



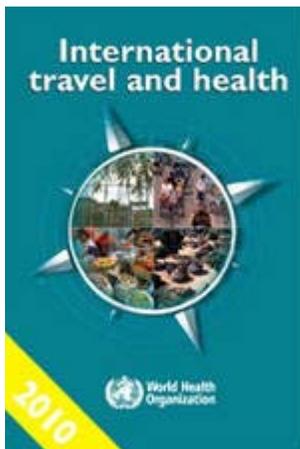
Centro de Documentación / Documentation Center

Objetivos/ Objectives

Identificar y atender las necesidades de información, adquisición, organización, almacenamiento, generación, uso y difusión de la información en salud pública veterinaria y proveer recursos bibliográficos técnicos-científicos al equipo de profesionales de la unidad y a los usuarios externos.

Identify and take care of the needs of information, acquisition, organization, storage, generation, use and diffusion of the information in veterinary public health and provide technical scientific bibliographical resources to the professional staff of the unit and to the users external.

Temas de interés general / Subjects of general interest



Travellers are thus exposed to a variety of health risks in unfamiliar environments. Most such risks, however, can be minimized by suitable precautions taken before, during and after travel. The purpose of this book is to provide guidance on measures to prevent or reduce any adverse consequences for the health of travellers.

This edition features a revised chapter 5 covering infectious diseases while chapter 6 now covers all vaccine preventable disease and vaccines. New information has also been included for HIV/AIDS travellers in Chapter 9. Information on yellow fever risk and vaccine requirements, malaria risk has been updated.

Chapters:

[Preface \[pdf 419kb\]](#)

[Chapter 1 \[pdf 498kb\]](#)

Health risks and precautions: general considerations

[Chapter 2 \[pdf 526kb\]](#)

Mode of travel: health considerations

[Chapter 3 \[pdf 546kb\]](#)

Environmental health risks

[Chapter 4 \[pdf 459kb\]](#)

Injuries and violence

[Chapter 5 \[pdf 660kb\]](#)

Infectious diseases of potential risk for travellers

[Chapter 6 \[pdf 663kb\]](#)

Vaccine-preventable diseases and vaccines

[Chapter 7 \[pdf 580kb\]](#)

Malaria

[Chapter 8 \[pdf 507kb\]](#)

Exposure to blood or other body fluids

[Chapter 9 \[pdf 557kb\]](#)

Special groups of travellers

[Chapter 10 \[pdf 505kb\]](#)

Psychological Health

[Country list: yellow fever vaccination requirements and recommendations; and malaria situation \[pdf 612kb\]](#)

[Annexes \[pdf 589kb\]](#)

[Acknowledgements \[pdf 428kb\]](#)

Informaciones disponibles en formato electrónico / Information available in electronic format

Animales - Acupuntura / Animals - Acupunture



Acupuntura: histórico, bases teóricas e sua aplicação em Medicina Veterinária

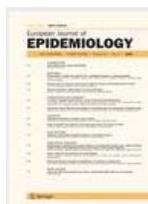
Scognamillo-Szabo MVR, Bechara GH
Cienc Rural 2010 Fev; 40 (2): 461-470

A acupuntura (AP) é uma técnica terapêutica empírica desenvolvida em uma cultura oriental e que utiliza pensamento mágico (linguagem pré-científica) em seu raciocínio. É uma terapia reflexa que utiliza a estimulação de pontos específicos do corpo com objetivo de atingir um efeito terapêutico ou homeostático. A AP preconiza que a saúde é dependente das funções psico-neuro-endócrinas, sob influência do código genético e de fatores extrínsecos como nutrição, hábitos de vida, clima, qualidade do ambiente, entre outros. O presente artigo faz uma breve revisão sobre a filosofia da AP, seus marcos históricos na China e no Ocidente, a história da AP veterinária no Brasil e no mundo. Também aborda a prática da AP, incluindo as formas de diagnóstico, a definição do protocolo de tratamento, os métodos de estimulação dos pontos, o agulhamento de animais, suas indicações, contra-indicações e reações adversas.

