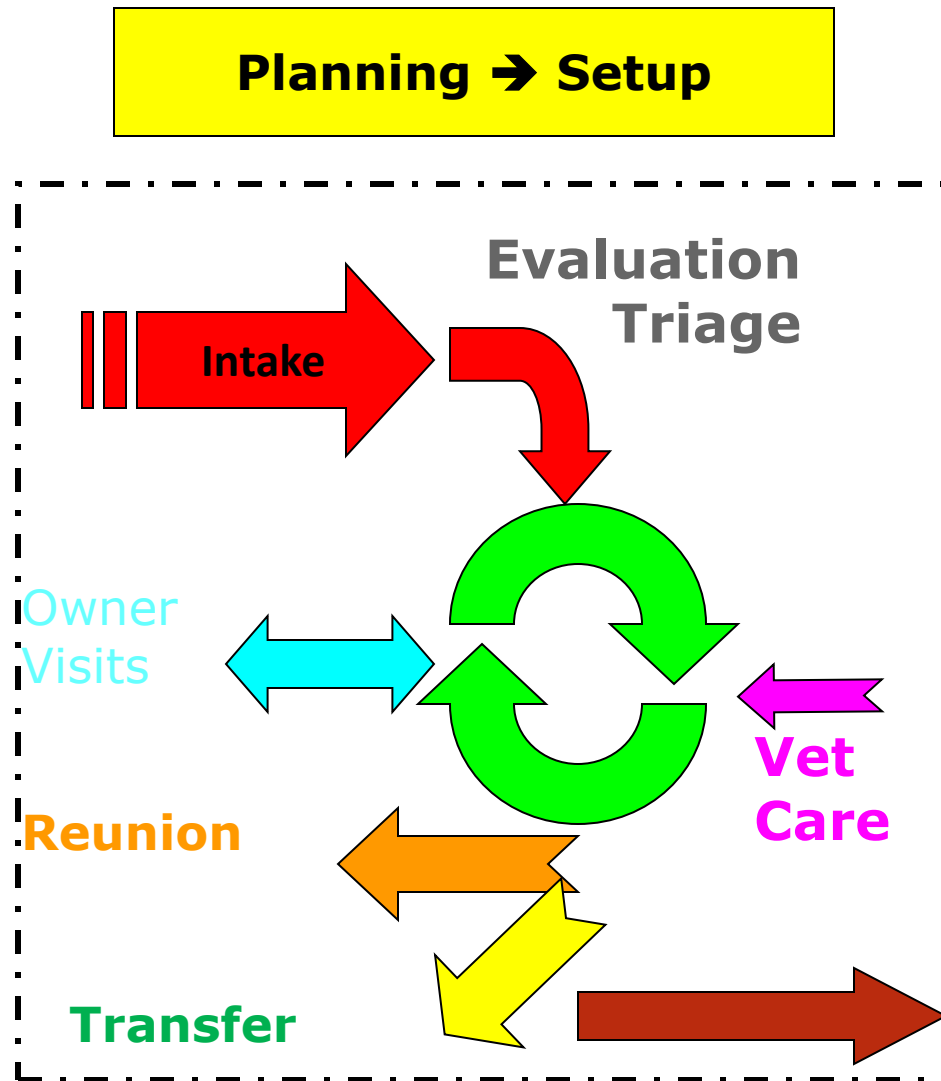


- Reunion
- Transfer to
other facility
or foster care
- Adoption
- Died
- Euthanasia
- Escape



Transfer of adoptable animals

Flow of Emergency Animal Sheltering



1. Setup (Plans/Ops/Log)
2. Site Safety and Security
 - Physical and Biological Intake
3. Intake
4. Evaluation/Triage
5. Ongoing Animal Care
6. Owner Visitation
7. Veterinary Medical Care
8. Animal Discharge
 - Reunion or Transfer
9. Closure

Mobile Animal Sheltering Caches



12 Companion Animal Sheltering Mobile Caches

- Arapahoe, Boulder, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo, Weld Counties, PetAid

4 Equine Sheltering Mobile Caches

- Denver, Pueblo, Durango, Grand Junction

Additional Mobile Equipment

- CO Dept. of Agriculture-Denver
- Summit County



What Works for a Temporary Animal Shelter?



