

Centro de Documentación / Documentation Center

Objetivos/ Objectives

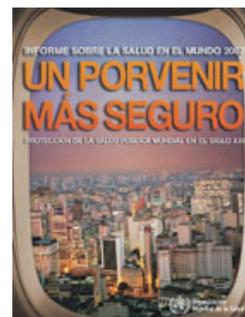
Identificar y atender las necesidades de información, adquisición, organización, almacenamiento, generación, uso y difusión de la información en salud pública veterinaria y proveer recursos bibliográficos técnicos-científicos al equipo de profesionales de la unidad y a los usuarios externos.

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

El Informe sobre la salud en el mundo 2007 - un porvenir más seguro Protección de la salud pública mundial en el siglo XXI

El Informe sobre la salud en el mundo 2007 - un porvenir más seguro Protección de la salud pública mundial en el siglo XXI marca un hito en la historia de la salud pública y señala lo que podría ser uno de los mayores adelantos realizados en medio siglo para alcanzar la seguridad sanitaria. Muestra algunos riesgos crecientes que corre el mundo, como brotes de enfermedades, epidemias, accidentes industriales, desastres naturales y otras emergencias de salud que pueden convertirse rápidamente en amenazas para la seguridad sanitaria mundial. El informe explica que el Reglamento Sanitario Internacional revisado (2005), en vigor desde el presente año, ayuda a los países a colaborar para identificar los riesgos y actuar para contenerlos y controlarlos. El Reglamento es necesario porque ningún país, independientemente de su capacidad o riqueza, puede protegerse de brotes y demás riesgos sin la cooperación de otros. El informe señala que un porvenir más seguro es posible, y que constituye tanto una aspiración colectiva como una responsabilidad recíproca.

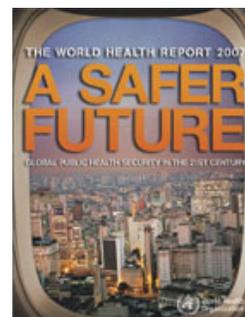


Text in Spanish

<http://www.who.int/whr/2007/es/index.html>

The world health report 2007 - A safer future: global public health security in the 21st century

The World Health Report 2007 - A safer future: global public health security in the 21st century marks a turning point in the history of public health, and signals what could be one of the biggest advances in health security in half a century. It shows how the world is at increasing risk of disease outbreaks, epidemics, industrial accidents, natural disasters and other health emergencies which can rapidly become threats to global public health security. The report explains how the revised International Health Regulations (2005), which came into force this year, helps countries to work together to identify risks and act to contain and control them. The regulations are needed because no single country, regardless of capability or wealth, can protect itself from outbreaks and other hazards without the cooperation of others. The report says the prospect of a safer future is within reach - and that this is both a collective aspiration and a mutual responsibility.



Text in English

<http://www.who.int/whr/2007/en/index.html>

Animales Sentinela /Animal Sentinels



A framework for evaluating animals as sentinels for infectious disease surveillance

Halliday JE, Meredith AL, Knobel DL, Shaw DJ, Bronsvort BM, Cleaveland S
J R Soc Interface 2007 Oct;4 (16): 973-84

The dynamics of infectious diseases are highly variable. Host ranges, host responses to pathogens and the relationships between hosts are heterogeneous. Here, we argue that the use of animal sentinels has the potential to use this variation and enable the exploitation of a wide range of pathogen hosts for surveillance purposes. Animal sentinels may be used to address many surveillance questions, but they may currently be underused as a surveillance tool and there is a need for improved interdisciplinary collaboration and communication in order to fully explore the potential of animal sentinels. In different contexts, different animal hosts will themselves vary in their capacity to provide useful information. We describe a conceptual framework within which the characteristics of different host populations and their potential value as sentinels can be evaluated in a broad range of settings.

Text in English

<http://www.journals.royalsoc.ac.uk/content/1427xugv2n535p64/fulltext.pdf>

Fiebre Aftosa /Foot-and-Mouth Disease



Disease dynamics over very different time-scales: foot-and-mouth disease and scrapie on the network of livestock movements in the UK

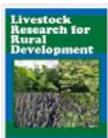
Kao RR, Green DM, Johnson J, Kiss IZ
J R Soc Interface 2007 Oct ; 4 (16): 907-16

We analyse the relationship between the network of livestock movements in the UK and the dynamics of two diseases: foot-and-mouth disease (FMD), which has an incubation period of days, and scrapie, which incubates over years. For FMD, the time-scale of expected epidemics is similar to the time-scale of the evolution of the network. We argue that, under appropriate conditions, a static network analysis can be an appropriate tool for gaining insights into disease dynamics even when the relevant time-scales are similar, as with FMD. We show that a subclass of 'linkage moves' maintains the network structure, and so removing these links has a dramatic effect on the number of potentially infected farms, an effect corroborated by simulations. In contrast, because scrapie has a low probability of transmission per contact and a long incubation period, a static network representation is probably appropriate; however, the signature of the network in the pattern of transmission is likely to be faint. Scrapie-notifying farms were more likely to be associated with each other via trading at markets than were control farms; however, network community structure proves to be less representative of prevalence patterns than geographical region. These contradictory indicators emphasize that appropriate observation time frames and good discrimination among types of potentially infectious contacts are vital in order for network analysis to be a valuable epidemiological tool.

