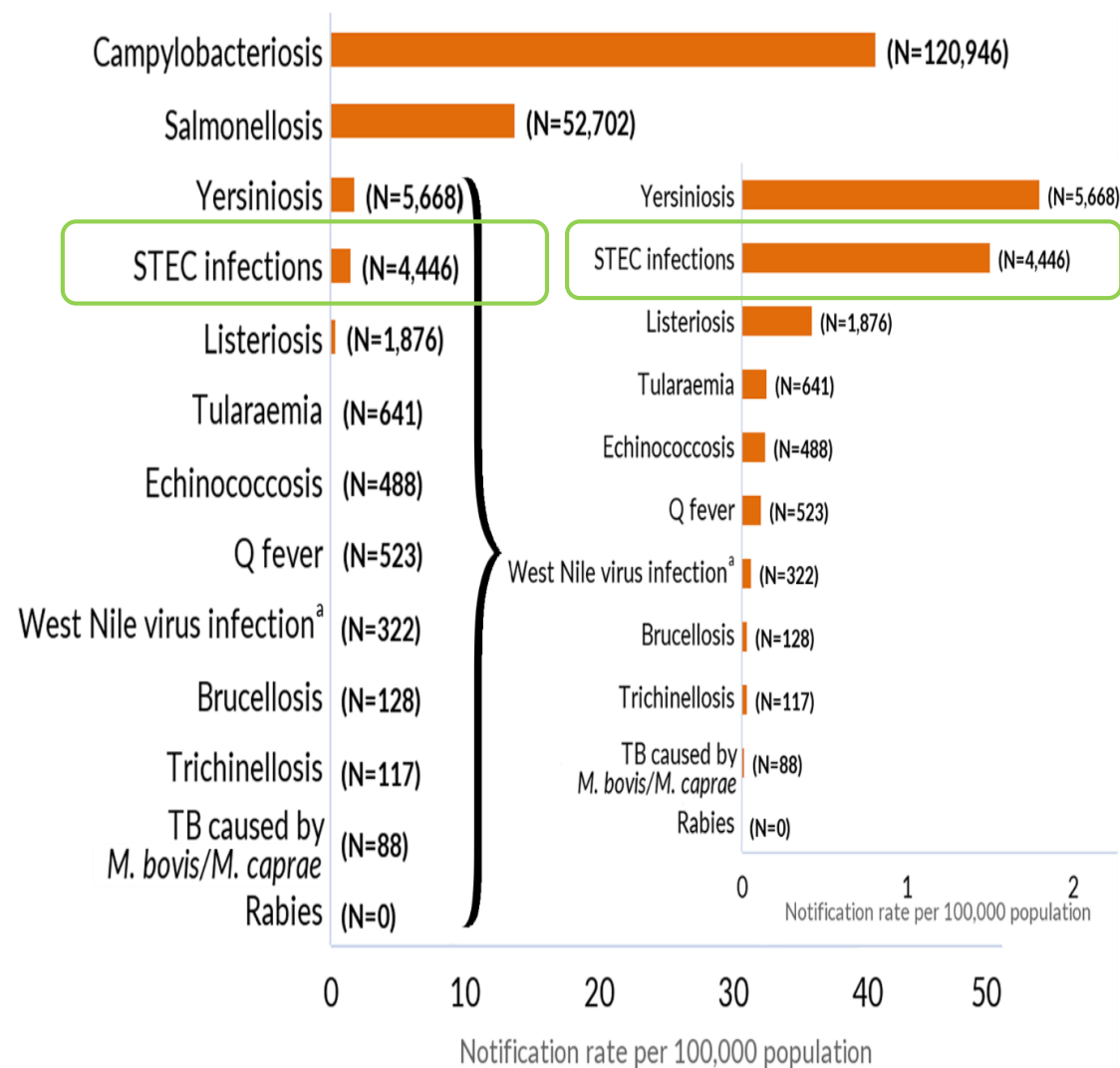
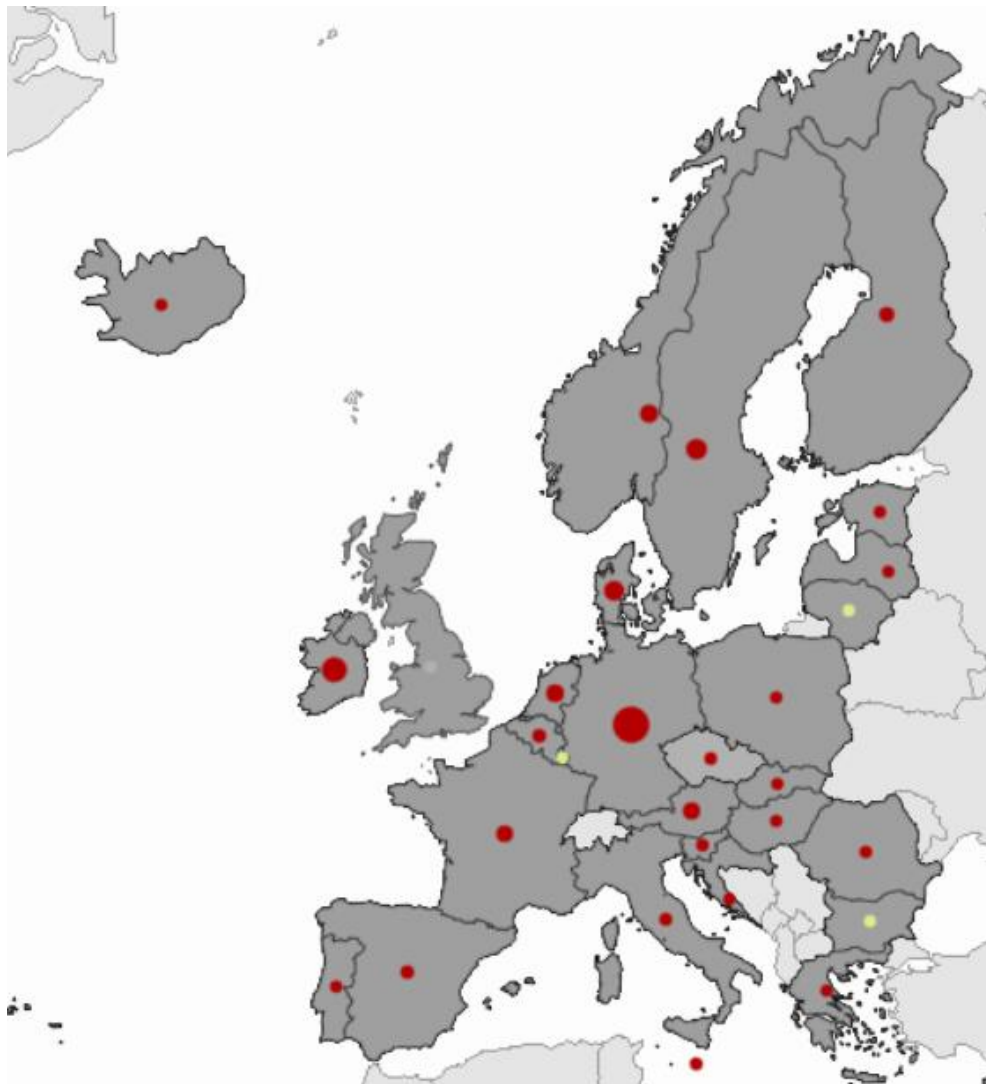