Emergency Animal Sheltering

Truly a role for hard working heroes



Is Animal Sheltering About Animals?



American Humane Assoc

Owner-Animal Reunion

Factors:

- Animal ID
 - Microchips, Tags, Tattoos, Photographs
- Accuracy of Records
 - Origin of Animal
 - Owner Information
 - Destination



Livestock ID tracking

Livestock ID

- Brands, Microchips, Ear Tags
- Temporary: Duct tape Collars, Spray Paint, Auction Tags, Labeled Halters



Veterinary Medical Services

Triage

Veterinary Clinical Care

- Field Care
- Hospital Care
- Mass Casualty Care
- Euthanasia

Biological Risk Management

Public Health/Medical Support

Foreign Animal Disease
Response



PetAid Colorado/COVMRC

Animal Disease Management

Colorado response led by:

- Colorado Department of Agriculture
 - Division of Animal Industry (State Veterinarian)

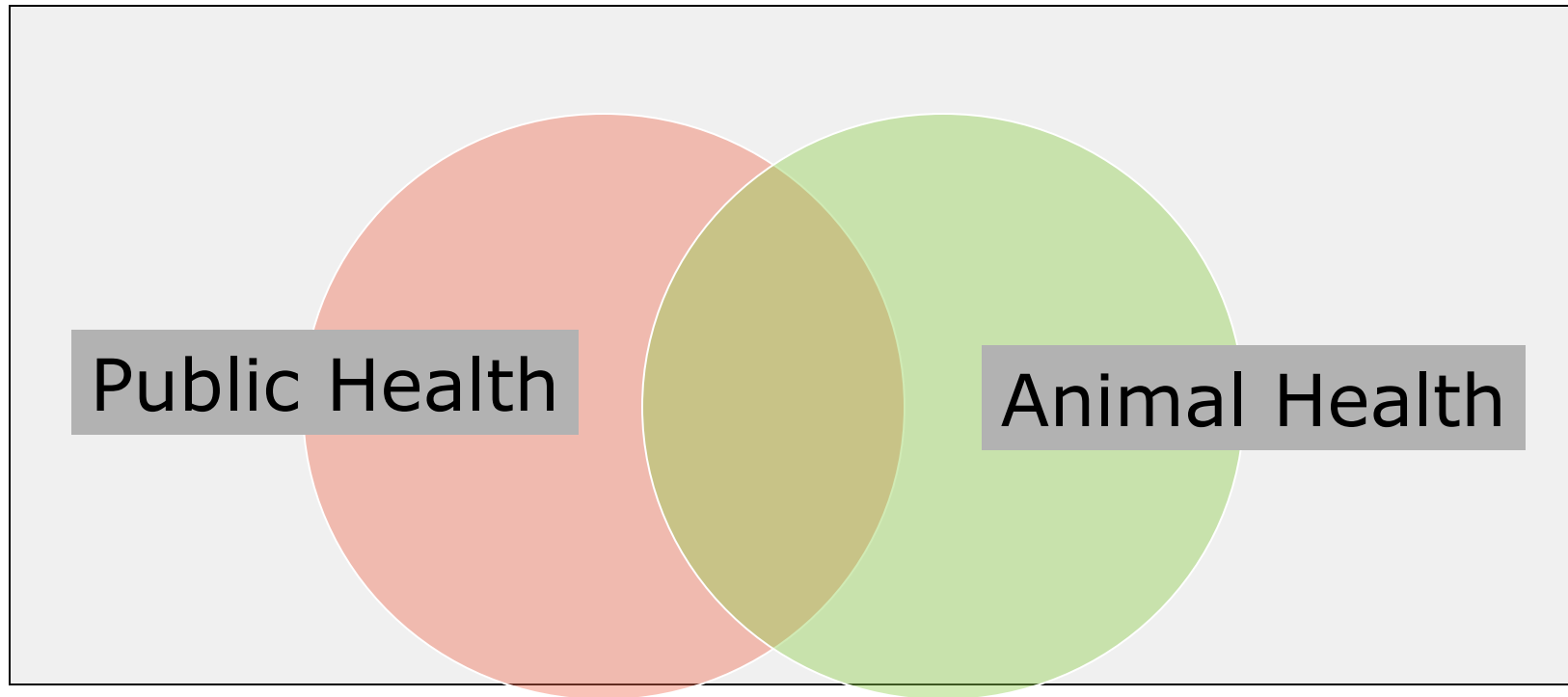
Federal response/resources led by:

