ECDC & EFSA
One Health in Action

Activities and collaboration for prevention, detection, signal sharing and risk assessments

Andrea Ammon | *ECDC Director*

Bernhard Url| *EFSA Director*

28.06.2023

EUROPEAN FOOD SAFETY AUTHORITY

EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

MISSION

Identify, Assess, and Communicate
current and emerging threats to human health posed by infectious diseases

Regulation (EC) No 851/2004 as amended by Regulation (EU) 2022/2370 – preparedness "inspired": *identify and assess* ***current and emerging threats to human health*** *from communicable diseases and related special health issues, to report thereon and, where appropriate, to ensure that information thereon is presented in an easily accessible way.*

Disease Surveillance & Epidemic intelligence ✸ Response support & Risk assessments ✸ Preparedness & capacity strengthening ✸ Scientific advice & guidance ✸ EU and external stakeholders & Country support ✸ Public health training

MISSION

Protecting consumers, animals, plants and the environment through independent and transparent scientific advice on risks in the food chain from farm to fork

Regulation (EC) No 178/2002 – One Health "inspired": *The Authority shall contribute to a high level of protection of human life and **health**, and in this respect take account of **animal health and welfare**, **plant health** and the **environment**…*

SO1: Deliver trustworthy scientific advice and communication of risks from farm to fork
SO2: Ensure preparedness for future risk analysis needs
SO3: Empower people and ensure organisational agility

BIODIVERSITY LOSS

CLIMATE CHANGE

LAND USE CHANGE

WAR & SOCIAL UNREST

PANDEMICS, EIDs, NTDs

DEPLETION NATURAL RESOURCES

Activities and collaboration – prevention, detection & risk assessments


SCIENTIFIC REPORT

APPROVED: 11 November 2022

doi: 10.2903/j.efsa.2022.7666

The European Union One Health 2021 Zoonoses

European Food Safety Authority
European Centre for Disease Prevention and Control

Abstract

This report of the European Food Safety Authority and the European Centre for Dis
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in 27 MSs, the United Kingdom (Northern Ireland) and nine non-MSs. Key statistics o
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respectively. Cases of campylobacteriosis and salmonellosis increased in comparison
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due to *Mycobacterium bovis* or *M. caprae*, and tularaemia.

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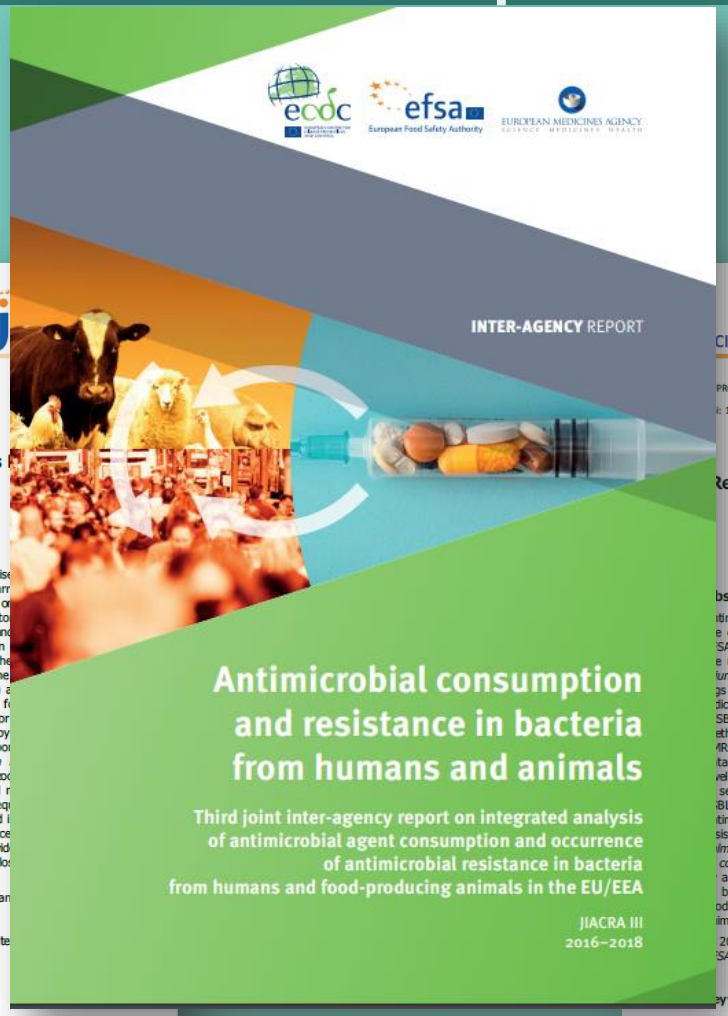
Keywords: *Campylobacter*, foodborne outbreaks, *Listeria*, monitoring, parasite
zoonoses

Requestor: European Commission

Question number: EFSA-Q-2021-00762

Correspondence: zoonoses@efsa.europa.eu

www.efsa.europa.eu/efsajournal EFSA Journal 2022;20(12):7666




SCIENTIFIC REPORT

JOURNAL

PROVED: 31 January 2023

: 10.2903/j.efsa.2023.7867

The European Union Summary Report on Antimicrobial Resistance in zoonotic and indicator bacteria from humans, animals and food in 2020/2021

European Food Safety Authority (EFSA) and
European Centre for Disease Prevention and Control (ECDC)

bstract

timicrobial resistance (AMR) data on zoonotic and indicator bacteria from humans, animals and food
e collected annually by the EU Member States (MSs) and reporting countries, jointly analysed by
SA and ECDC and presented in a yearly EU Summary Report. This report provides an overview of
e main findings of the 2020–2021 harmonised AMR monitoring in *Salmonella* spp., *Campylobacter*
uni and *C. coli* in humans and food-producing animals (broilers, laying hens and turkeys, fattening
gs and bovines under 1 year of age) and relevant meat thereof. For animals and meat thereof,
dicator *E. coli* data on the occurrence of AMR and presumptive Extended spectrum β-lactamases
SBL)-/AmpC β-lactamases (AmpC)-/carbapenemases (CP)-producers, as well as the occurrence of
ethicillin-resistant *Staphylococcus aureus* are also analysed. In 2021, MSs submitted for the first time
MR data on *E. coli* isolates from meat sampled at border control posts. Where available, monitoring
ta from humans, food-producing animals and meat thereof were combined and compared at the EU
el, with emphasis on multidrug resistance, complete susceptibility and combined resistance patterns
selected and critically important antimicrobials, as well as *Salmonella* and *E. coli* isolates exhibiting
BL-/AmpC-/carbapenemase phenotypes. Resistance was frequently found to commonly used
timicrobials in *Salmonella* spp. and *Campylobacter* isolates from humans and animals. Combined
sistance to critically important antimicrobials was mainly observed at low levels except in some
lmonella serotypes and in *C. coli* in some countries. The reporting of a number of CP-producing
coli isolates (harbouring bla_{OXA-48}, $bla_{OXA-181}$, and bla_{NDM-5} genes) in pigs, bovines and meat thereof
a limited number of MSs (4) in 2021, requests a thorough follow-up. The temporal trend analyses
both key outcome indicators (rate of complete susceptibility and prevalence of ESBL-/AmpC-
oducers) showed that encouraging progress have been registered in reducing AMR in food-producing
imals in several EU MSs over the last years.

2023 European Food Safety Authority and European Centre for Disease Prevention and Control.
SA Journal published by Wiley-VCH GmbH on behalf of European Food Safety Authority.

