

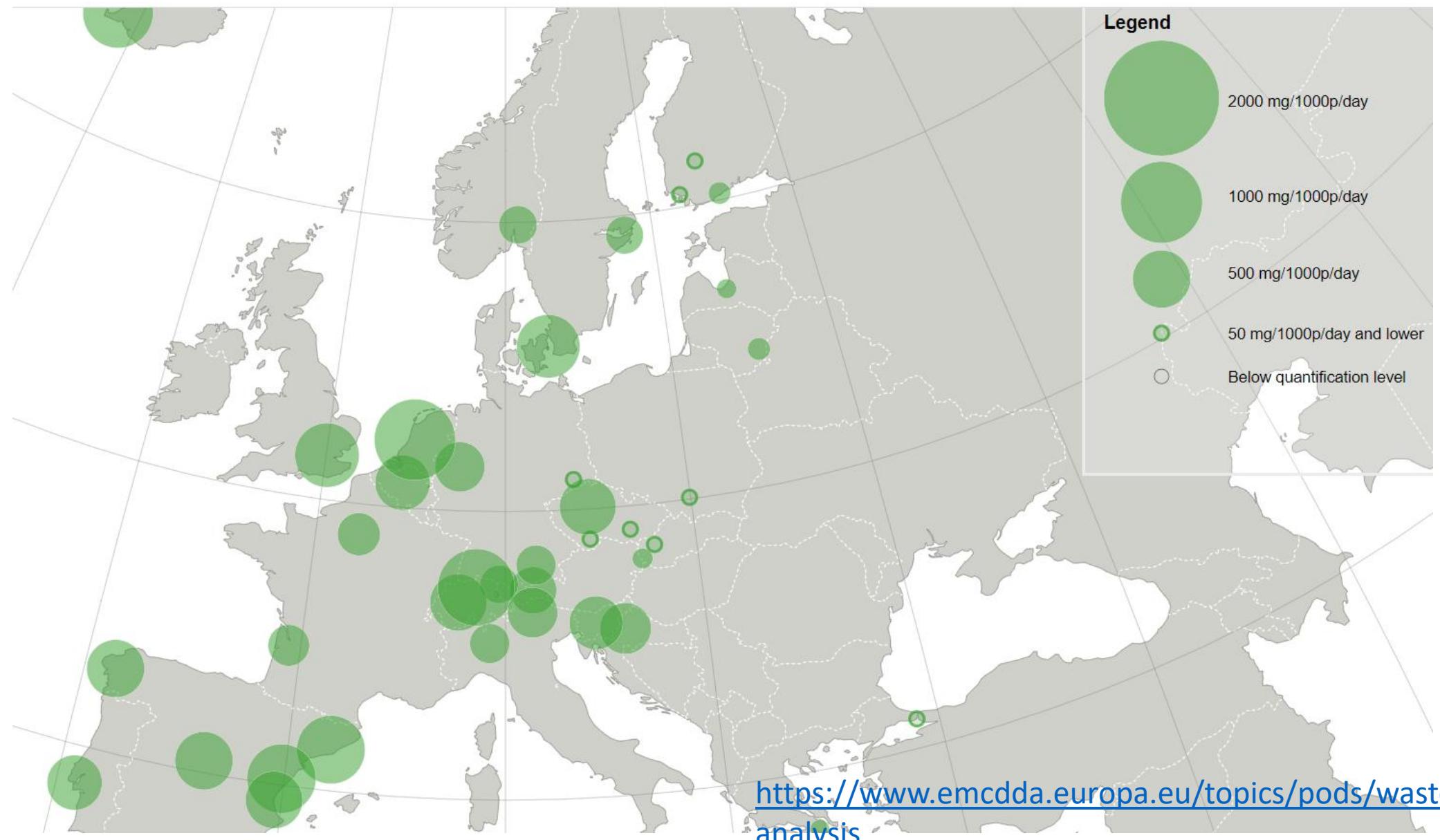


Reovee analüüsid epidemioloogia tööriistana

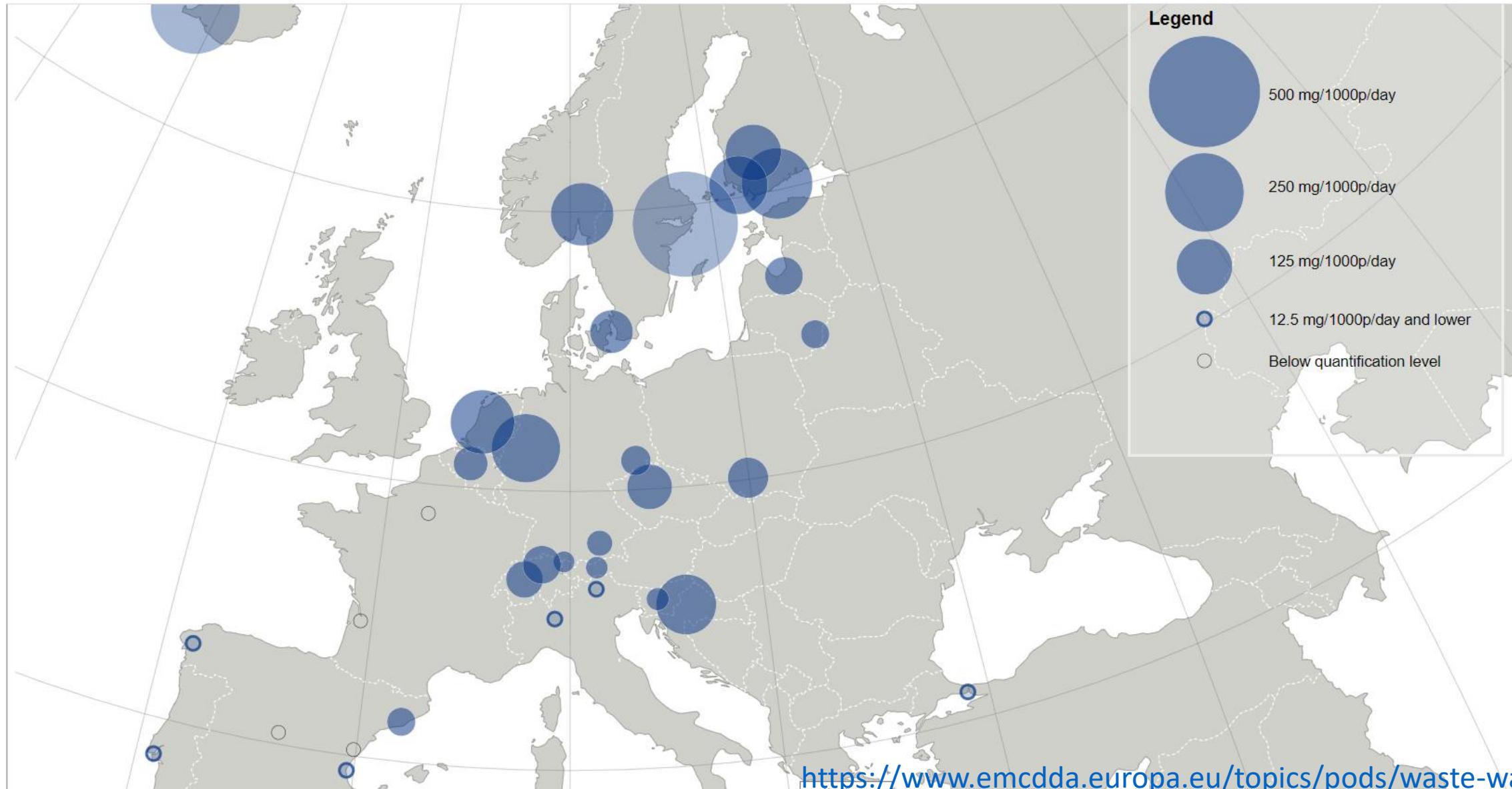
Tanel Tenson
Tartu Ülikooli Tehnoloogia instituut

NARKOOTIKUMID

KOKAIIN, 2019



AMFETAMIIN, 2019



<https://www.emcdda.europa.eu/topics/pods/waste-water-analysis>

2. Interactive: explore the data from the study

The 2019 Europe-wide study including over 70 cities revealed a picture of distinct geographical and temporal patterns of drug use across European cities. There are two ways to visualise the data from this study, either viewing the data on a map or using a specially-developed charting tool. You can switch between the two views at any point.

Map-based tool

Charting tool

Select a year:

2011

2012

2013

2014

2015

2016

2017

2018

2019

Select target drug*:

cocaine* amphetamine methamphetamine MDMA

Means

Mean Weekday Weekend

Explore daily patterns:

