



REPUBLIC OF ESTONIA
HEALTH BOARD

FWD AMR-RefLabCap in Estonia

Overview of ECDC Pilot WGS study in Estonia

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Surveillance of *Salmonella* & *Campylobacter* in Estonia

1

All positive *Salmonella* & *Campylobacter* isolates/samples are sent to NRL

2

Additional serotyping and AST is performed at NRL

3

All isolates are stored long-term at NRL

4

Sequencing is performed asap in case suspected outbreaks

1. Number of isolates

	2021	2022	2023	2024 Jan, Feb
<i>Salmonella</i> isolates	310	255	227	22
<i>Campylobacter</i> isolates	370	298	354	41

2. Number of isolates

	2021	2022	2023
<i>Salmonella</i> isolates	8	22	100
<i>Campylobacter</i> isolates	0	0	50

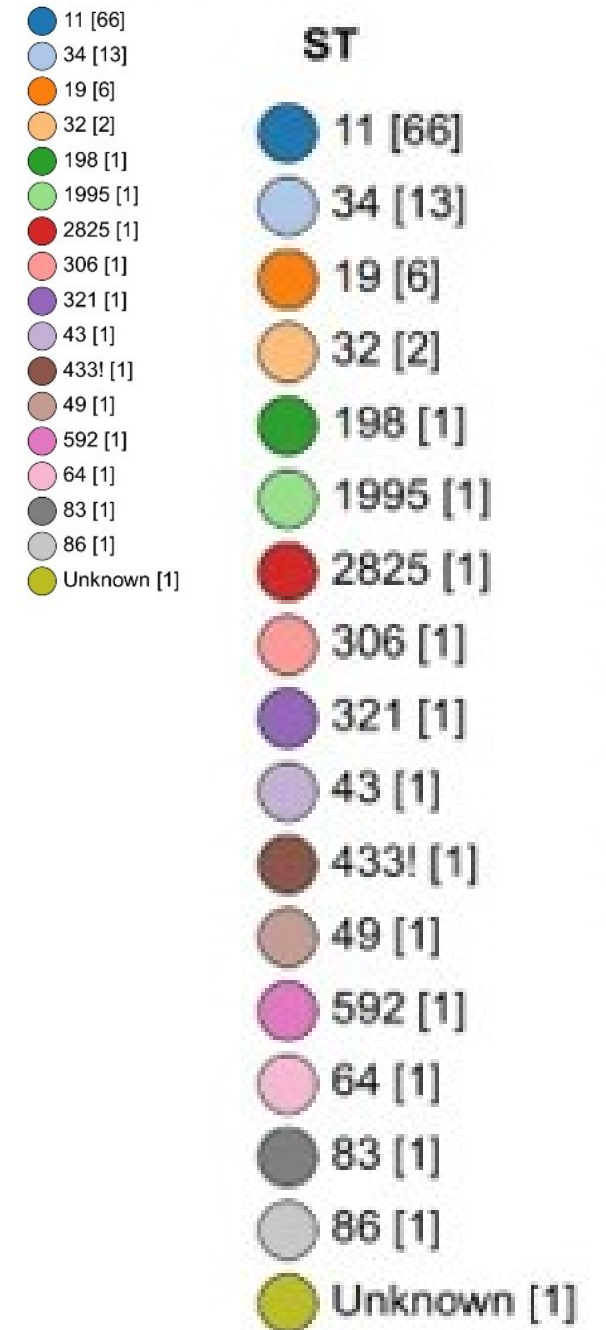
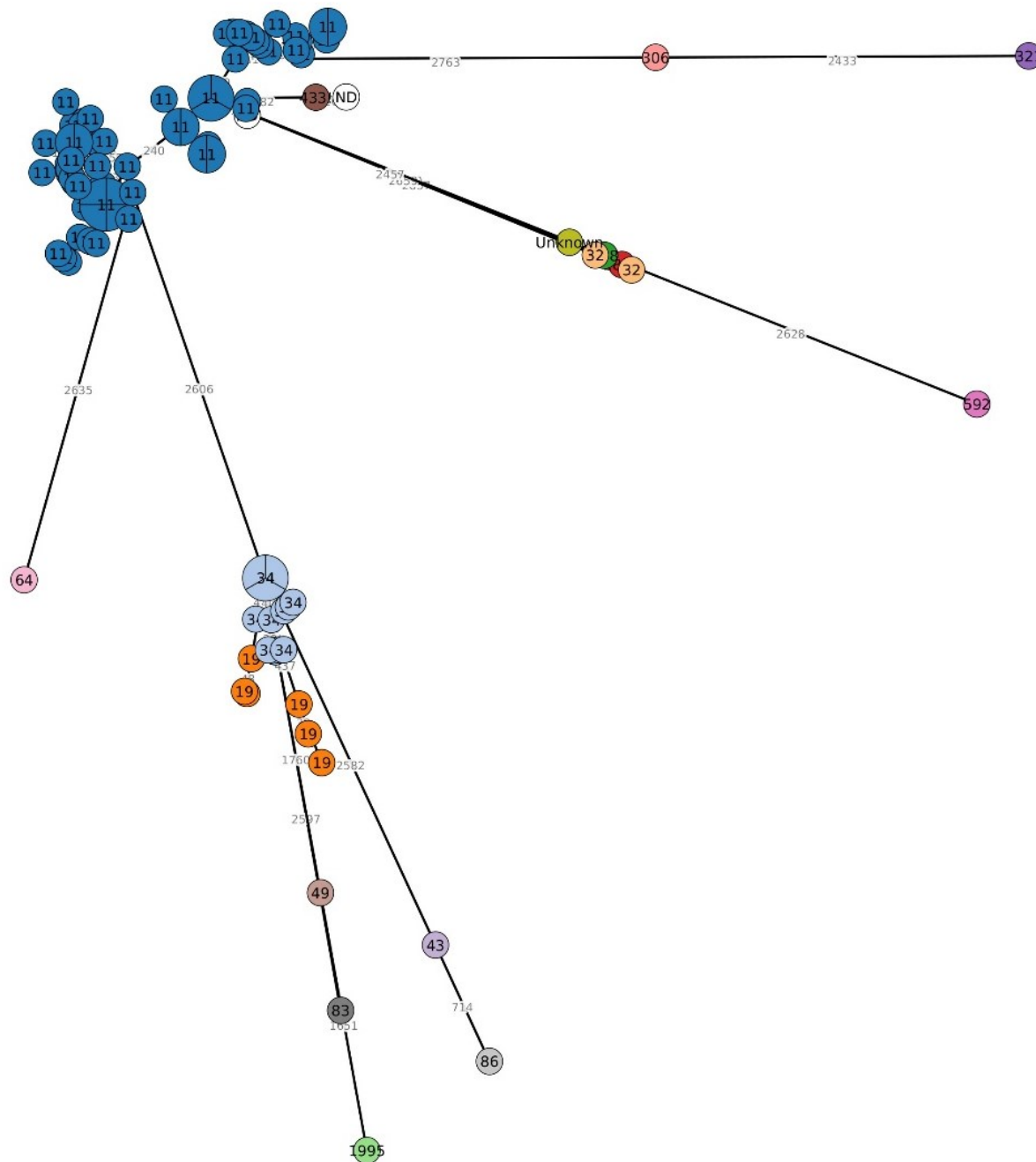
Aim of the pilot study – to get a more sophisticated overview of the strains circulating in Estonia

ECDC *SALMONELLA* and *CAMPYLOBACTER* WGS PR

- 100 *Salmonella* isolates – all isolates collected by mid 2
- 50 *Campylobacter* isolates – representative selection of strains from mid 2023 (all *C.coli* ; region, age, gender)

