



EUCAST

European Committee
on Antimicrobial
Susceptibility Testing

Listeria monocytogenes

Calibration of zone diameter
breakpoints to MIC values

Version 2.4
January 2026

Listeria monocytogenes

MIC and zone diameter correlates

- The following histograms present inhibition zone diameter distributions from EUCAST antimicrobial susceptibility testing. In most, the different colours of the bars indicate different MIC values. In some, the colours of the bars indicate a resistance gene or a resistance mechanism.
- The distributions include data for wild-type isolates and for isolates with acquired resistance mechanisms. A large number of isolates with MIC values close to the edge of the wild-type distribution and/or close to EUCAST clinical breakpoints were intentionally included. These distributions can not be used to infer resistance rates or the performance of the tests with routine isolates.
- For some agents, isolates were tested on more than one occasion, including parallel tests with disks and media from several manufacturers. When this is the case, data are presented as both the “number of isolates tested” and the “total number of MIC-zone diameter correlates”, including replicate tests and parallel tests with disks and media from different sources.

Listeria monocytogenes

Materials and methods

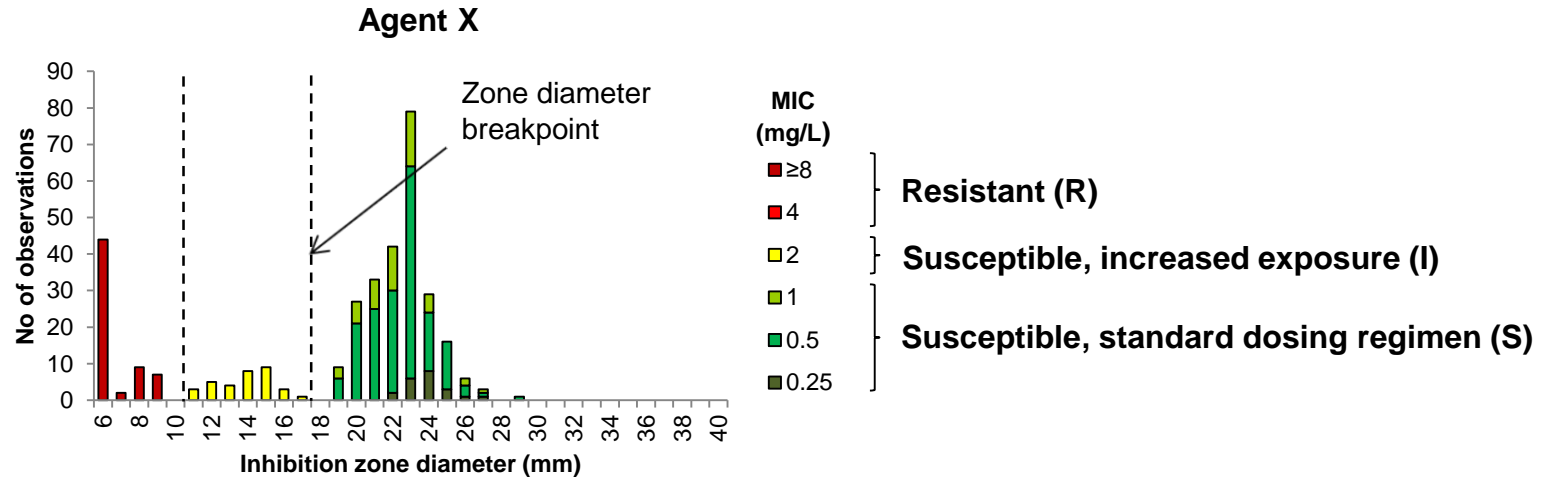
- A total number of 129 *Listeria monocytogenes* collected from five laboratories in Europe, including isolates with known resistance mechanisms, was tested with the EUCAST disk diffusion method and MICs were determined with the ISO broth microdilution method using MH-F broth.
- The distributions of MIC vs. zone diameter in this presentation are the result of a collaboration between EUCAST, Southmead Hospital, Bristol (UK), Stavanger University Hospital (Norway), Government Central Laboratories, Jerusalem (Israel) and Hvidovre hospital, Copenhagen (Denmark).
- This presentation is based on EUCAST Clinical Breakpoint Tables v. 16.0.