- USDA-APHIS Veterinary Services
- Will provide much of the funding for state/local response

Local communities provide resources into established incident command

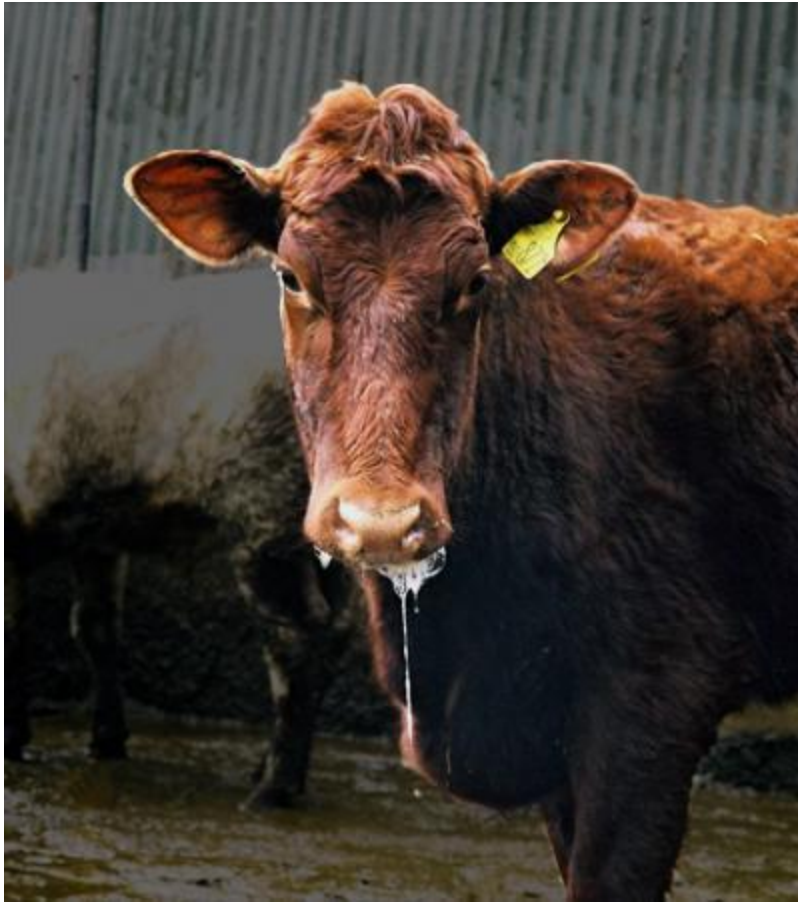


Zoonotic Disease Management



Zoonotic disease management is a complex interaction of public and animal health responsibilities and authorities

Zoonotic Emergencies



Complex Command

Risk Communication Essential

- rumor vs. real risk

Isolation/Quarantine

Vector Control

Treatment

Vaccination

Animal health impacts:

