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Med-Vet-Net Communications Unit

This month we continue our overviews of Med-Vet-Net projects with Workpackage 23 'Prioritizing food-borne and zoonotic hazards at the EU level'.

Teresa Belcher gives us an overview of Module 2 of the Science Communication Internship.

And congratulations go to Arie Havelaar on his new professorship.

The Communications Unit wish you all a Happy Easter!



Prioritizing food-borne and zoonotic hazards at the EU level

Workpackage 23 overview

Diseases naturally transmitted from animals to man, termed zoonoses, constitute major public health risks and generate emerging disease problems worldwide. Beside direct contact with animals, zoonoses may be transferred during leisure activities, but contaminated food has been recognized as the main source of transmission. These diseases have always represented a risk to humans, however, the impact has increased in the past few decades as a result of changes in environmental conditions. These changes have come about because of increased global travel and livestock trade, changes in livestock production including intensification, shifts in human eating and food preparation habits, mutations resulting in increased virulence of pathogens, increasing contact between man and exotic animals and pets, as well as development of new transmission routes and increased susceptible human populations.

Social and economic costs

of zoonotic and food-borne diseases on national economies are significant. Looking at intestinal infectious disease, which is largely food-borne, the costs in the EU are considerable. The costs for food-borne salmonella alone are estimated to reach up to €2.8 billion per year (European Commission, Press Release IP/03/1306, 29.09.2003). There

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is a myriad of food-borne and zoonotic hazards, each with its own specific ecology and consequently each requiring specific control strategies. This clearly shows that, although the control and prevention of all zoonotic diseases is desirable, effective and efficient policy-making on control, prevention and surveillance of those diseases requires focusing on the most relevant ones.

Approaches for prioritization outlined in the consensus protocol

- health outcomes will be assigned to the initial infection (incidence-based approach)
- available surveillance will be the primary source of information (bottom up approach)
- prioritization will be based on infectious agents covering all relevant disease outcomes
- inclusion of data of all eight countries participating in Workpackage 23 is necessary to represent the situation across Europe
- analyses will concentrate on a 5-year average to reduce short-term fluctuations

Unfortunately public health priorities vary due to numerous disparate factors

including morbidity/mortality, costs, practicality and public perception. All such factors can vary across national boundaries.

List of pathogens to be covered by Workpackage 23

A. Pathogens that will be included

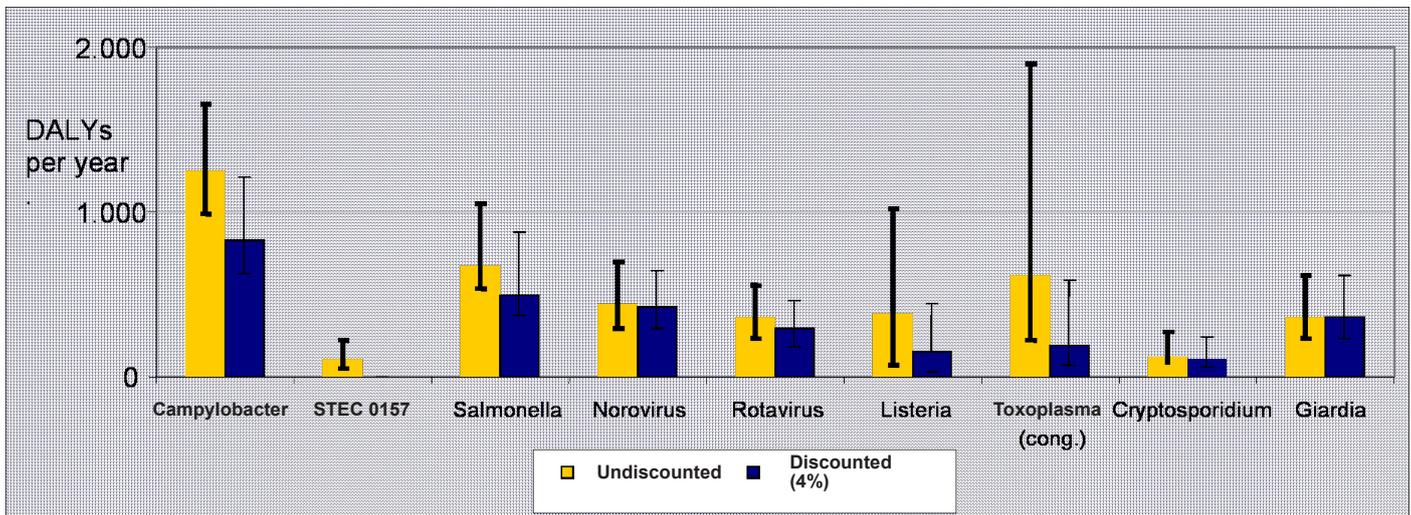
Salmonella (possibly stratified for different groups of serotypes)
Campylobacter
Hepatitis A virus
Listeria
 Verocytotoxin-producing
Escherichia coli