Changes from previous version (2.3)

Changes
<ul style="list-style-type: none">• No changes. Breakpoints checked against latest version of EUCAST Clinical Breakpoint Tables.

Explanation of graphs:

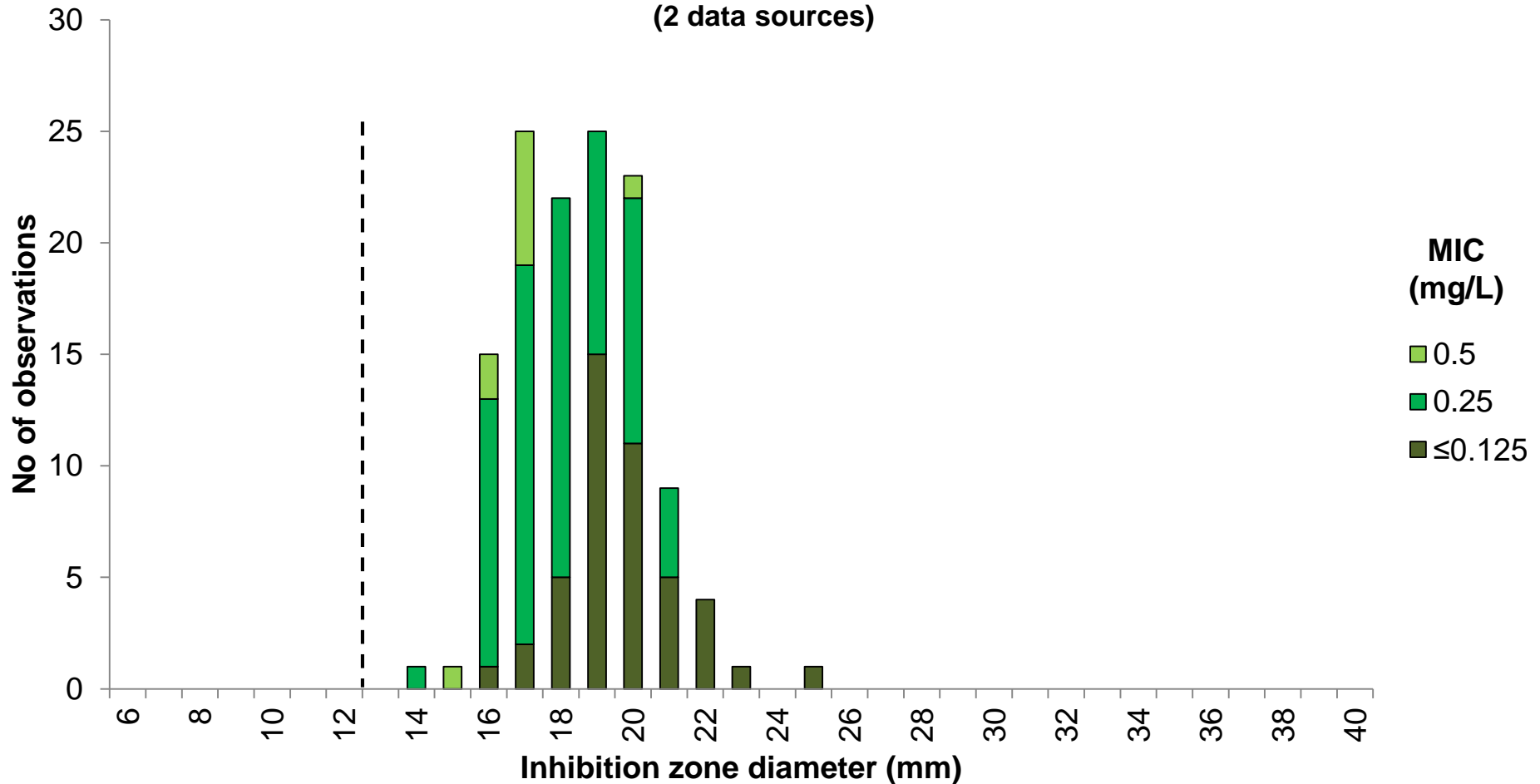
- These graphs show zone diameter distributions with MIC values or resistance mechanisms as coloured bars. Colours are related to current EUCAST MIC breakpoints.



