



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



The History of Vaccines is an informational, educational website created by The College of Physicians of Philadelphia.

The site aims to increase public knowledge and understanding of the ways in which vaccines, toxoids, and passive immunization work, how they have been developed, and the role they have played in the improvement of human health.

<http://www.historyofvaccines.org>

Economia, Ganaderia/ Economy, Livestock



Animal diseases and the cost of compliance with international standards and export markets. The Experience of Foot-and-Mouth Disease in the Southern Cone

World Bank (Agriculture and Rural Development Discussion Papers)

Rich KM

By their nature, animal disease outbreaks present significant costs and risks to affected countries. For countries that depend on livestock exports as a source of revenue, the discovery of an animal disease will result in the immediate, albeit temporary, closure of export markets, and impose significant costs on other sectors of the economy (for example, tourism, downstream industries related to livestock). Foot-and-mouth disease (FMD) is particularly damaging due to its rapid spread and effects on livestock productivity. Because of this, countries that have eradicated FMD impose strict sanitary restrictions on meat imports, creating a segmented market in which FMD-free products sell at a price premium over non-FMD-free products. Furthermore, given the difficulty in distinguishing between meat from vaccinated animals and those that have generated an immune response, the international beef market is further segmented into FMD-free with and without vaccination components.

The experience of countries in the Southern Cone demonstrated that the control of FMD requires institutional machinery in both the public and private sectors that none of the three countries possessed at the time of the 2000–01 outbreak. The crisis also showed the limits of public monitoring and surveillance, and the need for transparent, independent risk assessment at a regional level. While there is no clear answer as to whether public or private approaches for recovery from FMD are optimal, successful control of and recovery from FMD requires significant coordination among all actors in the animal health and livestock sectors. At the same time, it should be stressed that sustainable FMD control requires coordination among countries throughout the whole of South America. The coexistence of regions that were not vaccinating in the late 1990s (Argentina, parts of Brazil, Paraguay, and Uruguay) alongside those in which FMD was endemic (Bolivia, Colombia, Ecuador, and Peru) suggested that it was only a matter of time before FMD would reappear in the Southern Cone. This reality might suggest a role for the Southern Cone to assist in financing FMD control and market development efforts in Bolivia, Colombia, Ecuador, Paraguay, and Peru. Joint collaborative efforts across regions will be required, including regional surveillance, monitoring programs, and information sharing across borders. However, funding, 2 institutional mechanisms, and roles for the public and private sectors for such collaboration need to be thoroughly addressed in tandem with such efforts.

Text in English

<http://vle.worldbank.org/bnpp/files/TF051844REGIONALGLOBALFMDMercosurF.pdf>



Consequências positivas das barreiras não-tarifárias no comércio internacional de produtos do agronegócio: o caso da cadeia da carne bovina

Andrade RPL

Tese (Doutorado) - Universidade Federal Rural do Rio de Janeiro; 2007

The proposal of the thesis was to identify and analyze the most important positive consequences, stemming from the efforts of Brazilian export companies of products related to agribusiness, to overcome the non-tariff barriers imposed by the companies and / or importing countries. These consequences are little explored in discussions and can be considered as external to the process of implementation of non-tariff barriers. In order to make the proposed work would be feasible, the chain's beef was elected as a target of further studies, the fact that an item be expressive of the Tariff Brazilian export, and because the wide variety of norms, standards and regulations of these products, widespread in all the links of its production chain.

The results point to the need to create instruments of Brazil institutional and technical competence in order to administer and live in the best way possible with the inexorable increase in the presence of technical barriers to trade in agricultural products. Finally, although not always be possible to establish a direct relationship of cause and effect, the study developed to say that there is a close correlation between the movements in the interests of overcoming the technical barriers in world trade in products of agribusiness, and the benefits to Brazilian society as a whole. Benefits have been identified related to: technological development, the environment, improvement of legislation, aggregation of trade blocs, managerial innovation, reduce competition, maintain competitive advantage and labor relations. In this context, the chain of meat proved a good example for the hypothesis raised, because all segments studied showed, albeit in different degrees, the conversion of the require ents of international buyers in benefits for the internal market and for the Brazilians in general.