# Update on STEC infections in the EU/EEA

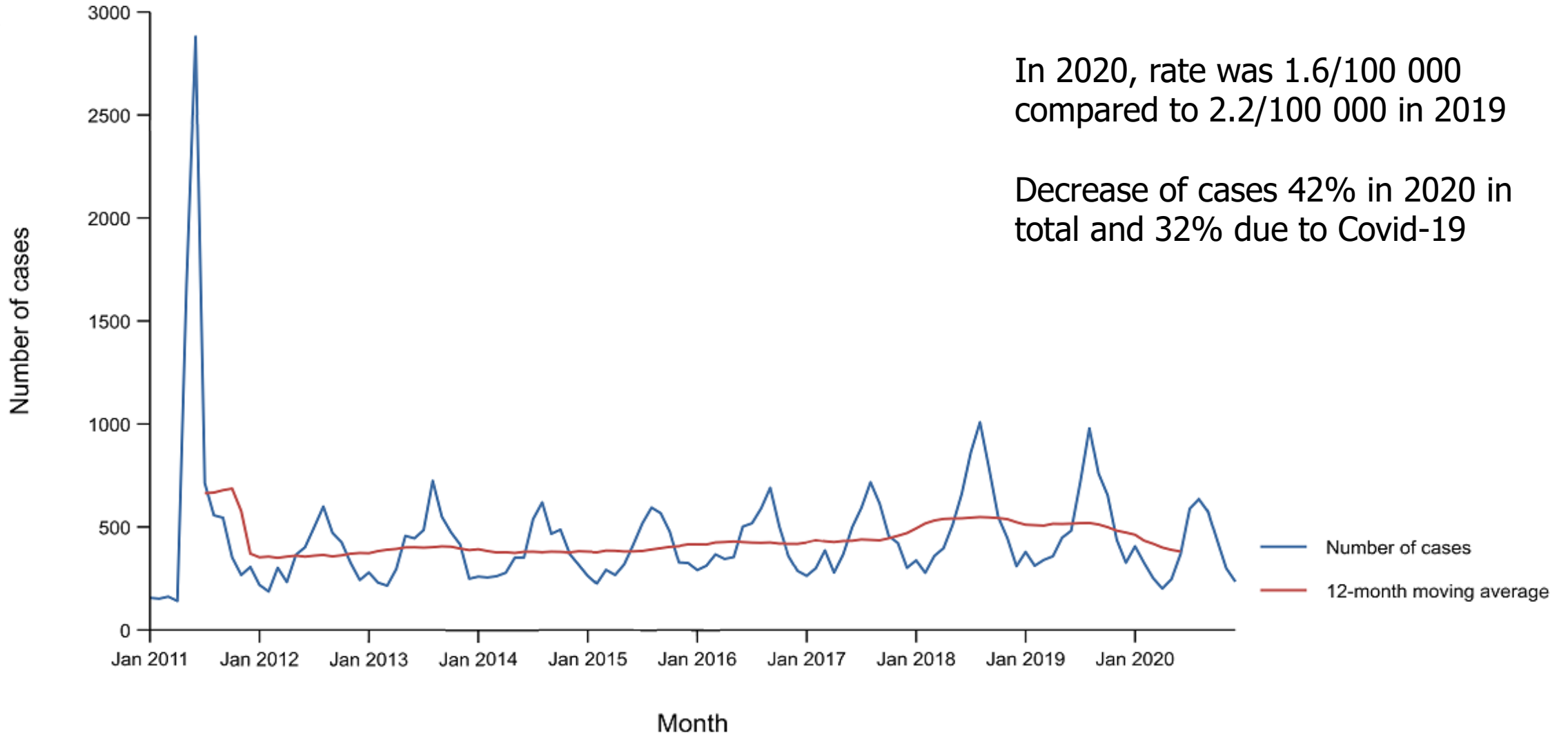
Taina Niskanen, Expert Food- and Water-Borne Diseases