Benzylpenicillin 1 unit vs. MIC

Listeria monocytogenes, 127 isolates

(2 data sources)



Breakpoints (non-meningitis)

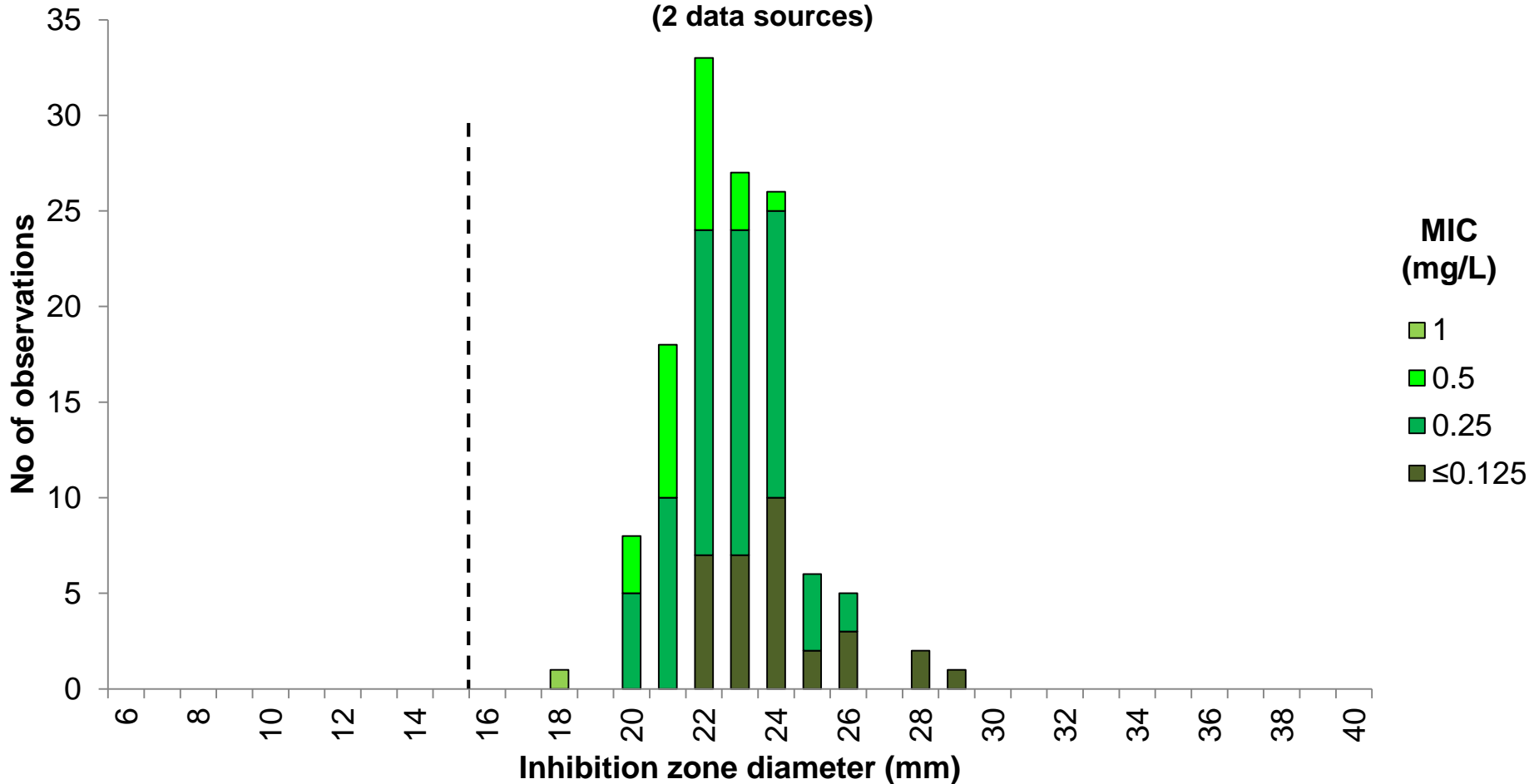
MIC $S \leq 1$, $R > 1$ mg/L

Zone diameter $S \geq 13$, $R < 13$ mm

Ampicillin 2 µg vs. MIC

Listeria monocytogenes, 127 isolates

(2 data sources)