Text in Portuguese

http://www.ufrrj.br/cpda/static/tese_rafael_de_andrade.pdf



The effect of foot and mouth disease on trade and prices in international beef markets

Jarvis LS, Canicino JP, Bervejillo JE

American Agricultural Economics Association Annual Meeting, 2005

The paper develops and uses a two step quantitative model to analyze the effect of Foot and Mouth Disease (FMD) on international beef markets over time. Using monthly data from 1990-2002 for 7 major beef exporters and for 22 major beef importers, we use a probit equation to estimate the probability that country i exports to country j, taking account of foot and mouth status of exporter, sanitary policy of importer, beef quality, trade preferences, distance, and other factors affecting whether beef trade occurs. We then use OLS to estimate the export prices that are obtained for beef, taking account of beef quality, country per capita, trading preferences, region, per capita income, and a time trend, including terms to adjust for censorship in the first stage. Using the estimated equations, we compare the predicted change in trading partners and in the prices received by the two exporters in our sample that are not FMD free, Brazil and Uruguay, under the assumption that their status switches from having FMD to being FMD free. The model performs well. The results suggest that FMD continues to impede trade between many countries and does accordingly reduce the price received for beef from countries with FMD. Nonetheless, the "sanction" from FMD appears smaller than previously believed.

Text in English

<http://ageconsearch.umn.edu/bitstream/19424/1/sp05ja05.pdf>



Guidelines on the use of economic analysis to inform SPS-related decision-making

Henson S, Masakure O

November 2009

This report reviews experiences with the use of economic analysis to guide priority-setting for sanitary and phytosanitary (SPS) capacity building in developing countries, highlights the challenges faced in using such methods and provides general guidance to decision-makers on which economic analysis approaches are best suited to particular decision scenarios. In preparing the report the existing literature has been reviewed and practitioners of economic analysis consulted on their experiences. A framework is proposed for establishing priorities between SPS capacity building options across the broad areas of food safety, animal health and plant health that can take account of varied and multiple decision criteria.

Text in English

http://www.standardsfacility.org/files/EconomicAnalysis/STDF_Coord_291_Guidelines_22Jan10.pdf

Fiebre Aftosa / Foot and Mouth Disease

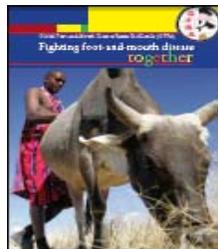


Expression of the major epitope regions of 2C integrated with the 3AB non-structural protein of foot-and-mouth disease virus and its potential for differentiating infected from vaccinated animals

Lu Z, Zhang X, Fu Y, Cao Y, Tian M, Sun P, Li D, Liu Z, Xie Q
J Virol Methods. 2010 Sep

In recent years, the potential value of the non-structural proteins (NSP) 2C and 3ABC has been well documented for differentiation of animals infected with foot-and-mouth disease virus (FMDV) from vaccinated animals (DIVA). In order to develop a more sensitive approach to detect animals infected naturally in herds of FMDV-vaccinated animals, a 47.6kD fusion protein named 2C3AB was expressed in bacteria which incorporated two major B-cell epitope regions of 2C and the whole 3AB within the NSP of FMDV. The product reacted specifically with sera from animals infected with FMDV, but did not react with sera from non-vaccinated and healthy animals. The performance of 2C3AB was compared further with the 3ABC fusion protein as the antigen in an indirect ELISA format for DIVA. The results showed that the 2C3AB-ELISA had an even stronger signal reaction in the indirect ELISA and showed higher sensitivity than the 3ABC-ELISA for DIVA purposes and for detection of early virus infection in animals. Therefore, it is expected that the recombinant protein 2C3AB could be a good candidate protein with which to develop more sensitive methods for DIVA and for surveillance of herds infected subclinically under conditions of vaccination. This study indicates that the 2C3AB-ELISA can be used to confirm the results of the 3ABC-ELISA to improve the performance of the 3ABC-ELISA DIVA test.

Text in English (article in press)



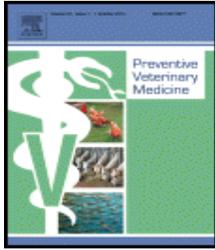
Fighting foot-and-mouth disease together

Global Foot-and-Mouth Disease Research Alliance (GFRA)

The Global Foot-and-Mouth Disease Research Alliance (GFRA): A worldwide association of animal health research organizations to assist the global control and eventual eradication of foot-and-mouth disease.