B. Pathogens that may be included depending on data availability

Norovirus
Cryptosporidium
Yersinia enterocolitica
Shigella
 EPEC/ETEC
Toxoplasma gondii
 Agent of variant Creutzfeldt
 Jacob disease
Brucella
Trichinella
Clostridium botulinum
Echinococcus (granulosus and multilocularis)

Workpackage 23

Workpackage 23 led by Arie Havelaar, RIVM, aims to develop strategies and models to provide stepwise and transparent approaches to estimating priorities in a number of



Disease burden of food-borne pathogens in the Netherlands. Source, RIVM

The disease burden of 9 pathogens that can also be transmitted by food is shown. Results are for the year 2004 and relate to all cases in the population, irrespective of transmission route. Disability Adjusted Life Years (DALYs) are the sum of Years of Life Lost due to premature mortality and Years Lived with Disability, weighted for the severity of the illness. Discounting refers to a depreciation of the value of future life years as according to economic theory, an immediate profit is preferred over a later one.

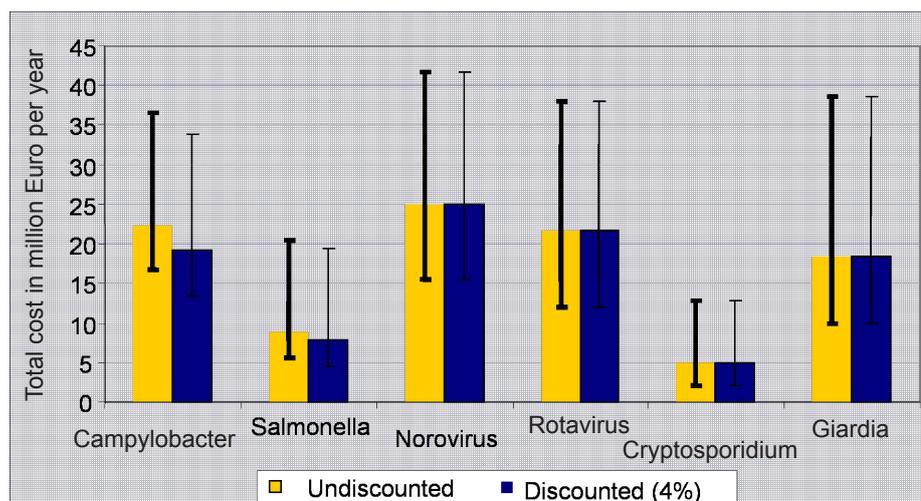
zoonotic diseases at the European level. This includes agreeing which criteria and methods are best used for priority setting as well as collecting and evaluating existing data from national surveillance and intervention programmes, which have been implemented over the past decades, and other available sources. It is the intention to produce for selected infectious agents an estimate of the societal impact (current disease burden and cost of illness). During the ongoing work major uncertainties in the data will be identified which will allow additional studies to close these gaps to be recommended. The key output of Workpackage 23 will be to develop a software application for integrating,

presenting and analysing European data on disease burden and cost of illness. It is intended to make the final software package accessible to a broad audience including researchers and policy makers.