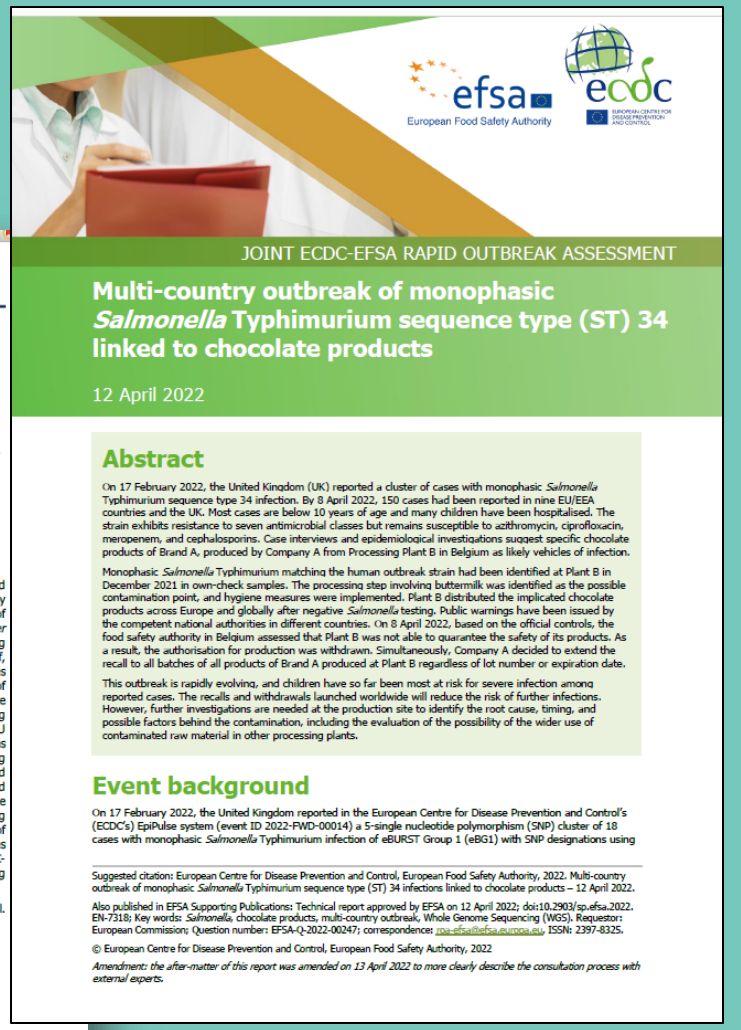
ywords: antimicrobial resistance, zoonotic bacteria, indicator bacteria, ESBL, MRSA

Requestor: European Commission

Question number: EFSA-Q-2021-00768

Correspondence: zoonoses@efsa.europa.eu (EFSA); FWD@ecdc.europa.eu (ECDC)

www.efsa.europa.eu/efsajournal EFSA Journal 2023;21(3):7867



Report on integrated analysis of antimicrobial agent consumption and occurrence of antimicrobial resistance in bacteria from humans and food-producing animals in the EU/EEA – JIACRA III

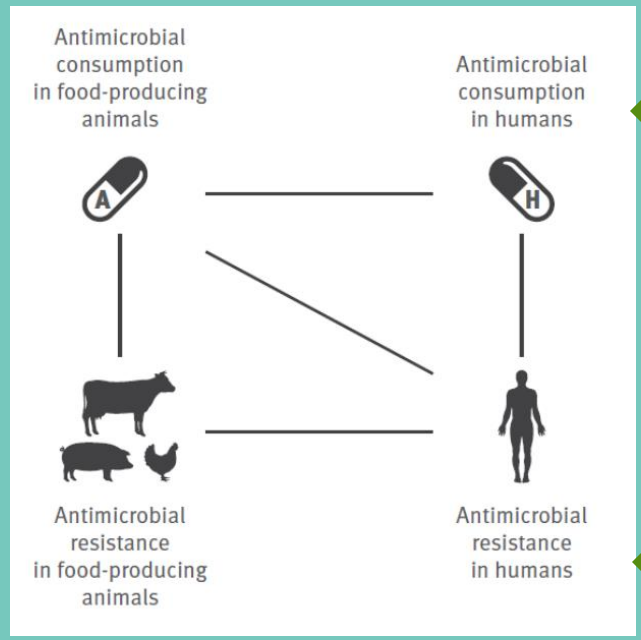
EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

European Surveillance of Veterinary Antimicrobial Consumption (**ESVAC**)

EUROPEAN FOOD SAFETY AUTHORITY

Network on Zoonoses Data Collection

EU Summary Report on AMR in zoonotic and indicator bacteria from humans, animals and food



European Surveillance of Antimicrobial Consumption Network (**ESAC-Net**)

European Antimicrobial Resistance Surveillance Network (**EARS-Net**)

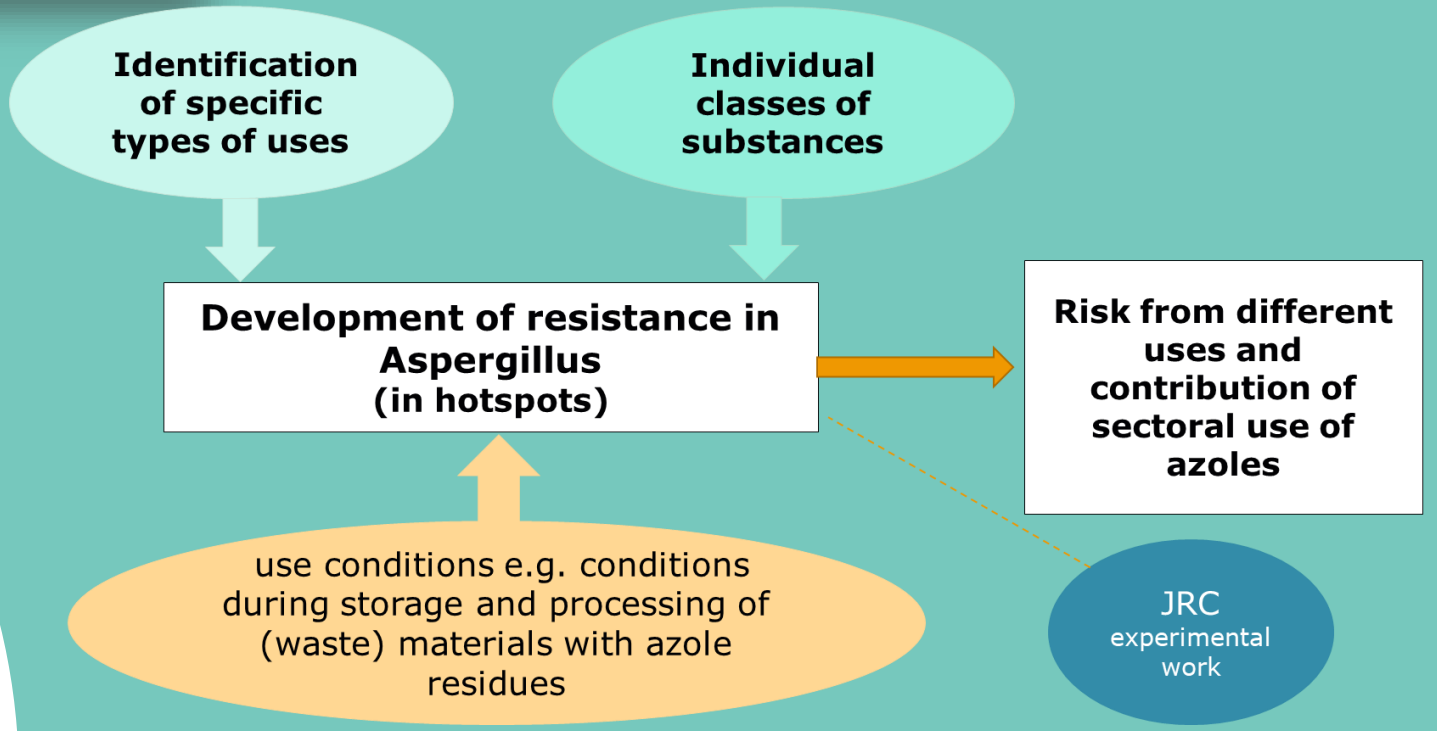
Food- and Water-borne Disease Network (**FWD-Net**)

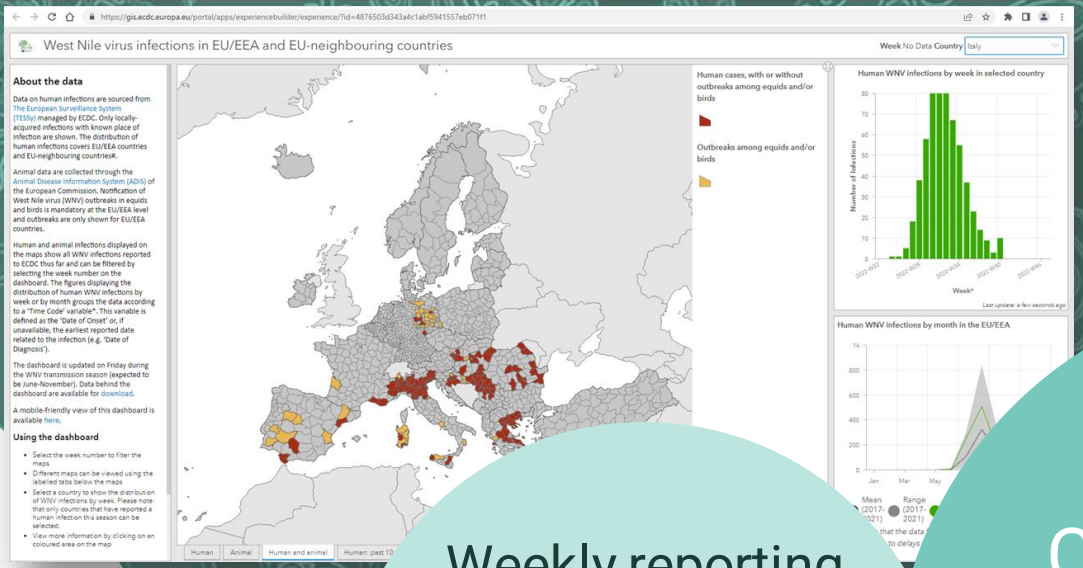
Joint risk assessments – paradigm shift!

