



EUCAST

European Committee
on Antimicrobial
Susceptibility Testing

Kingella kingae

Calibration of zone diameter
breakpoints to MIC values

Version 3.1
January 2026

Kingella kingae

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.

Kingella kingae

Materials and methods

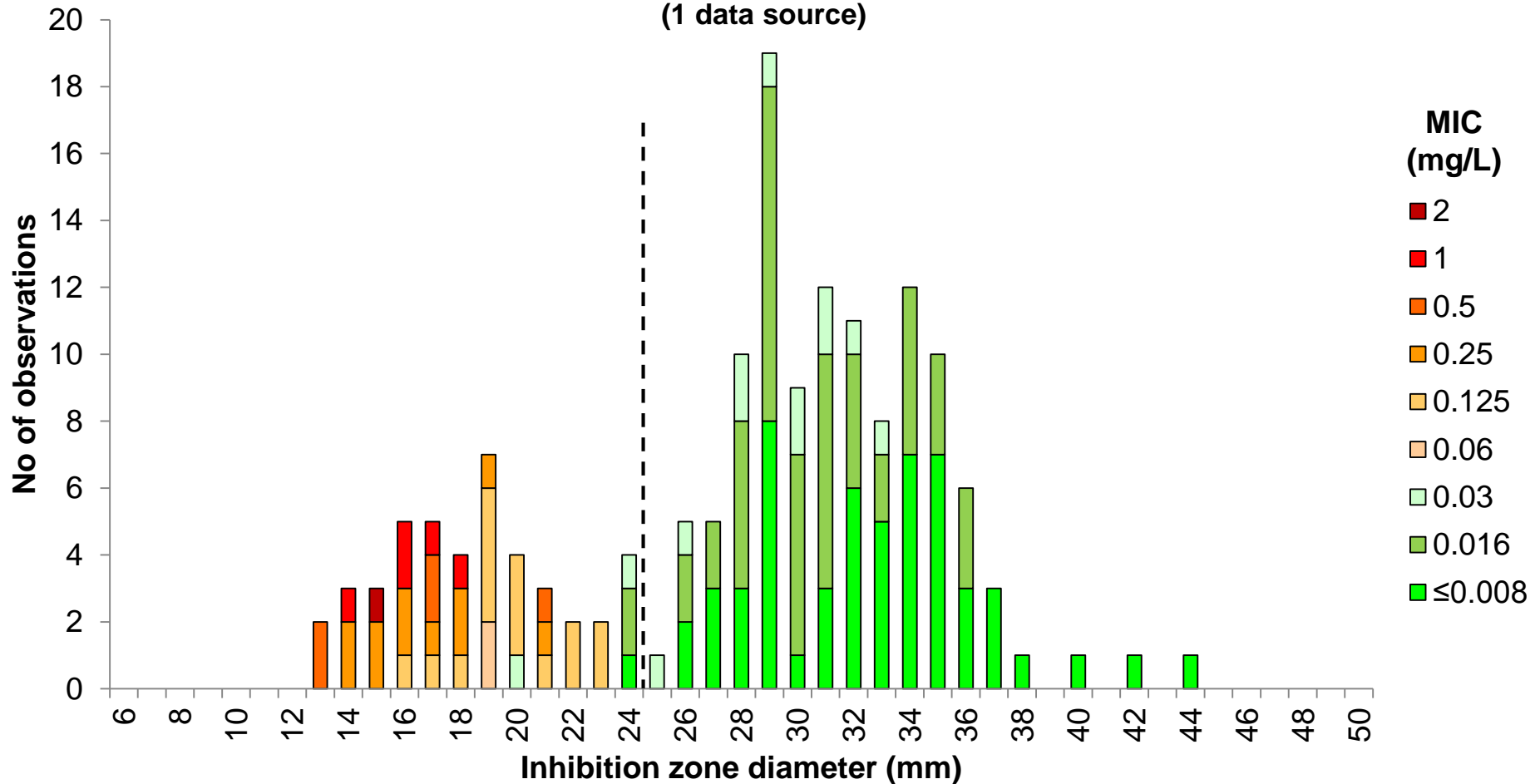
- Antimicrobial susceptibility testing was performed clinical isolates of *Kingella kingae* collected from several laboratories, including isolates with known resistance mechanisms. Disk diffusion was performed on MH-F media according to EUCAST methodology and MICs were determined with the ISO broth microdilution method using MH-F media or gradient tests.
- The distributions of MIC vs. zone diameter in this presentation are the result of a collaboration between EUCAST and Soroka University Medical Center, Israel.
- This presentation is based on EUCAST Clinical Breakpoint Tables v. 16.0.