Text in English

<http://www.ars.usda.gov/gfra/files/GFRA%20brochure.pdf>



Meta-analysis on the efficacy of foot-and-mouth disease emergency vaccination

Halasa T, Boklund A, Cox S, Enøe C
Prev Vet Med. 2010 Sep

The objectives of this study were to provide a summary quantification of the efficacy of FMD emergency vaccination based on a systematic review and a meta-analysis of available literature, and to further discuss the suitability of this review and meta-analysis to summarize and further interpret the results. Peer-reviewed, symposium, and unpublished studies were considered in the analysis. Clinical protection and virological protection against FMD were used as parameters to assess the efficacy of emergency vaccination. The clinical protection was estimated based on the appearance of clinical signs including FMD lesions and fever, while the virological protection parameter was estimated based on the outcome of laboratory tests that were used to diagnose FMD infection. A meta-analysis relative risk was calculated per protection parameter. Results of the meta-analyses were examined using publication bias tests. In total, 31 studies were included in the analyses, of which 26 were peer-reviewed studies, 1 was a symposium study and 4 were unpublished studies. Cattle, swine and sheep were well protected against clinical disease and FMD infection following the use of emergency vaccine. Fortunately, no significant bias that would alter the conclusions was encountered in the analysis. Meta-analysis can be a useful tool to summarize literature results from a systematic review of the efficacy of FMD emergency vaccination.

Text in English (article in press)



Procedimento para análise de decisão quanto à prevenção de doenças em animais: uma aplicação da Teoria dos Jogos [Procedure for decision analysis on prevention against animal diseases: an application of Game Theory]

Silveira LT

Tese (Doutorado) – Universidade de São Paulo. Escola Superior de Agricultura "Luiz de Queiroz"; 2008

The basic hypothesis of this study is that producers do not perceive, individually, the importance of adopting prevention measures, even when aware of the economic risks for them and for the local economy, because the outbreaks of some diseases are not frequent. Moreover, the presence of externalities is such that the action of one producer regarding sanitary measures of the herd affects other producers in the same region, which also cannot be perceived by them. This study aims to develop a theoretical procedure to infer about strategic decisions taken by producers to prevent animal disease in their herds, in face of the risk of contamination. The development of the model is based on the Game Theory, and the benefit cost analysis as support for producer's decision. After modeling the problem and determining the equilibriums, these are used to elaborate inferences about possible actions of the government through economic incentives (such as indemnities and fines) to encourage the prevention. Then, the theoretical model is applied to a specific case of a foot-and-mouth disease (FMD) outbreak in Brazil. The results indicate that in the absence of a differential market for non-vaccinated animals, the game equilibrium tends to the situation where producer's decisions are to vaccinate their herd, suggesting that government intervention is not necessary. Even though, the Brazilian government uses incentive policies for the cattle vaccination since some producers do not vaccinate their animals, despite of their awareness of the risks, which suggests lack of rationality. Considering the irrationality of some producers, this study is important for them to delineate decisions scenes, identifying the best actions to be taken in the collective context.

Text in Portuguese

<http://www.teses.usp.br/teses/disponiveis/11/11132/tde-22072008-163512/pt-br.php>

Influenza Aviar / Avian Influenza



Avaliação do impacto econômico de possíveis surtos da gripe aviária no Brasil: uma análise de equilíbrio geral computável [The economic impact of potential avian flu outbreaks in Brazil: a general equilibrium model analysis]

Fachinello AL

Tese (Doutorado) – Universidade de São Paulo. Escola Superior de Agricultura “Luiz de Queiroz”; 2008