Progress

Workpackage 23 started its activities with a meeting in July 2006 in Berlin, Germany. Participants discussed and agreed the objectives of this project. Partner countries participating in this Workpackage are Denmark, Germany, Italy, the Netherlands, Poland, Sweden and the UK. The approach of the partner institute, RIVM, for estimating the burden and costs of food-borne pathogens in the Netherlands was accepted as the basis

for the work. The data available in the participating countries was explored. This was an essential activity, as it indicated those approaches, which are feasible in all participating countries. As a result, a tentative list of pathogens to be covered was established. The list (see p. 1) comprises five pathogens (four bacterial species and one virus) to be included in the analysis and, depending on the availability of data, 11 further species (six bacterial species, one virus, three parasites and one prion) which may be included. Further an outline of the consensus protocol was agreed (see p. 1). This is currently being developed and refined for adoption at the next meeting, which will be held in May 2007 in Bilthoven, Netherlands. Until then, participants will evaluate the availability of data outlined in the consensus protocol in their countries.



Cost of illness of food-borne pathogens in the Netherlands. Source RIVM

The disease burden of 6 pathogens that can also be transmitted by food is shown. Results are for the year 2004 and relate to all cases in the population, irrespective of transmission route. Cost of illness includes direct health-care costs (paid by the health care system, e.g. doctor's fees), indirect health-care costs (paid by others, e.g. patients) and indirect non-health care costs (e.g. absence from work). Discounting refers to a depreciation of the value of future life years as according to economic theory, an immediate profit is preferred over a later one.

An EU-US conference on priority setting of food borne and zoonotic pathogens, jointly organized with Workpackage 28 (Source attribution) and the US Food Safety Research Consortium (FSRC), was held at BfR, Berlin, 19-21 July (see reports in Med-Vet-Net News 2006, issue 8 and issue 9, vol. 3). The conference was attended by 121 participants and gave a golden opportunity for fruitful discussions with experts from Europe, USA, New Zealand, Australia and Hong Kong. Thus an excellent overview of current approaches used for ranking the public health impacts of food-borne and zoonotic diseases was provided. The collaboration between Workpackage 23 and FSRC will be extended in future.

**Arie Havelaar
Heidi Spitznagel**

Med-Vet-Net People

Alexandra Fetsch, Deputy Leader Workpackage 23

Alexandra Fetsch graduated with a degree in veterinary medicine from the Free University (FU), Berlin, Germany, in 2003. Afterwards, she started working on her doctoral thesis at the Institute of Virology of the faculty: 'EHV-2 induced keratoconjunctivitis cases – Evaluation of the role of immunological mechanisms as well as of viral and bacterial co-factors'. The submission of her thesis is planned within the next month.

From the beginning of the year 2005 until May 2006, Alexandra was working for the food and feed analysing laboratory of the federal state Mecklenburg-Vorpommern as a veterinary expert, doing microbiological analyses and judgement of foods as well as clarification of foodborne outbreaks.

Since May 2006, Alexandra has been employed at the Federal Institute for Risk Assessment (BfR), Berlin, Germany. At the BfR, Alexandra is working in the department of Biological Safety, dealing with the assessing of biological risks, in particular TSE-risk assessment, as well as with issues of food hygiene. Alexandra is also one of the scientific experts of the recently designated National Reference Laboratory for coagulase positive *Staphylococcus* spp. including *S. aureus*.



Dr Andre Bianchi, Med Vet Net Governing Board Member



Dr Andre Bianchi graduated in Biology with specialization in Genetics and Immunology (with honours) at the University of Amsterdam in 1979. He obtained his PhD at the Department of Cell Biology and Immunology of the Medical School of the Erasmus University in Rotterdam in 1984 with a thesis on 'The role of delayed type hypersensitivity in transplantation immunology'.

From 1983 Andre had various positions at the Central Veterinary Institute in Lelystad, which is nowadays the Animal Sciences Group (ASG). Initially he was involved in adjuvant research and research of the mucosal, porcine immune system. From 1995 he worked as Head of the Department for Respiratory Diseases in Pigs. In 2000 Andre became director of the division of statutory tasks for notifiable animal diseases. In 2002 the division for notifiable diseases was separated from the ASG and formed the Central Institute for Animal Disease Control (CIDC)-Lelystad. In 2003 Andre was also asked to become Director of RIKILT-Institute of Food Safety. He is currently combining both jobs.

Andre is author or co-author of more than 115 scientific papers in international journals in the field of immunology and infectious diseases.

Congratulations!

Arie Havelaar, Workpackage 23 Leader, has just been appointed Professor in Microbial Risk Assessment at the Institute for Risk Assessment Sciences (IRAS) at Utrecht University. The appointment is for 1 day per week, and Arie will combine this with his work at RIVM.