16th Annual Workshop of the NRLs for *E. coli* in the EU 18-19 October, 2021

# Reporting of STEC cases in the EU/EEA, 2020



# 10-year trend of STEC in the EU/EEA, 2011-2020



# Severity of STEC in the EU/EEA

## No of hospitalised cases in EU/EEA, 2020

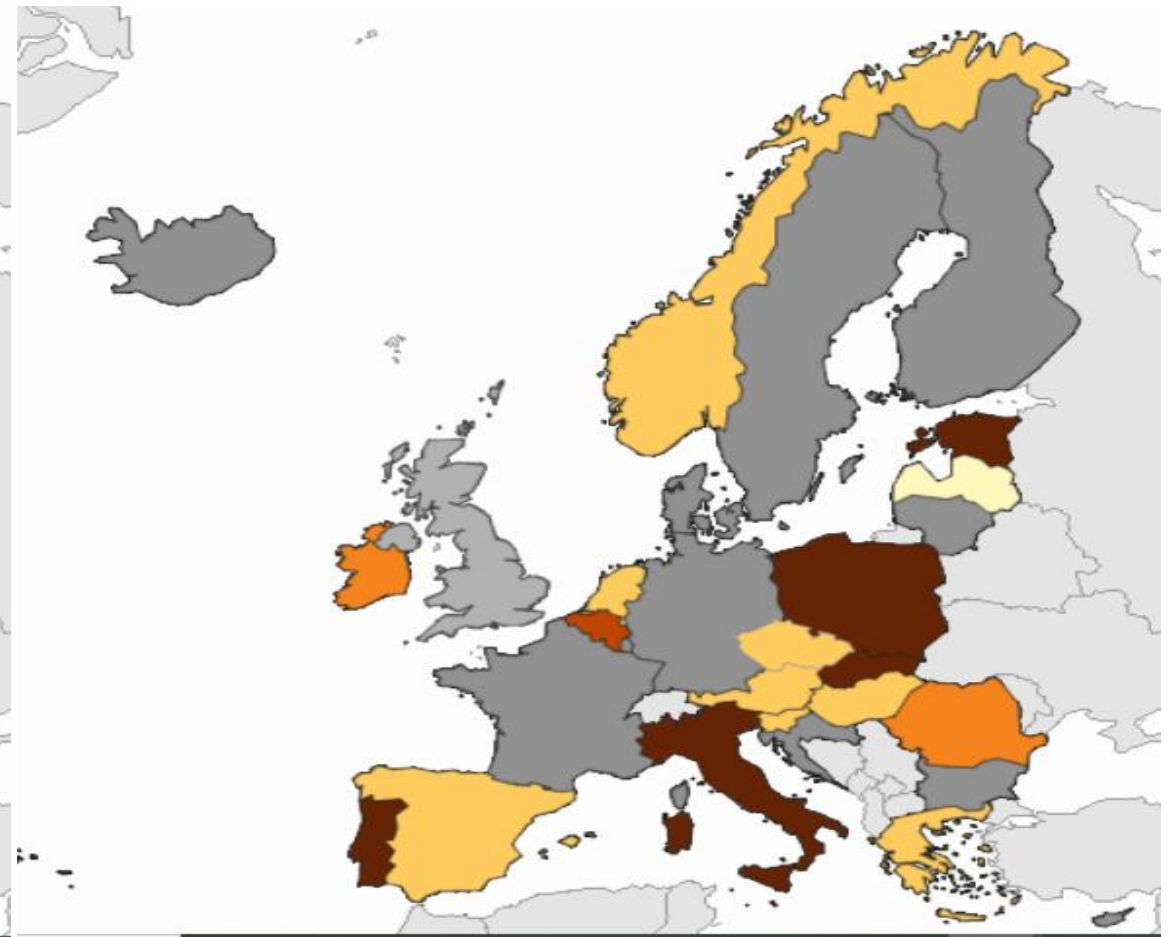
n=747 cases (17 MS), 39%



Number of deaths 14, mortality rate 0.4%

Source: TESSy data, ECDC

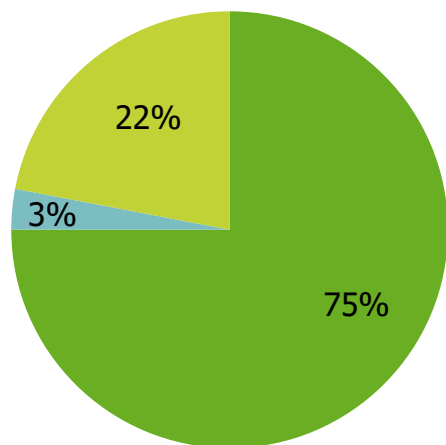
## Proportion of hospitalised cases in EU/EEA, 2020