Changes from previous version (3.0)

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

Benzylpenicillin 1 unit vs. MIC *Kingella kingae*, 159 isolates

(1 data source)



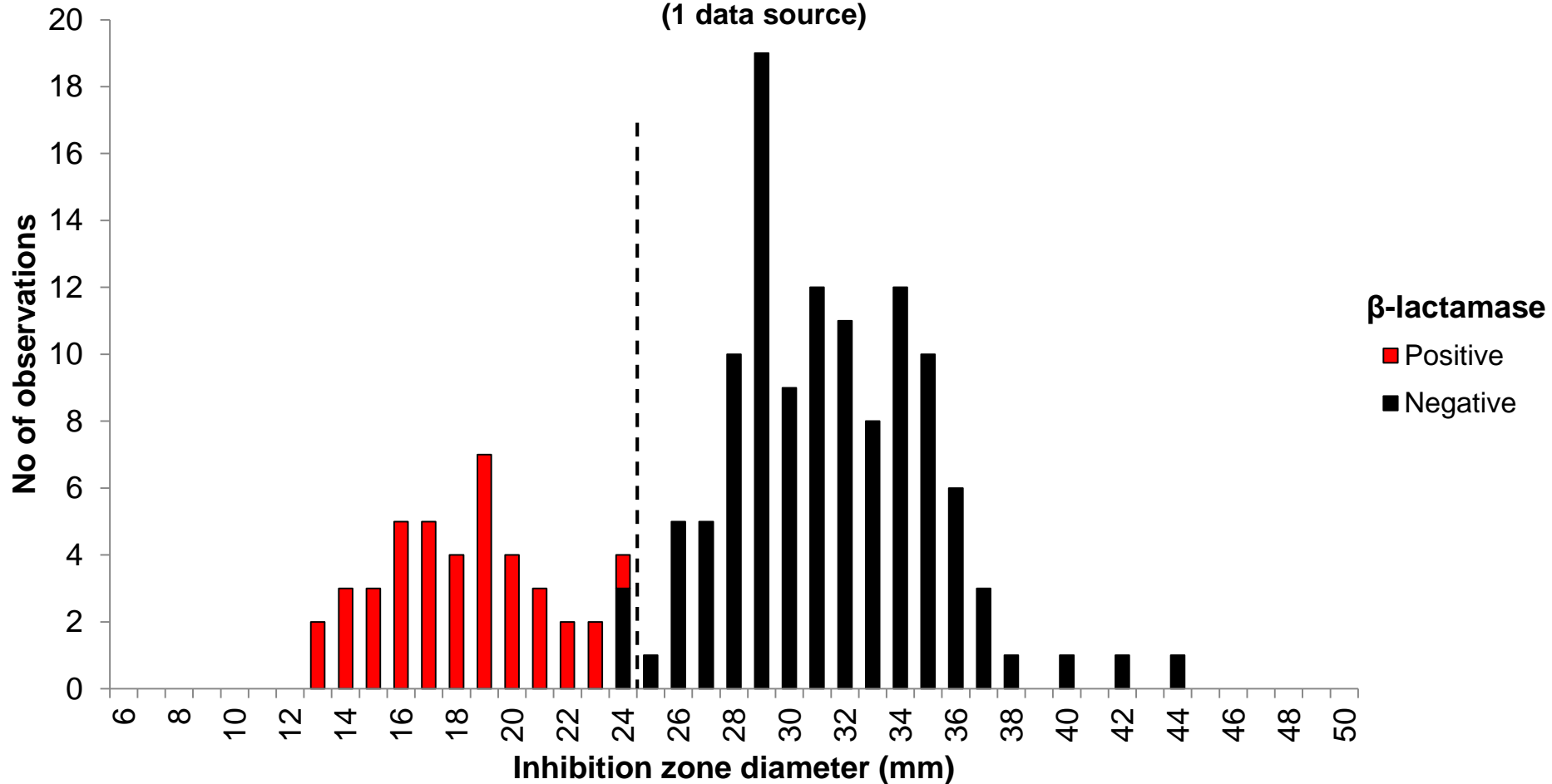
Breakpoints

MIC $S \leq 0.03$, $R > 0.03$ mg/L

Zone diameter $S \geq 25$, $R < 25$ mm

Benzylpenicillin 1 unit vs. β -lactamase *Kingella kingae*, 159 isolates

(1 data source)



