



Free Roaming Dogs: A Threat to Public Health

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Abstract

Free roaming dogs are increasing in numbers. They live in unhygienic conditions and are not vaccinated mostly. They create several problems in the community, particularly health threats to human. Dog biting is a commonly reported case in some hospitals in Bangladesh. Rabies is one of the killers of people in Bangladesh and transmission occurs mostly due the dog biting. Death commonly occurs in children due to rabies. Rabies death is completely preventable by vaccinating dogs at national level. Many steps have already been taken. Source identification of dogs, animal birth control program and proper surveillance are necessary. Sustainable implementation of programs to manage dog population, dog bite management and awareness raising among population can bring out fruitful result in this situation. Inhumane killing of dogs to reduce the number can never be a permanent solution. Vaccinating dogs is the most effective strategy suggested by experts. Therefore, it is not too late to implement action plans with regular monitoring and evaluation for the sake of human and animal health.

Keywords: Roaming dogs, Public health, Threat, Rabies, Vaccination

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Received: 16 March 2017
Accepted: 17 May 2017
ePublished: 27 August 2017



Dogs that are not dependent on any person or group for food and live totally unrestricted life can be defined as stray dogs, though the definition may differ from country to country. In Bangladesh, it is estimated that a vast number (64%) of dogs are stray dogs. Another 30% of the dogs are estimated as neighborhood dogs, they are also unrestricted. A Catch-Neuter-Vaccinate-Release (CNVR) program reported that 18585 dogs lived in Dhaka city (52 dogs/km²) in 2015.¹ Most of the dogs are not vaccinated. Even the dogs which are owned by a person (pets) are not vaccinated or registered in majority of cases as it is a hectic process to get the vaccination certificate from the officials. Therefore, there are an uncountable number of dogs roaming in the cities of Bangladesh and most of them are not vaccinated.²

Dogs are roaming around in public places everywhere in the city, surfing the garbages for food which is a common scenario. In early 2013, Australian photographer and animal rights advocate Sam Edmonds quoted, "Homeless children and stray dogs are best friends in Bangladesh."³ In slums, children are often observed playing with the dogs. Even at midnight, one can hear the barking sound of dogs. Those are not an isolated scenario in the cities only,

it is common in the rural part of the country as well. Those free roaming dogs pose serious threat to public health and safety which is a neglected issue.

Wildlife experts have suggested ten common problems that can be caused by stray dogs. Briefly these problems are as follows: (1) They can cause collision while running in the road and cause injury to the travelers and also to themselves; (2) They tend to defile and sully as no one is there to take care; (3) They can cause harm to home pets (e.g. rabbits and cats); (4) they open garbage bin bags and scatter all over the street, (5) They spread fleas around living area or die of illness leaving horrible rotting odor; (6) They may bite someone; (7) They prefer to roam in packs that might cause danger; (8) They tend to bark, howl and involve in fight with other dogs; (9) They might spread rabies causing human death; and (10) They might bite other dogs and themselves when they fight amongst.⁴

Those listed problems are usual phenomena in our country context as well. In the highway, smashed dead bodies of dogs are commonly seen every day. Dog biting is also common. Daily 350 to 400 dog bite victims are provided with free treatment reported by Infectious Disease Hospital, Dhaka.⁵ Each year, more than 300000 people are given post-exposure prophylaxis for rabies while many of them remain

untreated and die.⁶ Dog bites are common due to increased number of stray dogs. The situation is common everywhere around the world, even in the developed countries. In America, 4.5 million dog bites occur each year which is 1.5% of the total population.⁷ Incidents of dog bites are reported in same fashion by other countries as well. Therefore, existence of large number of stray dogs is seriously a public health threat in Bangladesh.

Dogs are the reservoir of rabies. Most of the cases of rabies are transmitted due to stray dogs in Bangladesh.⁶ According to the World Health Organization (WHO) estimation, 60 000 people on average die of rabies annually and in more than 99% of all cases, the virus is transmitted via dogs. Four out of 10 rabies deaths occur in children.⁸ In Bangladesh, 2000-2500 people are killed every year by rabies, ranking third in the world estimated by Hossain et al.⁹ Treatment is also costly. On average, US\$32 to US\$92 is expended per individual for rabies treatment. Moreover, vaccination of dogs and prophylaxis are also costly.¹⁰

Compared to other communicable disease, rabies is completely preventable. But it is neglected because the disease occurs in extremely poor population.¹¹ Rabies can be eliminated by vaccinating dogs, resulting in breaking chain of transmission. Dog bite management (DBM) is important to reduce rabies-related deaths. Steps have been taken to eliminate rabies by 2020.¹² But this is not an easy task to do. Bangladesh lacks well equipped surveillance system for rabies. Multi-sectoral collaboration is essential in each step of the program and establishing one health approach engaging human health and animal health to control rabies.¹¹ Regular and strong monitoring and evaluation of the undertaken programs are also necessary.

What can be done to overcome those problems caused by free roaming dogs? Is it too late? City corporation and municipality often kill dogs to reduce their number. But unplanned killing is not scientifically fruitful. Government has taken steps to control dog population. NGOs like Obhoyaronno-Bangladesh Animal Welfare Foundation (OBAWF) are working hand to hand with the government to stop culling of dogs recommending humane methods. Responsible ownership, licensing of dogs, reproductive control, environmental control and proper removal and handling are some of the steps suggested by government to control dog population.¹³ Are they implemented properly? The question remains a great concern. Appreciable steps have been taken in the recent years in Bangladesh. Sustainability of the programs is demanded to eliminate rabies and controlling the dog population to prevent other health hazards. Experts suggested that the most profitable

and cost-effective intervention is vaccinating 70% of the dog population.¹⁴ Identifying the sources of stray dogs and the dynamics of the dog population are also important control measures. Animal birth control programs also offer a long term solution by controlling rabies and many other diseases and less public nuisance.² Social mobilization through awareness raising, community participation and partnership building can become cost-effective strategy. In this regard, following the examples of developed countries could be helpful in some ways. Therefore, Duty goes to the public also to grow tolerance and deal with dogs humanly for the sake of own health, animal health and healthy environment to live in. Moreover, raising community awareness by providing educational programs on dog behavior, child-dog interaction and first-aid management of dog bite can help to minimize the serious consequences of dog biting. To reduce the incidence of dog bite, stray dog population control and proper surveillance program on dog bite monitoring are highly recommended.

Ethical Approval

Not applicable.

Conflict of Interest Disclosures

None.

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How to cite the article: Rahaman KS. Free Roaming dogs: a threat to public health. *Int J Epidemiol Res.* 2017;4(3):182-184. doi: 10.15171/ijer.2017.01.