Resistance to Azole may develop during

treatment with azole medicines =>patient route

develop in the environment => **environmental route**





Weekly reporting of West Nile virus activity in humans and animals in the transmission season

COLLABORATION ON VECTOR-BORNE DISEASES

Surveillance, prevention and control of leishmaniases in the European Union and its neighbouring countries

Integrated West Nile virus surveillance

EUROROUNDUP

West Nile virus surveillance in Europe: moving towards an integrated animal-human-vector approach

CM Gossner [1], L Marrama [1], M Carson [2], F Allerberger [3], P Calistri [4], D Dilaveris [5], S Lecollinet [6], D Morgan [7], N Nowotny [8 9], M Paty [10], D Pervanidou [11], C Rizzo [12], H Roberts [13], F Schmoll [3], W Van Bortel [1], A Gervelmeyer [2]

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3. Units for Animal Health and Public Health, Austrian Agency for Health and Food Safety (AGES), Vienna, Austria
4. Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise 'G. Caporale', Teramo, Italy
5. Ministry of Rural Development and Food, Animal Health Directorate, Athens, Greece
6. French Agency for Food, Environmental and Occupational Health & Safety (ANSES), Animal Health Laboratory, EU-RL on equine diseases, Maisons-Alfort, France
7. Emerging Infections and Zoonoses, Public Health England, Colindale, United Kingdom
8. Institute of Virology, University of Veterinary Medicine, Vienna, Austria
9. Department of Basic Medical Sciences, College of Medicine, Mohammed Bin Rashid University of Medicine and Health Sciences, Dubai, United Arab Emirates
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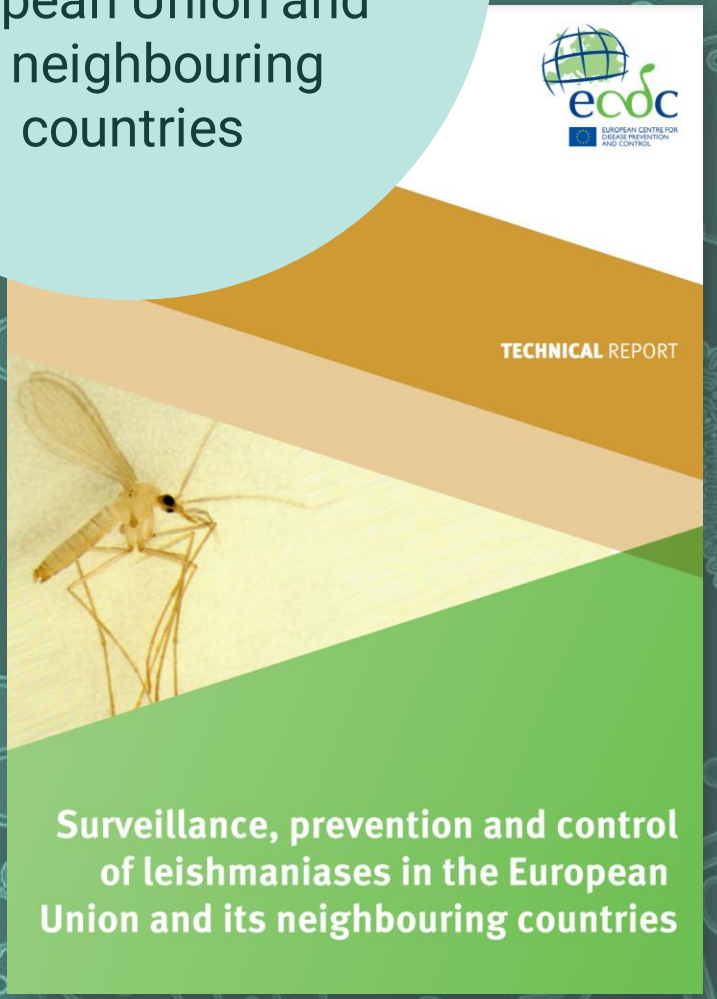
13. Veterinary and Science Policy Advice team, Animal and Plant Health Agency, Weybridge, United Kingdom

Correspondence: Céline M Gossner (Celine.Gossner@ecdc.europa.eu)



Prevention, detection, signal sharing

Monitoring the geographic distribution of arthropod vectors in Europe – VectorNet

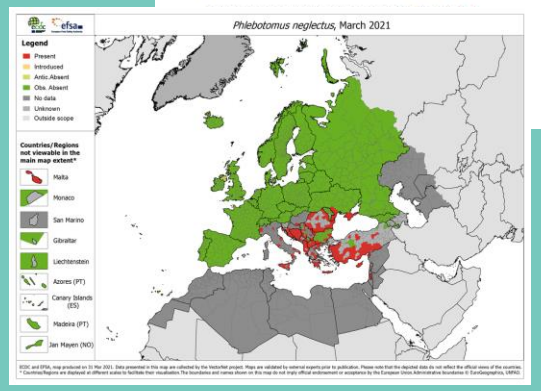
European network for medical and veterinary entomology ECDC-EFSA joint project

