

## Editorial

### Rabies elimination strategy of Bangladesh: Status of Implementation

Rabies has been ravaging through rural Bangladesh from time immemorial claiming lives and devastating families. There occurred 2-3 hundred thousand dog bite annually with more than 2 thousand rabies cases with 100% fatality. In 95-99% cases, dog transmits the disease to human. Most of the cases are rural, poor children. Ignorance, unavailability and inaccessibility of safe and effective vaccine, large population (1.2 million) of unvaccinated dog were responsible for the high burden of rabies in the country. Bangladesh has adopted strategy to eliminate rabies by 2020 and reduce the burden by 90% within 2015 with four strategic approaches including advocacy, communication and social mobilization (ACSM), dog bite management (DBM), mass dog vaccination (MDV) and dog population management (DPM). The national steering committee comprising ministries of Health and Population Welfare; Fisheries and Livestock and Local Government Division and the Technical Working Group comprising the concerned directorates and the rabies expert have been the implementing committees. Also each district has rabies prevention and control committee to implement activities at the field level.

Dog bite management (DBM) is the main pillar for reducing rabies related human deaths. Washing of the wound for 15 minutes with laundry soap and water, assessment of the wound by trained physicians for categorization, post exposure prophylaxis with anti rabies vaccine and rabies immunoglobulin are essential components of DBM. The program was piloted in Infectious Disease Hospital (IDH), Mohakhali Dhaka in 2010. Then, from 2011-12, DBM was scaled up to all the 64 districts of the country one in each of the districts. Physicians and nurses of all the centers were trained on DBM at last once and free vaccine has been ensured in all the centers. Until now, more than 200 thousand persons have been managed following animal exposure. There have been some signs of reduction in incidence of rabies. Earlier IDH recorded >160 cases of annual rabies that declined by 50% in 2012. It is expected that before 2015, 90% reduction in annual rabies cases would be achieved.

Mass dog vaccination (MDV) for three rounds with at least 70% coverage in each and every smallest geographical area of the country is mandatory for elimination of rabies in the country. We have to cover 70% of approximately 1.2 million dogs of the country most of which (83%) are stray dogs. CDC, DGHS with support of WHO, WSPA and HSI piloted MDV in Cox's Bazaar municipality in November 2011. It was scaled up in Satkhira municipality and Satkhira sadar upazila in April of 2012. MDV was then scaled up to cover district municipalities of the country. In 2012-13, 54 municipalities of 6 divisions of the country MDV was done with fund from ministry of local government and ministry of health under leadership of CDC, DGHS. The average coverage was >80%. There is plan to cover the municipalities of the remaining 10 districts and scale up to village level in 2013-14 and to complete three rounds throughout the country. OIE and WSPA have committed to provide 300 thousand doses of animal vaccine and other technical support to complete the daunting task. FAO and WHO are also expected to provide necessary support.

City corporations and municipality often did dog killing with the aim to reduce dog population, nuisance and rabies incidence. It is scientifically proved that neither reduction in number nor reduction in rabies incidence can be achieved through unplanned killing. Dog population management is the answer to this problem. DPM is being currently piloted in Dhaka city. It needs to be scaled up in other parts of the country. Rabies surveillance is weak in the country. Recently measure has been taken to establish rabies surveillance along with lab facilities. All the centers have been reporting monthly of the animal exposures. Within just 2 years, Bangladesh has taken appreciable measures towards elimination. If the sustainability is ensured, Bangladesh can achieve elimination in stipulated time

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