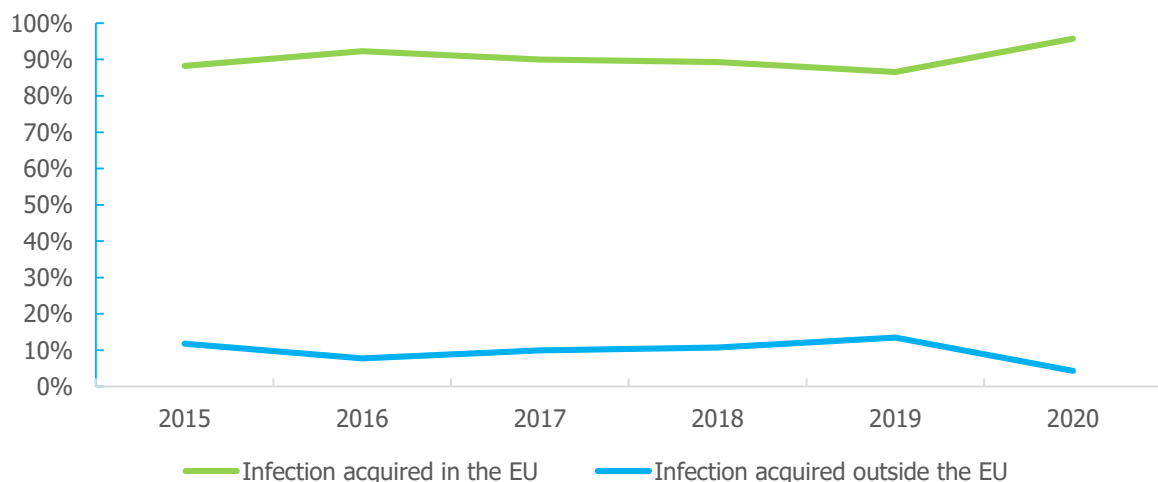
Six deaths with HUS (age 51-94 years)