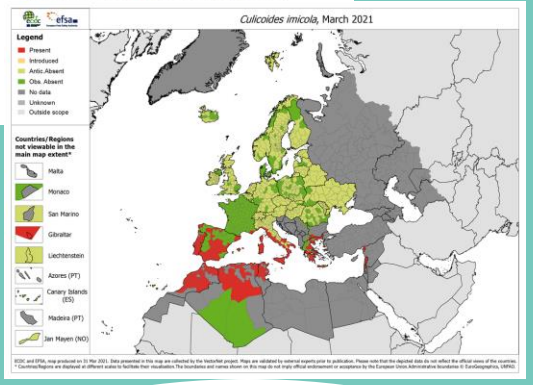
Mosquito maps

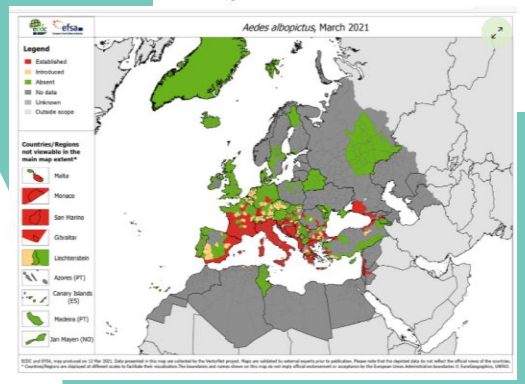
Tick maps

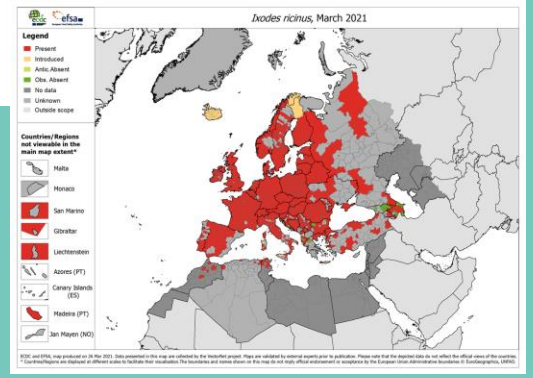
Phlebotomine sandflies maps

Biting midge maps





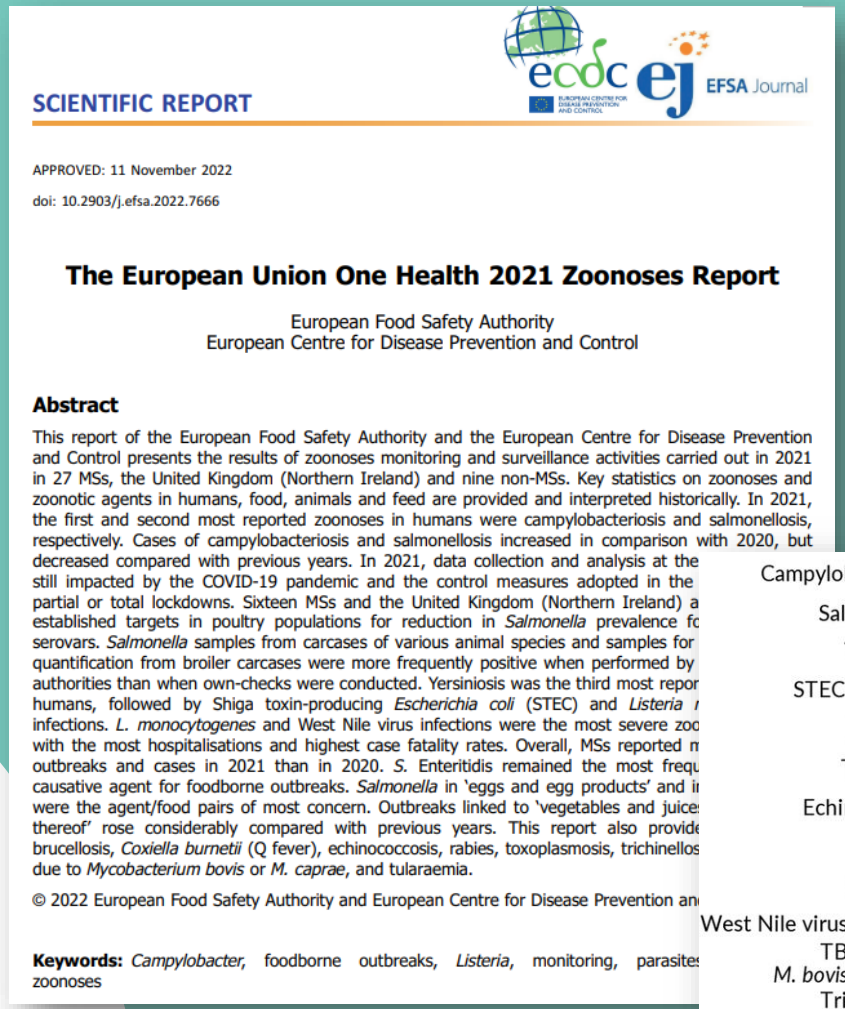




9 invasive and 20 native mosquitoes, 7 ticks, 12 sand flies, 10 biting midges

Prevention, detection, signal sharing

One Health Zoonoses Report



SCIENTIFIC REPORT

EFSA Journal

APPROVED: 11 November 2022

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European Food Safety Authority
European Centre for Disease Prevention and Control

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Keywords: *Campylobacter*, foodborne outbreaks, *Listeria*, monitoring, parasites
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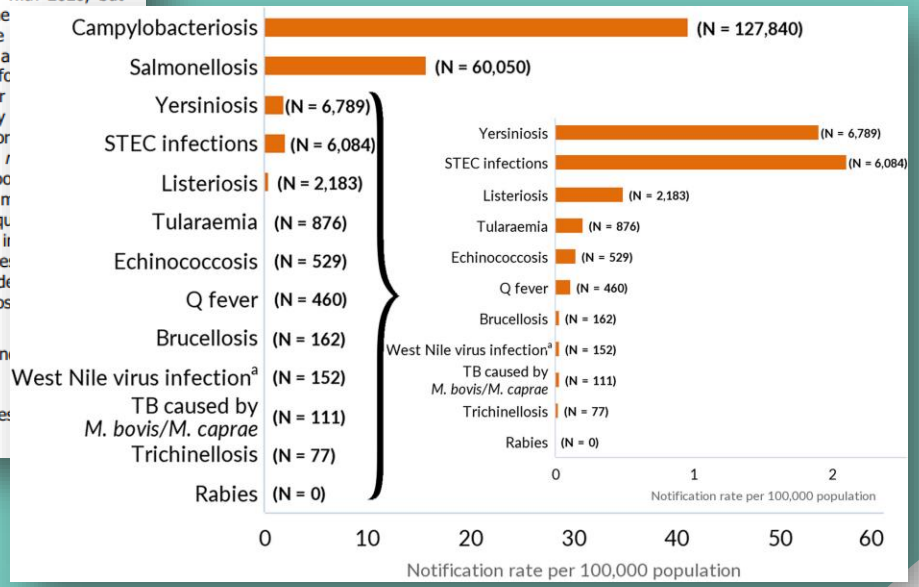
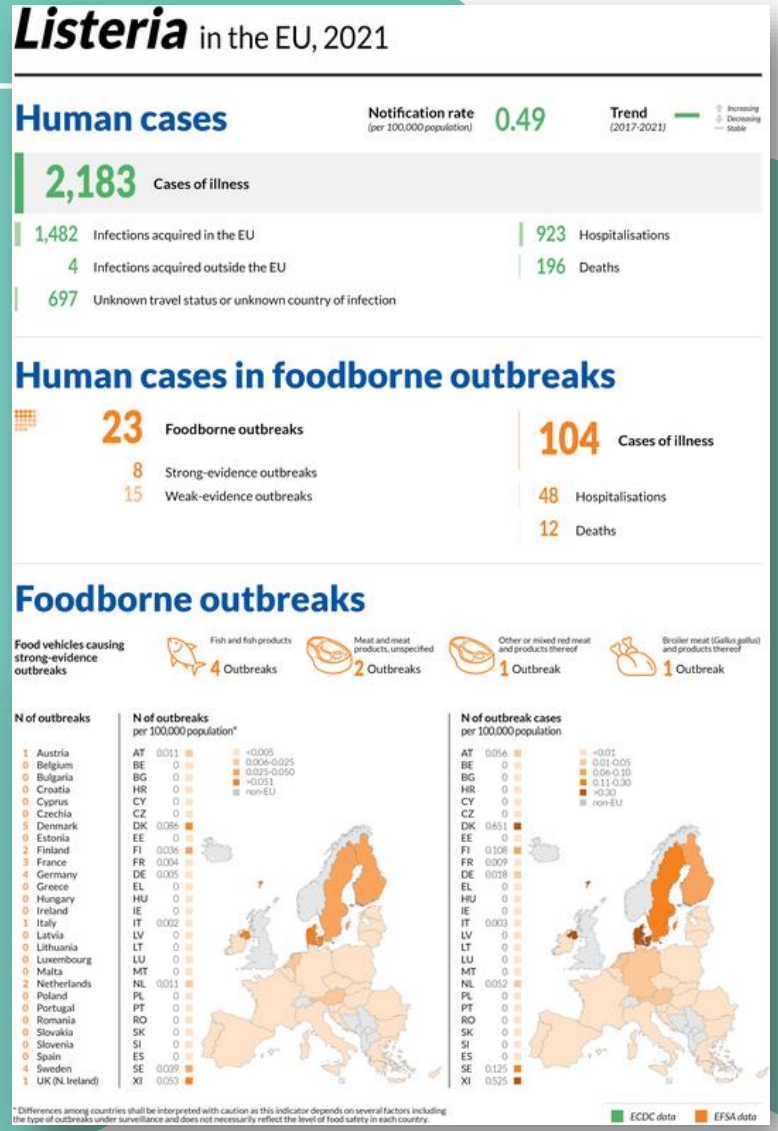




Listeria in the EU, 2021

Human cases

Notification rate (per 100,000 population) 0.49

Trend (2017-2021)

2,183 Cases of illness

1,482 Infections acquired in the EU
4 Infections acquired outside the EU
697 Unknown travel status or unknown country of infection
923 Hospitalisations
196 Deaths

Human cases in foodborne outbreaks

23 Foodborne outbreaks
8 Strong-evidence outbreaks
15 Weak-evidence outbreaks
104 Cases of illness
48 Hospitalisations
12 Deaths

