

PARTICIPATORY EPIDEMIOLOGY METHODS FOR FOOT AND MOUTH DISEASE SURVEILLANCE

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Participatory epidemiology (PE) is the application of participatory rural appraisal techniques to epidemiological studies and disease surveillance. The use of PE techniques in disease surveillance is termed participatory disease surveillance (PDS), a decision-oriented approach for the collection of epidemiological intelligence. In PDS, surveillance is defined as information for action. The techniques of PDS were first developed as part of the global eradication of rinderpest. Participatory surveillance made significant contributions to the program by uncovering some of the last foci of disease. Since that time, PDS has been adopted by several official veterinary services around the world as a form of targeted surveillance in national control programs. Surveillance applications have included avian influenza, classical swine fever, peste des petits ruminants, Rift valley fever and foot and mouth disease (FMD).

The flexibility, timeliness and sensitivity of PE and PDS can enhance the effectiveness of surveillance programs in both developed and developing country contexts. The capacity building process to establish PE relies on consultation between national stakeholders to conceptualize national epidemiological objectives, formulate the components of the comprehensive epidemiological program and then to build a training program to develop personnel with the key skills to put the research and surveillance plan in action.

The Participatory Epidemiology Network for Animal and Public Health (PENAPH) has been established to help meet the demand for enhancement of epidemiological services. It does this through support for capacity building in PE, helping to capture lessons on good practice and to carrying out research to refine approaches for solving epidemiological problems. PENAPH takes an ecohealth approach and is built on a core partnership of seven complimentary organizations. These are the World Organisation for Animal Health, the UN Food and Agriculture Organization, the Interafrican Bureau for Animal Resources of the African Union, the International Livestock Research Institute, *Vétérinaires sans Frontières* – Belgium, Veterinarians without Borders/*Vétérinaires sans Frontières* – Canada and the Royal Veterinary College. The network is currently seeking partners in the public health field to further strengthen activities on the animal-human interface.

In regard to FMD, participatory epidemiology has been used in original research, targeted assessments, economic evaluations and national surveillance programs. Documented studies include Catley *et al* (2004) who used participatory techniques to explore the association between chronic heat intolerance and FMD. In Pakistan, FMD was included as a target disease for the national PDS system (Mariner *et al.*, 2001). The distribution and risk factors associated with persistence of FMD in Erzurum Province of Turkey have been documented (Admassu, 2005). Lastly, a participatory impact assessment leading to a cost benefit analysis for FMD control in a traditional livestock keeping community was completed in Western Upper Nile, southern Sudan (Barasa *et al.*, 2005). These studies indicate that FMD is a disease readily recognized by livestock owners and that cattle keeping communities are an important source of knowledge to inform disease control strategies and analysis and targeting of health policies.

References:

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