Mo Tu We Th Fr Sa Su

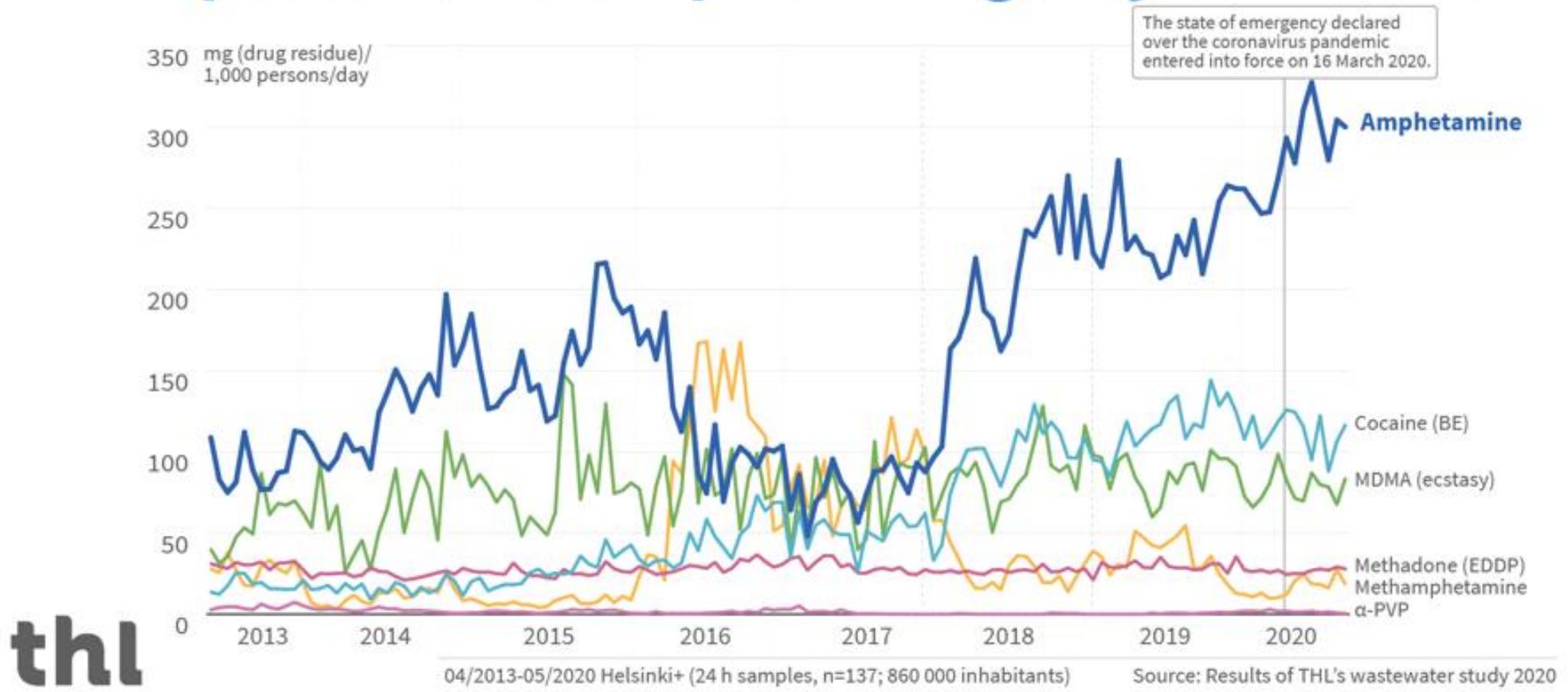
Amphetamine use has continued to increase in the Helsinki area during the exceptional circumstances - the increase also visible in traffic

4 Jun 2020

THL's wastewater analyses indicate that a record amount of amphetamine is currently used in the Helsinki metropolitan area. The use of the drug has continued to grow during the emergency conditions. Simultaneously, the number of suspected cases of drug-impaired driving has exceeded the number of suspected cases of driving under the influence of alcohol for the first time.

<https://thl.fi/en/web/thlfi-en/-/amphetamine-use-has-continued-to-increase-in-the-helsinki-area-during-the-exceptional-circumstances-the-increase-also-visible-in-traffic>

Amphetamine use increased in the Helsinki metropolitan area despite emergency conditions



thl

Tallinna reovee uuring narkootiliste ja psühhotroopsete ainete jääkide suhtes

Uuringu kokkuvõte

**Vahur Hollo, Aime Riikoja, Tarmo Barndök, Katri Abel-Ollo, Aljona
Kurbatova**

Tabel 2: Tarvitatud aine kogus (mg) reovees 1000 elaniku kohta ööpäevas

	11.– 12.03.20 19	12.– 13.03.20 19	13.– 14.03.20 19	14.– 15.03.20 19	15.– 16.03.20 19	16.– 17.03.20 019	17.– 18.03.20 19
amfetamiin	307,5	279,8	261,0	269,9	267,5	403,6	344,2
metamfetamiin	82,8	81,0	87,6	89,2	80,1	86,1	78,8
metüleendioksü metamfetamiin (MDMA)	58,8	36,3	34,5	27,0	35,8	148,3	101,9
kokaiin (bensoüülekgoni in)	284,9	230,0	222,1	267,9	257,3	446,6	349,4
metadoon (2- etülideen-1,5- dimetüül-3,3- difenüülpürrolidii n (EDDP))	40,9	35,3	41,9	41,2	34,9	41,2	36,8
nikotiin (kotiniin)	1819,8	1965,6	1662,7	1504,3	1624,9	1782,9	1667,6
tetrahüdrokanna bi-nool (THC COOH)	7908,9	7837,4	5961,1	6480,2	7080,4	6872,0	7235,9
etanol kg (etüülsulfaat)	48,5	34,6	35,1	34,7	39,7	70,6	72,1
etanol l (etüülsulfaat)	61,5	43,9	44,5	43,9	50,4	89,5	91,4

ANTIBIOOTIKUMIRESISTENTSED BAKTERID



A global multinational survey of cefotaxime-resistant coliforms in urban wastewater treatment plants



