



TACKLING MASS DOG VACCINATION

Be-Nazir Ahmed

Professor of Microbiology and Head, Department of Parasitology, National Institute of Preventive and Social Medicine, Dhaka, Bangladesh

BIOGRAPHY

Dr Be-Nazir Ahmed is currently Professor of Microbiology and the Head of Department of Parasitology of the National Institute of Preventive and Social Medicine, Dhaka, Bangladesh. He has more than 30 year experience in public health including research, outbreak investigation and rabies elimination strategies at national and international level. As the director of rabies elimination program of Bangladesh he has developed a unique expertise in rabies and especially in mass dog vaccination and has proved him as a champion of rabies elimination.

SUMMARY

Rabies is mainly transmitted by roaming dogs, and the rabies virus is also believed to be harboured by them. Gangs of stray dogs often inflict injuries during fights with fellow members, some of which are also rabid. The newly infected victims develop signs at various incubation times and thus, in turn, transmit the virus to other stray dogs at different times. In this way, the transmission of the virus is sustained in an area, region or country.

The roaming dog is a common feature of dog populations of many countries of Asia and Africa, where the disease is highly endemic. The dogs are either not owned or loosely owned, leading to little or no care. Almost all roaming dogs therefore have no chance of being vaccinated against rabies, keeping them vulnerable to the disease while simultaneously exposing humans and other animals to this disease.

With this background in mind, the regional and national strategies for rabies control and elimination are now targeting mass dog vaccination (MDV) as the most important component. Scientific and other evidence has shown that MDV can result in herd immunity at a level that can contribute to consistent reduction and elimination of rabies. In countries of South America and some countries of Asia and Africa, MDV campaigns have generated evidence of success in rabies elimination. However, many rabies endemic countries of Asia and Africa have yet to adopt this approach and also face problems in prioritisation, planning and mobilisation of resources. Stray dog vaccination also belongs in the 'no man's land' between health and livestock departments; while the public health problem lies with human health services, the responsibility of MDV lies with livestock services. Unfortunately, vaccinating 'unworthy' dogs is not a priority for livestock, so many countries are yet to initiate or scale up MDV.

To be effective and feasible, a MDV campaign must have a few characteristics: be of short duration; the vaccine should be of quality; the target coverage must be achieved; the campaign should be cost effective, affordable and reproducible. It is also important to have capacity building through piloting and scale-up campaigns to ensure coverage of a whole country or a whole region within the shortest possible time. The financial resources needed to complete three rounds of MDV are one of the most important components of a campaign; international development organisations and partners should come together to realise this important public health initiative. Vaccine banks for animal rabies have contributed significantly to scaling up in countries such as Bangladesh, Sri Lanka and the Philippines. To achieve a rabies-free world, we need to apply MDV campaigns globally.