

Brucellosis in Ruminants in two Counties of Yunnan, China and the use of an Integrated Approach for Effective Control

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Yiliang, Source, Unger 2012

Introduction

Brucellosis is an increasing production and public health concern in many countries of Asia including China. Challenges for an effective control include lack of collaboration between sectors or uncontrolled animal movement (among others). Yunnan Province of China is at particular risk as ruminants are increasingly introduced from other parts of China e.g. Inner Mongolia, a known high prevalence area in a response to a higher demand for milk. To face this challenges, new integrated approaches are needed such as Ecohealth to support transdisciplinary collaboration versus silo thinking, the latter rather common in the top down animal health control system of China. The presented study was part of an EcoHealth project implemented between 2011 and 2013 in two counties of Yunnan.

Materials and methods

Approach: Interdisciplinary research (Public Health, Vets, Animal Science)

Study area: Yiliang county (peri-urban, supplying milk to Kunming); Mangshi county (bordering Myanmar, high proportion of ethnic minorities) (Fig 1)

Tools used: Focus Group Discussions (8 in each county): Villagers with & without ruminants
Interviews: Village vets (6), health workers, and butchers (each 8)
Bio-sampling (bulk milk): Mangshi (36, dairy buffalo backyard farms); Yiliang (38, dairy backyard farms) & 1 cooperative farm
Questionnaire: Dairy management and risk factors



Figure 1: Study locations, Yiliang and Mangshi county

Key results

- Functioning interdisciplinary research team established and involvement of relevant actors/authorities facilitated
- 3/38 (7.9%) dairy backyard farms and 3 of 5 individual farms in one cooperative farm positive tested (bulk milk) for brucellosis (Yiliang). All bulk milk samples were negative for Mangshi
- Low awareness & perception on zoonoses (including brucellosis) of all interviewed groups/actors, lowest in butchers
- Risky management practice of cattle/buffalo with abortion history and/or of abortion materials (e.g. improper discharge)
- Milk usually pasteurised but some ethnic groups stated consumption of raw meat "Sapie" or unpasteurized milk
- Cooperation between public health and vet sector not common

Lessons learned

- An integrated research team can be established but requires strong support of local authorities (here: Agriculture Department and Health Department of Yunnan)
- Interdisciplinary team efforts were recognized by FAO country office, Beijing; team was invited to a high ranked stakeholder meeting to present their experiences and results
- Brucellosis identified as an emerging public health hazard (Yiliang)
- Outcome mapping (an evaluation tool) indicated changes in targeted groups due to dissemination campaigns, in particular on zoonoses knowledge/awareness and willingness to share information between sectors (vet and public health)



Awareness campaign, source, YAGAS, 2013



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