GLOBAL AGENDA FOR SUSTAINABLE LIVESTOCK

FROM CRISIS TO ACTION

Lessons from COVID-19 for Building a Better Future through Sustainable Livestock

Zoonoses and pandemics

- the role of livestock?

Professor Ulf Magnusson, DVM, PhD,

Swedish University of Agricultural Sciences, SLU

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Zoonoses :
Infectious diseases transmitted between Animals and Humans

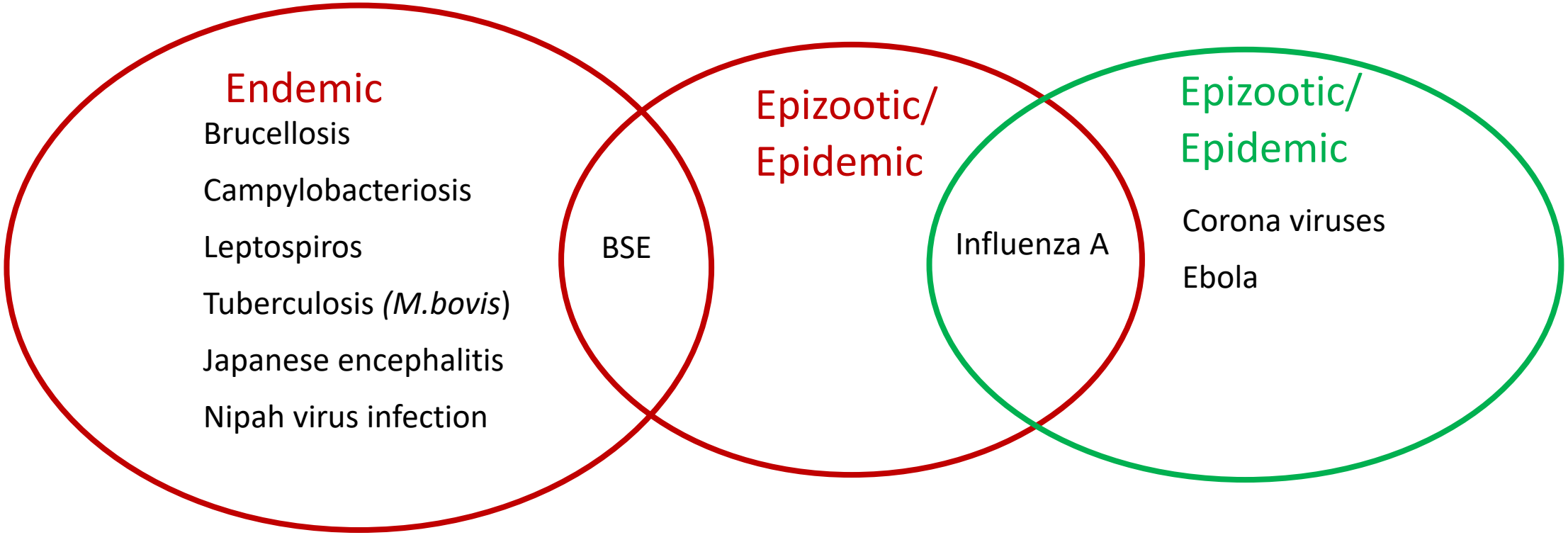
About 60% of all infectious diseases in humans are zonnoses

More than 70% of emerging infectious diseases in humans originates from animals (majority wildlife)

Affects the poor the most

- Zoonoses are regularly circulating in the livestock population (endemic)
- The poor live more often close to their livestock
- Insufficient sanitary/hyginic conditions
- Urban livestock farming

Zoonoses in livestock and wildlife (examples)



Transmission to humans via direct contact, aerosols, food or vectors

Brucellosis – direct contact and food borne

PLOS ONE

RESEARCH ARTICLE

A Study of Knowledge, Attitudes and Practices Relating to Brucellosis among Small-Scale Dairy Farmers in an Urban and Peri-Urban Area of Tajikistan

Elisabeth Lindahl[1], Nosirjon Sattorov[2], Sofia Boqvist[3], Ulf Magnusson[1]*

PLOS NEGLECTED TROPICAL DISEASES

RESEARCH ARTICLE

Detection and characterization of *Brucella* spp. in bovine milk in small-scale urban and peri-urban farming in Tajikistan