Text in Portuguese

<http://www.scielo.br/pdf/cr/v40n2/a450cr1366.pdf>

Diseño Matemático – Epidemiología / Mathematical Modeling - Epidemiology



Mathematical modeling and the epidemiological research process

Chubb MC, Jacobsen KH
Eur J Epidemiol. 2010; 25 (1): 13-9

The authors of this paper advocate for the expanded use of mathematical models in epidemiology and provide an overview of the principles of mathematical modeling. Mathematical models can be used throughout the epidemiological research process. Initially they may help to refine study questions by visually expressing complex systems, directing literature searches, and identifying sensitive variables. In the study design phase, models can be used to test sampling strategies, to estimate sample size and power, and to predict outcomes for studies impractical due to time or ethical considerations. Once data are collected, models can assist in the interpretation of results, the exploration of causal pathways, and the combined analysis of data from multiple sources. Finally, models are commonly used in the process of applying research findings to public health practice by estimating population risk, predicting the effects of interventions, and contributing to the evaluation of ongoing programs. Mathematical modeling has the potential to make significant contributions to the field of epidemiology by enhancing the research process, serving as a tool for communicating findings to policymakers, and fostering interdisciplinary collaboration.

Text in English

<http://www.springerlink.com/content/v7413464k762607r/fulltext.pdf>

Envejecimiento – Población Animal / Ageing – Animal Population



Ageing in animal populations--an epidemiological perspective

Thrusfield MV

J Comp Pathol. 2010 Jan; 142 Suppl 1: S22-32

Major goals of epidemiology are estimation of disease morbidity and mortality and identification and quantification of the impact of risk factors. Age is a recognized risk factor, contributing to the occurrence of multifactorial diseases. Cohort, case-control and cross-sectional observational studies identify age and other putative risk factors and quantify their impact on disease occurrence by estimating relative risks and odds ratios. Ageing per se is not a key concern of epidemiologists, and detailed biological explanations of causal mechanisms may not be offered by the epidemiologist. Nevertheless, the relationships identified in epidemiological studies can offer practical solutions to disease prevention. Age also can confound relationships between disease and other putative risk factors and must be controlled during epidemiological study design and analysis, in order to avoid spurious causal inferences. Additionally, age can modify the effect of other risk factors, necessitating identification of such interactions and the differentiation of effect modifiers from confounders. Comparative epidemiology frequently compares human and animal populations. Meaningful comparisons can only be made by undertaking life span adjustment and age adjustment on animal study data, to address differences between the two populations stemming from different 'biological ages' and age structures, respectively.

Text in English

Fiebre Aftosa / Foot-and-Mouth Disease



Immune protection in animals: the examples of rinderpest and foot-and-mouth disease

Domenech J, Lubroth J, Sumption K

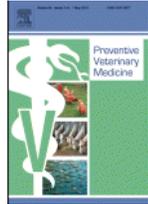
J Comp Pathol. 2010 Jan; 142 Suppl 1: S120-4

Fading immune protection in farmed animals may present a problem, particularly in free-ranging animals in nomadic and transhumant pastoral systems, where animals are not readily available for large-scale blanket vaccination programmes. Two veterinary examples of fading immune protection are discussed: rinderpest and foot-and-mouth disease (FMD). Both are devastating viral diseases of cattle that have a huge impact

on the farming economy. Both diseases can be controlled by vaccination, although the post-vaccination immunity afforded by the rinderpest vaccine is markedly different from that induced by FMD vaccines. These differences may in part explain the respective advancement of international eradication campaigns: while global eradication of rinderpest is imminent, FMD viruses are still actively circulating in many parts of the world.