- Agriculture/Food
- Pets

Special Operations



National Animal Welfare Organizations

Can provide resources and trained personnel

Requested and mobilized through a local request or

CO Emergency Operations Center (EOC)

Need specific mission assignment



Donations Management

Coordination through ICS/EOC

Clear public messaging

- What's needed
- What's not needed

Best

- New, palletized, shrink wrapped



Unaffiliated Volunteer Management



- Spontaneous Unaffiliated Volunteers
- Spontaneous Untrained Volunteers
- Spontaneous Unwanted Volunteers
- Scary Unstable Volunteers
- Sincere & Unselfish Volunteer

Public Information

Incident Information

- Must go through ICS/EOC Joint Information Center

Non-Conflicting Messages

Organizational Information

- OK for direct release if not incident specific

Interviews

Cleared with Public Information Officer



Recovery



Getty Images

Types of recovery

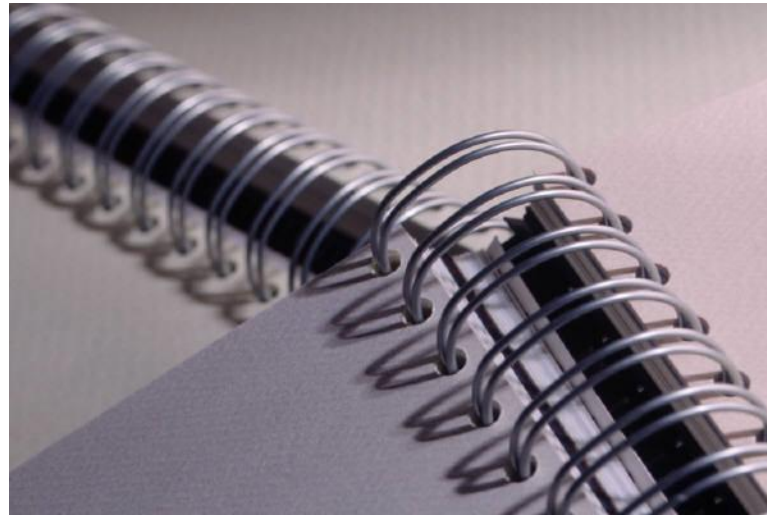
Community

- Individual
- Social/Emotional
- Economic/Industry
- Environmental
- Short-Term
- Long-Term
 - Years/Decades
 - Long-Term Recovery Committee

Standard Operating Guidelines (SOG's)

A general best practice to achieve a result

What you need to do (checklist)



Standard Operating Procedures (SOP's)

Location and situation specific series of actions to achieve a consistent result

Directions for accomplishing the tasks step by step

Developed by the responding agency responsible for the associated task

SOGs are WHAT to do
SOPs are HOW you do it

Bio Safety

Module 6:

Bio Safety and Zoonoses

Module Objectives

1. Define bio-security, bio-safety, zoonotic disease and foreign animal disease
2. Recognize the five basic methods for disease transmission
3. Define the terms cleaning and disinfection
4. Describe basic personal protective behaviors essential to all animal response personnel

Bio-Safety

Definitions:

1. Bio-Security
2. Bio-Safety
3. Zoonoses
4. Foreign Animal Disease



Bio-Security

- Steps taken at a facility or operation to prevent the introduction, export, or internal spread of disease agents

Bio-Safety (infection control)

- Procedures to limit spread of infectious agents to both people and animals

What is a zoonotic disease?

The simplest definition of a zoonosis is a disease that can be transmitted from other vertebrate animals to humans. A slightly more technical definition is a disease that normally infects other animals, but can also infect humans.



Of the 1,407 known human disease pathogens, 816 (58%) are zoonotic diseases.