IRAS is an interfaculty research institute within the faculties Veterinary Medicine, Medicine, Pharmaceutical Sciences and Biology of Utrecht University. Support is also provided by the National Institute of Public Health and the Environment (RIVM) in Bilthoven, and by TNO Life Sciences, Zeist. The mission of IRAS is to provide education and research on the human health risks of exposure to potentially harmful agents in the environment, at the workplace and through the food chain. Effects on ecosystems are also considered.



Science Communication Internship

From 5 to 22 March 2007, three participants travelled to Milton Keynes, UK, to take part in Module 2 of the Med-Vet-Net Science Communication Internship.

Concepción Porrero from UCM in Spain, Elizabeth Marier from VLA in UK, and Anne-Mette Kirkemo from the Norwegian Zoonosis Institute continued on from the Module 1 training to gain some insight into the media and publishing.

The two and a half week course – ‘Influencing the Media and Publishing’ was devised by the Med-Vet-Net Communications Unit: Teresa Belcher and Jennie Drew. The course involved a mixture of in-house tuition as well as external tutors with lengthy media industry experience providing expert training.

The interns were first introduced to how the media works, and heard about a case study on how to organize a press conference from Lucy Harper of SfAM. They then received an introduction to working with images, communicating with design, and an overview of the

publishing process. This was followed by a tour of Stonebridges Printing company in Bedford where we saw the different print processes, both traditional and modern, and learnt how important it is for writers and designers to know what happens to their materials when they are ‘sent to press’.

The first of a two-day course on Features Writing introduced the different styles of writing and how to capture your reader in the opening sentences of your article. The interns then undertook a two-day course in the desktop publishing software Adobe InDesign. This gave them a basic introduction to the skills involved in the professional layout of documents such as newsletters and reports.

During the second week we travelled to London to visit the Science Media Centre (SMC), a press office



Concepción (Concha) practises giving a TV news reporter soundbites about her project.

for science that’s in the headlines. The SMC works to provide journalists with information they need when science is in the news – whether this be accurate information, a scientist to interview or a feature article. Here we attended a press briefing at which scientists from Nottingham University provided background information on hospital-acquired infections such as MRSA. Following this we attended a public tour of the BBC Television Studios and saw where news was produced, as well as how the weather is reported and also behind the scenes in a television studio.

After some more feature writing practice and layout experimentation, we headed again to London, this time to visit the BBC World Service, the arm of the BBC that provides a global network of correspondents reporting international news, analysis and information in English and 32 other languages. We met with the Science Editor and saw the beginnings of a radio programme being recorded, as well as having a tour of the newsroom.

During the second weekend, we travelled up to York to assist with the running of FameLab. NESTA FameLab is a competition to find talented scientists and engineers who can share their enthusiasm and knowledge with the public in an interesting and entertaining way. The entrants, working or studying science, presented for three minutes each to a panel of three judges and the audience. Regional winners and finalists will have the opportunity to win a communications masterclass weekend, take part in speaking



Concha, Anne-Mette and Elizabeth feel the glare of the lights and TV cameras at BBC Television Studios.

engagements and, ultimately, have the to undertake an internship with Channel 4 (a UK television channel).

Back in the office, the skill of copyediting was explained during one day, and writing press releases on another. A 'stressful' yet very interesting day was spent in the limelight of a TV camera with BBC Journalist Paul Anstiss who gave us tips and tricks on giving successful media interviews. This was followed by an opportunity to take part as the audience in a new Radio 4 series 'Medicine Balls'. We spent the final day learning the essential rules for writing concise and readable news articles.

After a very intense couple of weeks, our interns say they are more confident in working with the media and writing in the correct style depending on the target audience. I am sure they are all looking forward to Module 3 – 'Influencing Stakeholders' that commences at the end of April.

Teresa Belcher



Anne-Mette, Elizabeth and Jennie working on page layout in InDesign.

If you are employed at a Med-Vet-Net partner institute and would like to participate in the Science Communication Internship, then please contact the Communications Unit. All modules will be repeated again either later this year, or early in 2008. There are also places available to external paying participants.