Roberto B.M. Marano^{a,b,1}, Telma Fernandes^{c,1}, Célia M. Manaia^c, Olga Nunes^d, Donald Morrison^x, Thomas U. Berendonk^e, Norbert Kreuzinger^f, Tanel Telson^g, Gianluca Corno^h, Despo Fatta-Kassinosⁱ, Christophe Merlin^j, Edward Topp^{k,l}, Edouard Jurkewitch^a, Leonie Henn^x, Andrew Scott^k, Stefanie Heß^{e,m}, Katarzyna Slipko^f, Mailis Laht^{g,n}, Veljo Kisand^g, Andrea Di Cesare^h, Popi Karaolia^l, Stella G. Michael^l, Alice L. Petre^o, Roberto Rosal^o, Amy Pruden^p, Virginia Riquelme^p, Ana Agüera^q, Belen Esteban^q, Aneta Luczkiewicz^r, Agnieszka Kalinowska^r, Anne Leonard^s, William H. Gaze^t, Anthony A. Adegoke^{u,v}, Thor A. Stenstrom^t, Alfieri Pollice^v, Carlo Salerno^v, Carsten U. Schwermer^w, Paweł Krzeminski^w, Hélène Guilloteau^j, Erica Donner^y, Barbara Drigo^y, Giovanni Libralato^z, Marco Guida^z, Helmut Bürgmann^{ah}, Karin Beck^{ah}, Hemda Garellick^{ab}, Marta Tacão^{ac}, Isabel Henriques^{ac,av}, Isabel Martínez-Alcalá^{ad}, Jose M. Guillén-Navarro^{ad}, Magdalena Popowska^{ae}, Marta Piotrowska^{ae}, Marcos Quintela-Baluja^{af}, Joshua T. Bunce^{af}, Maria I. Polo-López^{q,ag}, Samira Nahim-Granados^{q,ag}, Marie-Noëlle Pons^{ah}, Milena Milakovic^{ai}, Nikolina Udikovic-Kolic^{ai}, Jérôme Ory^{aj,ak,al}, Traore Ousmane^{aj,ak,al}, Pilar Caballero^{am}, Antoni Oliver^{am}, Sara Rodriguez-Mozaz^{an}, Jose L. Balcazar^{an}, Thomas Jäger^{ao}, Thomas Schwartz^{ao}, Ying Yang^{ap}, Shichun Zou^{ap}, Yunho Lee^{aq}, Younggun Yoon^{aq}, Bastian Herzog^{ar}, Heidrun Mayrhofer^{ar}, Om Prakash^{as}, Yogesh Nimonkar^{as}, Ester Heath^{at}, Anna Baraniak^{au}, Joana Abreu-Silva^c, Manika Choudhury^{ab}, Leonardo P. Munoz^{ab}, Stela Krizanovic^{ai}, Gianluca Brunetti^y, Ayella Maile-Moskowitz^p, Connor Brown^p, Eddie Cytryn^{b,*}