Breakpoints (iv, all indications)

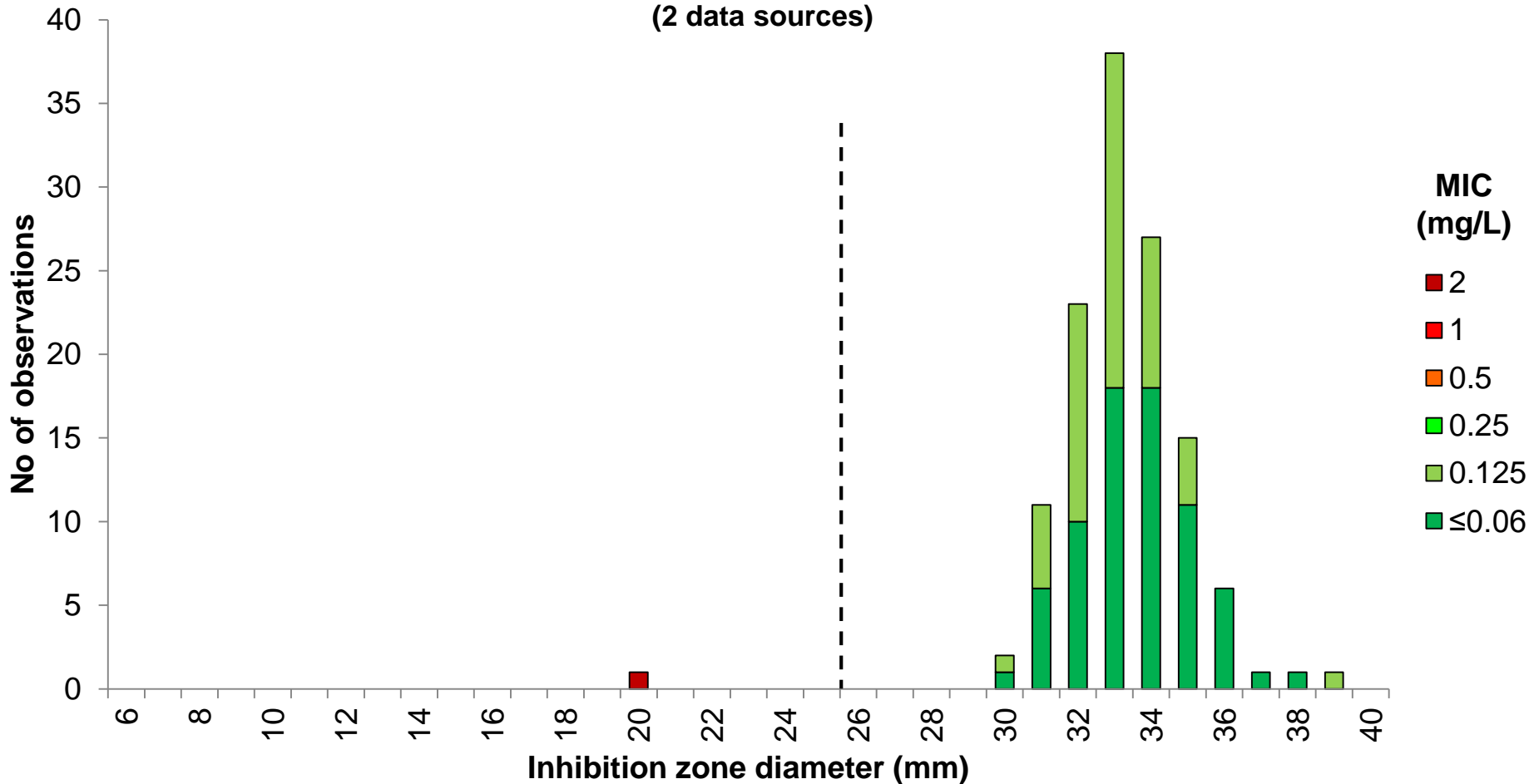
MIC S ≤ 1, R > 1 mg/L

Zone diameter S ≥ 16, R < 16 mm

Meropenem 10 µg vs. MIC

Listeria monocytogenes, 126 isolates

(2 data sources)