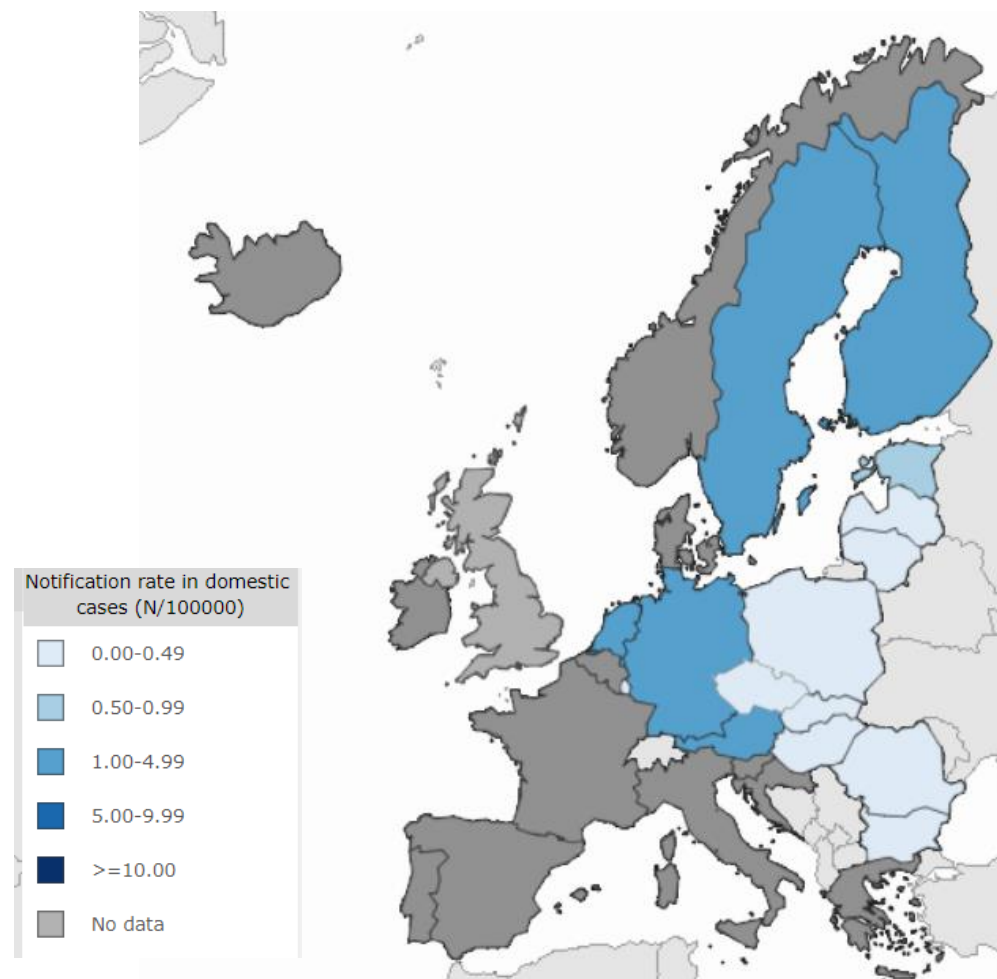
# Origin of STEC in EU/EEA, 2020



- Infection acquired in the EU
- Infection acquired outside the EU
- Unknown travel status or unknown country of infection



## Notification rate of domestic cases in EU/EEA, 2020



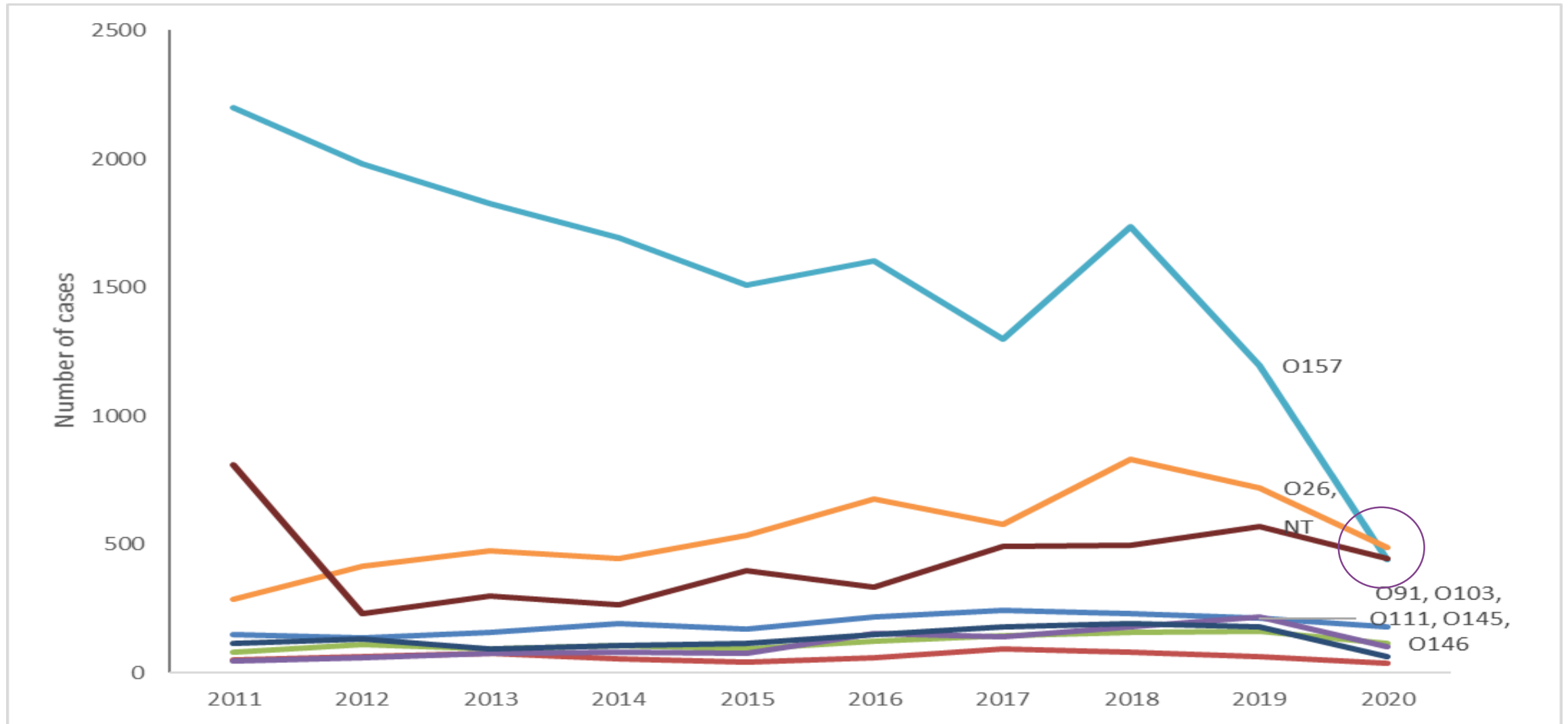
n=3,493 (21 MS)

