



Better Training for Safer Food BTFSF

Coordination of animal health and public health

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Outline

- *The ONE HEALTH policy*
 - *Worldwide strategy*
 - *History*
 - *How to achieve it ?*
 - *Control at national and international level*
 - *Good governance of efficient veterinary services*
- *Examples of co-operation*

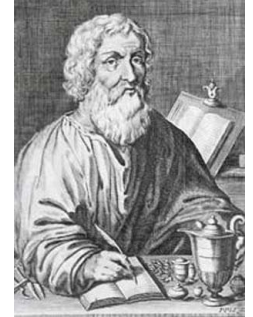
The ONE HEALTH policy



Worldwide strategy

- **The One Health concept is a worldwide strategy for expanding interdisciplinary collaborations and communications in all aspects of health care for humans, animals and the environment**
- **“ONE MEDICINE” was developed and promoted by Calvin W. Schwabe - textbook “Veterinary medicine and human health”**

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History

- **Hippocrates (460-370 years BCE) “ On Airs, Waters, Places”- public health and clean environment**
- **Giovanni Maria Lancisi (around 1700): environment plays the role in the spread of diseases to humans and animals; control of rindepest**
- **In 19th Virchow coined the term zoonosis: “Between animal and human medicine there are no dividing lines- nor should there be”**

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History

- **Emerging health issues in 20th century are linked to contacts between animals and humans, wildlife, intensification of food production, intensive travel worldwide**
- **West Nile fever outbreak in New York 1999**
- **H5N1 epidemic started in Hong Kong 1997**
- **OIE, WHO and FAO: strategic framework agreement to work together to address the animal-human-ecosystem interface**



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History inside the EU

- *The basis was fight against the two major zoonoses- tuberculosis and brucellosis, today eradicated and or controlled in MS*
- *The BSE crisis in 90ies increased the need for intersectoral co-operation*
- *Food borne diseases (listeriosis, salmonellosis) and adopted legislation on zoonoses in 2003*

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History inside the EU

- *HPAI crisis in 2005 started the developments of endorsement of one health approach at different levels – national, regional and global*
- *New animal health strategy launched in EU in 2007*

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How to achieve it?

- Disease surveillance and control at the domestic and wild animal sources
- Biosecurity measures
- Prediction, prevention and fast response are key tools in human and animal health
- Assessment, treatment and prevention of cross-species disease transmission

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How to achieve it?

- Research and education
- Developments of new diagnostic methods, medicines and vaccines
- Communication efforts
- Efforts to inform political leaders and public

Control at national and international level

At the national/country level

- **Institutional framework**
- **Surveillance systems**
- **Capacity to detect, assess, notify and report disease events in humans and animals in accordance with IHR and OIE standards**
- **Budgetary provisions that support surveillance and response systems**
- **Legal systems that allow a multi sectoral approach to EID control**

Good governance of efficient veterinary services

Three pillars need to be addressed under better governance

- **Structures or institutions**
- **The processes**
- **The resources**

Control at national and international level

At the regional level (RAHCs)

- **An appropriate framework for ensuring coordinated surveillance and emergency disease planning that can efficiently establish a shared strategy and the joint use of diagnostic and rapid response resources and facilities**
- **A commonly agreed regional policy framework and supporting country-level legislation for the monitoring and management of cross-border movement of humans, animals and animal products**

Control at national and international level

Important activities

- **To strengthen animal and human health institutions**
- **Jointly developed protocols and standards for managing emerging zoonotic diseases**
- **Strengthen collaboration in human and animal health laboratory activities**
- **Cooperation between human and animal surveillance systems**

Examples of co-operation

- **Brucellosis of ruminants:**

Huge amount of work in the past decades resulted in many countries disease free status, in others close to be eradicated (mass vaccination, testing of animals, culling of positive, milk control)

RESULT= REDUCTION OF HUMAN CASES

- **Bovine Tuberculosis:**

Testing and culling of animals, raw milk control

RESULT= PRACTICALY NO HUMAN CASES OF BOVINE TUBERCULOSIS

Examples of co-operation

- **EU Legislation on zoonoses**
 - Good example of cooperation between public health and food safety (animal health) authorities.
 - The goal is to prevent human health from diseases of animal origin, to identify the source of infection and decrease the number of zoonotic outbreaks.
 - Salmonella control in feed and food + appropriate consumers information = 50% less human cases
 - West Nile fever and Q fever – ALERT

Examples of co-operation

Q fever case in the Netherland

- Government's overall response to the Q fever crisis was slow and uncoordinated, hampered by disagreements in attitude and policy between the Ministry of Agriculture and the Ministry of Health
- The outbreak response was hindered by concerns about commercial confidentiality
- The investigation concluded that the government was too slow in communicating with the public, resulting in anxiety among the Dutch population

Examples of co-operation

The report of the Health Council of the Netherlands, August 31, 2011



- **Bacteria are becoming resistant to antibiotics**
- **Problem for treatment for certain infections in humans**
- **Because of extensive use of antibiotics, the sector producing food of animal origin plays an important role**
- **Although MRSA has been isolated from food samples derived from animals, there have been few cases reported of food-borne MRSA infection**

Examples of co-operation

Avian Influenza(AI)

- Avian influenza (AI), commonly called bird flu, is an infectious viral disease of birds.
- Most AI viruses do not infect humans; however some, such as H5N1, have caused serious infections in people.
- Outbreaks of AI in poultry may raise global public health concerns due to their effect on poultry populations, their potential to cause serious disease in people, and their pandemic potential.