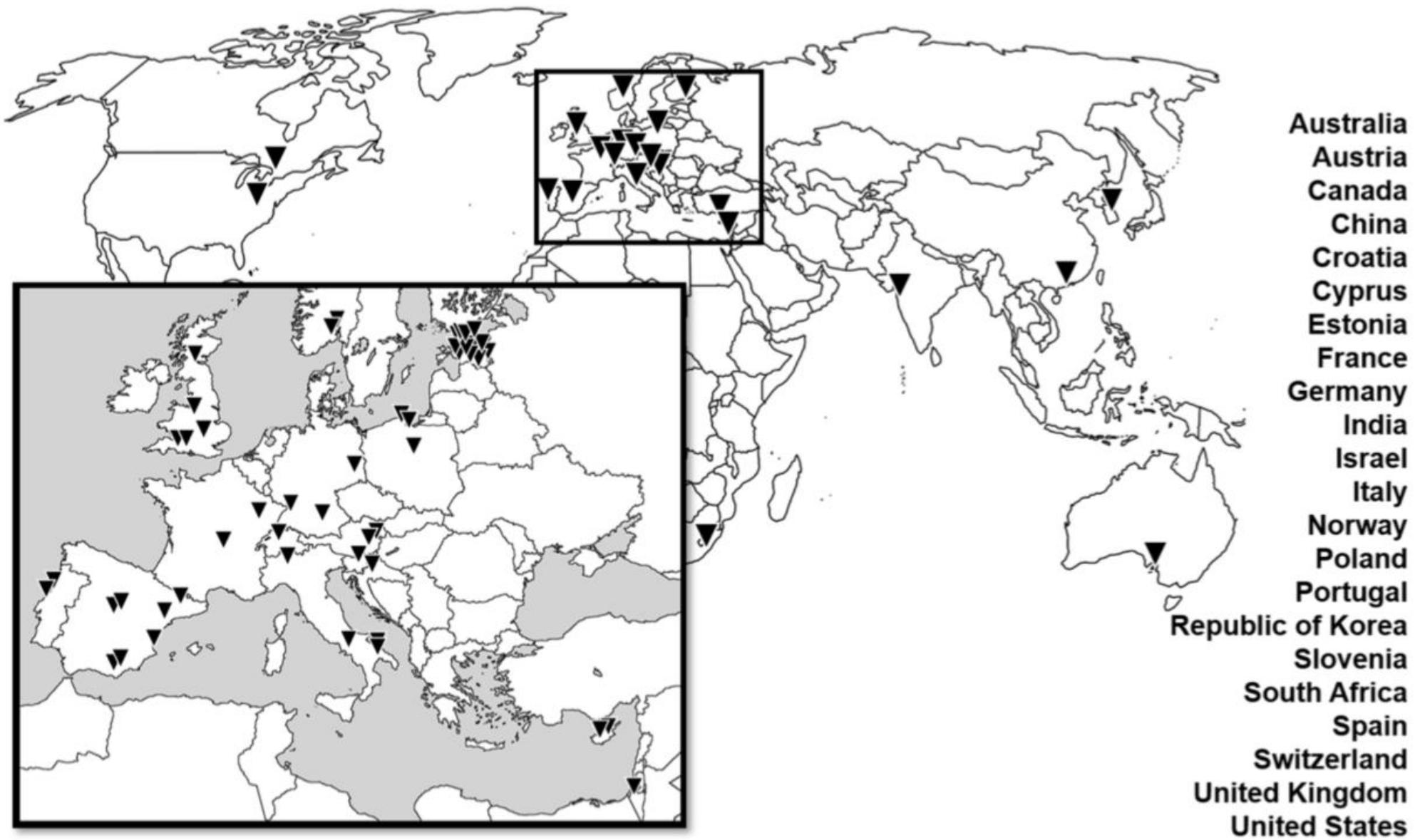
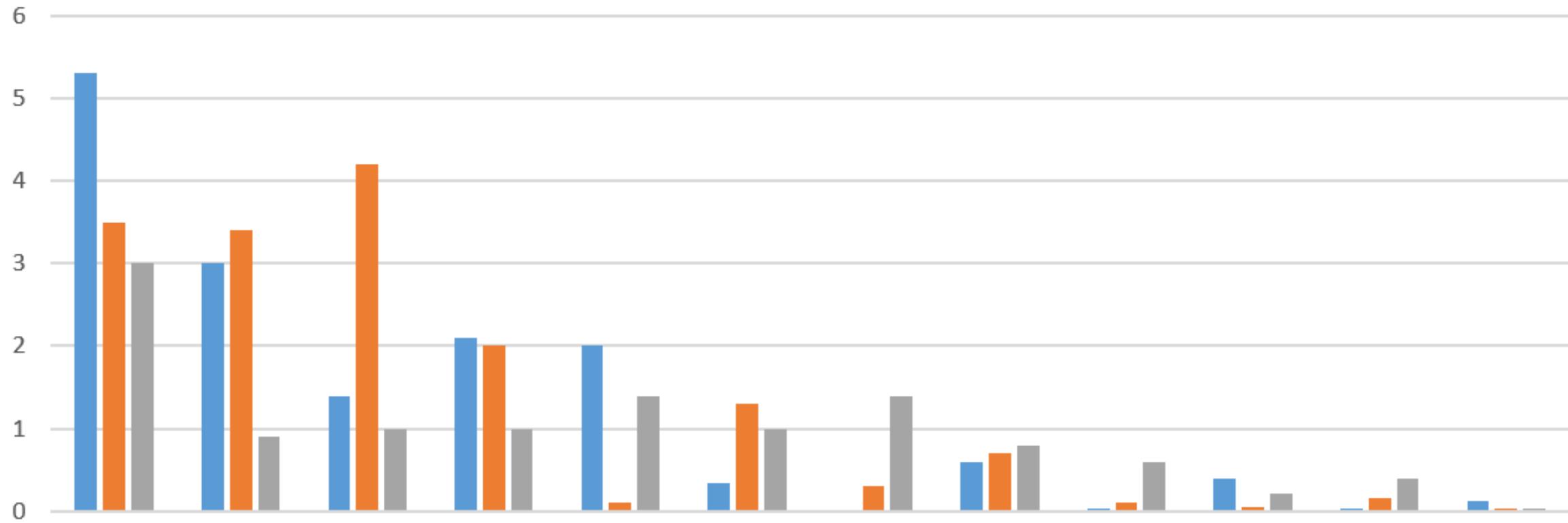


Fig. 1. A geographical overview of the global survey on cefotaxime-resistant coliforms. Black triangles show geographic locations of the participating countries where WWTP samples were collected. Square insert shows targeted European WWTPs.