Elisabeth Lindahl-Rajala[1], Tove Hoffman[2], David Fretin[3], Jacques Godfroid[4], Nosirjon Sattorov[5], Sofia Boqvist[6], Åke Lundkvist[2], Ulf Magnusson[1]*

Risks when
-assisting birth/abortion of calves or lambs
and
-consuming unpasteurized dairy products

5 GENDER EQUALITY

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Japanese encephalitis – spread by mosquitos

OPEN ACCESS Freely available online PLOS | NEGLECTED TROPICAL DISEASES

Circulation of Japanese Encephalitis Virus in Pigs and Mosquito Vectors within Can Tho City, Vietnam

Johanna F. Lindahl[1], Karl Ståhl[2¤], Jan Chirico[3], Sofia Boqvist[2], Ho Thi Viet Thu[4], Ulf Magnusson[1*]

Am. J. Trop. Med. Hyg., 87(6), 2012, pp. 1076–1082
doi:10.4269/ajtmh.2012.12-0315
Copyright © 2012 by The American Society of Tropical Medicine and Hygiene

Occurrence of Japanese Encephalitis Virus Mosquito Vectors in Relation to Urban Pig Holdings

Johanna Lindahl, Jan Chirico, Sofia Boqvist, Ho Thi Viet Thu, and Ulf Magnusson*

Risks:
Allowing breeding grounds for the mosquitos
Urban animal farming
Geographic distribution of competent vectors changes fast because of CC

13 CLIMATE ACTION

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Campylobacter – food borne

Osbjer et al. BMC Public Health (2015) 15:476
DOI 10.1186/s12889-015-1811-5

BMC Public Health

RESEARCH ARTICLE Open Access

Household practices related to disease transmission between animals and humans in rural Cambodia

Kristina Osbjer[1], Sofia Boqvist[2], Seng Sokerya[3], Chheng Kannarath[4], Sorn San[5], Holl Davun[5] and Ulf Magnusson[1*]

Epidemiol. Infect. (2016), **144**, 2979–2988. © Cambridge University Press 2016
doi:10.1017/S095026881600114X

Risk factors associated with *Campylobacter* detected by PCR in humans and animals in rural Cambodia