In the past few years, the bird flu virus H5N1 spread rapidly through various countries and continents, causing great economic and human losses. There is also the possibility of the disease arriving in Brazil, which would have a substantial impact on the country's economy, particularly on its poultry sector. The present study addresses the lack of estimates of the potential economic consequences of a bird flu outbreak on commercial poultry production in Brazil. The analysis consists of three simulations using an interregional general equilibrium model called TERM-BR. The first scenario focuses on an outbreak in the state of Rio Grande do Norte in the Northeastern part of the country. The second scenario simulates an outbreak at various places in the State of Sao Paulo, and the third scenario assesses the consequences of a bird flu outbreak in various states simultaneously, Rio Grande do Norte, Rondônia, São Paulo and Rio Grande do Sul. The results indicate greater economic impact when the outbreak occurs close to points of production and consumption, which is the case in the Southern and Southeastern regions of Brazil. In the South, where the poultry sector constitutes a larger share of the local economy, a potential avian flu outbreak will also have a greater negative economic impact. In the Northern and Northeastern region, live birds are generally purchased and slaughtered directly by individual families living in suburban and small town settings rather than by large scale processors and packinghouses. This characteristic explains why potential restrictions on these small purchases of live birds will have a very large negative economic impact on the poultry sector in the affected states. A possible reduction in poultry supply could however be offset by an increase in beef and pork consumption, thereby softening the economic affect of a bird flue outbreak by promoting growth of the beef and pork industry. In most states, this fall of domestic poultry demand is the primary cause for a shift in production. In contrast, the fall in export demand only weighs heavily on the local economy when the outbreak occurs close to exporting regions. In the state of Santa Catarina, for example, the effect of a fall in export demand dominates the effect of a fall in domestic demand, as export markets are almost completely shutdown. Finally, the reduction in poultry supply through death of infected birds and destruction of eggs, has little affect on the decrease of poultry production.

Text in Portuguese

<http://www.teses.usp.br/teses/disponiveis/11/11132/tde-17072008-150109/pt-br.php>



Epidemiologia e caracterização molecular de vírus da Influenza em aves residentes e migratórias no Brasil [Epidemiology and molecular characterization of Influenza virus in migratory and resident birds in Brazil]

Golono Ma

Tese (Doutorado) - Universidade de São Paulo. Instituto de Ciências Biomédicas; 2009

The avian influenza virus has caused epidemics and pandemics through the ages, the most devastating pandemic that we know, the Spanish flu in 1918, had its origin in the avian virus type A subtype H1N1. Since 2003 the avian virus subtype H5N1 has infected 442 people and led to death 262. Besides the health aspect of the avian influenza viruses cause major economic impact. Brazil as the largest exporter of chicken in the world has much to lose if bird flu reaches the country. Because wild birds are the natural reservoir of influenza A, is that it is necessary to implement the monitoring. Although programs

exist for continuous monitoring of wild birds in Europe, USA, Canada, Japan and others, little has been done in Brazil. Samples collected from 671 birds were tested by GeneScan techniques, real-time PCR and RT-PCR and nested-PCR Duplex.

Text in Portuguese

<http://www.teses.usp.br/teses/disponiveis/87/87131/tde-11022010-104048/pt-br.php>



Risk mapping for avian influenza: a social–ecological problem

Cumming GS

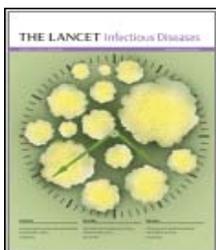
Ecology and Society 2010; 15 (3)

Pathogen dynamics are inseparable from the broader environmental context in which pathogens occur. Although some pathogens of people are primarily limited to the human population, occurrences of zoonoses and vector-borne diseases are intimately linked to ecosystems. The emergence of these diseases is currently being driven by a variety of influences that include, among other things, changes in the human population, long-distance travel, high-intensity animal-production systems, and anthropogenic modification of ecosystems. Anthropogenic impacts on ecosystems have both direct and indirect (foodweb mediated) effects. Therefore, understanding disease risk for zoonoses is a social–ecological problem. The articles in this special feature focus on risk assessment for avian influenza. They include analyses of the history and epidemiological context of avian influenza; planning and policy issues relating to risk; the roles of biogeography and spatial and temporal variation in driving the movements of potential avian influenza carriers; approaches to quantifying risk; and an assessment of risk-related interactions among people and birds in Vietnamese markets. They differ from the majority of published studies of avian influenza in that they emphasize unknowns and uncertainties in risk mapping and societal responses to avian influenza, rather than concentrating on known or proven facts. From a systems perspective, the different aspects of social–ecological systems that are relevant to the problem of risk mapping can be summarized under the general categories of structural, spatial, and temporal components. I present some examples of relevant system properties, as suggested by this framework, and argue that, ultimately, risk mapping for infectious disease will need to develop a more holistic perspective that includes explicit consideration of the roles of policy, disease management, and feedbacks between ecosystems and societies.