RESISTENTSETE KOLIVORMSETE BAKTERITE PROTSENT SISSEVOOLUS, EESTI 2016-2017



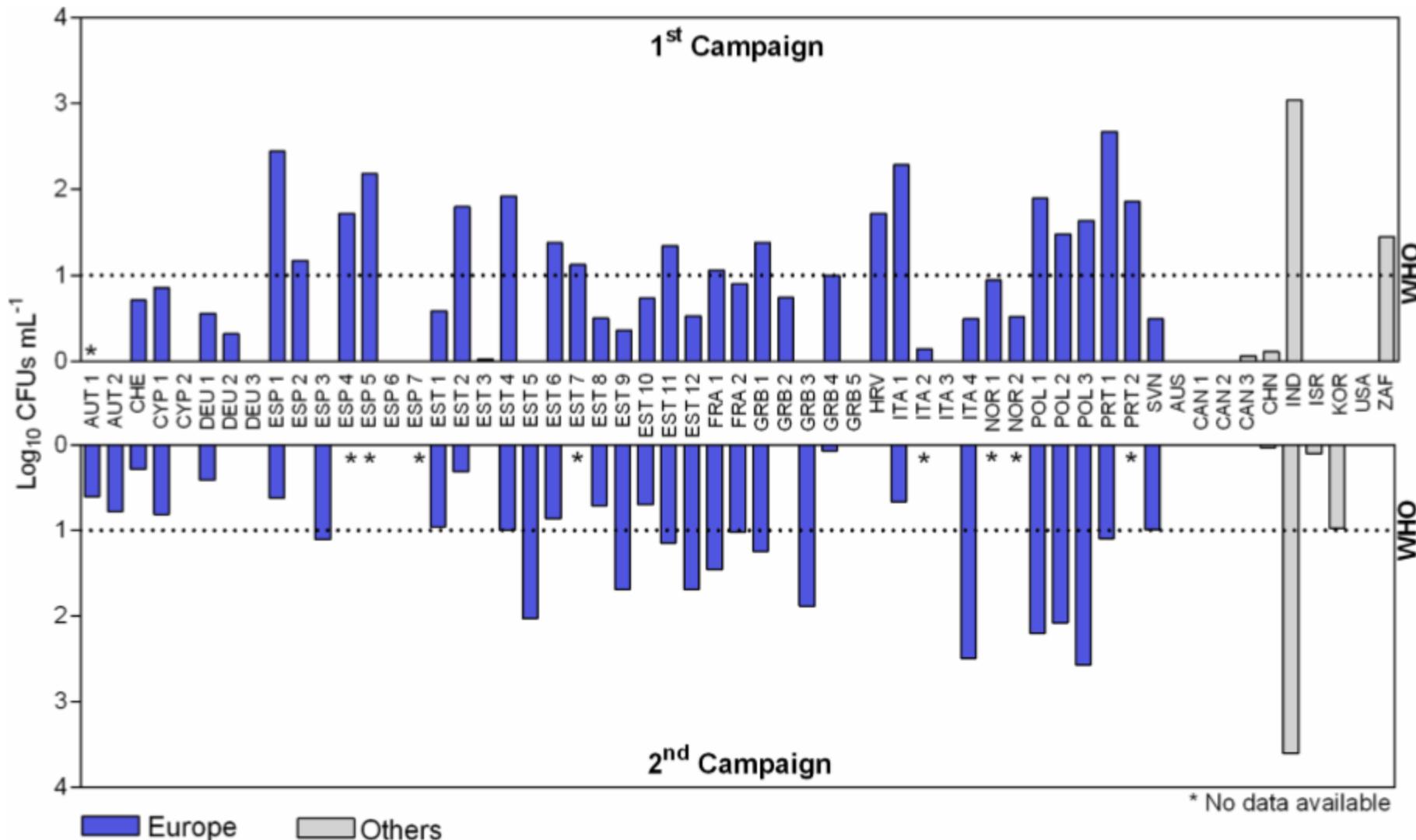


Fig. 5. Average CTX-R coliforms mL^{-1} in WWTPs' effluents (country-code + WWTP's assigned number from the same country). Fifty-seven WWTPs sampled in the first campaign (top) and forty-eight in the second campaign (bottom). The dotted line shows the WHO limits for water reuse regulation referred to Escherichia coli (CFUs mL^{-1}) log converted. Australia (AUS); Austria (AUT); Canada (CAN); China (CHN); Croatia (HRV); Cyprus (CYP); Estonia (EST); France (FRA); Germany (DEU); India (IND; Pune); Israel (ISR); Italy (ITA); Republic of Korea (KOR); Norway (NOR); Poland (POL); Portugal (PRT); Slovenia (SVN); South Africa (ZAF); Spain (ESP); Switzerland (CHE); United Kingdom (GRB); United States (USA). Asterisks indicated missing participation in the sampling campaign.

VIRUSED



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Posted March 30, 2020.