Text in English

http://www.fao.org/ag/AGInfo/commissions/docs/Science_direct_article.pdf



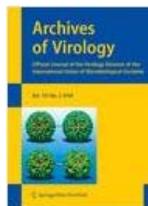
The impact of potential mitigation strategies on the predicted spread of foot and mouth disease in white-tailed deer in south Texas

Highfield LD, Ward MP, Laffan SW, Norby B, Wagner GG
Prev Vet Med. 2010 May; 94 (3-4): 282-88

The United States has been free of FMD since the 1920s. Faced with an incursion of FMD virus that might involve wildlife species, it is crucial that appropriate mitigation strategies be applied rapidly to control the disease. Disease spread models can be used to evaluate the design of optimal strategies. Using a previously developed susceptible-infected-recovered geographic automata model (Sirca) to simulate the spread of FMD through white-tailed deer populations in south Texas, we conducted a series of experiments to determine how pre-emptive mitigation strategies applied to white-tailed deer populations might impact the predicted magnitude and distribution of outbreaks following FMD virus incursion. Based on previously derived deer distributions in the two ecoregions found within the study area, simulated outbreaks were evaluated by comparing the median number of deer predicted to be infected and the median area predicted affected for a baseline scenario and 3 mitigation strategies: targeted cull, random cull and targeted depopulation buffer. Substantial differences were observed in the predicted magnitude of outbreaks both by mitigation strategy and by ecoregion: depending on the ecoregion, the creation of a targeted depopulation buffer could reduce the number of deer predicted infected by up to 52%, and the area affected by up to 31%. Results suggest that the outcome of an FMD incursion that involves wildlife species, such as white-tailed deer in south Texas, might depend on both where the incursion occurs and the type of pre-emptive mitigation strategy applied.

Text in English

Influenza Aviar / Avian Influenza



Development and evaluation of a one-step real-time RT-PCR assay for universal detection of influenza A viruses from avian and mammal species

Nagy A, Vostinakova V, Pirchanova Z, Cernikova L, Dirbakova Z, Mojzic M, Jirincova H, Havlickova M, Dan A, Ursu K, Vilcek S, Hornickova J
Arch Virol. 2010 Mar

The objective of our study was to develop and evaluate a TaqMan real-time RT-PCR (RRT-PCR) assay for universal detection of influenza A (IA) viruses. The primers and LNA-modified octanucleotide probe were selected to correspond to extremely conserved regions of the membrane protein (MP) segment identified by a comprehensive bioinformatics analysis including 10,405 IA viruses MP sequences, i.e., all of the sequences of the Influenza Virus Sequence database collected as of August 20, 2009. The RRT-PCR has a detection limit of approximately five copies of target RNA/reaction and excellent reaction parameters tested in four IA viruses reference laboratories. The inclusivity of the assay was estimated at both the bioinformatic and the experimental level. Our results predicted that this RRT-PCR assay was able to detect 99.5% of known human IA virus strains, 99.84% of pandemic influenza A (H1N1) strains, 99.75% of avian strains, 98.89% of swine strains, 98.15% of equine strains, and 100% of influenza A viruses of other origin.

Text in English (article in press)



What is the evidence of a role for host genetics in susceptibility to influenza A/H5N1?

Horby P, Sudoyo H, Viprakasit V, Fox A, Thai PQ, Yu H, Davila S, Hibberd M, Dunstan SJ, Monteerarat Y, Farrar JJ, Marzuki S, Hien NT
Epidemiol Infect. 2010 Mar

The apparent family clustering of avian influenza A/H5N1 has led several groups to postulate the existence of a host genetic influence on susceptibility to A/H5N1, yet the role of host factors on the risk of A/H5N1 disease has received remarkably little attention compared to the efforts focused on viral factors. We examined the epidemiological patterns of human A/H5N1 cases, their possible explanations, and the plausibility of a host genetic effect on susceptibility to A/H5N1 infection. The preponderance of familial clustering of cases and the relative lack of non-familial clusters, the occurrence of related cases separated by time and place, and the paucity of cases in some highly exposed groups such as poultry cullers, are consistent with a host genetic effect. Animal models support the biological plausibility of genetic susceptibility to A/H5N1. Although the evidence is circumstantial, host genetic factors are a parsimonious explanation for the unusual epidemiology of human A/H5N1 cases and warrant further investigation.

