



No. 5.2 Livestock Programmes: Vaccination

What is vaccination?

Vaccination programmes *prevent the contraction and spread of infectious diseases* by providing animals with immunity against pathogenic microbes. Vaccination programmes prevent mass animal loss, risks to human health, market bans, and reduced market value and animal productivity.

Vaccination programmes contribute to maintaining animal health in conditions where animals can be more susceptible to parasites or where parasites thrive.

When implemented in a timely fashion, before animals are too emaciated, parasitic control can significantly improve the survival chances for treated stock.

An understanding of seasonality in the intervention area is crucial in vaccination campaigns.

Such campaigns should be organised in consultation with any existing local Governmental technical and

veterinary services, where possible utilising or supporting these services to avoid duplication, and to encourage sustainability.

Table 1 outlines some of the advantages and disadvantages or challenges of this kind of humanitarian response.



Fig. 1: Pastoralists herd their cattle ready for vaccination in Mali (Credit: Dave Clark/OXFAM)

When is it appropriate to do vaccination programmes?

Vaccination programmes can be implemented during the **alert phase** of a livelihoods emergency or in the **early phase** of an outbreak or as an additional component to a re-stocking or fodder programme. It is appropriate to implement them when:

- The campaign contributes to controlling an outbreak of livestock disease;
- Beneficiary communities are sensitised to the relevance of vaccination and on the sanitary prophylaxis measures necessary to control the epidemic;
- There is strong logistical assistance and compliance of the cold chain (i.e., for the storage, handling and distribution of vaccines);
- The project is of sufficient scale to make an impact on the epidemic and animal health;
- The status of the animals, the season and migration patterns permit vaccination (sufficient animals of the appropriate health status are available at the right time); and
- Local veterinary services support/approve of the intervention and allow for the import of vaccines.

Table 1: Advantages and disadvantages or challenges of implementing vaccination programmes

Advantages	Disadvantages/challenges
<ul style="list-style-type: none"> • Prevent/reduce: (a) animal losses; (b) market bans for infected animals or animal products; (c) reduction in animal productivity; and (d) health risks to humans • Improve animal resistance in stressful conditions • Relatively easy/quick to implement, highly visible, and popular with beneficiaries • Cost-effective—can be done on a very large scale if well organized and if animals are accessible • Good complementary programme to other livestock programmes (de-/re-stocking, etc.) 	<ul style="list-style-type: none"> • Likely to need to be done annually for most animal diseases • Difficult to sustain when there are only weak local government veterinary services • Free vaccination can undermine normal services where payment is expected • Their importance not always understood by herders • Need to be of sufficiently large scale enough to have an impact • Vaccines are not always available and animals are not always accessible (e.g., nomadic groups)

What are the highest animal health risks in developing countries?

The World Organisation for Animal Health (OIE) has a so-called 'A list' of transmittable diseases that are likely to spread beyond national borders and that have severe health and socio-economical consequences. The list is regularly updated and available on OIE's website (www.oie.int). Among these diseases there are Rinder Pest, Contagious Bovine Peri-Pneumonia and Foot and Mouth disease that require close monitoring.

What are the procedures and resources that need to be considered in vaccination programmes?

In addition to the usual project management standards, the following criteria must be present for a vaccination programme to be viable:

- Information on disease type(s), development and methods of control, any risks to humans;
- Government livestock policies and regulation;
- Areas to be covered, number of animals to be vaccinated and vaccine/other material sources;
- Modality of the vaccination (free or subsidised);
- Cold chain resources (e.g., ice, cold boxes) and mobile options if required;
- Extensive sensitisation of the project through various communication means (e.g., radio);
- Monitoring procedures to count animals vaccinated and infection rates; and,
- Linkage with local government services (administration, logistics, long-term support, sustainability).

What are the desired outputs/outcomes of a vaccination programme?

Vaccination programmes have featured in numerous Oxfam GB emergency interventions. For instance, in the Afar region of Ethiopia, consecutive years' drought from 2002 forced livestock to migrate for food and water. Poor livestock condition was worsened by a lack of veterinary services, threatening the livelihoods of the region's pastoral households. In response, Oxfam GB helped provide supplementary feed to breeding cattle, veterinary support (including vaccination) and goat re-stocking. There have been other, innovative approaches to vaccination, including an ICRC programme using vouchers (Box 1).

Expected vaccination programme outputs/outcomes include:

- Protection of pastoral and agro-pastoral livelihoods;
- Avoidance or removal of market bans, therefore maintaining marketing opportunities;
- Protection of human lives from animal-transmitted diseases;
- Improved animal health, and,
- Increased knowledge of animal health care practices (via sensitisation and training).

Box 1: Case study—Livestock vaccination through voucher schemes

If not directly implementing vaccination programmes, NGOs can support community-based animal health workers (CAHWs) or sub-contact local actors to provide treatments and vaccinations, usually given free of charge. To overcome some of the problems associated with free distribution of veterinary drugs, ICRC has piloted a voucher scheme in northwest Kenya. ICRC gave vouchers to selected families that they could exchange for specific types of treatment provided by private CAHWs and veterinary assistants, plus their service charge, which was provided by a private veterinarian. In turn, ICRC re-imbursed the vouchers plus the additional service charges to the private veterinarian. What makes this alternative approach to veterinary service very promising is the involvement of the private sector.

(Source: Mutungi, P. 2005. 'External Evaluation of the ICRC veterinary vouchers system for emergency intervention in Turkana and West Pokot Districts' ICRC, Nairobi)

Where can I find further reading and more detailed information?

Oxfam EFSL Rough Guides on Livestock Programmes <ul style="list-style-type: none">– 5.1 Livestock Systems– 5.3 De-stocking and 5.4 Re-stocking	Information on livestock health: <ul style="list-style-type: none">– The World Organisation for Animal Health www.oie.int– Vet Aid www.vetaid.org
Livestock Emergency Guidelines and Standards (LEGS) www.livestock-emergency.net	CIRAD – Agricultural research for developing countries http://epitrop.cirad.fr

Who can I contact for more information and guidance?

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