Text in English

<http://www.ecologyandsociety.org/issues/view.php?sf=39>

Malaria



Effectiveness of five artemisinin combination regimens with or without primaquine in uncomplicated falciparum malaria: an open-label randomised trial

Smithuis F, Kyaw MK, Phe O, Win T, Aung PP, Oo AP, Naing AL, Nyo MY, Myint NZ, Imwong M, Ashley E, Lee SJ, White NJ

Lancet Infect Dis. 2010 Oct; 10 (10): 673-81

BACKGROUND: Artemisinin-combination therapy (ACT) is recommended as first-line treatment of falciparum malaria throughout the world, and fixed-dose combinations are preferred by WHO; whether a single gametocytocidal dose of primaquine should be added is unknown. We aimed to compare effectiveness of four fixed-dose ACTs and a loose tablet combination of artesunate and mefloquine, and assess the addition of a single gametocytocidal dose of primaquine.

METHODS: In an open-label randomised trial in clinics in Rakhine state, Kachin state, and Shan state in

Myanmar (Burma) between Dec 30, 2008, and March 20, 2009, we compared the effectiveness of all four WHO-recommended fixed-dose ACTs (artesunate-mefloquine, artesunate-amodiaquine, dihydroartemisinin-piperaquine, artemether-lumefantrine) and loose artesunate-mefloquine in Burmese adults and children. Eligible patients were those who presented to the clinics with acute uncomplicated *Plasmodium falciparum* malaria or mixed infection, who were older than 6 months, and who weighed more than 5 kg. Treatments were randomised in equal numbers within blocks of 50 and allocation was in sealed envelopes. All patients were also randomly assigned to receive either a single dose of primaquine 0.75 mg base/kg or not. Patients were followed up for 63 days. Treatment groups were compared by analysis of variance and multiple logistic regression. The primary outcome was the 63 day recrudescence rate. This study is registered with clinicaltrials.gov, number NCT00902811.

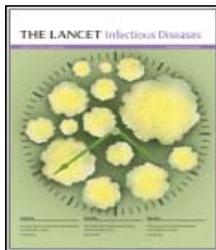
FINDINGS: 155 patients received artesunate-amodiaquine, 162 artemether-lumefantrine, 169 artesunate-mefloquine, 161 loose artesunate-mefloquine, and 161 dihydroartemisinin-piperaquine. By day 63 of follow-up, 14 patients (9.4%; 95% CI 5.7-15.3%) on artesunate-amodiaquine had recrudescence *P falciparum* infections, a rate significantly higher than for artemether-lumefantrine (two patients; 1.4%; 0.3-5.3; $p=0.0013$), fixed-dose artesunate-mefloquine (0 patients; 0-2.3; $p<0.0001$), loose artesunate-mefloquine (two patients; 1.3%; 0.3-5.3; $p=0.0018$), and dihydroartemisinin-piperaquine (two patients 1.3%; 0.3-5.2%; $p=0.0012$). Hazard ratios for re-infection (95% CI) after artesunate-amodiaquine were 3.2 (1.3-8.0) compared with the two artesunate-mefloquine groups ($p=0.01$), 2.6 (1.0-6.0) compared with artemether-lumefantrine ($p=0.04$), and 2.3 (0.9-6.0) compared with dihydroartemisinin-piperaquine ($p=0.08$). Mixed *falciparum* and *vivax* infections were common: 129 (16%) had a mixed infection at presentation and 330 (41%) patients had one or more episodes of *Plasmodium vivax* infection during follow-up. The addition of a single dose of primaquine (0.75 mg/kg) reduced *P falciparum* gametocyte carriage substantially: rate ratio 11.9 (95% CI 7.4-20.5). All regimens were well tolerated. Adverse events were reported by 599 patients, most commonly vomiting and dizziness. Other side-effects were less common and were not related to a specific treatment.

INTERPRETATION: Artesunate-amodiaquine should not be used in Myanmar, because the other ACTs are substantially more effective. Artesunate-mefloquine provided the greatest post-treatment suppression of malaria. Adding a single dose of primaquine would substantially reduce transmission potential. *Vivax* malaria, not recurrent *falciparum* malaria, is the main complication after treatment of *P falciparum* infections in this region.