Text in English (article in press)

<http://journals.cambridge.org/action/displayFulltext?type=1&fid=7406028&jid=&volumeId=&issueId=-1&aid=7406020&bodyId=&membershipNumber=&societyETOCSession=>

Inocuidad de los Alimentos / Food Safety



Viruses in food: scientific advice to support risk management activities

FAO/WHO

This report draws attention to the threat of viruses as a risk to public health when they are present in food. Viruses require special attention because they behave differently from bacteria, and because currently used control measures typically either have not been validated and there is not a good understanding of their efficacy towards viruses, or are not effective in controlling virus contamination. Data from recent studies have shown that foodborne viral infections are very common in many parts of the world despite the measures already in place to reduce bacterial contamination.

The characteristics of foodborne viruses present new challenges for risk managers. It is important to note that there are clear differences in morphology, infectivity, persistence and epidemiology between viruses and the common foodborne bacteria. Control of viral hazards often requires measures different to those typically employed to combat bacterial hazards. Thus, an important consideration for risk managers is that current food hygiene guidelines, which have been optimized for prevention of bacterial infections, may not be effective for viruses. Another point for consideration is that mitigation of one virus would probably help in preventing other virus would probably help in preventing other viruses, as they often have a common source.

Text in English

http://whqlibdoc.who.int/publications/2008/9789241563772_eng.pdf



Zoonoses action plan salmonella monitoring programme: an investigation of the sampling protocol

Snary EL, Munday DK, Arnold ME, Cook AJ.
J Food Prot. 2010 Mar; 73 (3): 488-94

The Zoonoses Action Plan (ZAP) Salmonella Programme was established by the British Pig Executive to monitor Salmonella prevalence in quality-assured British pigs at slaughter by testing a sample of pigs with a meat juice enzyme-linked immunosorbent assay for antibodies against group B and C(1) Salmonella. Farms were assigned a ZAP level (1 to 3) depending on the monitored prevalence, and ZAP 2 or 3 farms were required to act to reduce the prevalence. The ultimate goal was to reduce the risk of human salmonellosis attributable to British pork. A mathematical model has been developed to describe the ZAP sampling protocol. Results show that the probability of assigning a farm the correct ZAP level was high, except for farms that had a seroprevalence close to the cutoff points between different ZAP levels. Sensitivity analyses identified that the probability of assigning a farm to the correct ZAP level was dependent on the sensitivity and specificity of the test, the number of batches taken to slaughter each quarter, and the number of samples taken per batch. The variability of the predicted seroprevalence was reduced as the number of batches or samples increased and, away from the cutoff points, the probability of being assigned the correct ZAP level increased as the number of batches or samples increased. In summary, the model described here provided invaluable insight into the ZAP sampling protocol. Further work is required to understand the impact of the program for Salmonella infection in British pig farms and therefore on human health.

Text in English

Insectos Vectores / Insect Vectors



Transmission blocking vaccines to control insect-borne diseases: a review

Coutinho-Abreu IV, Ramalho-Ortigao M

Mem Inst Oswaldo Cruz 2010 Fev; 105 (1): 1-12

Insect-borne diseases are responsible for severe mortality and morbidity worldwide. As control of insect vector populations relies primarily on the use of insecticides, the emergence of insecticide resistance as well to unintended consequences of insecticide use pose significant challenges to their continued application. Novel approaches to reduce pathogen transmission by disease vectors are being attempted, including transmission-blocking vaccines (TBVs) thought to be a feasible strategy to reduce pathogen burden in endemic areas. TBVs aim at preventing the transmission of pathogens from infected to uninfected vertebrate host by targeting molecule(s) expressed on the surface of pathogens during their developmental phase within the insect vector or by targeting molecules expressed by the vectors. For pathogen-based molecules, the majority of the TBV candidates selected as well as most of the data available regarding the effectiveness of this approach come from studies using malaria parasites. However, TBV candidates also have been identified from midgut tissues of mosquitoes and sand flies. In spite of the successes achieved in the potential application of TBVs against insect-borne diseases, many significant barriers remain. In this review, many of the TBV strategies against insect-borne pathogens and their respective ramification with regards to the immune response of the vertebrate host are discussed.