Breakpoints (all indications)

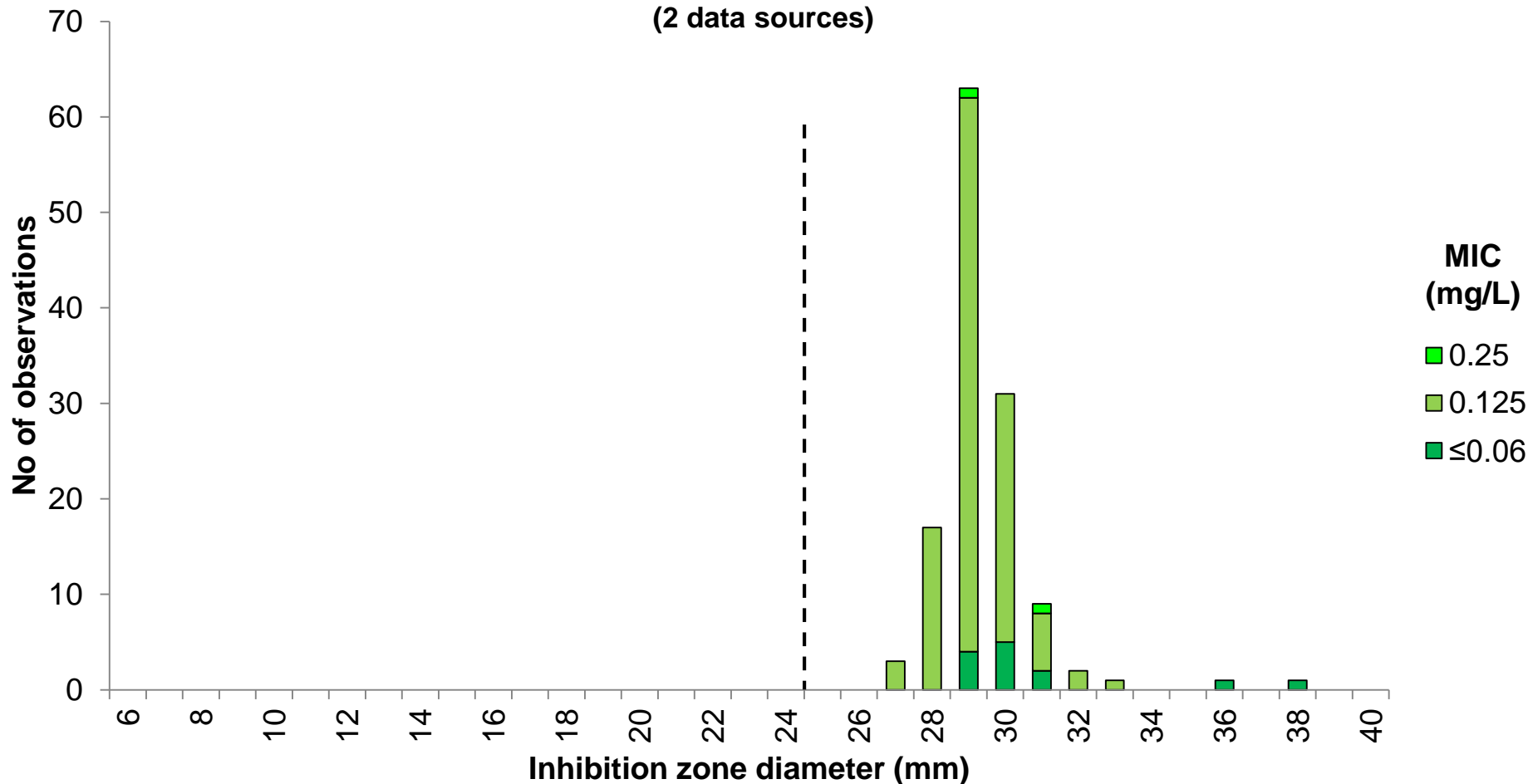
MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 26, R < 26 mm

Erythromycin 15 µg vs. MIC

Listeria monocytogenes, 128 isolates

(2 data sources)