Gertjan Medema, Leo Heijnen, Goffe Elsinga, Ronald Italiaander, Anke Brouwer

doi: <https://doi.org/10.1101/2020.03.29.20045880>

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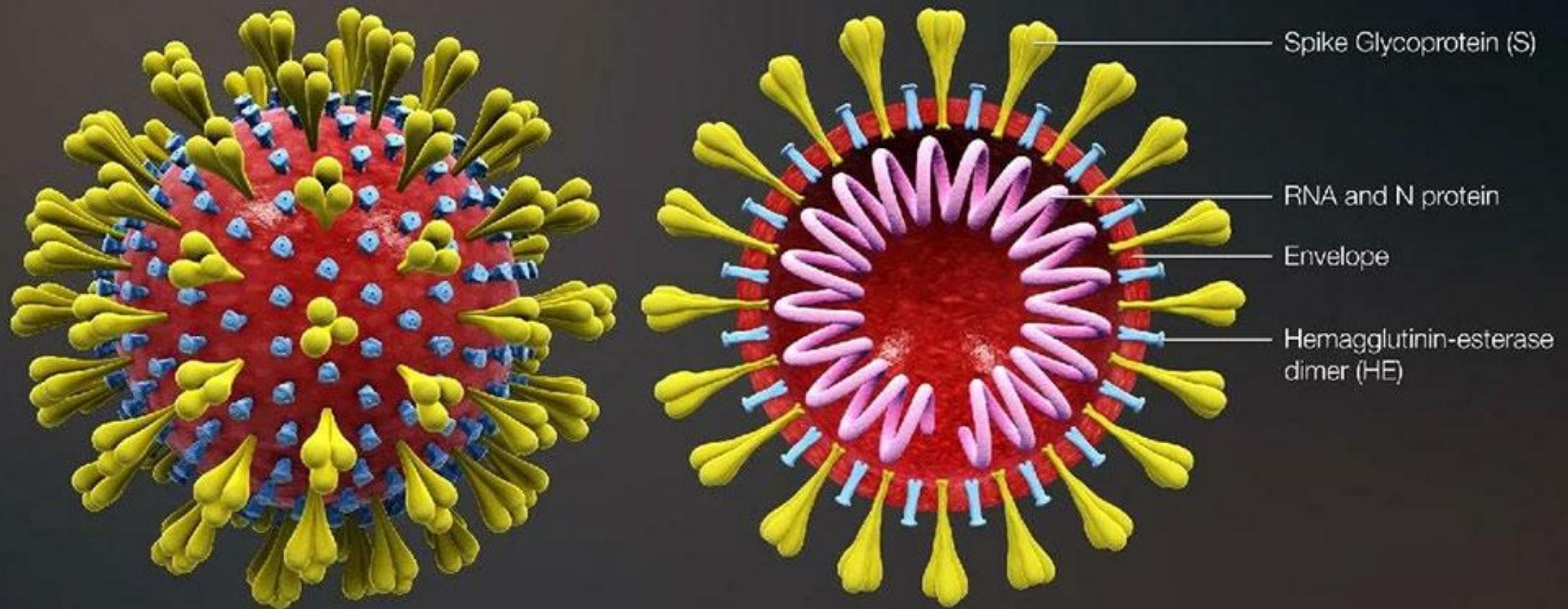




Figure 1. In wastewater-based epidemiology (WBE), the prevalence of SARS-CoV-2 infections in a community could be estimated by enumerating the virus RNA in that community's sewage and performing mass balances on virus shedding using population and sewage flow rate data. Such information can then inform public health responses to the outbreak.