# Most commonly reported serogroups in EU/EEA, 2020

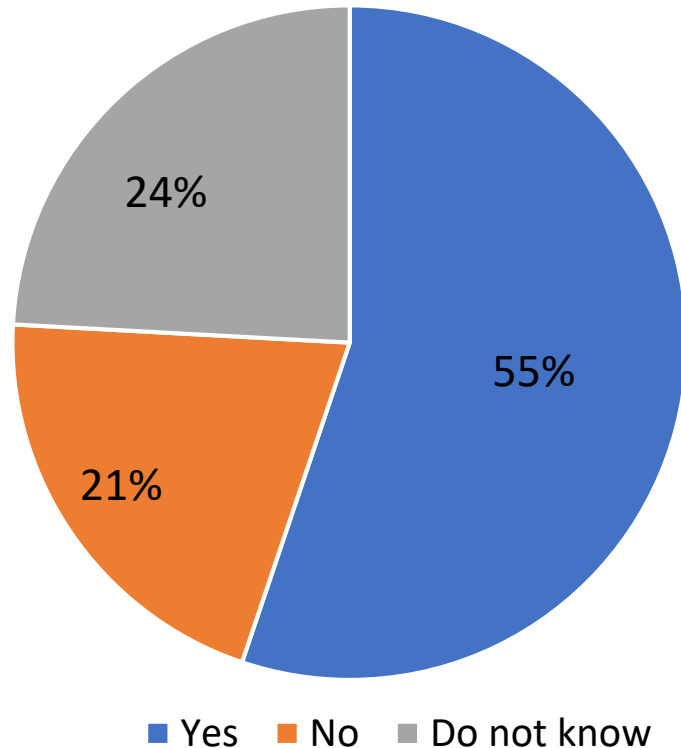
Serogroup	Isolates	MS	%
26	489	16	19.6
NT	444	8	17.8
157	443	17	17.7
103	181	15	7.2
145	114	13	4.6
146	103	11	4.1
128	63	8	2.5
91	63	9	2.5
80	58	8	2.3
111	39	11	1.6
55	32	8	1.3
8	28	5	1.1
27	27	7	1.1
113	26	9	1.0
121	19	5	0.76
117	17	4	0.68
78	17	5	0.68
63	16	5	0.64
183	15	7	0.60
177	14	7	0.56
Other	291		11.6
<b>Total</b>	<b>2,499</b>	<b>20</b>	<b>100</b>

