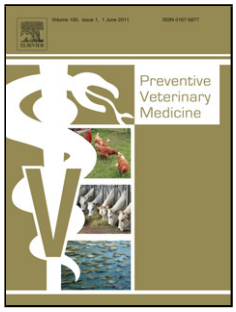

Title: Surveillance of cattle health in the Netherlands: monitoring trends and developments using routinely collected cattle census data

Author: I.M.G.A. Santman-Berends H. Brouwer-Middelesch L. Van Wuijckhuise A.J.G. de Bont-Smolenaars G. van Schaik

PII: S0167-5877(16)30427-5
DOI: http://dx.doi.org/doi:10.1016/j.prevetmed.2016.10.002
Reference: PREVET 4112

To appear in: *PREVET*

Received date: 18-4-2016
Revised date: 30-9-2016
Accepted date: 4-10-2016

Please cite this article as: Santman-Berends, I.M.G.A., Brouwer-Middelesch, H., Van Wuijckhuise, L., de Bont-Smolenaars, A.J.G., van Schaik, G., Surveillance of cattle health in the Netherlands: monitoring trends and developments using routinely collected cattle census data.Preventive Veterinary Medicine http://dx.doi.org/10.1016/j.prevetmed.2016.10.002

Surveillance of cattle health in the Netherlands: monitoring trends and developments using routinely collected cattle census data

I.M.G.A. Santman-Berends[a,*] , H. Brouwer-Middelesch[a], L. Van Wuijckhuise[a], A.J.G. de Bont-Smolenaars[a], G. van Schaik[a,b]

[a]GD Animal Health, PO box 9, 7400 AA Deventer, the Netherlands

[b]Department of Farm Animal Health, Faculty of Veterinary Medicine, Utrecht University, PO Box 80151, 3508 TD Utrecht, the Netherlands

[*]Corresponding author:
Inge Santman-Berends
Department of Epidemiology, GD Animal Health
PO Box 9 7400 AA Deventer, the Netherlands
Tel.: +31570660546 ; Fax: +31570660354
E-mail: i.santman@gdanimalhealth.com

Abstract

Since 2002, a national cattle health surveillance system (CHSS) is in place that consists of several surveillance components. The CHSS combines enhanced passive reporting, diagnostic and post-mortem examinations, random surveys for prevalence estimation of endemic diseases and quarterly data analysis. The aim of the data-analysis component, which is called the Trend Analysis Surveillance Component (TASC), is to monitor trends and developments in cattle health using routine census data. The challenges that were faced during the development of TASC and the merits of this surveillance component are discussed, which might be of help to those who want to develop a monitoring and surveillance system that includes data analysis. When TASC was developed, there were process-oriented challenges and analytical related issues that had to be solved. Process-oriented challenges involved data availability, confidentiality, quality, uniformity and economic value of the data. Analytical issues involved data validation, aggregation and modeling. Eventually, the results had to provide information on cattle health that was intuitive to the stakeholders and that could support