Foodborne outbreaks

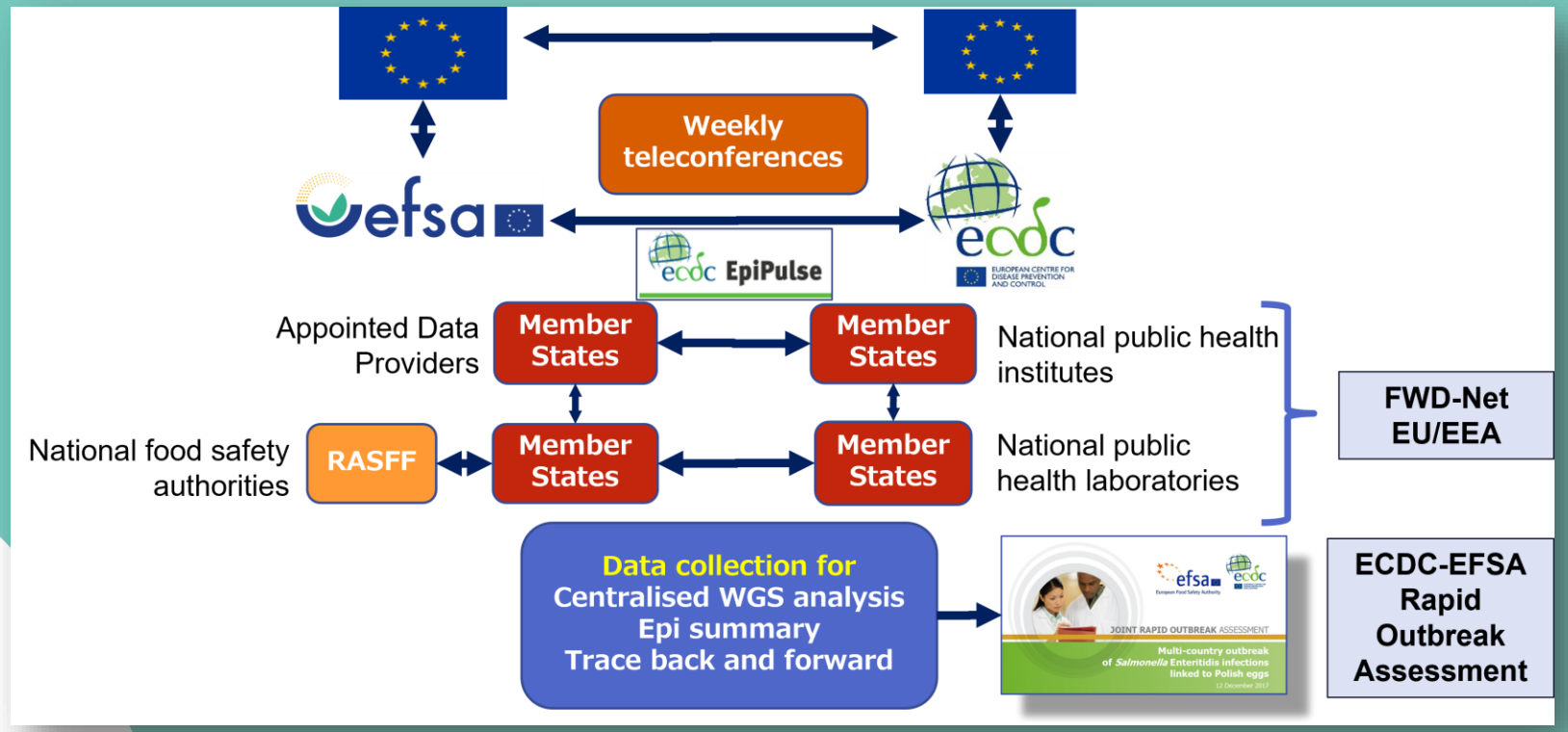
Food vehicles causing strong-evidence outbreaks
Fish and fish products: 4 Outbreaks
Meat and meat products, unspecified: 2 Outbreaks
Other or mixed red meat and products thereof: 1 Outbreak
Broiler meat (Gallus gallus) and products thereof: 1 Outbreak

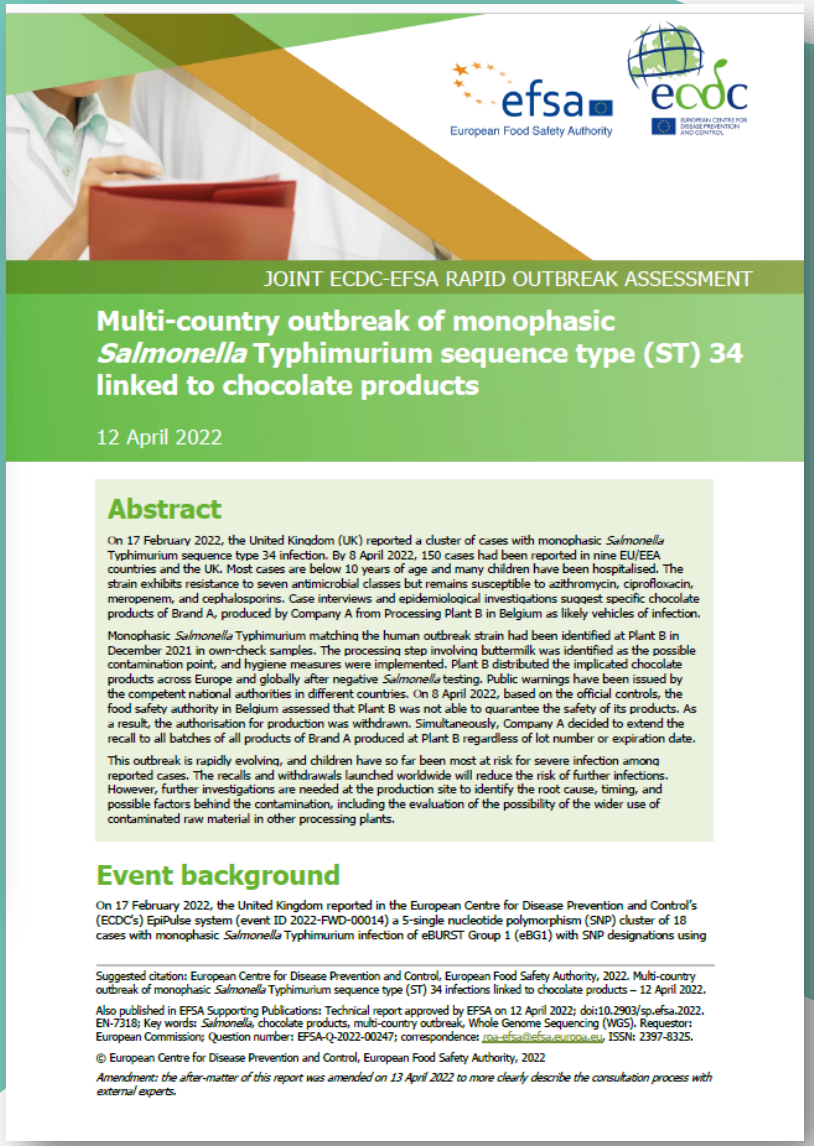
N of outbreaks
N of outbreaks per 100,000 population*
N of outbreak cases per 100,000 population

ECDC data EFSA data

Prevention, detection, signal sharing

Cross-sectoral response to cross-border foodborne outbreaks





efsa European Food Safety Authority

ecdc

JOINT ECDC-EFSA RAPID OUTBREAK ASSESSMENT

Multi-country outbreak of monophasic *Salmonella* Typhimurium sequence type (ST) 34 linked to chocolate products

12 April 2022

Abstract

On 17 February 2022, the United Kingdom (UK) reported a cluster of cases with monophasic *Salmonella* Typhimurium sequence type 34 infection. By 8 April 2022, 150 cases had been reported in nine EU/EEA countries and the UK. Most cases are below 10 years of age and many children have been hospitalised. The strain exhibits resistance to seven antimicrobial classes but remains susceptible to azithromycin, ciprofloxacin, meropenem, and cephalosporins. Case interviews and epidemiological investigations suggest specific chocolate products of Brand A, produced by Company A from Processing Plant B in Belgium as likely vehicles of infection.

Monophasic *Salmonella* Typhimurium matching the human outbreak strain had been identified at Plant B in December 2021 in own-check samples. The processing step involving buttermilk was identified as the possible contamination point, and hygiene measures were implemented. Plant B distributed the implicated chocolate products across Europe and globally after negative *Salmonella* testing. Public warnings have been issued by the competent national authorities in different countries. On 8 April 2022, based on the official controls, the food safety authority in Belgium assessed that Plant B was not able to guarantee the safety of its products. As a result, the authorisation for production was withdrawn. Simultaneously, Company A decided to extend the recall to all batches of all products of Brand A produced at Plant B regardless of lot number or expiration date.

This outbreak is rapidly evolving, and children have so far been most at risk for severe infection among reported cases. The recalls and withdrawals launched worldwide will reduce the risk of further infections. However, further investigations are needed at the production site to identify the root cause, timing, and possible factors behind the contamination, including the evaluation of the possibility of the wider use of contaminated raw material in other processing plants.

Event background

On 17 February 2022, the United Kingdom reported in the European Centre for Disease Prevention and Control's (ECDC's) EpiPulse system (event ID 2022-FWD-00014) a 5-single nucleotide polymorphism (SNP) cluster of 18 cases with monophasic *Salmonella* Typhimurium infection of eBURST Group 1 (eBG1) with SNP designations using

Suggested citation: European Centre for Disease Prevention and Control, European Food Safety Authority, 2022. Multi-country outbreak of monophasic *Salmonella* Typhimurium sequence type (ST) 34 infections linked to chocolate products – 12 April 2022.