> 55%

# Trends of the most common serogroups 2011-2020



# Submission of complete set of STEC typing data to ECDC from NRLs in the EU

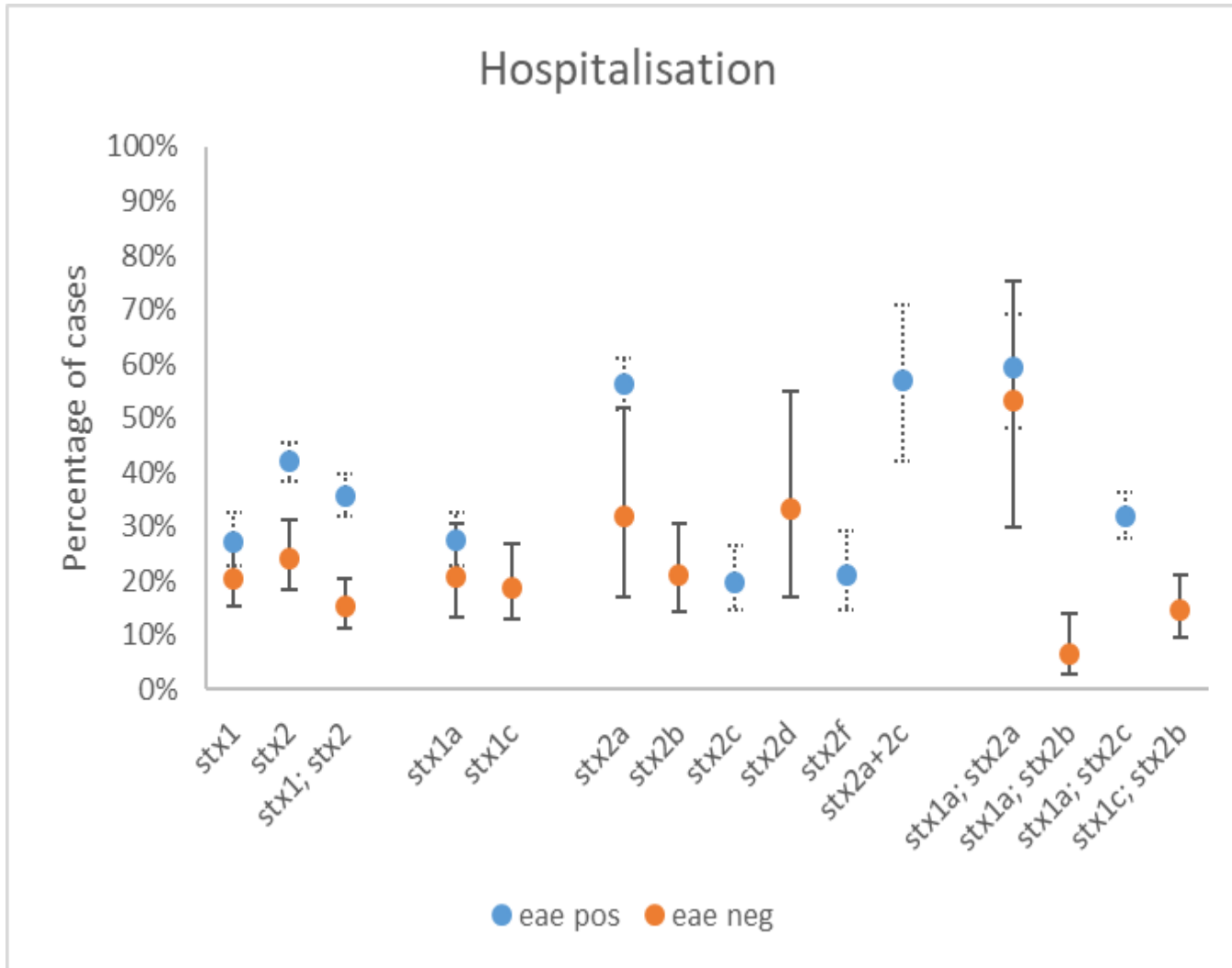


Completeness in 2012-2017 compared to 2019 and 2020

- *Stx1*: 64% -> 68% -> 47%
- *Stx2*: 64% -> 71% -> 54%
  
- *Stx1* subtype 19% -> 40% -> 43%
- *Stx2* subtype 24% -> 43% -> 36%
  
- *eae*: 60% -> 43%
- *aggR*: 3% -> 7% -> 11%
- *aaiC*: 2% -> 0.9% -> 1.6%



# Severe cases of STEC (hospitalised)



## Hospitalised cases in 2019->2020

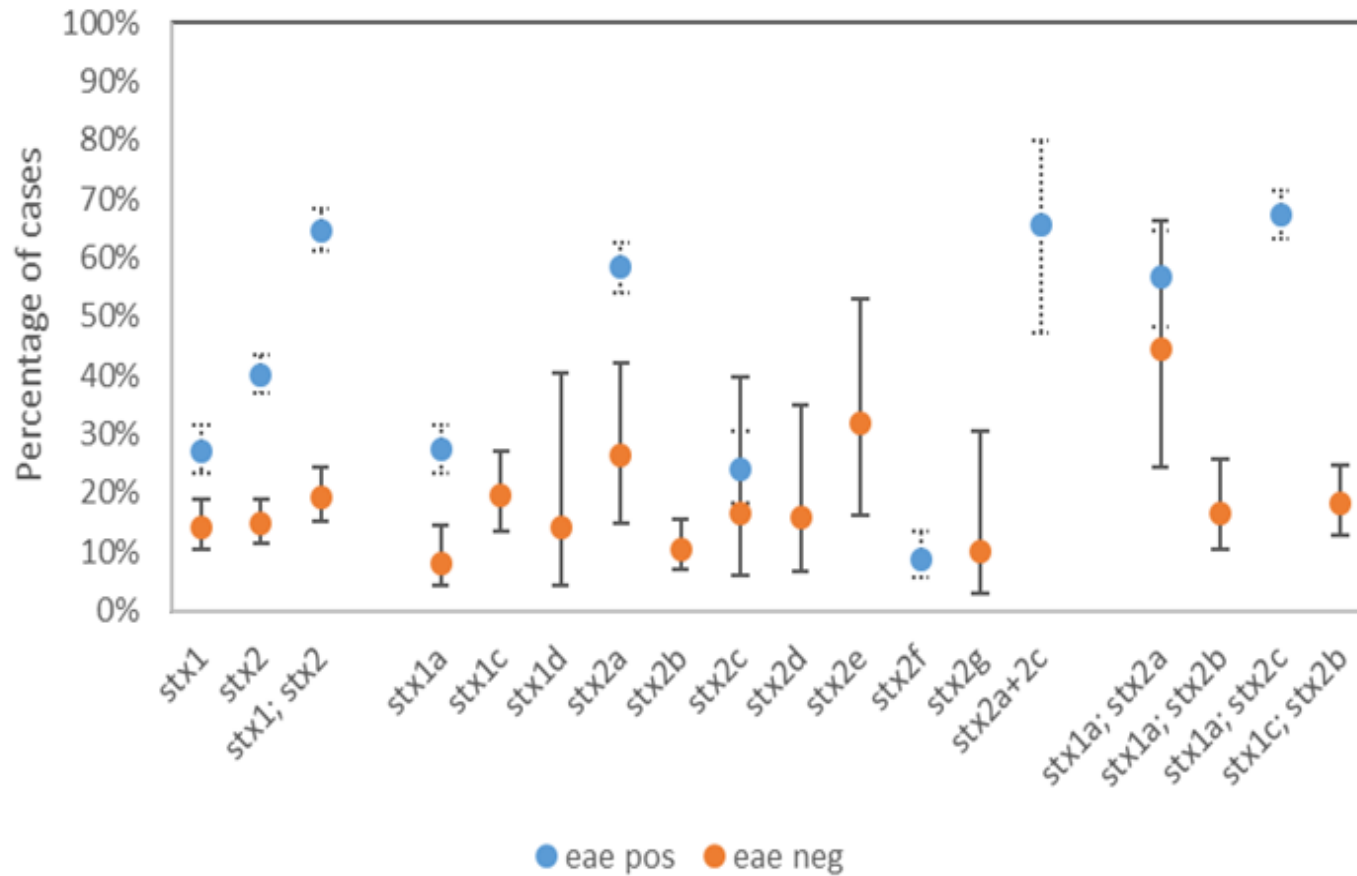
stx1-,stx2+,eae+	43%->38%	} 55%
<b>stx1+,stx2+,eae+</b>	25%->17%	
stx1-,stx2+,eae-	11%->15%	