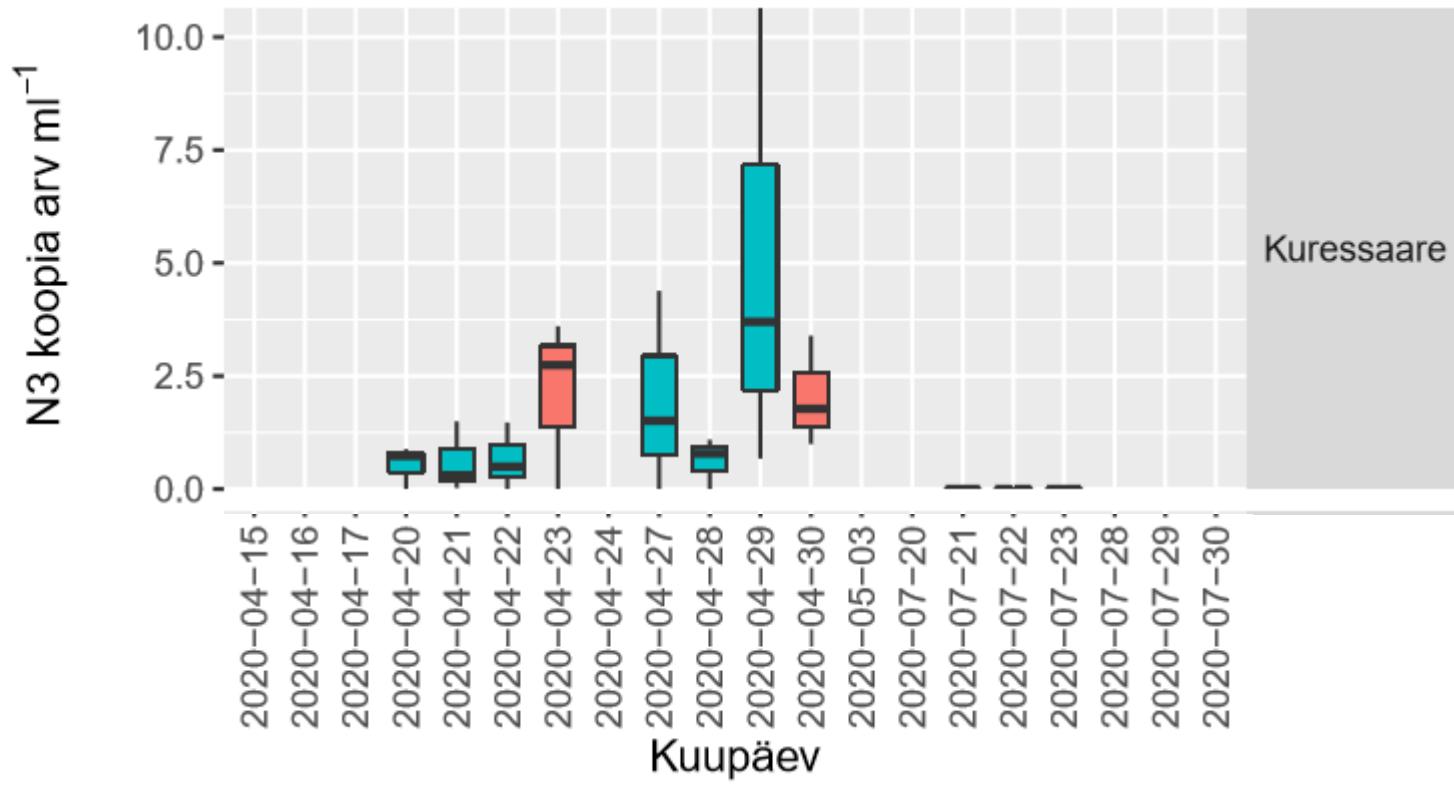
SEIRESÜSTEEMID

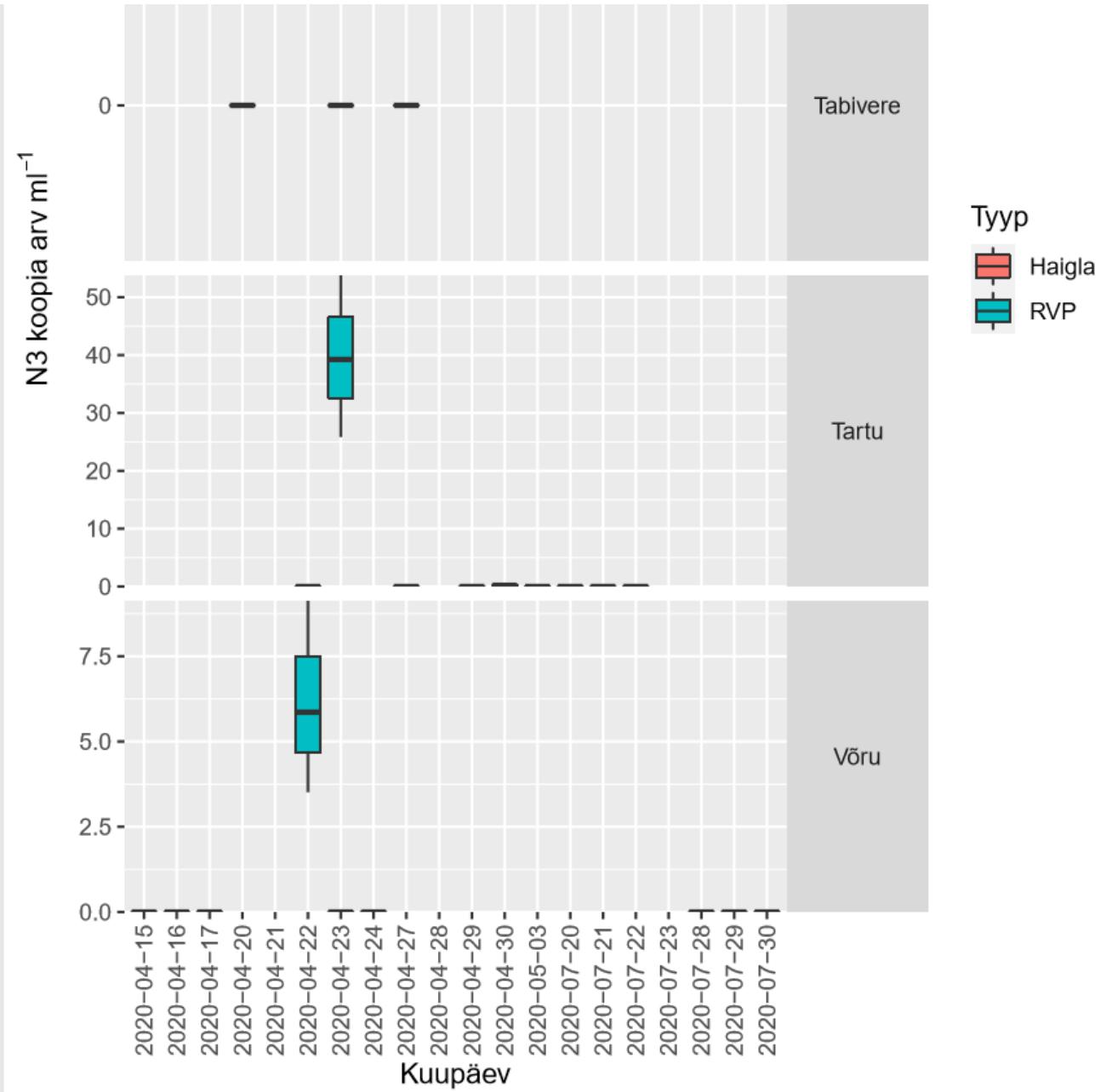
AUSTRAALIA – võibolla praeguseks kõige arenenum süsteem

SOOME – katvus 60% elanikkonnast

HOLLAND, AUSTRIA jne

Mitmel juhul koroonaseira ehitatud toimiva narkoseire süsteemi peale (Soome)





Rahastus:

Teadmisepõhise
poliitikakujundamise toetamine:
RITA tegevus 2 – *alates kevadest*

Riiklik seire – *augusti algusest*

Kaastöölised:

Veljo Kisand
Mailis Laht