Text in English

<http://www.scielo.br/pdf/mioc/v105n1/01.pdf>

Leishmaniasis



Control of visceral leishmaniasis in Latin America: a systematic review

Romero GA, Boelaert M

PLoS Negl Trop Dis. 2010 Jan 19; 4 (1): e584

While three countries in South Asia decided to eliminate anthroponotic visceral leishmaniasis (VL) by 2015, its control in other regions seems fraught with difficulties. Is there a scope for more effective VL control in the Americas where transmission is zoonotic? We reviewed the evidence on VL control strategies in Latin America-diagnosis, treatment, veterinary interventions, vector control-with respect to entomological and

clinical outcomes. **METHODOLOGY/PRINCIPAL FINDINGS:** We searched the electronic databases of MEDLINE, LILACS, and the Cochrane Central Register of Controlled Trials, from 1960 to November 2008 and references of selected articles. Intervention trials as well as observational studies that evaluated control strategies of VL in the Americas were included. While the use of rapid diagnostic tests for VL diagnosis seems well established, there is a striking lack of evidence from clinical trials for drug therapy and few well designed intervention studies for control of vectors or canine reservoirs. **CONCLUSION:** Elimination of zoonotic VL in the Americas does not seem a realistic goal at this point given the lack of political commitment, gaps in scientific knowledge, and the weakness of case management and surveillance systems. Research priorities and current strategies should be reviewed with the aim of achieving better VL control.

Text in English

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2808217/pdf/pntd.0000584.pdf>



Evaluation of polymerase chain reaction in the routine diagnosis for tegumentary leishmaniasis in a referral centre

Fagundes A, Schubach A, Paula CC, Bogio A, Antonio LF, Schiavoni PB, Monteiro VS, Madeira MF, Quintella LP, Valete-Rosalino CM, Vasconcellos, Erica CF, Azeredo-Coutinho RBG, Pacheco RS, Marzochi MCA, Marzochi KBF

Mem Inst Oswaldo Cruz 2010; 105 (1): 109-112

The present study investigated the diagnostic value of polymerase chain reaction (PCR) performed in parallel to conventional methods at an American tegumentary leishmaniasis (ATL) referral centre for diagnosis. Accuracy parameters for PCR were calculated using 130 patients with confirmed ATL (ATL group), 15 patients established with other diseases and 23 patients with a lesion suggestive of ATL, but without parasitological confirmation (NDEF group). PCR showed 92.3% sensitivity, 93.3% specificity, a 99.2% positive predictive value and a 13.84 positive likelihood ratio. In the NDEF group, PCR confirmed ATL in 13 of the 23 patients, seven of whom responded to leishmaniasis treatment and six who presented spontaneous healing of the lesion. PCR should be included in the routine diagnostic procedures for ATL, especially for cases found to be negative by conventional methods.

Text in English

<http://www.scielo.br/pdf/mioc/v105n1/18.pdf>



Relato de caso autóctone de leishmaniose visceral canina na zona sul do município do Rio de Janeiro

Figueiredo FB, Barbosa Filho CJ, Schubach EY, Pereira SA, Nascimento LD, Madeira Mde F
Rev Soc Bras Med Trop. 2010 Feb; 43 (1): 98-9

Brazil is facing expansion and urbanization of American visceral leishmaniasis, with human and canine cases in several large-sized cities. This report describes an autochthonous case of canine visceral leishmaniasis in a nonendemic area in the municipality of Rio de Janeiro.