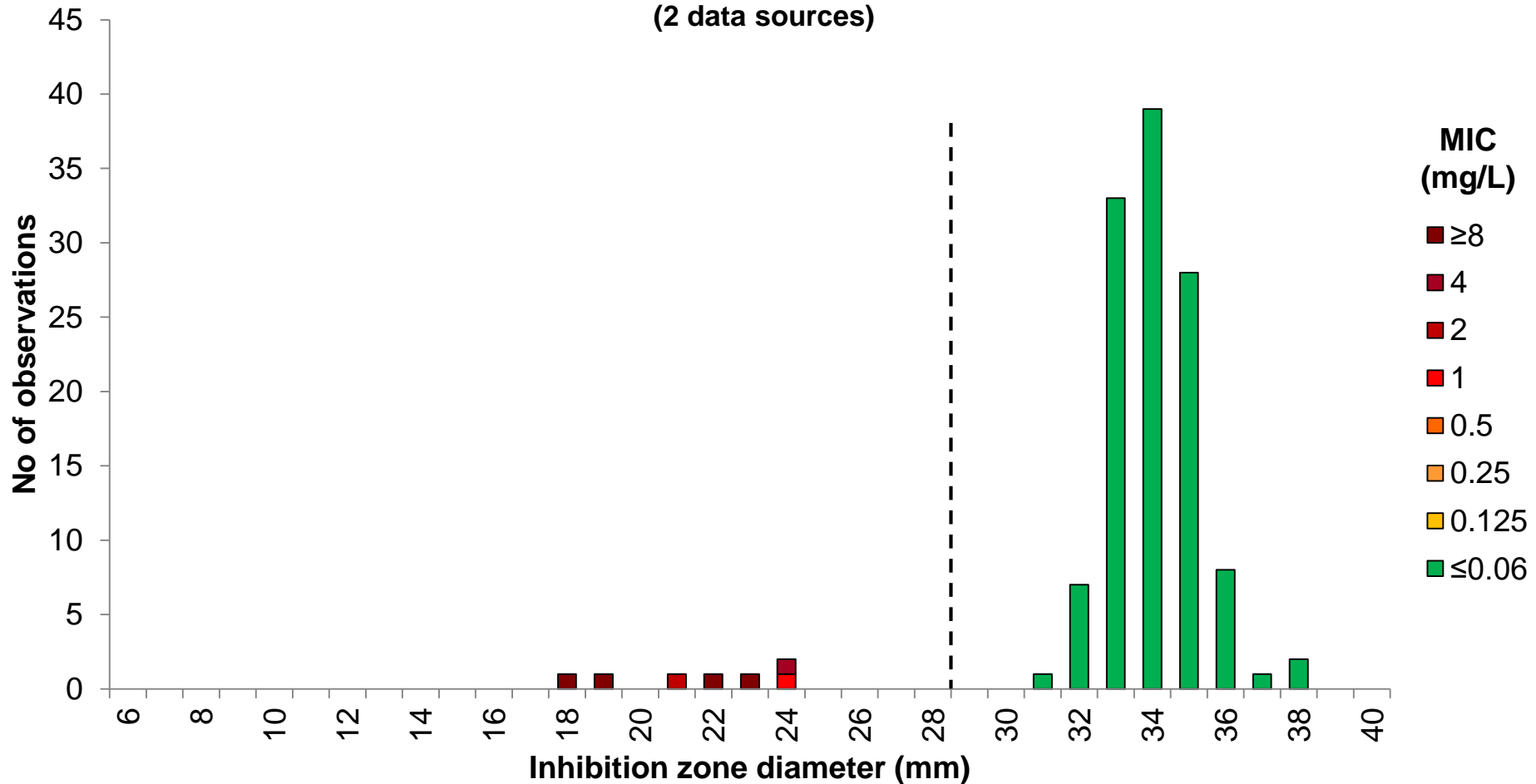
Breakpoints (non-meningitis)

MIC S ≤ 1, R > 1 mg/L

Zone diameter S ≥ 25, R < 25 mm

Trimethoprim-sulfamethoxazole 1.25-23.75 µg vs. MIC *Listeria monocytogenes*, 126 isolates

(2 data sources)



Breakpoints (all indications)

MIC S ≤ 0.06, R > 0.06 mg/L

Zone diameter S ≥ 29, R < 29 mm



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