K. OSBJER[1], S. BOQVIST[2], S. SOKERYA[3], K. CHHENG[4], S. SAN[5], H. DAVUN[5], H. RAUTELIN[6] AND U. MAGNUSSON[1]*

Risks from poor hygiene

- mixing areas for humans and poultry
- when cooking poultry

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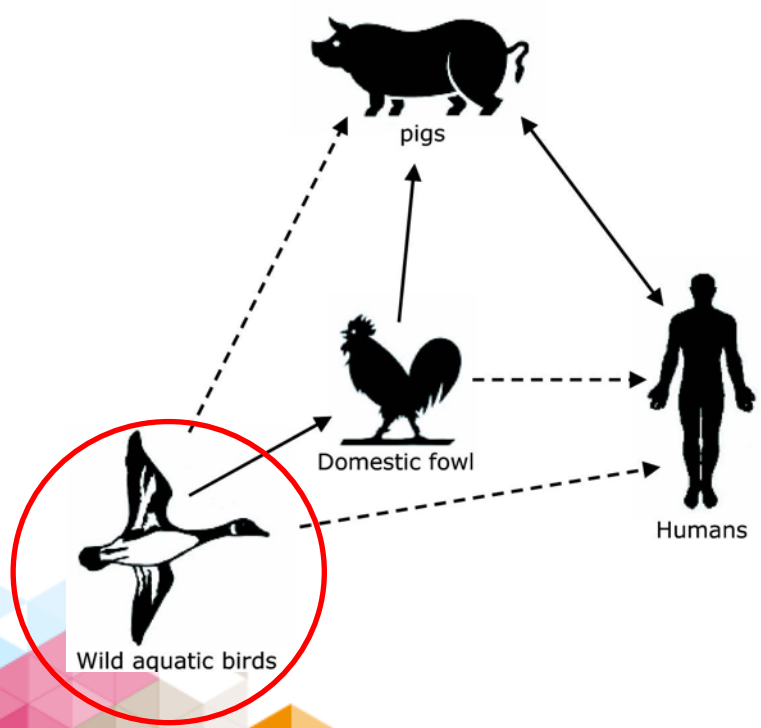
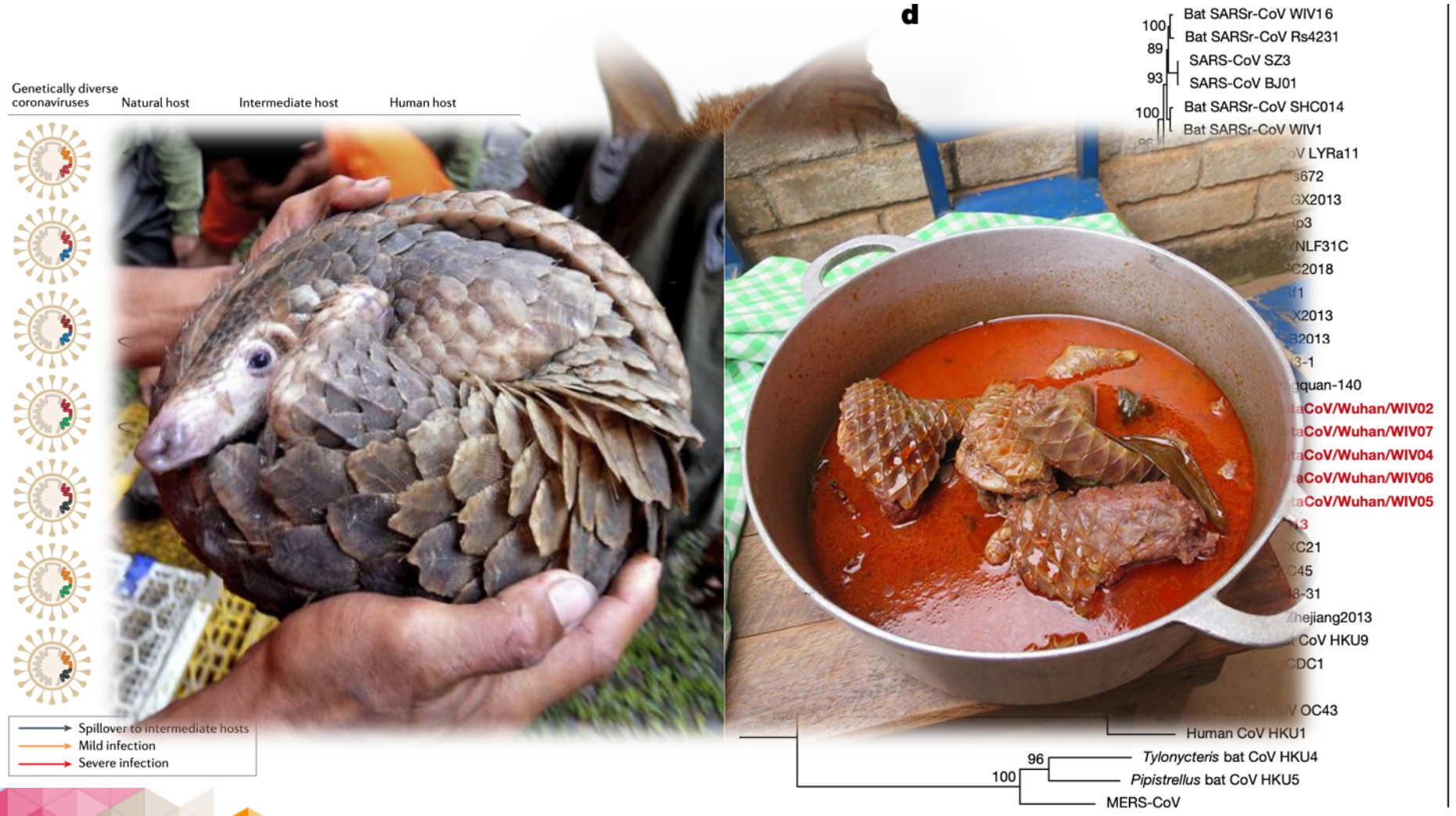
Influenza A – changing all the time…



Ma et al. *J Mol Med Gen* 2015, Osbjer et al ., 2017, *Transbound Emerg Dis.*

Ebola and bushmeat

The SARS/MERS/Covid19 origins……



Zhou et al., *Nature* 2020; Zhang et al., *Curr Biol*., 2020

Preventing Zoonotic transmission is a responsibility for the livestock sector - that also improves livestock health and productivity

I. Improve diseases monitoring in livestock and livestock foods
II. Improve biosecurity
III. Improve food safety

Thank you!

Photo:FAO