## Most common stx-subtypes among hospitalised cases in 2020

stx1a  
stx2a

# Severe cases of STEC (bloody diarrhea)

Bloody diarrhoea



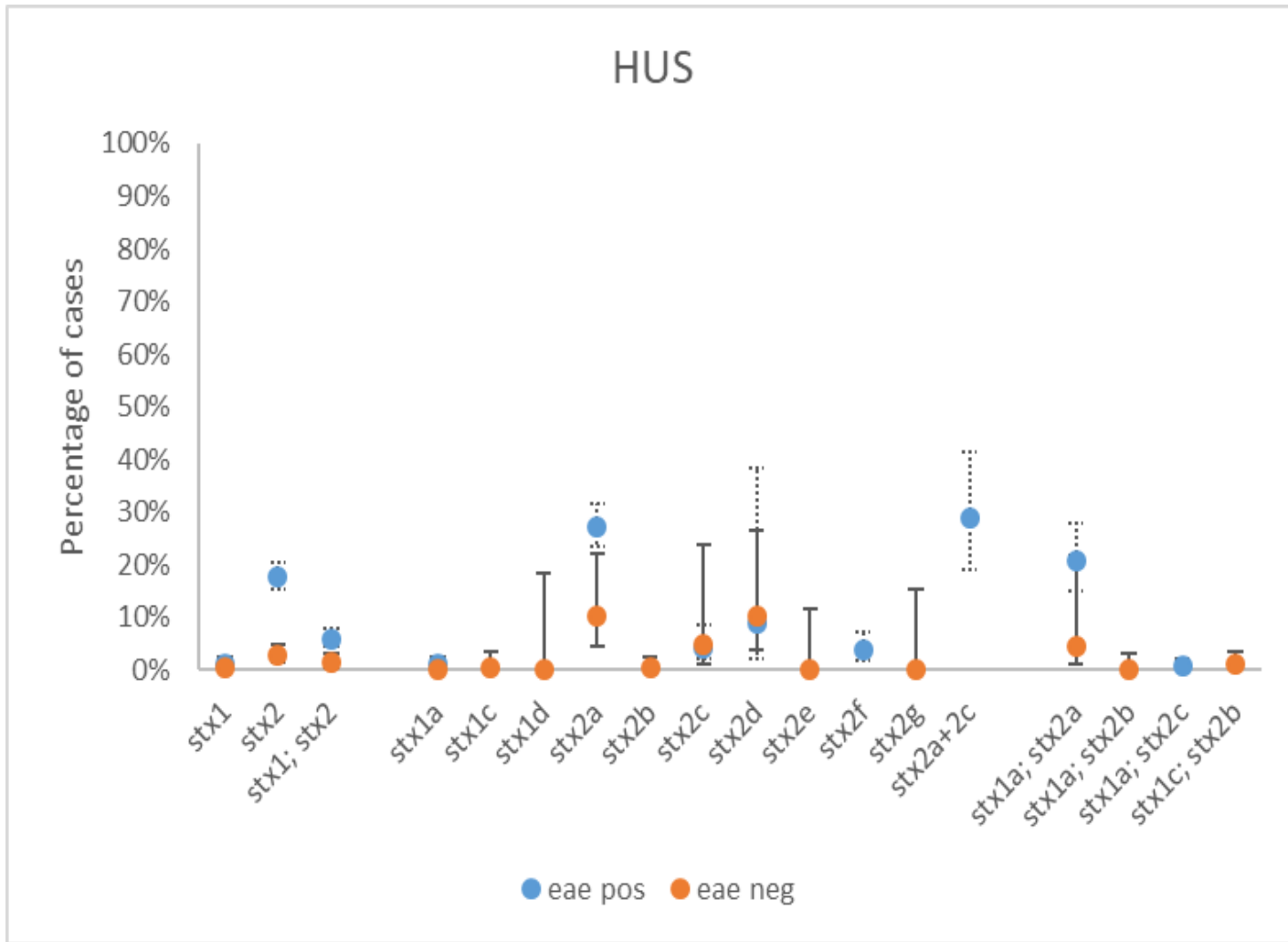
## BD cases in 2019->2020

stx1-,stx2+,eae+	40%->33%	} 62%
<b>stx1+,stx2+,eae+</b>	35%->29%	
stx1+,stx2-,eae+	11%->20%	

## Most common stx-subtypes among BD cases in 2020

St1a  
St2a  
St2c

# Severe cases of STEC (HUS)



## HUS cases in 2019->2020

stx1-,stx2+,eae+	67%->61%	} 75%
<b>stx1+,stx2+,eae+</b>	16%->14%	
stx1-,stx2+,eae-	11%->9%	

## Most common stx- subtypes among HUS cases in 2020

- Stx2a
- Stx1a
- stx2b and stx2a+stx2c

Source: STEC scientific opinion, EFSA 2020; TESSy data 2012-2017

**THANK YOU!**