

Preventing Brucellosis in Bosnia and Herzegovina

The challenge...

The economy of Bosnia and Herzegovina depends significantly on agriculture, which provides employment for approximately 20% of the country's workforce and contributes 10% of the total GDP of the country. The national animal population is estimated to be 458 000 cattle, 1 125 000 sheep and goats and 529 000 pigs. However, the prevalence of transboundary animal diseases (TADs) in Bosnia and Herzegovina has increased due to a lack of consistency in the country's disease control strategies. Zoonotic TADs, which can easily be transmitted to humans, are of particular concern. Lack of proper control measures for brucellosis in Bosnia and Herzegovina, for example, led to the sudden spread of the disease among the human population, reaching a peak of approximately 1000 cases in 2008.

The project...

As the primary source of brucellosis is farm animals, especially sheep and goats, early disease detection using nuclear-related diagnostic platforms, as well as the upgrade of epidemiological strategies, became a priority for the State Veterinary Office and the entire veterinary service. An IAEA technical cooperation project supported the upgrade of laboratory capacities and the implementation of standardized protocols. A strategically important epidemiological team, competent to design and enforce scientifically justified epidemiological models for the control of brucellosis and other TADs in the country, was designated and trained.



The impact...

As a result of the project, a disease control strategy based on quantitative epidemiology methods was developed and implemented to enhance Bosnia and Herzegovina's disease surveillance and control system. Today, samples collected under the established surveillance strategy are submitted to regional screening laboratories, and samples from animal flocks that test positive are further processed at two reference laboratories. The surveillance results are reported to the competent authorities for further action, such as the removal of diseased animals. The new system has improved the capacity of the State Veterinary Service to detect, control or eradicate brucellosis and has established a model for other TADs. A network of advanced epidemiological units has been set up, and standard and harmonized laboratory techniques and diagnostic protocols are being implemented.

As a result of the TC project, Bosnia and Herzegovina is now better able to ensure the safety of its livestock and population.