Text in Portuguese

<http://www.scielo.br/pdf/rsbmt/v43n1/a22v43n1.pdf>

Medicina Veterinária / Veterinary Medicine



Creación de una red virtual para la información y capacitación continua del personal de las ciencias veterinarias relacionado con la reducción de desastres

Gerardo Cañete Betancourt G, Chávez Quintana PR
REDVET 2010 Mar; 11 (03B)

El uso de las nuevas tecnologías de la información y las comunicaciones son factores indispensables para la distribución de la información científico técnica con mayor rapidez estrechando las distancias entre los diferentes grupos de usuarios relacionados con el tema de la reducción de riesgos veterinarios. La creación de una Red Virtual Nacional relacionada con la Medicina Veterinaria de Desastres, apoyará en gran medida a la actualización y capacitación continua, de distintas categorías de personas que actúan directa o indirectamente, en la reducción de desastres en el país y en particular, referente a las amenazas o peligros, que inciden sobre los animales, el hombre en el caso de las zoonosis y sobre el medioambiente. Aplicando principios de la ley de Metcalfe proporcionales a $2n$, que indica la fusión de varias redes grupales ubicadas en los municipios cabeceras de cada provincia del país.

Esta red consistirá en la unión de estas redes grupales a través de enlaces conmutados a una red WAN ya establecida en todo el territorio, favoreciendo la interacción de los diferentes grupos científicos de cada área de trabajo.

Text in Spanish

http://www.veterinaria.org/revistas/redvet/n030310B/0310B_MD01.pdf

Norovirus



First detection of porcine norovirus GII.18 in Latin America

Cunha JB, de Mendonça MC, Miagostovich MP, Leite JP

Res Vet Sci. 2010

Human (Hu) noroviruses (NoVs) circulate worldwide infecting people of all ages in developing and developed countries. Animal NoVs present some antigenic and genetic relationship to HuNoVs, although their zoonotic potential has not been established yet. Among animal NoVs, porcine (Po) NoVs are the most genetically related to HuNoVs. PoNoVs have only been detected in healthy finisher pigs in a few developed countries. Information about them lacks in developing countries. In this study 96 fecal samples from pigs of different ages from five farms in Rio de Janeiro State, Brazil were tested for NoVs. We report detection and genotyping by RT-PCR, nucleotide sequencing and phylogenetic analysis of partial polymerase and capsid regions of viral genome PoNoV genogroup II genotype 18 (GII.18) in one stool sample from a healthy finisher pig. This is the first report of PoNoV detection in Latin America and it supports the assumption that PoNoVs present a worldwide distribution.

Texto in English (article in press)

Protocose / Protothecosis



Protocose: uma doença emergente

Camboim EKA, Neves PB, Júnior FG, Medeiros JM, Riet-Correa F

Pesq Vet Bras 2010 Jan; 30 (1): 94-101

Protothecosis, caused by *Prototheca zopfii* or *P. wickerhamii*, is an emergent disease of human and animals. In cattle, *P. zopfii* is an important cause of environmental mastitis. In dogs and cats protothecosis is caused mainly by *P. zopfii*, causing cutaneous infections or a systemic form affecting many organs in dogs, and cutaneous infection affecting mainly the skin of the face and nose in cats. In humans, protothecosis, caused mainly by *P. wickerhamii*, occurs in three forms: cutaneous; olecranon bursitis; and disseminated. The lesion is usually localized in the site of inoculation in immunocompetent individuals; however, in immunocompromised patients, it can become widespread. Protothecosis caused by *P. wickerhamii* was recently reported in goats causing rhinitis and dermatitis of the face and pinna. This paper reviews microbiologic characteristics and susceptibility to antimicrobials of *Prototheca* spp., and the epidemiology,

clinical signs, pathology, diagnosis, treatment and control of protothecosis.