Annual Report printed copies

Printed copies of the Med-Vet-Net Annual Report for 1 September 2005–31st August 2006 are now available. Med-Vet-Net members should contact their Institute Representative if they would like a copy. Otherwise please send us an email with your correspondence address: communications@medvetnet.org.

This year the report has been printed on environmentally friendly paper, which is a mix of recycled fibre and woodpulp from sustainable forests. Elemental chlorine bleaching has not been used in the manufacture of this paper. The report paper and cover is slightly thinner too to reduce paper usage and printing costs and to cut down costs of shipping.



Lucca Conference

Abstract submission and registration reminder

The deadline for abstract submission to the 3rd Med-Vet-Net Annual Scientific Conference is **2nd April**. If you wish to submit an abstract after the online submission system closes, please contact MVNConf07@medvetnet.org.

Registration closes on 1st May. See the conference website for more information: <http://www.medvetnet.org/cms/templates/doc.php?id=90>.

Med-Vet-Net Workpackage Leaders should submit their Workpackage abstracts for presentations and posters by 16th April to: MVNConf07@medvetnet.org



External congress

Society for Applied Microbiology, Spring Meeting, A one day meeting on: Broadening Microbiology Horizons Manchester Metropolitan University, 11 April 2007

For more information see: www.sfam.org.uk or contact: Sally Cryer (sally@sfam.org.uk)

SafePork 2007, 7th International Symposium Verona, Italy, 9–11 May 2007.

Epidemiology and control of foodborne pathogens in pork.

For more information see: www.safepork.sistemacongressi.com

American Society of Microbiology Conference, Toronto, Canada, 21–25 May

The scientific program will feature nearly 300 individual colloquia, symposia, roundtable discussions, award lectures, and poster sessions.

See www.gm.asm.org for more information and registration.

Society for Applied Microbiology, Summer Meeting, 'Microbiology of Fresh Produce', Park Plaza Hotel, Cardiff, UK, 2–5 July 2007

For more information see www.sfam.org.uk or contact Sally Cryer (sally@sfam.org.uk)

IFAH-Europe Conference 2007, 6 June 2007, Brussels Marriott Hotel

'Veterinary medicines regulation – Is Europe still at the cutting edge of innovation?'

The conference aims to examine better regulation in the context of the current regulatory framework for animal health products and discuss ways to further improve it. The event is structured in two sessions:

For more information see: www.ifahsec.org

IAFP 2007, Disney's Contemporary Resort, Lake Buena Vista, Florida, USA, 8–11 July 2007

The International Association for Food Protection's Annual Meeting features over 500 technical papers, posters and symposia, detailing current information on a variety of topics relating to food safety.

For more information see www.foodprotection.org/meetingsEducation/2007ammain.asp

14th International Workshop on *Campylobacter*, *Helicobacter* and Related Organisms, 2nd September 2007 to 5th September 2007, Beurs World Trade Center Rotterdam The Netherlands

For more information see <http://www.chro2007.nl/>

Society for General Microbiology 161st Meeting, 3rd September 2007 to 6th September 2007, University of Edinburgh, UK

For more information see: <http://www.sgm.ac.uk/meetings/MTGPAGES/Edinburgh07.cfm>

World Rabies Day, 8th September 2007

World Rabies Day has several campaigns all with one objective – to end people dying from rabies.

For more information see: www.worldrabiesday.org/

Surviving as a woman in science, EuroSciCon meeting 2 November 2007

Confirmed talks include:

- Creating Cultures of Success for women in science
- What does it take to get women back into SET work after a career break?
- Fellowship opportunities for women in science
- Scientific Publishing: A female dominated field

For more information see www.euroscicon.com or email enquiries@euroscicon.com

FP7 Partner Search

OUEST-genopole (OGP), a regional research driven cluster, is seeking to join a consortium under construction as partner for the following FP7 call:

REGIONS-2007-1: Regions of Knowledge: Analysis, mentoring and integration of research actors

For more information see: www.6pr.pl/p/pliki/5931

Microbiology Students' Portal

A new web portal has just launched aimed at Microbiology students:

www.microbiologystudents.com/

The site has links to jobs, news, events, articles, projects, products and services and microbiology discussion forums.

Students can also sign up to receive a newsletter.



Contact us

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Contributions and suggestions are welcome. Deadline for publication is 1st of each month.

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