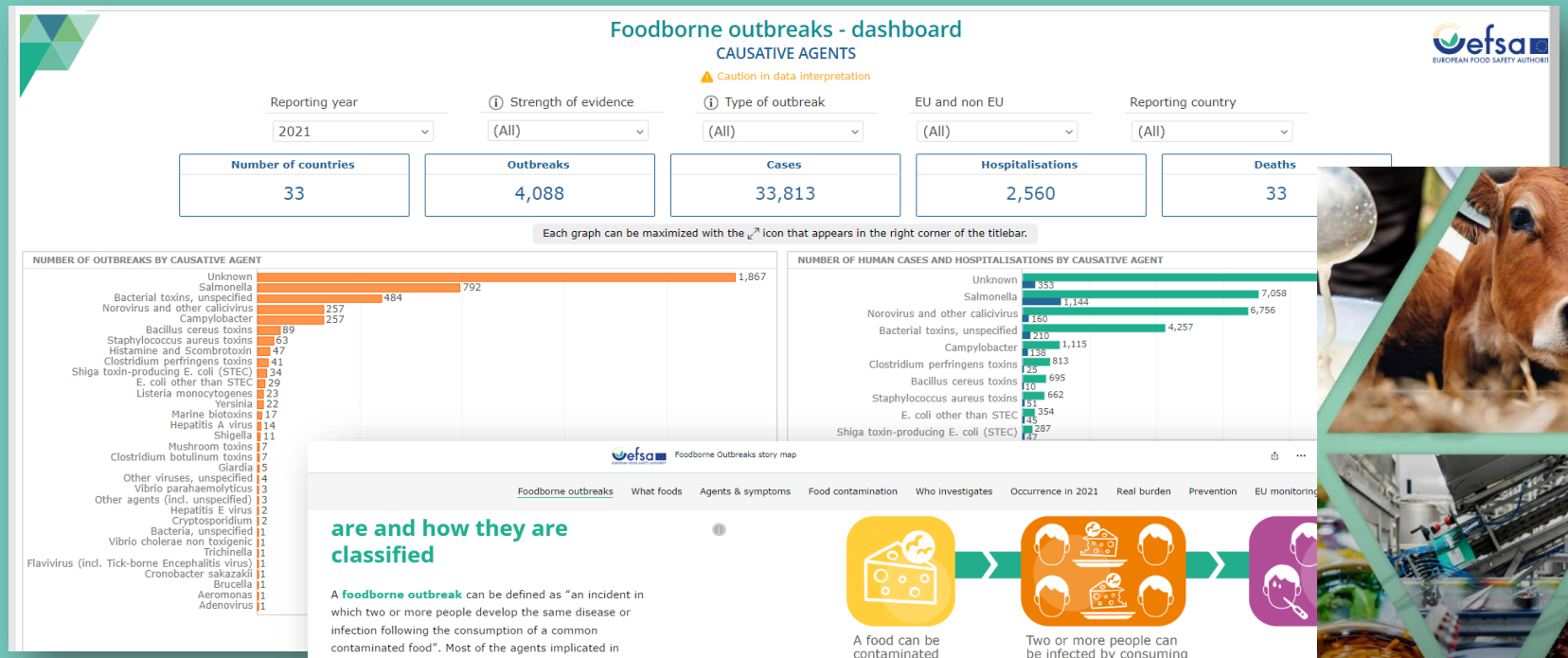
Also published in EFSA Supporting Publications: Technical report approved by EFSA on 12 April 2022; doi:10.2903/sp.efsa.2022.EN-7318; Key words: *Salmonella*, chocolate products, multi-country outbreak, Whole Genome Sequencing (WGS). Requestor: European Commission; Question number: EFSA-Q-2022-00247; correspondence: rpa-efsa@efsa.europa.eu, ISSN: 2397-8325.

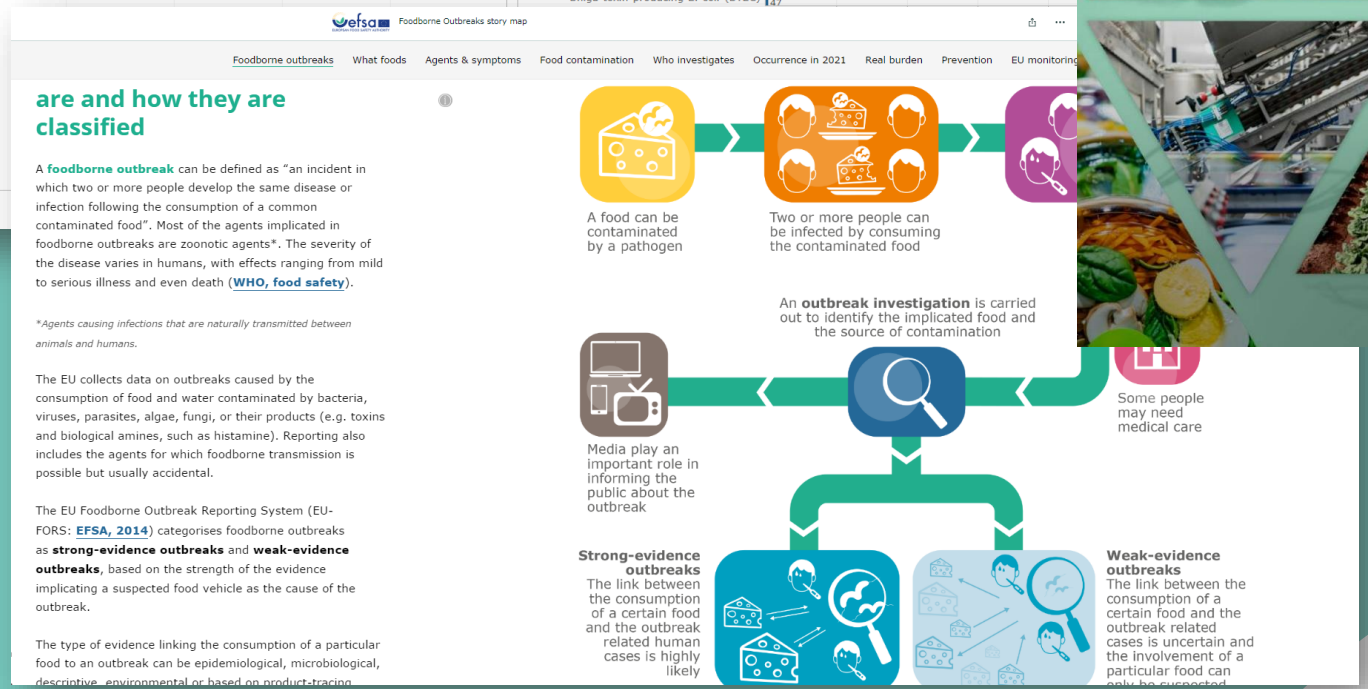
© European Centre for Disease Prevention and Control, European Food Safety Authority, 2022

Amendment: the after-matter of this report was amended on 13 April 2022 to more clearly describe the consultation process with external experts.

Prevention, detection, signal sharing

Communication: Bridging the gap between science and citizen





How we PREPARE for the future

efsa EUROPEAN FOOD SAFETY AUTHORITY

ecdc EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

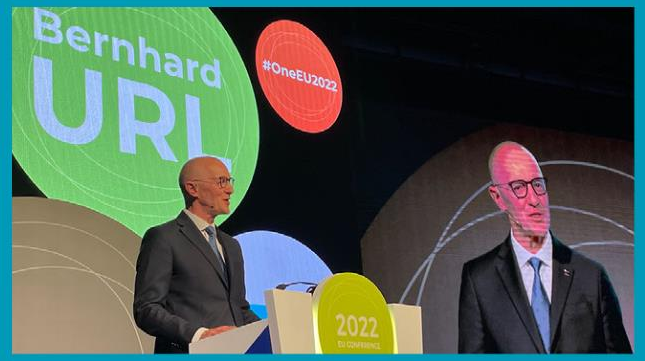
efsa
EUROPEAN FOOD SAFETY AUTHORITY

ecdc
EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

ECHA
EUROPEAN CHEMICALS AGENCY

European Environment Agency

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH



efsa JOURNAL OPEN ACCESS

Editorial | Open Access

Advancing food safety: strategic recommendations from the 'ONE – Health, Environment & Society – Conference 2022'

Yann Devos ✉ Edward Bray, Stef Bronzwaer, Barbara Gallani, Bernhard Url

First published: 11 November 2022 | https://doi.org/10.2903/j.efsa.2022.e201101

ONE 2022 CONFERENCE

IMPLEMENTING ONE HEALTH

EFSA and ECDC internal OH work

Cross-Agency OH Task Force

EU Partnerships

European Commission (DG SANTE/AGRI/ENV)

WHO/FAO/WOAH/UNEP

EU MEMBER STATES

OBJECTIVE

EREN is a platform for scientific cooperation in the area of emerging risk identification (ERI) between risk assessors of the EU MSs and EFSA and to enhance risk assessment practices in the area of ERI methodologies

