3.3. Costs and Funding

This section contains information on the following:

3.3.1. How much is a dog vaccination programme going to cost?

The cost of dog vaccination campaigns following a central-point vaccination strategy (which is the most cost-effective strategy) typically ranges between $1.19 - 4.27 US [1] per dog vaccinated in a range of rural and urban settings as shown in these studies. This includes consumable costs (vaccine, syringes, needles, certificates, registers, collars, stationery), delivery (staff costs, transport), storage (fridges, cool boxes), and societal costs (days of work lost). Costs of house-to-house vaccination campaigns tend to be more expensive and vary widely between different communities, but may be necessary in some situations to reach sufficient vaccination coverage. There may be opportunities to reduce costs, for example, through involvement of volunteers or community assistants in the vaccination campaign (described here), and careful consideration of logistics and transport costs. Well planned synchronized campaigns (described here) may also reduce costs.

Photo courtesy of Serengeti Carnivore Disease Project

[1] United States

3.3.2. What are the costs involved in sterilization programmes?

The cost of surgical sterilization varies significantly with country, mainly due to differences in staff and drugs costs, and also depending on the number of animals being sterilised (e.g. significant savings can be made in high-throughput systems). In a range of medium to high-throughput systems based in developing world locations, the costs per surgical sterilisation was found to range from $3 - 15 US [1] for the medicines and consumables, at an average of $7.50 US. The full costs (including

veterinarians and veterinary support staff, clinic running costs, all medicines and consumables) ranged from $10 – 52 US, with an average of $30 US per sterilisation. Variation in clinic running costs was affected by clinic type: mobile clinics have benefits because they can reach a wider population of animals but they are more expensive to run than static clinics.

[1] United States

3.3.3. What are the costs associated with post-exposure treatment?

The total cost of an average PEP [1] course typically ranges between $40 – 49 US [2] in Africa and Asia as shown in this study, but costs could be much higher in certain settings. These estimates include the cost of biologicals and of their administration (materials for injection such as syringes, needles, swabs, etc. and staff salaries), and patient costs (transport costs to and from medical facilities and loss of income). Click here to view another study that quantified the economics of rabies control in dogs and humans.

Photo courtesy of Serengeti Carnivore Disease Project

[1] Post-exposure prophylaxis

[2] United States

3.3.4. To what extent is rabies prevention and control a priority and has secure funding?

In the majority of rabies-endemic countries rabies is often not considered a priority because information on its local and global burden and impacts is lacking. This has lead to limited resources being allocated to rabies control. However, it is now globally recognised that rabies greatly affects human and animal health sectors as shown in these studies. National and international policy makers should therefore be informed about the burden of rabies and the need for well-planned and sustained rabies control efforts and allocation of adequate resources.

3.3.5. What sources of funding might be available for dog rabies control?

Funding for dog rabies control can come from many different sources:

- **Government funding** - Usually comes through the Veterinary Services, the Ministry of Health and/or other agencies of the public health sector. Strong interaction and collaboration

between these two sectors can result in optimal use of resources since properly implemented mass vaccination of dogs can lead to large savings to the public health sector because of reduced demand for costly human vaccines and biologicals. Therefore, the design of interministerial financing mechanisms integrating both veterinary and public health sectors could provide a sustainable mechanism for rabies control. Because rabies outbreaks can affect tourism and animal welfare, additional funding could be sought through Ministries of Tourism and Natural Resources. Many governments have emergency funds available for unexpected outbreaks. If rabies is a notifiable disease and therefore it is subject to particular laws and controls, the government accepts responsibility and government funding should be given priority. See also this section describing which factors are important in deciding whether a disease should be notifiable.

- **Local government funding** may be available.
- **Local businesses and trusts**.
- **Dog-related industries** (pharmaceutical, pet food and pet insurance) may be willing to support the programme either financially or by providing resources (e.g. food, vaccines or medicines).
- **External organizations** (e.g. international and regional development organizations, international grant-making bodies etc.) may provide funding for specific project costs or workshops, although they will unlikely support long-term running costs.
- **NGOs** [1] working in animal welfare, human and animal health, wildlife conservation (where appropriate).
- **Universities** may provide funding or non-financial resources such as infrastructure, manpower and expertise.
- **Private donors**.
- **Dog owners** – Charging dog owners for vaccination during campaigns is not recommended as it generally results in failure to reach a sufficiently high vaccination coverage to control the disease. For example, in most of Africa the reduced provision of free veterinary services, including dog vaccination, due to a push for the privatisation of public services, has resulted in drastic reductions in vaccination coverage. This has mostly affected lower income urban and rural communities that are mostly at risk of being exposed to rabid dogs. Click here to view studies comparing owner-charged and free vaccination campaigns. Other mechanisms for charging dog owners, for example through dog registration and establishment of community/village funds, could be considered (CASE STUDY PHILIPPINES).
- **Emergency funding** (outbreak situation or introduction into free areas). The EU [2] and UK [3], for example, have emergency plans/financial packages to deal with disease outbreaks, which could potentially be supported by farmers tax.

[1] Non-governmental organization

[2] European Union

[3] United Kingdom

3.3.6. What resources are needed to set up a rabies control programme?

The resources required will vary from country to country depending on the infrastructure already in place. They will generally include: capital equipment (e.g. vehicles, motorbikes, bikes, refrigerators, fluorescence microscopes etc.), fuel, personnel, disposables (e.g. for vaccination, laboratory

analyses, surgical sterilization etc.), vaccine (animal and human), funds to support local subsistence and allowances of personnel involved, funds for meetings, training and community sensitization (including development of educational material), and office supplies if a rabies control programme office is established to ensure effective coordination of the programme.

3.3.7. How is the budget determined?

Before determining the budget, data on existing in-country operational capacity (i.e. available resources such as pre-existing diagnostic and medical facilities, trained personnel, inventories of government capital equipment and infrastructure for vaccine storage in each facility) should be compiled. The budget should be determined for each activity planned and all responsible agencies should be involved as funds for certain activities could be sought through specific agencies.