Foreign Animal Diseases (FAD)

Animal diseases that:

- Are not normally present in the United States
- Must be reported to state and federal authorities
- Are reportable to the World Health Organization
- Will impact livestock industries
- Will impact international trade



Examples of significant FAD agents:

African Swine Fever

Bovine Spongiform Encephalopathy

Classical Swine Fever

Contagious Bovine Pleuropneumonia

Exotic Newcastle Disease

Foot and Mouth Disease

Highly-Pathogenic Avian Influenza

Lumpy Skin Disease

Rift Valley Fever

Rinderpest

Venezuelan Equine Encephalitis

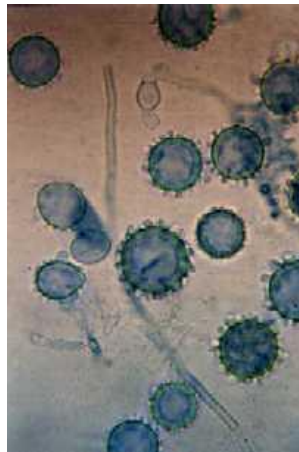
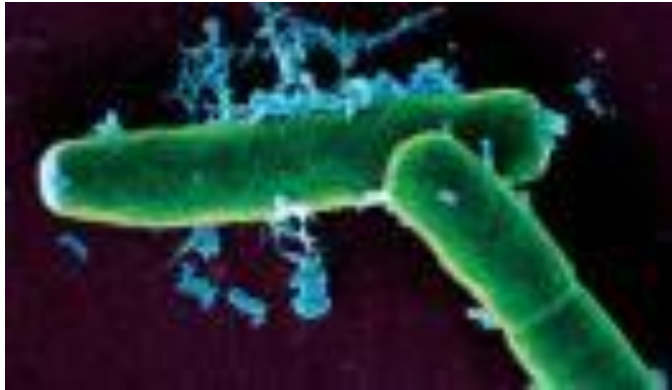


Society has changed

- More people have contact with animals today than they did a century ago
- Early 19th century 40% of the population were involved with agriculture
- Today less than 2% are involved with agriculture
- 65% households have at least one kind of pet



Biological Threats



Viruses (small pox, HIV)

Bacteria (strep, syphilis)

Fungi (yeast, mold)

Prions (mad cow disease)

Bio-toxins (red tide)

Case Example: Monkey Pox Virus

Wisconsin 2003, 7 confirmed, 34 suspect human cases



Reportable foreign animal disease

Spread animal-to-human via blood or bite

Human-to-human spread possible

Similar in appearance to smallpox but milder

Also affects other species such as rodents

Bio-Safety Practices

Risk recognition

- Traffic flow
- Isolation procedures

Hand hygiene policies

Barrier protection

Sanitation procedures

Bite procedures

- Rabies prophylaxis (shots)



Disease Transmission Routes

- Droplet contact - coughing or sneezing on another person
- Direct physical contact - touching an infected person, including sexual contact
- Indirect contact - usually by touching soil contamination or a contaminated surface
- Airborne transmission - if the microorganism can remain in the air for long periods
- Fecal-oral transmission - usually from contaminated food or water sources
- Vector borne transmission - carried by insects or other animals

Some diseases may use multiple routes of transmission

Biologic Risk Recognition

Which diseases do we worry about recognizing early?

- Zoonoses
- Highly contagious
- Highly persistent
- Significant clinical consequences
- Regulatory concern

Manage with:

- Keeping high risk animals separated
 - Traffic flow and isolation

Hand Hygiene

May be the single most important bio-safety practice!

Major challenge is compliance

Reasons for noncompliance include

- Lack of time to do the “right thing”
- Impact of hand hygiene practices on skin condition

Improve compliance by adding hand sanitizing gels to program



Hand Hygiene Summary

Those involved in care of animals should:

- Develop a minimum level of hand hygiene
- Based procedures on the risk
- Use hand hygiene as a routine or habit



If risk of contagious disease is high:

- Use examination gloves along with other needed barrier precautions
- Perform hand hygiene after removal of examination gloves