Activities and collaboration for signal sharing

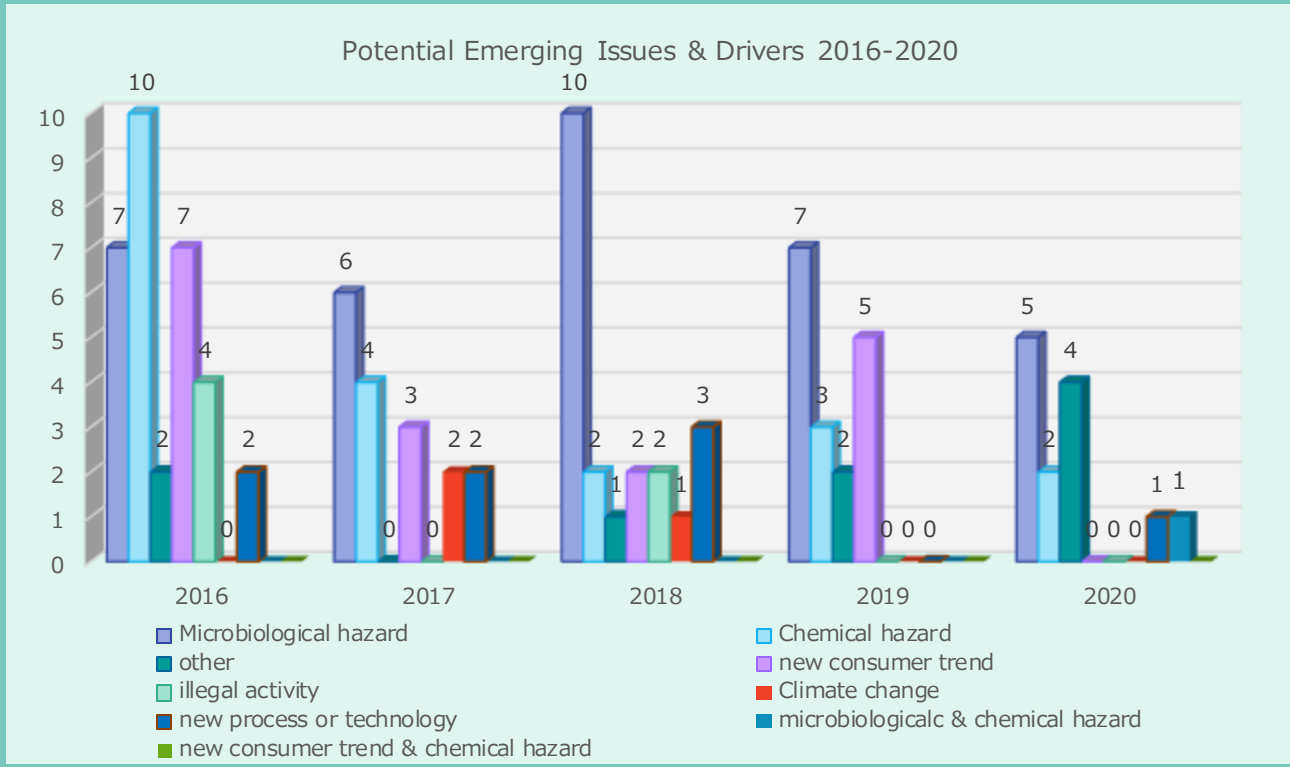
EREN Emerging Risk Exchange Network

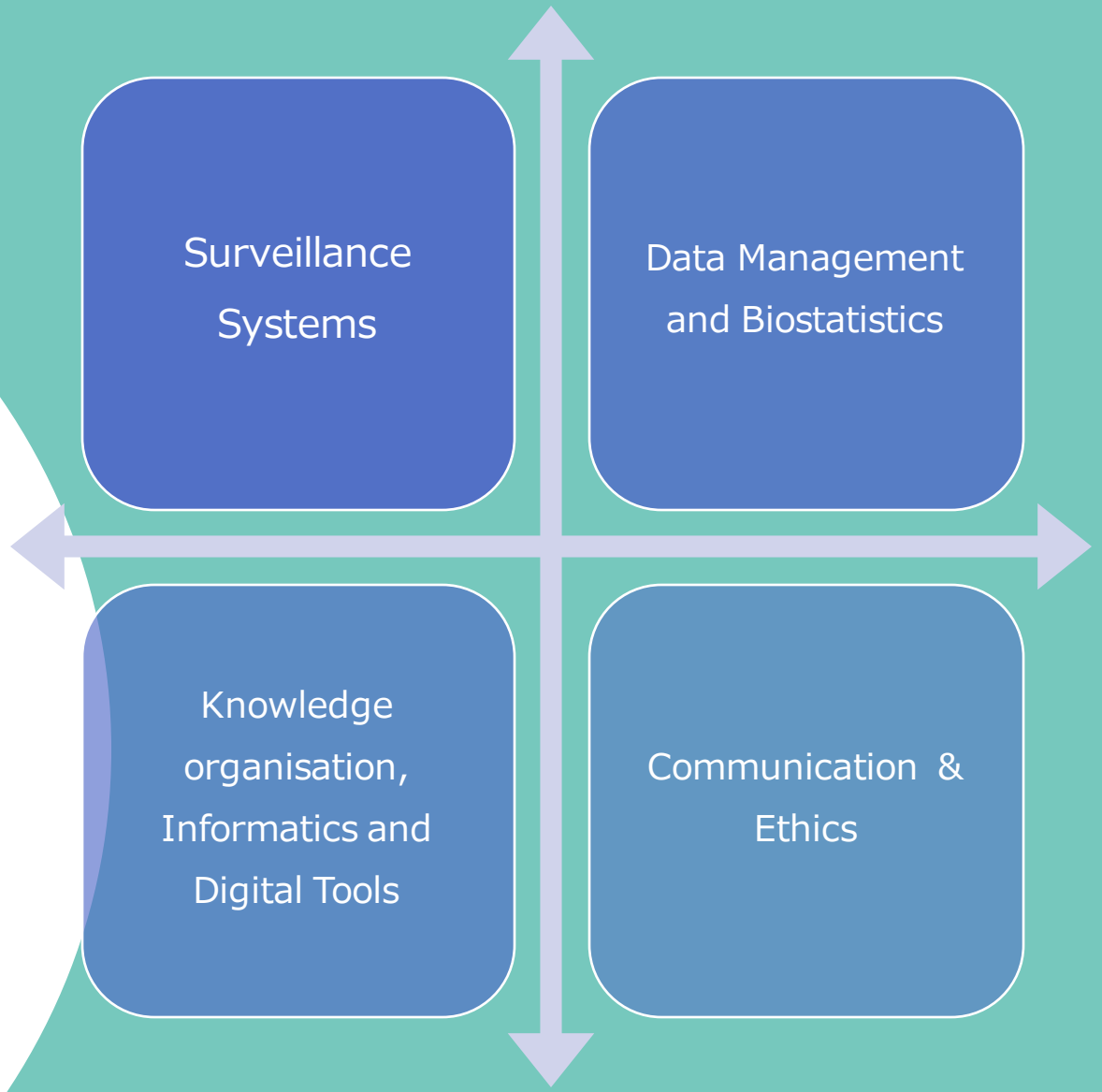
NETWORK

Established in 2010

27 EU MSs + Norway and Switzerland

Observers from DG SANTE, ECDSC, ECHA, EEA, WHO, FAO, US FDA, CFIA and FSANZ





Broad range of activities and collaboration

efsa EUROPEAN FOOD SAFETY AUTHORITY

ecdc EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

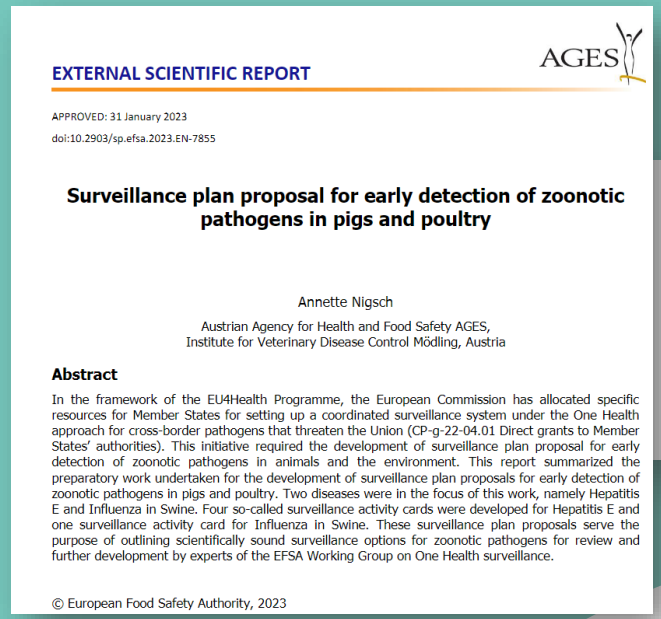
EPIET & EUPHEM ECDC Fellowship Programme