Laboratory capacity

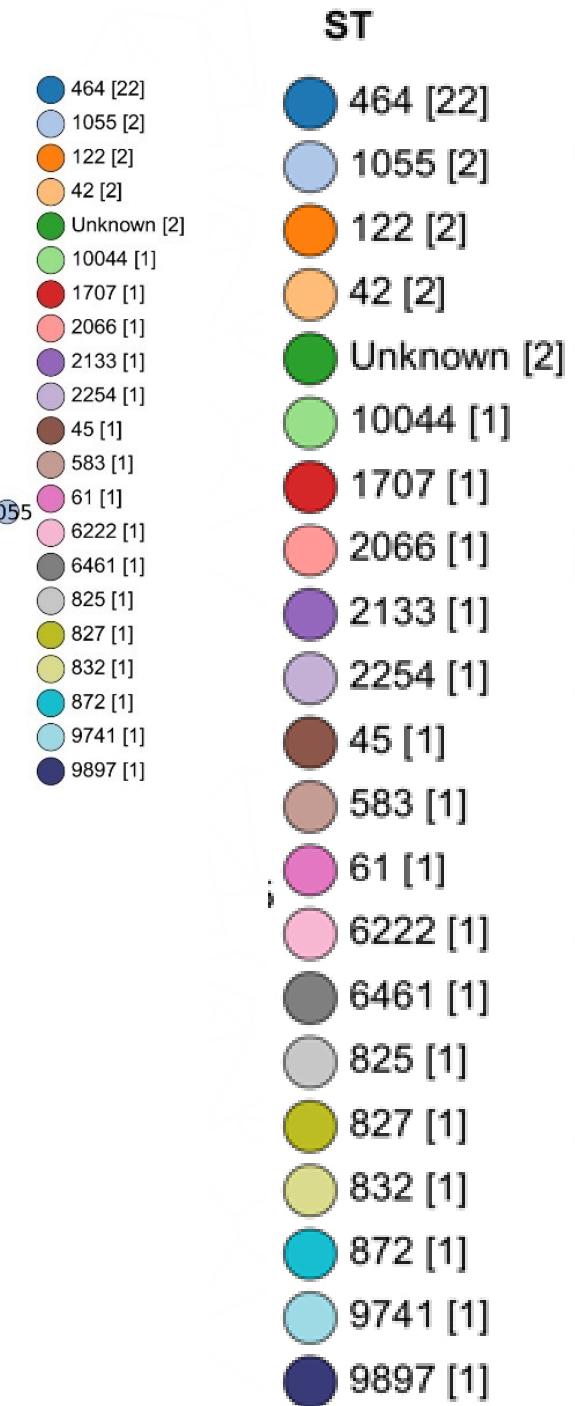
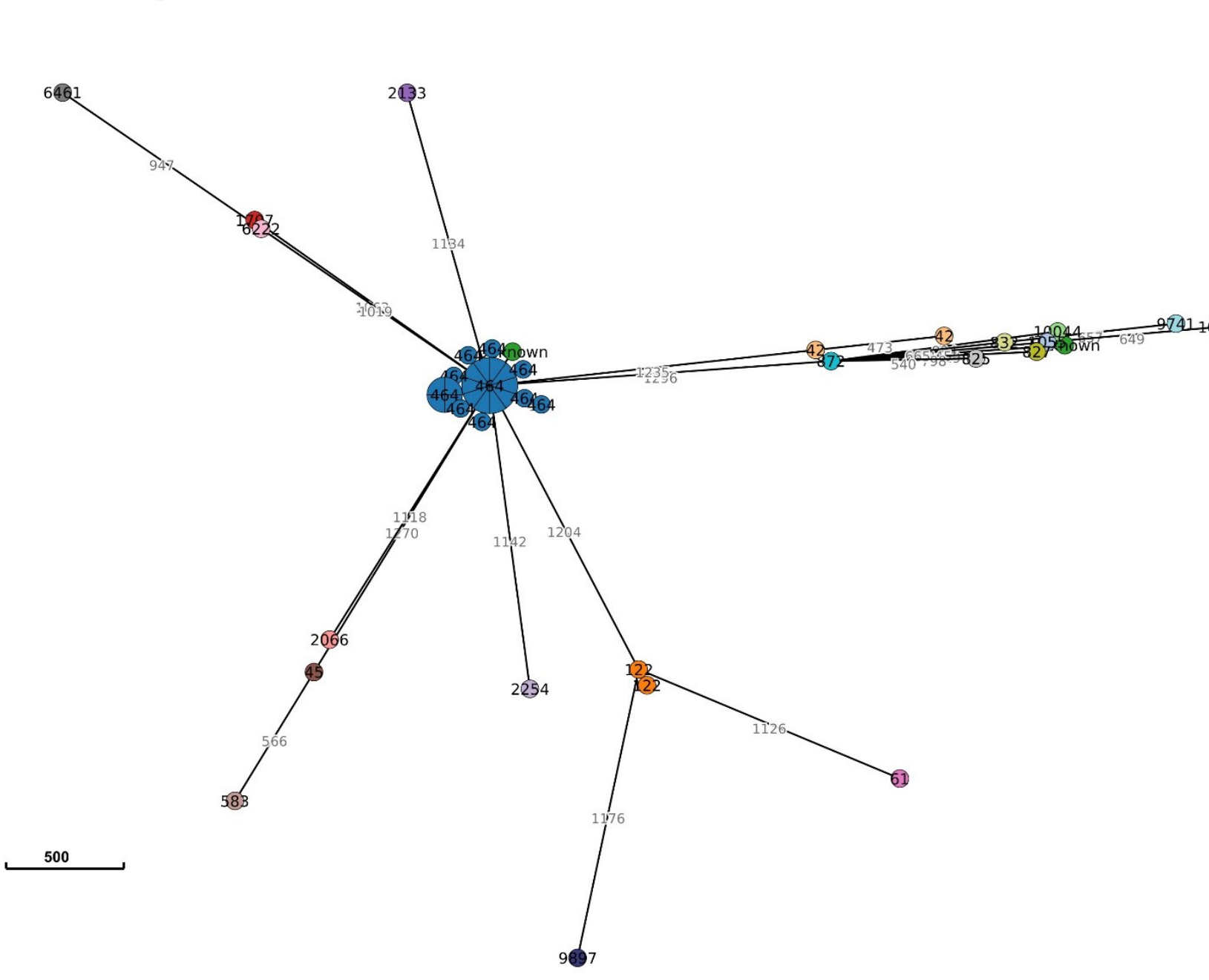
- Clinical Microbiology (*AST, serotyping*)
- Molecular methods – manual/automatic extraction of genomic DNA
- WGS (*sequencing temporarily outsourced in-house*)