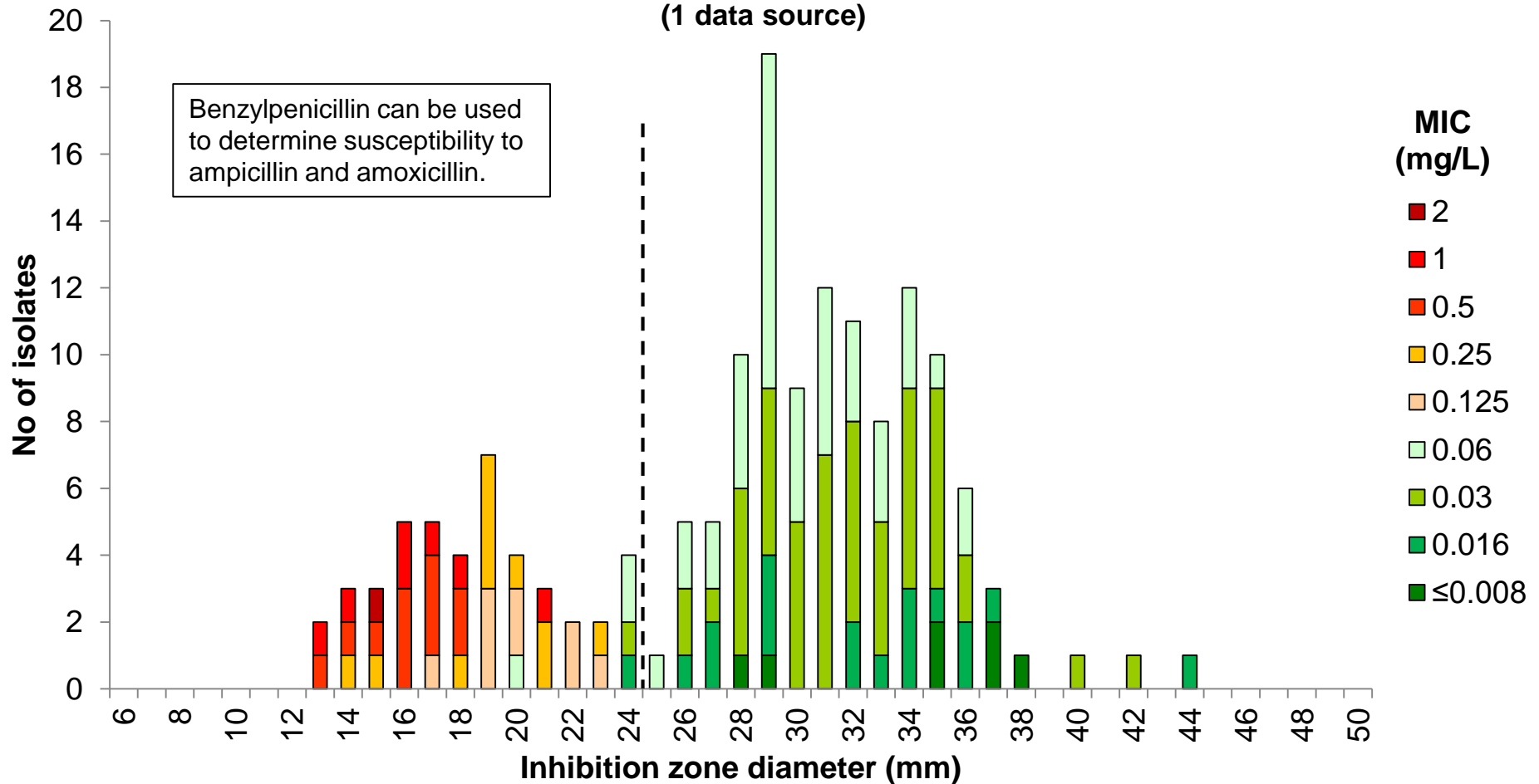
Breakpoints

Zone diameter $S \geq 25$, $R < 25$ mm

Benzylpenicillin 1 unit vs. Ampicillin MIC

Kingella kingae, 159 isolates

(1 data source)