Disaster Bio-Safety Procedures

An extension of facility procedures

- Veterinary hospitals
- Animal shelters
- Kennels
- Fairgrounds

Veterinary planning and implementation role



Cleaning and Disinfection

Cleaning:

- Removal of visible contaminants
- Must precede disinfection

Disinfection:

- Application of a suitable chemical agent for an appropriate amount of time to destroy specific infectious agents



10 Essential Steps in Cleaning and Disinfection

1. Assess the areas to be cleaned
2. Remove all visible debris
3. Clean with water and detergent or soap
4. Thoroughly rinse the cleaned area
5. Allow the area to dry completely



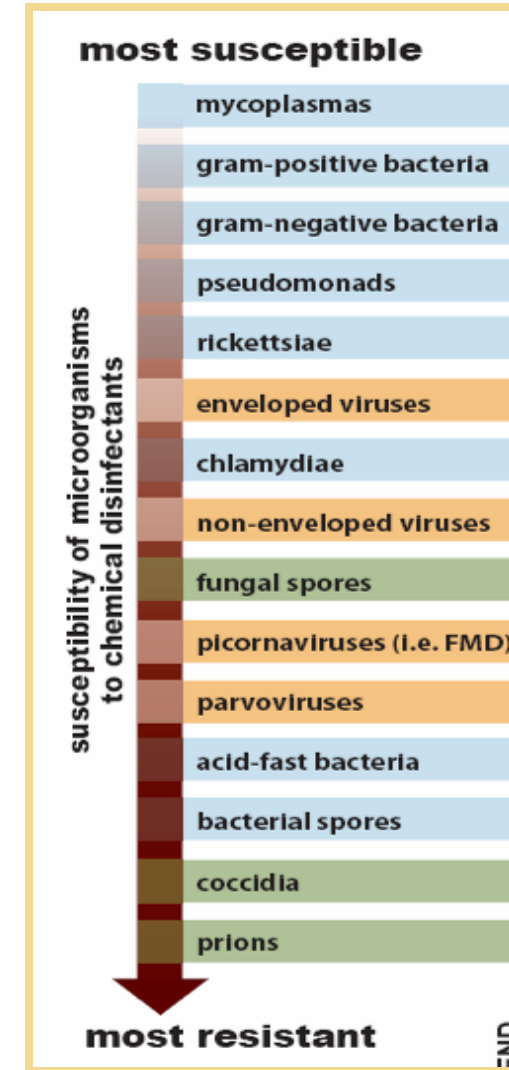
Cleaning and Disinfection

6. Select and apply disinfectant
7. Allow the proper contact time
8. Rinse
9. Leave the area free of animals for a sufficient amount of time
10. Evaluate/monitor the effectiveness of the disinfection plan



Cleaning & Disinfectant Assessment

1. Microorganism considerations
2. Disinfectant considerations
3. Environmental considerations
4. Health and safety of people and animals



Bites and Scratches

Rabies and bite policies needed

- Prevention/safety
- Post-bite protocols
 - 10 day quarantine
- Risk recognition in companion animals, livestock and wildlife

Cat scratches

- Cat-scratch fever



Rabies Prophylaxis

Prophylaxis (Greek "προφυλάσσω" to guard or prevent beforehand) is any medical or public health procedure whose purpose is to prevent, rather than treat or cure a disease.

Vaccination

- Given prior to exposure
- Periodic antibody titer monitoring

Post-exposure prophylaxis

- Coordination with public health
- Needed in:
 - Known positive cases
 - Exposure by animals unavailable for testing (such as wildlife)

Additional Bio-Safety Practices:

- Observe bio-security procedures on livestock facilities
 - Wear clean footwear and coveralls
 - Don't move materials between premises
- Always clean cages before housing a new animal
- Clean animal waste and disinfect frequently
- Notify your physician of animal contacts if you become ill
- Use veterinary-recommended preventive health procedures



Thank you....



For more information contact Debrah Schnackenberg, Director Disaster Services Program
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