Examples of co-operation

Avian Influenza(AI)

- Reports of highly pathogenic AI epidemics in poultry can seriously impact local and global economies and international trade.
- The majority of human cases of H5N1 infection have been associated with direct or indirect contact with infected live or dead poultry. There is no evidence that the disease can be spread to people through properly cooked food.
- Controlling the disease in animals is the first step in decreasing risks to humans.



Examples of co-operation

Avian influenza H5N1

- A highly pathogenic AI virus
- First infected humans in 1997 during a poultry outbreak in Hong Kong SAR, China
- Re-emergence in 2003 and 2004
- This avian virus has spread from Asia to Europe and Africa and has become entrenched in poultry in some countries
- Resulting in millions of poultry infections, several hundred human cases, and many human deaths



Examples of co-operation

Avian influenza H5N1

- On-going circulation of H5N1 viruses in poultry, especially when endemic, continues to pose threats to public health
- AI viruses have both the potential to cause serious disease in people and may have the potential to change into a form that is more transmissible among humans.
- Other influenza virus subtypes also circulate in poultry and other animals, and may also pose potential threats to public health.



Examples of co-operation

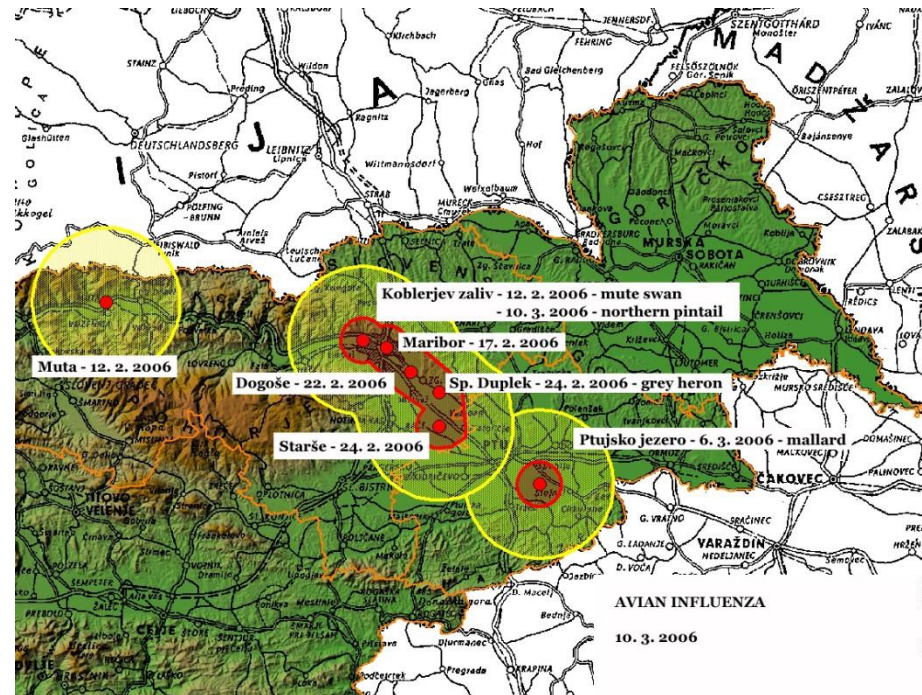
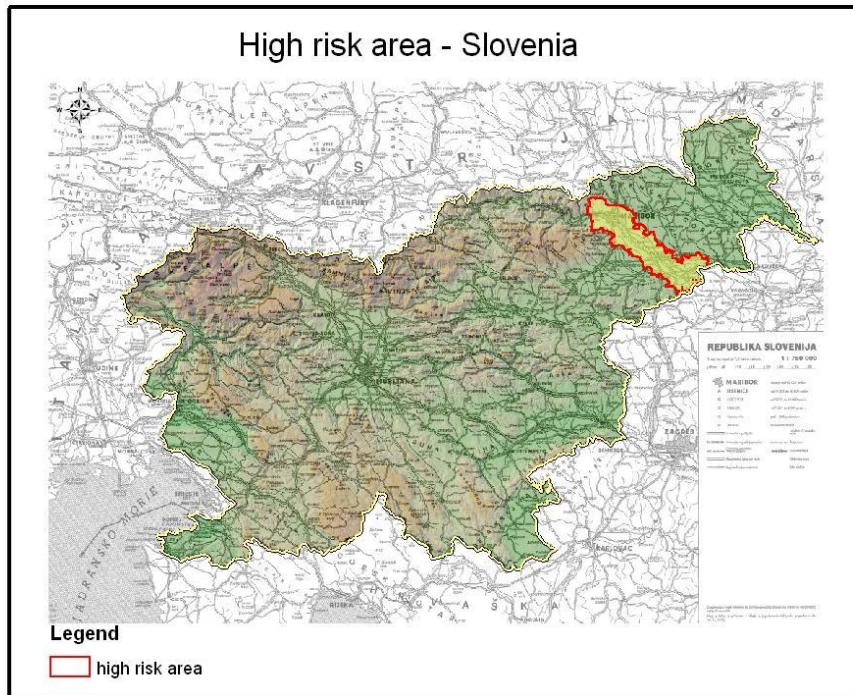
Avian influenza H5N1 – control measures

- In EU where the presence of virus is not endemic, stamping out of infected holding and contact holding are used (culling of animals and appropriate disposal of carcasses)
- Establishing of control and surveillance zones around the index case
- Ban of movements of live poultry and their products in region as well as prohibition of trade abroad



Examples of co-operation

AI Example from Slovenia



Thank you for your attention!

