

REVIEW

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Control of paratuberculosis: who, why and how. A review of 48 countries

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Abstract

Paratuberculosis, a chronic disease affecting ruminant livestock, is caused by *Mycobacterium avium subsp. paratuberculosis* (MAP). It has direct and indirect economic costs, impacts animal welfare and arouses public health concerns. In a survey of 48 countries we found paratuberculosis to be very common in livestock. In about half the countries more than 20% of herds and flocks were infected with MAP. Most countries had large ruminant populations (millions), several types of farmed ruminants, multiple husbandry systems and tens of thousands of individual farms, creating challenges for disease control. In addition, numerous species of free-living wildlife were infected. Paratuberculosis was notifiable in most countries, but formal control programs were present in only 22 countries. Generally, these were the more highly developed countries with advanced veterinary services. Of the countries without a formal control program for paratuberculosis, 76% were in South and Central America, Asia and Africa while 20% were in Europe. Control programs were justified most commonly on animal health grounds, but protecting market access and public health were other factors. Prevalence reduction was the major objective in most countries, but Norway and Sweden aimed to eradicate the disease, so surveillance and response were their major objectives. Government funding was involved in about two thirds of countries, but operations tended to be funded by farmers and their organizations and not by government alone. The majority of countries (60%) had voluntary control programs. Generally, programs were supported by incentives for joining, financial compensation and/or penalties for non-participation. Performance indicators, structure, leadership, practices and tools used in control programs are also presented. Securing funding for long-term control activities was a widespread problem. (Continued on next page)

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