Integrated Bite Case Management (IBCM)

Emily Pieracci, DVM, MPH, DACVPM
Poxvirus and Rabies Branch
U.S. Centers for Disease Control and Prevention
Integrated Bite Case Management

INTERVENTION-BASED SURVEILLANCE SYSTEMS

- Animal Bite Surveillance
- Rabies Post-Exposure Prophylaxis
- Animal Rabies Surveillance

“Too Late” Surveillance Systems

- Human Rabies Surveillance
I. Animal Bite Surveillance

- **One Health**: system requires reporting of bites from health centers and community health workers to animal rabies surveillance officers.
II. Bite Investigation

- One Investigation, Two Components
  - Animal rabies investigation (completed by animal health workers)
  - Victim bite investigation (completed by human healthcare workers)
III. Safe Animal Capture
IV. Animal Rabies Assessment

- Animals are assessed for signs of rabies
  - Signs of rabies present = euthanasia
  - Appears Healthy = quarantine for 10 days
V. Quarantine

- Home quarantine or use local resources (shelter)

- Shedding of virus occurs for up to 10 days prior to signs of disease

- Animals healthy after 10 days do not have rabies
VI. Laboratory Confirmation

- If animal develops signs of rabies:
  - At initial assessment
  - During 10 day quarantine

- Euthanize and submit for testing
Focus only on mass vaccination?

Rabies Prevention through Dog Vaccination

~1,300 Cumulative Deaths

What can be done to prevent deaths while waiting for vaccination?
Combined approach: IBCM and Mass Vaccination

Dog Vaccination and IBCM Potential Impact on Human Rabies Deaths

- 500 Cumulative Deaths
- 1,300 Cumulative Deaths

Human Deaths
Human Deaths with IBCM
Canine Vaccination Coverage
Benefits of Rabies Surveillance

- Find rabid animals and remove from community
  - Decrease animal exposures
  - Decrease human exposures

- Reduce the unnecessary use of PEP
  - PEP not needed for bites from healthy animals
  - Cost savings to government and citizens

- Ensure PEP given to those exposed to confirmed rabid animals
  - Identify additional bite victims

- Data gathered will help provide disease burden estimates
- Increased government support for control
Questions?

For more information please contact:

Dr. Emily Pieracci
Epieracci@cdc.gov
Dr. Ryan Wallace
Rwallace@cdc.gov