Text in English

<http://www.scielo.br/pdf/pvb/v30n1/v30n1a15.pdf>

Rabia / Rabies



Oral immunization of mice with rabies vaccine using different baits

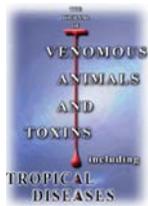
Salome G, Ramanjini Gowda PH

VetScan 2010; 5 (1): Article 60

Rabies vaccine was used for oral immunization in mice with the locally available baits like sand, pieces of coconut shell, pieces of chickpea and wood pieces along with the additives like gram flour and jaggery solution. The efficient chewing of the baits by the mice and rupture of the buccal mucosa produced significantly higher levels of antibody titers.

Text in English

http://www.vetscan.co.in/v5n1/oral_immunization_of_mice_with_rabies_vaccine_using_different_baits.htm



Retrospective analysis of post-exposure to human anti-rabies treatment in Botucatu, São Paulo State, Brazil

Ayres JA Paiva BSR, Barraviera B

J Venom Anim Toxins incl Trop Dis 2010

This analysis aimed to identify characteristics of accidents that would, probably, provoke rabies infection. A total of 14,409 survey questionnaires for surveillance of human rabies from the Brazilian Information System for Disease Notification (SINAN), from 2000 to 2005, were analyzed. Regarding demographics, it was observed that 7,377 (51.5%) of the victims were white, 4,458 (30.93%) were children and 8,008 (55.58%) were males. Urban cases were prevalent (88.10%) while dogs were the animals most frequently involved in accidents, in 11,700 cases (81.19%). Bites (84.35%) and scratches (19.15%) were the most prevalent exposure types, and occurred predominantly on victims' extremities (38.79%). The prophylactic measure taken in 6,179 cases comprised anti-rabies vaccine; of these victims, 421 (2.92%) showed systemic reactions while 693 (4.80%) reported no response. The importance of developing awareness in professionals that should correctly report post-exposure immunoprophylaxis cases is emphasized given the high number of individuals who receive this type of treatment annually.

Text in English (article in press)

http://www.scielo.br/pdf/jvatitd/2010nahead/aop11_10.pdf

Zoonosis / Zoonoses



Systematic review of surveillance systems for emerging zoonoses

Vrbova L, Stephen C, Kasman N, Boehnke R, Doyle-Waters M, Chablitt-Clark A, Gibson B, Brauer M, Patrick DM

2009

A systematic review of peer-reviewed articles that described and/or evaluated surveillance systems for emerging zoonotic diseases between 1992 and 2006 revealed that only 17 of 221 identified systems were evaluated. Only four of these used their evaluation results to examine the usefulness of their systems in

identifying outbreaks or cases of disease. This lack of evidence makes it difficult for decision-makers to choose surveillance initiatives that have been shown to be effective. Many systems included in this review claim to be surveillance systems, but it remains unclear how many of them were just monitoring systems, highlighting confusion in the use of the term 'surveillance'.

Text in English

http://www.nccch.ca/files/Zoonoses_Surveillance_May_2009.pdf

Eventos / Events

Pan Pacific Veterinary Conference

23-28 **May**, 2010

Brisbane, Queensland, AU

<http://www.panpac2010.com/>

II Conferência Nacional sobre Defesa Agropecuária

26-29 **Mai**o, 2010

Belo Horizonte, MG, Brasil

<http://2conferenciadefesaagropecuaria.webnode.com/>

13th Conference of the Association of Institutions for Tropical Veterinary Medicine

23-26 **Aug**, 2010

Bangkok, TH

<http://www.aitvm2010.org/>

XXII Congresso Brasileiro de Ciência e Tecnologia de Alimentos (CBCTA)

7-10 **Nov**, 2010

Salvador, BA, Brasil

<http://www.cbcta.com.br/>



Salud Pública Veterinaria
Centro Panamericano de Fiebre Aftosa



Veterinary Public Health
Pan American Foot and Mouth Disease Center

Centro de Documentación / Documentation Center (CEDOC)

Teléfono / Phone: 55 21 3661-9045 - <http://www.panaftosa.org.br/>

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