FUNDING: Médecins sans Frontières (Holland) and the Wellcome Trust Mahidol University Oxford Tropical Medicine Research Programme.

Text in English

<http://download.thelancet.com/pdfs/journals/laninf/PIIS1473309910701870.pdf?id=e16241398b8eb460:7c9b863:12b9c191a1f:-2dd41286817088650>



Maximising the public health benefit of antimalarials

Price RN, Douglas NM

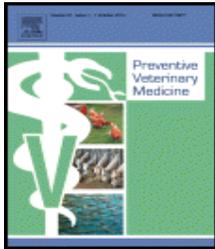
Lancet Infect Dis. 2010 Oct; 10 (10): 654-5

Artemisinin combination therapies (ACTs) are integral to current malaria treatment strategies. They effect rapid and complete clearance of multidrug-resistant strains of *Plasmodium* spp, decrease the transmission potential of the parasite, and limit the emergence of de novo resistance.

Text in English

<http://download.thelancet.com/pdfs/journals/laninf/PIIS1473309910701924.pdf?id=e16241398b8eb460:7c9b863:12b9c191a1f:-2dd41286817088650>

One Health



From "one medicine" to "one health" and systemic approaches to health and well-being

Zinsstag J, Schelling E, Waltner-Toews D, Tanner M
Prev Vet Med. 2010 Sep

Faced with complex patterns of global change, the inextricable interconnection of humans, pet animals, livestock and wildlife and their social and ecological environment is evident and requires integrated approaches to human and animal health and their respective social and environmental contexts. The history of integrative thinking of human and animal health is briefly reviewed from early historical times, to the foundation of universities in Europe, up to the beginning of comparative medicine at the end of the 19th century. In the 20th century, Calvin Schwabe coined the concept of "one medicine". It recognises that there is no difference of paradigm between human and veterinary medicine and both disciplines can contribute to the development of each other. Considering a broader approach to health and well-being of societies, the original concept of "one medicine" was extended to "one health" through practical implementations and careful validations in different settings. Given the global health thinking in recent decades, ecosystem approaches to health have emerged. Based on complex ecological thinking that goes beyond humans and animals, these approaches consider inextricable linkages between ecosystems and health, known as "ecosystem health". Despite these integrative conceptual and methodological developments, large portions of human and animal health thinking and actions still remain in separate disciplinary silos. Evidence for added value of a coherent application of "one health" compared to separated sectorial thinking is, however, now growing. Integrative thinking is increasingly being considered in academic curricula, clinical practice, ministries of health and livestock/agriculture and international organizations. Challenges remain, focusing around key questions such as how does "one health" evolve and what are the elements of a modern theory of health? The close interdependence of humans and animals in their social and ecological context relates to the concept of "human-environmental systems", also called "social-ecological systems". The theory and practice of understanding and managing human activities in the context of social-ecological systems has been well-developed by members of The Resilience Alliance and was used extensively in the Millennium Ecosystem Assessment, including its work on human well-being outcomes. This in turn entails systems theory applied to human and animal health. Examples of successful systems approaches to public health show unexpected results. Analogous to "systems biology" which focuses mostly on the interplay of proteins and molecules at a sub-cellular level, a systemic approach to health in social-ecological systems (HSES) is an inter- and trans-disciplinary study of complex interactions in all health-related fields. HSES moves beyond "one health" and "eco-health", expecting to identify emerging properties and determinants of health that may arise from a systemic view ranging across scales from molecules to the ecological and socio-cultural context, as well from the comparison with different disease endemicities and health systems structures.

Text in English (article in press)



One Health - attaining optimal health for people, animals, and the environment

Atlas R, Rubin C, Maloy S, Daszak P, Colwell R, Hyde B
Microbe 2010 Sep, 5 (9): 383-9

The interdependence of humans, animals, and their environment has never been more important than now. The most prominent issues putting pressure on global health today include the dramatic emergence and spread of zoonotic diseases, contamination of food, water and soil, bioterrorist events, and degradation of resources and habitats. Current global health challenges have prompted a call for more holistic, collaborative, action-oriented approaches toward the goal of logical and practical solutions. Veterinarians have pivotal obligations, opportunities, and contributions to make in enhancing public health, recognising and responding to zoonotic disease transmission, maintaining food and water quality, and promoting wildlife and ecosystem health.