Campylobacter WGS RESULTS

Name	Species	ST	Gene symbol	Sequence name
NG-A0362	Campylobacter jejuni strain CJ071CC464, complete genome	464	tet(O)	tetracycline resistance ribosomal protection protein Tet(O)
			50S_L22_A103V	Campylobacter macrolide resistant 50S L22
			gyrA_T86I	Campylobacter quinolone resistant GyrA
			blaOXA-193	OXA-61 family class D beta-lactamase OXA-193
NG-A0362	Campylobacter jejuni subsp. jejuni strain GB19 chromosome, complete genome	61	blaOXA-193	OXA-61 family class D beta-lactamase OXA-193
NG-A0362	Campylobacter jejuni strain CJ515CC45, complete genome	45	blaOXA-184	OXA-184 family class D beta-lactamase OXA-184
NG-A0362	Campylobacter jejuni strain CJ071CC464, complete genome	464	50S_L22_A103V	Campylobacter macrolide resistant 50S L22
			gyrA_T86I	Campylobacter quinolone resistant GyrA
			blaOXA-193	OXA-61 family class D beta-lactamase OXA-193
			tet(O)	tetracycline resistance ribosomal protection protein Tet(O)
NG-A0362	Campylobacter jejuni subsp. jejuni S3, complete genome	2133	blaOXA	OXA-61 family class D beta-lactamase
NG-A0362	Campylobacter jejuni strain CJ071CC464, complete genome	464	tet(O)	tetracycline resistance ribosomal protection protein Tet(O)
			50S_L22_A103V	Campylobacter macrolide resistant 50S L22
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Campylobacter WGS RESULTS MSTree



Plans for actions

Cooperation with epidemiologists

Cooperation with vet.lab

Wider analysis on the possible cluster

Reporting to EpiPulse



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Thanks for listening

Any Questions?

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