

PANORAMA

Thematic portfolio



Controlling bovine tuberculosis: a One Health challenge



PERSPECTIVES

DOSSIER

AROUND THE WORLD

In recognition of the adverse impacts of bovine tuberculosis (bTB), a Brucellosis and Tuberculosis Eradication and Control (BTEC) programme began in Fiji during the 1980s and has since been sustained by government funding and industry cooperation.

A retrospective study of bTB data from 1999 to 2014 from the BTEC programme was carried out with support from the Government of Fiji ([see the original research article entitled *A retrospective study on bovine tuberculosis in cattle in Fiji: study findings and stakeholder responses* and published in *Frontiers in Veterinary Science* \[1\]](#)). It confirmed that bTB is well established in dairy cattle farms in two provinces of Central Division on the main island of Viti Levu, and suggested that the disease is also present among cattle in all or most provinces across three of the four Divisions in the country: Central, Northern and Western⁽¹⁾. Despite sustained efforts, disease reduction and containment has not been achieved. Reasons include the appropriateness of the protocol and quality assurance when performing the single intradermal test (SID) in cattle, lack of standard procedures for data collection and evaluation, and unregulated movements of stray and owned cattle.

The Fijian Ministry of Agriculture (MOA) actively responded to these findings by revising the use of SID and providing refresher training for staff, as well as imposing cattle movement restrictions by the Biosecurity Authority of Fiji. Furthermore, a stakeholder forum in May 2017 formulated and endorsed a new Fiji BTEC strategy.

Concerned about the potential contribution of zoonotic tuberculosis to the human tuberculosis burden in Fiji, due to practices such as raw milk consumption and levels of extra-pulmonary tuberculosis, the MOA and Fiji Ministry of Health and Medical Services, with support from the University of Sydney Marie Bashir Institute, will conduct a pilot geospatial analysis of human tuberculosis cases and bTB-infected cattle farms to identify high-risk areas for bTB exposure. The contribution of bTB to extra-pulmonary tuberculosis cases in Fiji is unknown because routine diagnostics do not distinguish between pathogen species [2].

Bovine tuberculosis remains a focus for disease control by the Fijian Government. This case study highlights the challenges for bTB control and underlines the importance of technical and social considerations when trying to achieve success in disease control in Fiji.

(1) Fiji is divided into four major divisions (Central, Eastern, Northern, Western) which are further divided into a total of 14 provinces.

DOI of the original research article published in *Frontiers in Veterinary Science*:
<https://doi.org/10.3389/fvets.2018.00270>

DOSSIER

A retrospective study on bovine tuberculosis in cattle in Fiji

(Abstract from manuscript)

KEYWORDS

#bovine tuberculosis, #Brucellosis and Tuberculosis Eradication and Control Programme (BTEC), #disease control, #extra-pulmonary tuberculosis

(EPTB), #Fiji, #Frontiers in Veterinary Science, #surveillance.

AUTHORS

Elva Borja^(1,2), Leo F. Borja⁽³⁾, Ronil Prasad⁽³⁾, Tomasi Tunabuna⁽³⁾ & Jenny-Ann L.M.L. Toribio^{(1)*}

(1) University of Sydney, Australia.

(2) Vet Essentials, Fiji.

(3) Ministry of Agriculture, Fiji.

* Corresponding author: jenny-ann.toribio@sydney.edu.au

The designations and denominations employed and the presentation of the material in this article do not imply the expression of any opinion whatsoever on the part of the OIE concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.

The views expressed in this article are solely the responsibility of the author(s). The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by the OIE in preference to others of a similar nature that are not mentioned.



REFERENCES

1. Borja E., Borja L.F., Prasad R., Tunabuna T. & Toribio J.A. (2018). – A retrospective study on bovine tuberculosis in cattle on Fiji: study findings and stakeholder responses. *Front. Vet. Sci.*, **5**, 270. <https://doi.org/10.3389/fvets.2018.00270>.
2. Ministry of Health and Medical Services (MOH&MS) (2016). – Tuberculosis country profile 2016. Suva, Fiji.

The OIE is an international organisation created in 1924 with a mandate from its 182 Member Countries to improve animal health and welfare. Its activities are permanently supported by 301 centres of scientific expertise and 12 regional offices with a presence on every continent.



Follow the OIE: www.oie.int



@OIEAnimalHealth



World Organisation for Animal Health - OIE



OIEVideo



World Organisation for Animal Health



World Organisation for Animal Health (OIE)



Digital version: www.oiebulletin.com



WORLD ORGANISATION FOR ANIMAL HEALTH

Protecting animals, preserving our future

12, rue de Prony - 75017 Paris, France

Tel.: +33 (0)1 44 15 18 88 - Fax: +33 (0)1 42 67 09 87 - oie@oie.int