Text in English

<http://www.oie.int/boutique/extrait/04osburn481486.pdf>



One Health Newsletter
2010, Volume 3 Issue 3

This newsletter is dedicated to enhancing the integration of animal, human, and environmental health for the benefit of all by demonstrating **One Health** in practice.

Text in English

http://www.doh.state.fl.us/Environment/medicine/One_Health/OHNLSummer2010.pdf



Understanding risk perceptions to enhance communication about human-wildlife interactions and the impacts of zoonotic disease

Decker DJ, Evensen DTN, Siemer WF, Leong KM, Riley SJ, Wild MA, Castle KE, Higgins CL

ILAR Journal 2010; 51 (3): 255-61

Inclusion of wildlife in the concept of One Health is important for two primary reasons: (1) the physical health of humans, domesticated animals, and wildlife is linked inextricably through shared diseases, and (2) humans' emotional well-being can be affected by their perceptions of animal health. Although an explicit premise of the One Health Initiative is that healthy wildlife contribute to human health, and vice versa, the initiative also suggests implicitly that wildlife may pose threats to human health through zoonotic disease transmission. As people learn more about One Health, an important question surfaces: How will they react to communications carrying the message that human health and wildlife health are linked? In the absence of adequate relevant research data, we recommend caution in the production and dissemination of One Health messages because of possible unintended or collateral effects. Understanding how and why individuals perceive risks related to wildlife diseases is essential for determining message content that promotes public support for healthy wildlife populations, on the one hand, and, on the other, for identifying messages that might inadvertently increase concern about human health effects of diseased wildlife. To that end, we review risk perception research and summarize the few empirical studies that exist on perceived risk associated with zoonoses. We conclude with some research questions that need answering to help One Health practitioners better understand how the public will interpret their messages and thus how to communicate positively and without negative collateral consequences for wildlife conservation.

Text in English

Rabia / Rabies



Avaliação do Vampiricida Gel 1% no controle seletivo direto de colônias de Desmodus rotundus [Evaluation of 1-percent Vampiriced Gel in direct selective control of Desmodus rotundus colonies]

Pompei JCA

Dissertação (Mestrado) - Universidade Federal Rural do Rio de Janeiro. Instituto de Veterinária; 2009

The National Program on Control of Herbivore Rabies (PNCRH) concentrates its actions on population control of the diseases main transmitter, the vampire bat of the *Desmodus rotundus* species, and favors the use of direct and indirect selective methods. This study sought to evaluate the effectiveness of the VAMPIRICID GEL for direct selective control of *D. rotundus* colonies. Six daytime shelters were selected; in each one a count was taken of the live individuals at the time and then again ten days after treatment. Two shelters per treatment Group were addressed. The Vampiricid Gel was applied on the back of vampire bats in 5-percent (Group 1) and of 10-percent (Group 2) samples of the population. For control (Group 3), 10 percent of the *D. rotundus* bat population was treated with liquid Vaseline. An evaluation was also made of the aggressions by vampire bats on 3,690 bovines and 133 equids on the 22 properties located within a 3-km radius of the shelters. Fishers Exact and χ^2 tests were used with a 1-percent significance level. Under natural conditions, treatment of Groups 1, 2, and 3 reduced by 97.57 percent, 99.30 percent, and 3.6 percent, respectively, the *D. rotundus* population, and by 92.79 percent, 94.36 percent, and 4.76 percent, respectively, the number of animals attacked, ten days after treatment. Results have shown that the 1-percent VAMPIRICID GEL was effective in significantly reducing the bat population and the number of animals attacked in Groups 1 and 2, as compared with Group 3. There was no significant different between Groups 1 and 2 as regards both reduction of the *D. rotundus* population and the number of animals attacked. Although the use of 1-percent VAMPIRICID GEL on 5 percent or 10 percent of the vampire bat population has yielded similar results in the *D. rotundus* populations in the shelters and thus on attacked bovines and equids, its use on 5 percent of the populations was more effective, given the lower operating cost, and can thus be indicated for direct selective control of *D. rotundus*.

Text in Portuguese

http://bdtd.ufrrj.br//tde_busca/arquivo.php?codArquivo=1295



Newsletter of the Alliance for Rabies Control

Nº 19, September 2010

This month the world will observe the fourth annual World Rabies Day.

There are many conferences relevant to rabies control that are scheduled to take place in the upcoming months and you will find more information on these meetings enclosed in the Newsletter.

Text in English

<http://www.rabiescontrol.net/ARCnewsletter19.pdf>



Reducing the global burden of rabies

Briggs DJ

International Health 2010; 2: 161–162

September 28, 2010 marks the fourth observation of World Rabies Day. This annual event continues to provide a unique platform for individuals, countries and international organizations to highlight educational awareness in their own regions and provides an opportunity to focus on the implementation of national rabies prevention and control programs.

Ultimately, the best solution to prevent human rabies is to implement effective regional rabies control programs through partnerships between a wide variety of organizations and ministries including those focused on animal and human health, education, animal welfare, communications and finance. Successes in the elimination of canine rabies from some areas are proof that rabies serves as a model disease to institute a one health approach to prevention and control. World Rabies Day continues to serve as a focal point for individuals and global organizations working to promote rabies prevention activities and save lives across the globe.

Text in English

<http://www.rabiescontrol.net/assets/files/Scientific%20Literature%20pdfs/Reducing%20burden.pdf>

Tuberculosis Bovina / Bovine Tuberculosis



La Tuberculosis Bovina en Venezuela: patogénesis, epidemiología, respuesta inmunitaria y nuevas alternativas para el diagnóstico

Rivera S, Giménez JF

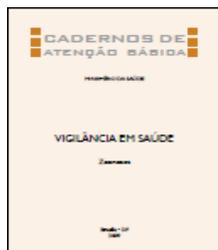
REDVET 2010 Sep; 11 (9)

La tuberculosis bovina, enfermedad infectocontagiosa causada por *Mycobacterium bovis*, se encuentra difundida por el mundo entero, es un problema de salud pública (Zoonosis), debido a que el *M. bovis* puede infectar al hombre produciendo un cuadro de tuberculosis clínicamente indistinguible al causado por *M. tuberculosis*, el cual es causa de la tuberculosis humana. *M. bovis*, es un patógeno intracelular que infecta las células del sistema inmune del hospedador principalmente macrófagos, una vez dentro del macrófago la mycobacteria puede ser destruida por los diferentes mecanismos microbicidas que éste posee o sobrevivir y utilizar al macrófago para multiplicarse y viajar dentro de este y ganar acceso a otros tejidos por medio de la circulación sanguínea o linfática. El Diagnóstico de la enfermedad luce bastante complicado a la luz de las nuevas técnicas de evaluación de la respuesta inmunitaria que complementan la clásica tuberculinización y el cultivo bacteriológico. Venezuela ha experimentado un incremento de la prevalencia 60 de cada 10.000 animales están infectados. El uso de las recién desarrolladas pruebas del INF- γ , ELISA-TBC y PCR, en zonas de alta prevalencia, ha permitido mostrar diferentes patrones de respuesta inmunitaria frente a *M. bovis* y dar un nuevo enfoque a los estudios epidemiológicos de la enfermedad.

Text in English

<http://www.veterinaria.org/revistas/redvet/n090910/091007.pdf>

Zoonosis / Zoonoses



Vigilância em saúde: zoonoses

Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica
2009

Publicação de 2009 do Ministério da Saúde com extensas informações para profissionais da saúde sobre diversos aspectos de algumas das zoonoses que ocorrem no país.

Text in Portuguese

http://bvsmms.saude.gov.br/bvs/publicacoes/vigilancia_saude_zoonoses_p1.pdf

Eventos / Events

1st International One Health Congress: Human Health, Animal Health, the Environment and Global Survival

14-16 February 2011

Victoria, Australia

<http://www.onehealth2011.com/>



Salud Pública Veterinaria
Centro Panamericano de Fiebre Aftosa



Veterinary Public Health
Pan American Foot and Mouth Disease Center

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<http://new.paho.org/panaftosa>

<http://bvs.panaftosa.org.br>

<http://bvs.panalimentos.org>

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