

# Cross-sectional survey of *Clostridioides difficile* infection diagnostic and typing capacity in 31 European countries in 2018

## Background

Suboptimal diagnostic testing for *Clostridioides difficile* infection (CDI) affects patient management, surveillance and prevention. In 2011 and 2014, ECDC ECDIS-Net surveys in 33 European countries recorded optimal diagnostic practices in 19% and 46% of the participating laboratories, respectively. In 2014, 16/32 (50.0%) countries had capillary-based (CE) PCR ribotyping capacity.

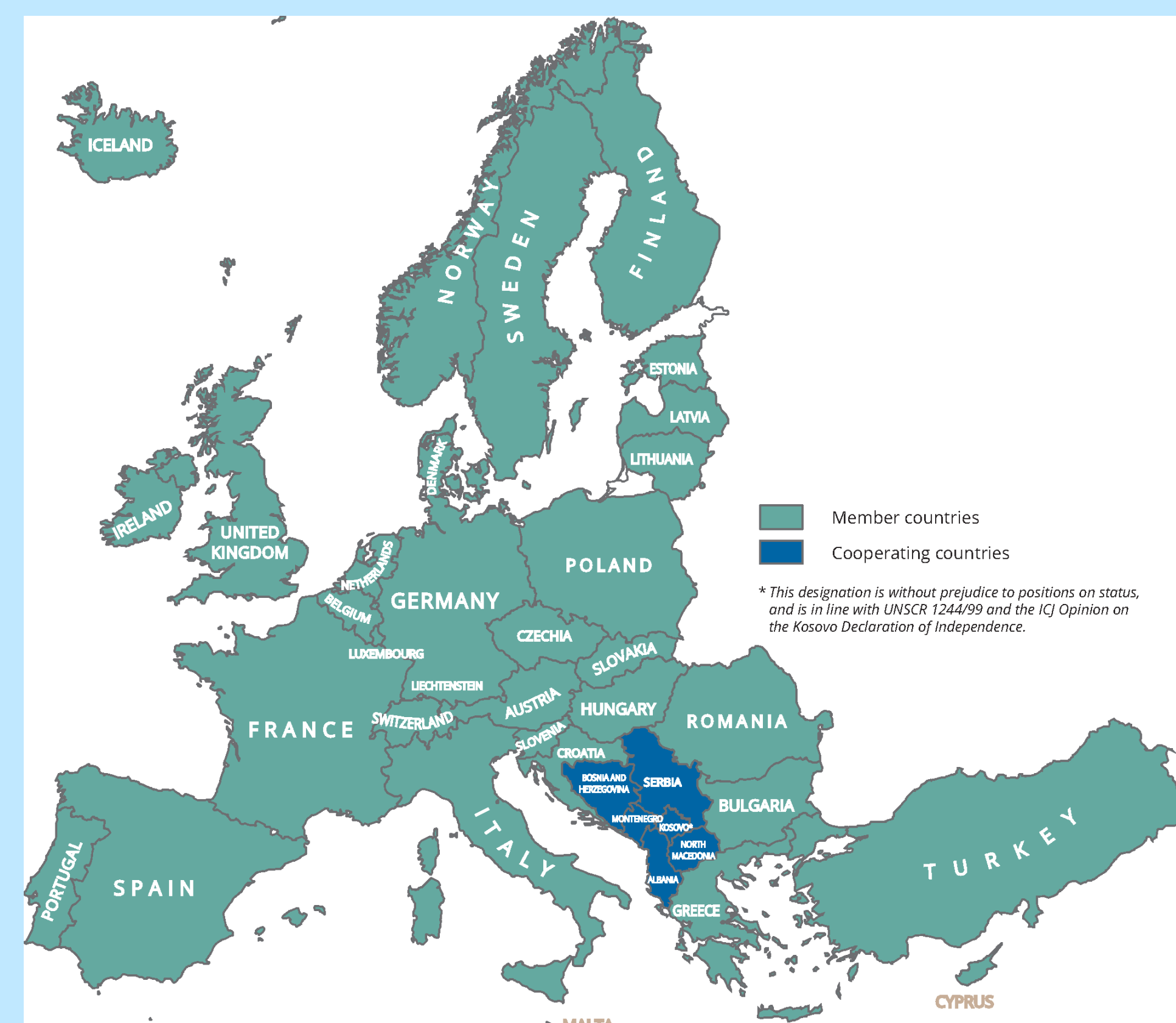
## Aim of the study

This survey sought to describe European CDI diagnostic and typing capacity in 2018

## Methods

In December 2018, ECDIS-Net-2 sent a **web-based questionnaire** on national CDI diagnostic practices, to **national-level experts**, designated by ECDC's National Focal Points for Healthcare-Associated Infections, in all 37 EU/EA countries. These experts forwarded another web-based questionnaire on local CDI diagnostic practices to **local laboratories in their country**. In countries with >20 responding laboratories, we randomly selected 20 responses. In total, **364 laboratories** participated

**No response:** Liechtenstein, UK-Scotland, UK-Northern Ireland and the Republic of North Macedonia



## Results

	EU/EA countries (n=37)	%
Changed/updated national CDI diagnostic guidelines since 2014	22/37	59%
Adopted the 2016 ESCMID diagnostic algorithm	18/23	78%
Introduced national CDI surveillance program	9/26	35%
Availability of national <i>C. difficile</i> typing laboratory	25/26	96%
Performance of CE-PCR ribotyping	22/26	85%
Use of ECDC reference panel of PCR ribotypes	16/26	62%
Identifies need further training for CE-PCR ribotyping	9/37	24%
Performs <i>C. difficile</i> susceptibility testing	8/37	22%

	Microbiological labs (n= 364)	%
CDI testing only on physicians request	169/307	55%
CDI testing of all hospitalized patients with onset of diarrhea at least 48 h following admission	58/364	16%
Testing all diarrheal patients ≥ 65 years of age	32/364	9%
Testing all diarrheal patients with recently completed course of antibiotics shorter than 1 month	41/364	11%
Use of ESCMID-recommended two-step algorithm to diagnose CDI	197/364	54%
Use of two steps with combined GDH and toxin test as first step	116/197	59%

## Conclusion

Europe has further improved its capacity to diagnose CDI, measure prevalence and identify subtypes, thus permitting better targeting of local and national public health actions.