Text in English

<http://www.journals.royalsoc.ac.uk/content/w88x323775133866/fulltext.pdf>

Influenza Aviar /Avian Influenza



Highly pathogenic avian influenza risk, biosecurity and smallholder adversity

Otte J, Pfeiffer D, Tiensin T, Price L, Silbergeld E
Livestock Research for Rural Development 2007; 19 (7)

There is considerable global concern over the newly emergent H5N1 strain of avian influenza that has affected millions of domestic poultry flocks and resulted in more than 150 deaths in humans. There has been little analysis of the general assumption that smallholder backyard poultry flocks are inherently at higher risk of highly pathogenic avian influenza (HPAI) than confined and commercial scale operations.

We utilized data from Thailand, collected in 2004, to test the relative risks of HPAI infection in poultry flocks, by species, type of operation, and geographic location. The results indicate that backyard flocks are at lower risk of HPAI infection compared to commercial scale operations of broiler or layer chickens or quail. These findings are plausible in terms of the opportunities for breach of biosecurity in commercial scale, industrial operations.

Both experimental and observational studies in developed country settings have demonstrated the capacity of microbes to enter and leave these larger operations despite the implementation of standard biosecurity measures. Patterns of infection during 2002 Newcastle disease epidemic in Denmark proved further evidence to question that smallholder backyard flocks are at higher risk of epidemic diseases than commercial operations. These results should be considered by policy makers and public health officials when developing plans to control or prevent HPAI in order to limit avoidable adverse effects on the livelihood of smallholder poultry producers in developing countries.

Text in English

<http://www.cipav.org.co/lrrd/lrrd19/7/otte19102.htm>

Inocuidad de los Alimentos /Food Safety



Use of Microbiological Risk Assessments in Risk Management

INFOSAN 2007 – No. 5

In the recent years, a number of microbiological risk assessments (MRAs) have been undertaken at both national and international level. MRA provides the means to link food control measures to the actual impact on the health of the consumer. As food safety management moves towards a risk based approach there is a strong desire to use such tools. However, risk managers have difficulties in making the best use of them in elaboration risk-based interventions.

This note summarizes new guidance from FAO and WHO in this area and addresses: The role of MRA in food safety risk management; The establishment of public health goals and using quantitative microbiological targets to achieve them; The impact of the choice of MRA type on management options; Future directions in this area.

Text in Spanish

http://www.who.int/foodsafety/fs_management/No_05_riskmanagement_Sept07_sp.pdf

Text in English

http://www.who.int/foodsafety/fs_management/No_05_riskmanagement_Sept07_en.pdf

Propagación de Enfermedades /Disease Spread



Accounting for biological variability and sampling scale: a multi-scale approach to building epidemic models

Soubeyrand S, Thebaud G, Chadoeuf J

J R Soc Interface 2007 Oct; 4 (16): 985-97

When one considers the fine-scale spread of an epidemic, one usually knows the sources of biological variability and their qualitative effect on the epidemic process. The force of infection on a susceptible unit depends on the locations and the strengths of the infectious units, and on the environmental and intrinsic factors affecting infectivity and/or susceptibility. The infection probability for the susceptible unit can then be modelled as a function of these factors. Thus, one can build a conceptual model at the fine scale. However, the epidemic is generally observed at a larger scale and one has to build a model adapted to this larger scale. But how can the sources of variation identified at the fine scale be integrated into the model at the larger scale? To answer this question, we present, in the context of plant epidemiology, a multi-scale approach which consists of defining a base model built at the fine scale and upscaling it to match the scale of the sampling and the data. This approach will enable comparing experiments involving different observational processes.

Text in English

<http://www.journals.royalsoc.ac.uk/content/h029537181528730/fulltext.pdf>

Rabia /Rabies

Spatial dynamics and genetics of infectious diseases on heterogeneous landscapes

Real LA, Biek R



Explicit spatial analysis of infectious disease processes recognizes that host-pathogen interactions occur in specific locations at specific times and that often the nature, direction, intensity and outcome of these interactions depend upon the particular location and identity of both host and pathogen. Spatial context and geographical landscape contribute to the probability of initial disease establishment, direction and velocity of disease spread, the genetic organization of resistance and susceptibility, and the design of appropriate control and management strategies. In this paper, we review the manner in which the physical organization of the landscape has been shown to influence the population dynamics and spatial genetic structure of host-pathogen interactions, and how we might incorporate landscape architecture into spatially explicit population models of the infectious disease process to increase our ability to predict patterns of disease occurrence and optimally design vaccination and control policies.

Text in English

<http://www.journals.royalsoc.ac.uk/content/yw3678371p84542q/fulltext.pdf>

Seminarios, Congresos, Eventos / Seminars, Congress, Events

Course on Strengthening Essential Public Health Functions

14 Nov. 2007 - 19 Mar 2008

This E-learning course—designed by the World Bank Institute and PAHO—focuses on management staff who directly or indirectly works in Public Health and Essential Public Health Functions

<http://www.paho.org/English/DPM/SHD/HR/ephf-2ecourse08-wbi-paho.htm>

III Taller Avanzado sobre el Sistema Mundial de Información y Base de Datos Zoonosarios (WAHIS y WAHID)

2 – 5 Octubre 2007

Ciudad de Panamá, Panamá

http://www.rr-americas.oie.int/es/eventos/nuevos_eventos/es_iiiseminario_wahis.htm



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