EUFORA EUROPEAN FOOD RISK ASSESSMENT FELLOWSHIP PROGRAMME

One Health in Action – a TEAM effort

10. Build a robust global collaborative surveillance network to better detect and act on pathogens.

CP-g-22-04.01 Direct grants to Member States' authorities: setting up a coordinated surveillance system under the One Health approach for cross-border pathogens that threaten the Union



EXTERNAL SCIENTIFIC REPORT

AGES

APPROVED: 31 January 2023

doi:10.2903/sp.efsa.2023.EN-7855

Surveillance plan proposal for early detection of zoonotic pathogens in pigs and poultry

Annette Nigsch

Austrian Agency for Health and Food Safety AGES,
Institute for Veterinary Disease Control Mödling, Austria

Abstract

In the framework of the EU4Health Programme, the European Commission has allocated specific resources for Member States for setting up a coordinated surveillance system under the One Health approach for cross-border pathogens that threaten the Union (CP-g-22-04.01 Direct grants to Member States' authorities). This initiative required the development of surveillance plan proposal for early detection of zoonotic pathogens in animals and the environment. This report summarized the preparatory work undertaken for the development of surveillance plan proposals for early detection of zoonotic pathogens in pigs and poultry. Two diseases were in the focus of this work, namely Hepatitis E and Influenza in Swine. Four so-called surveillance activity cards were developed for Hepatitis E and one surveillance activity card for Influenza in Swine. These surveillance plan proposals serve the purpose of outlining scientifically sound surveillance options for zoonotic pathogens for review and further development by experts of the EFSA Working Group on One Health surveillance.

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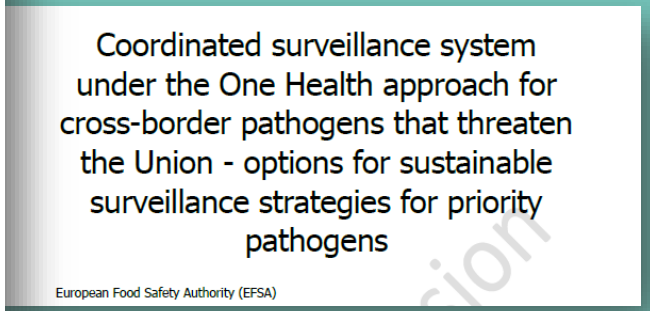
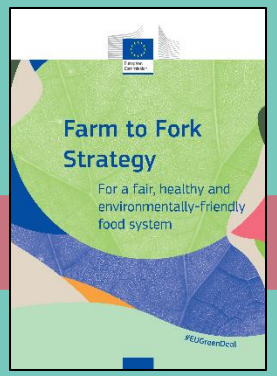
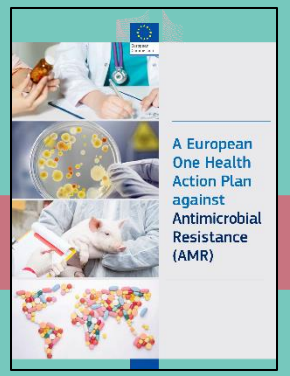


Coordinated surveillance system under the One Health approach for cross-border pathogens that threaten the Union - options for sustainable surveillance strategies for priority pathogens

European Food Safety Authority (EFSA)

One Health in Action – a TEAM effort





PARC

400 M €

Biodiv+

800 M€

SFS

764 M€

PAHW

360 M€

OH AMR

400 M€

ERA4H

Pand. Prep.

500? M€

IMPLEMENTING ONE HEALTH
a matter of ENDURANCE!

The need for ACTIVE change

European Parliament
2019-2024

Special Committee on the COVID-19 pandemic: lessons learned and recommendations for the future

2022/2076(INI)

8.2.2023

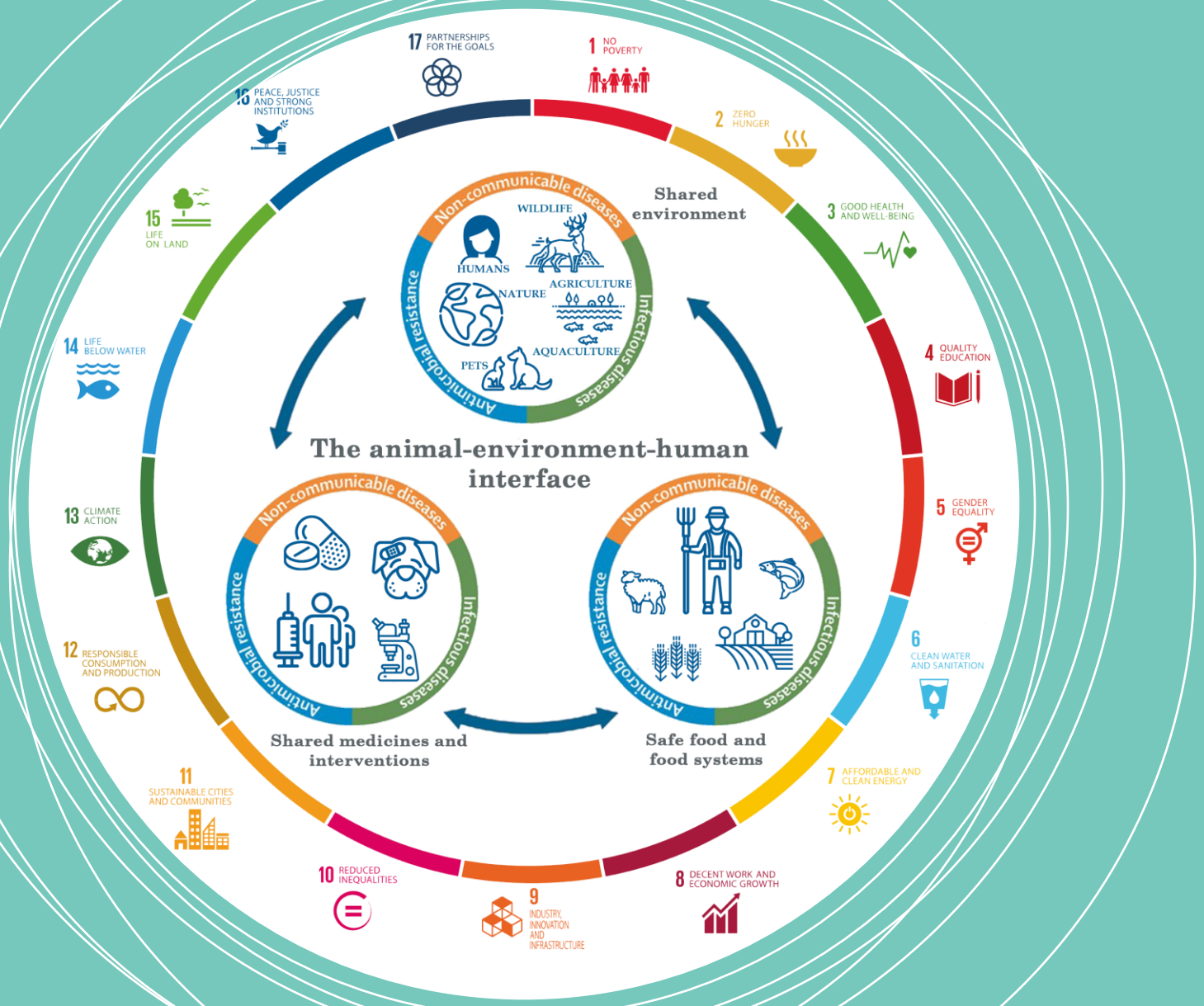
DRAFT REPORT

on the COVID-19 pandemic: lessons learned and recommendations for the future
(2022/2076(INI))

Special Committee on the COVID-19 pandemic: lessons learned and recommendations for the future

Rapporteur: Dolors Montserrat

82. Underline that mainstreaming **One Health** means better able to prevent, predict, prepare for, detect and respond to global health threats at both global and EU level; recommends that the **One Health** approach be designed and implemented through public policies, legislation and research with the engagement of multiple sectors;



A ONE HEALTH APPROACH IS ALSO NEEDED TO ACHIEVE THE 2030 SDG'S IN EUROPE

sweden 2023.eu

THANK YOU
TACK SÅ MYCKET

efsa EUROPEAN FOOD SAFETY AUTHORITY

ecdc EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL