Animal Welfare and Rabies Control

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Why is animal welfare important?
The five freedoms:

- Freedom from hunger and thirst
- Freedom from pain, injury and disease
- Freedom from discomfort
- Freedom from fear and distress
- Freedom to express natural behaviour

- Prevalence
- Duration
- Severity
There is an estimated global dog population of 770 million dogs.

About 75% of these are classed as stray or roaming.
Do dogs have freedom from...

- **Hunger and thirst**: Malnutrition, starvation, lack of clean water.
- **Discomfort**: Lack of shelter from extremes of weather.
- **Pain, injury and disease**: Skin diseases, rabies, parvo virus or tumours. Injuries from road traffic accidents.
- **Fear and distress**: Competition for available resources, aggression from other dogs and humans.
Suffering through population control

• **Inhumane culling**: Poisoning, shooting, gassing, electrocution, bludgeoning and drowning.

• **Shelters or pounds**: Overcrowding, stress, disease, insufficient resources, no hope of rehoming.

• **Methods of catching, handling, restraint and transport**: Incorrect knowledge, expertise, training and equipment.
The balance with human welfare

- Dogs are the vector for 99% of human rabies deaths.
- 3 billion people living in canine rabies-endemic countries in Asia.
- Dog bites are a huge public health problem.
- Dogs are a perceived “nuisance”: noise, fouling, property damage, loss of livestock and wildlife through predation and disease.

But we also know that dogs can enrich human lives through companionship and security.
What we know about dog populations and rabies control

• Stray and roaming dogs exist and are the reservoir for rabies.
• The choices we have are to kill them, impound them, or vaccinate them.
• We know that the mass removal of dogs can impede vaccination coverage and increase disease risk.
• A stable, safe (i.e. vaccinated) dog population is the best defense against rabies.
“There is no evidence that removal of dogs alone has ever had a significant impact on dog population densities or the spread of rabies.”
TRS 931, WHO 2005

“Mass canine vaccination campaigns have been the most effective measure for controlling canine rabies.”
WHO 2005

“Eliminating rabies in dogs is the optimal control method for preventing spread of the disease.”
OIE 2009
By vaccinating 70% or more of the total dog population we can eliminate rabies in humans.

Additional dog population management interventions can provide additional benefits:

- A decrease in dog population turnover.
- A decrease in ‘high-risk’ young dogs and breeding behaviour.
- A decrease in unowned dogs.
- A decrease in dog bites.
- An increase in the perceived ‘value’ of dogs.
Critical factors of a successful mass vaccination programme:

1. Mass vaccination must be achieved quickly.
2. It must be achieved systematically:
   • Based on a survey of the total dog population, not simply the number of registered dogs.
   • Vaccinated dogs must be identified with a temporary mark.
   • Vaccination campaign must proceed consistently and uniformly.
   • Assessment of vaccination coverage based on post-campaign surveys, not on vaccine utilization.
3. The mass vaccination must be achieved in cooperation with the community:
   • Sensitizing the public and ensuring confidence in the campaign (humane handling, good standards).
   • Encouraging owners to bring and restrain own dogs, promoting the concept of responsible pet ownership.
WSPA supported dog rabies control projects around the world
Colombo, Sri Lanka 1990 – 2010

The graph shows the number of dog rabies cases in Colombo, Sri Lanka, from 1990 to June 2010, with categories for elimination, vaccination, and sterilisation.

- **Elimination**
- **Vaccination CMC and BPT**
- **Number of sterilisations**

The graph indicates that the number of dog rabies cases decreased significantly with the implementation of the project, starting in 2003.
Colombo, Sri Lanka

- 2008 - dog rabies cases halved.
- 2010 - 89% of dog population (15,000 dogs) vaccinated against rabies.
- 2011 - Dog rabies cases decreased by 92%. Significant reduction in dog bite cases.
Bali

Prior to 2008, Bali was rabies free – estimated dog population of 400,000+

- November 2008 - first human rabies case occurred.
- Early 2009 – culling was introduced in an attempt to control the outbreak.
- December 2009 - pilot mass vaccination project commences.
- May 2010 - pilot project completed - 45,000 dogs vaccinated. Evidence shows mass vaccination more effective than culling. Significant reduction in dog bite cases.
- September 2010 – culling officially ceases.
Bali

Island wide mass vaccination programme commences.

- March 2011 - first phase of mass vaccination programme completed.
- 210,000 dogs (70% of dog population) vaccinated.

Comparative data of 4 month period - December 2009 to March 2010 against December 2010 to March 2011:
- 48% decrease in human rabies cases.
- 45% decrease in dog rabies cases.
Full economic and cost benefit analysis of Colombo and Bali projects currently being undertaken by Royal Veterinary College and University of Glasgow.

Examples of elements examined in the analysis

Cost data:
- Direct vaccination programme costs - planning, preparation, implementation.
- Additional activities - data collection, data analysis, interpretation and communication of results.
- Costs of future post-eradication activities e.g. surveillance and border inspections.
Benefit data:

1. The financial benefits gained by avoiding any costs associated with:
   - Human post-exposure prophylaxis (PEP).
   - Impact of rabies epidemic on tourism.
   - Epidemiological investigation of human deaths.

2. The non financial benefits gained by avoiding:
   - Dog bites in humans – avoidance of pain and distress.
   - Human illness - emotional impact on family and community.
   - Human death - (as above).
   - Inhumane culling of dogs – animal welfare and human welfare concerns, e.g. distress people feel when dogs are killed.
   - Slow painful deaths of dogs due to rabies – or euthanaising of rabid dogs.
Incorporating responsible ownership is the long-term solution

• Most “stray” dogs have or have had some form of ownership.
• Identify owners, potential owners and community carers and help them take responsibility.
• Registration should reward (not discourage) responsible ownership.
• All dogs, regardless of registration status, should be vaccinated.
• For dog welfare and for rabies control, we want dogs to be responsibly owned.
The ultimate goal is that every dog has someone to take responsibility for its welfare and for the risk it poses to others.

In the end, we should simply recognise the value of dogs in human society and the crucial role that dog welfare plays in rabies control.