Breakpoints

Ampicillin MIC

$S \leq 0.06$, $R > 0.06$ mg/L

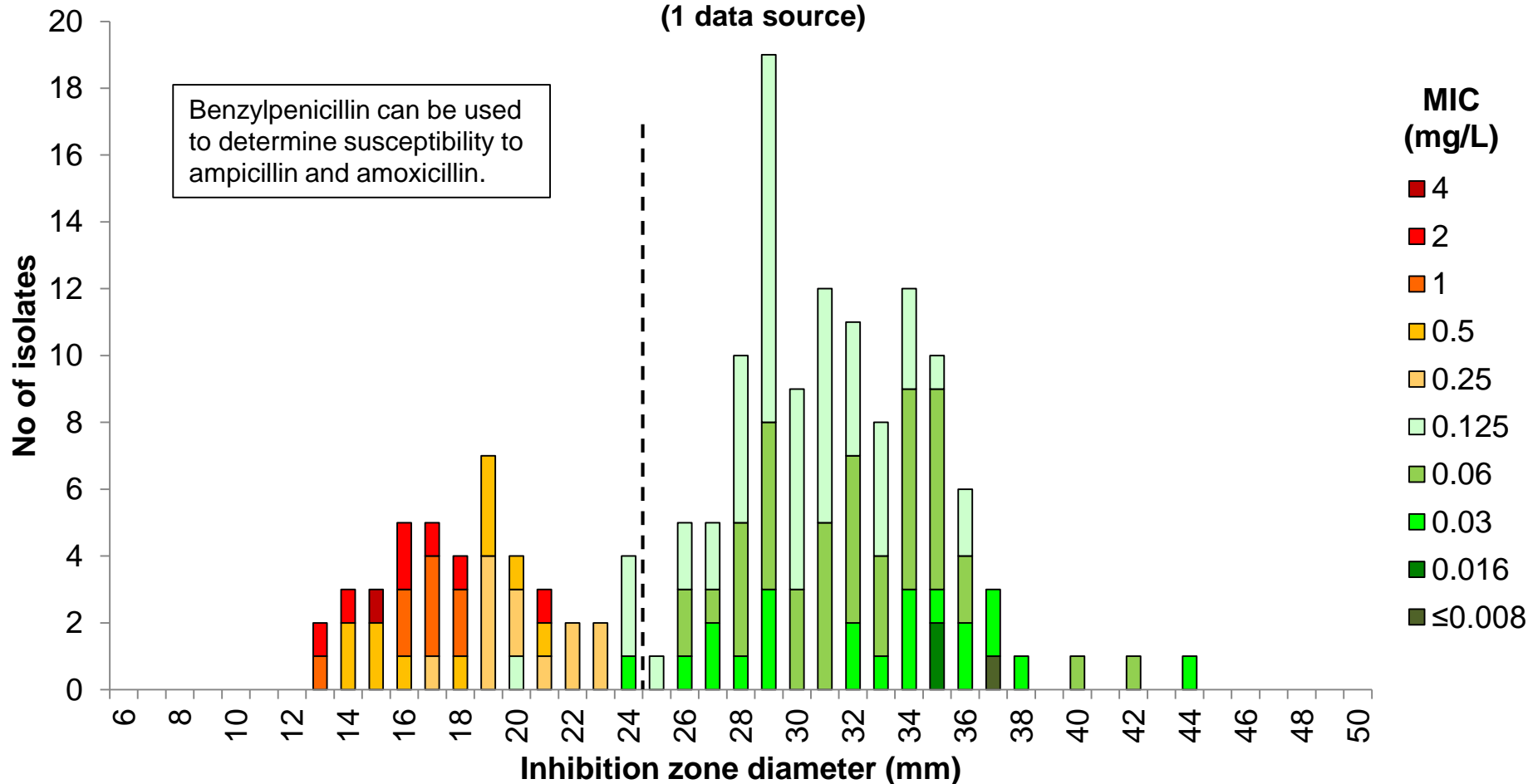
Benzylpenicillin zone diameter

$S \geq 25$, $R < 25$ mm

Benzylpenicillin 1 unit vs. Amoxicillin MIC

Kingella kingae, 159 isolates

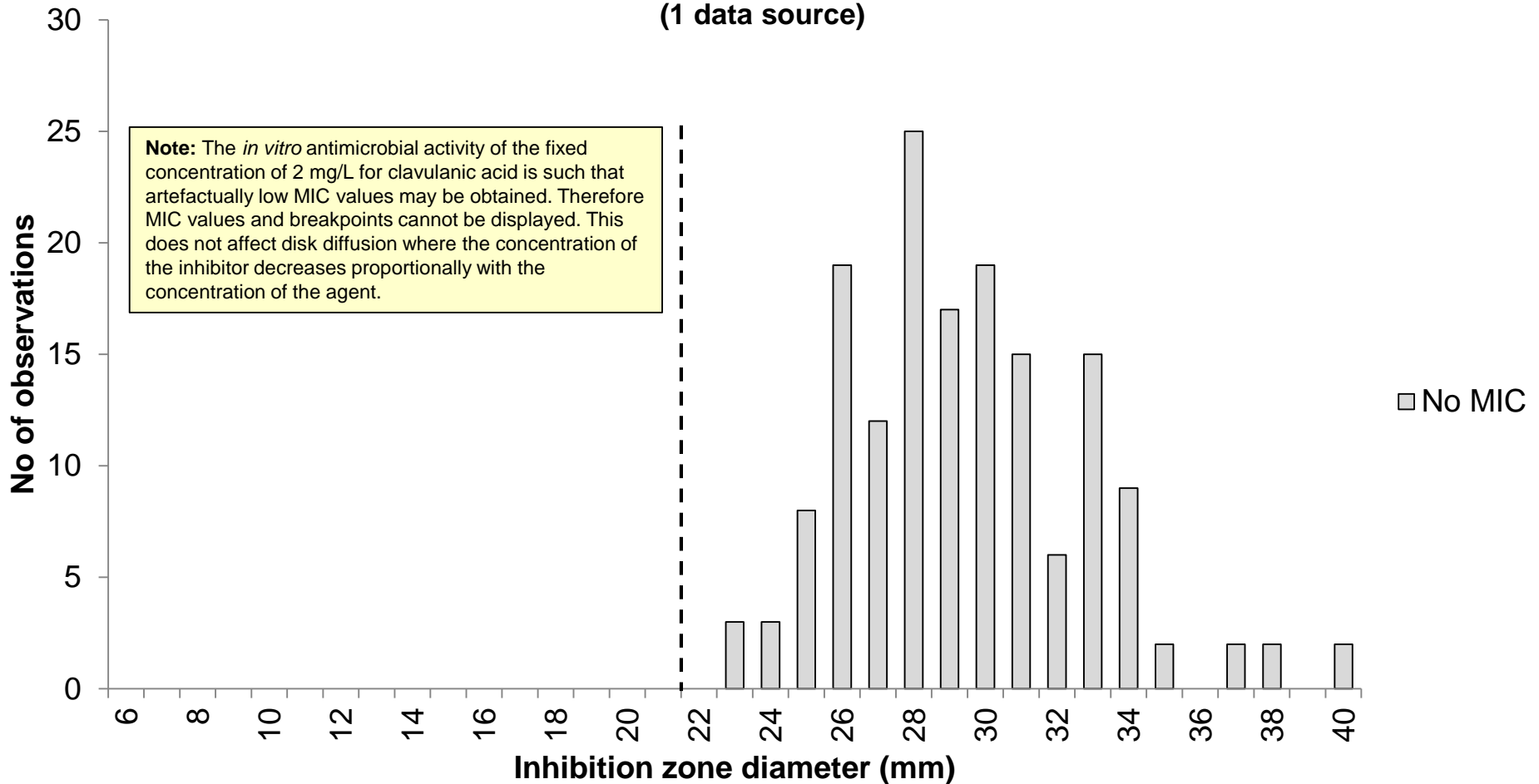
(1 data source)



Breakpoints	
Amoxicillin MIC	S ≤ 0.125, R > 0.125 mg/L
Benzylpenicillin zone diameter	S ≥ 25, R < 25 mm

Amoxicillin-clavulanic acid 2-1 µg *Kingella kingae*, 159 clinical isolates

(1 data source)



Breakpoints

MIC

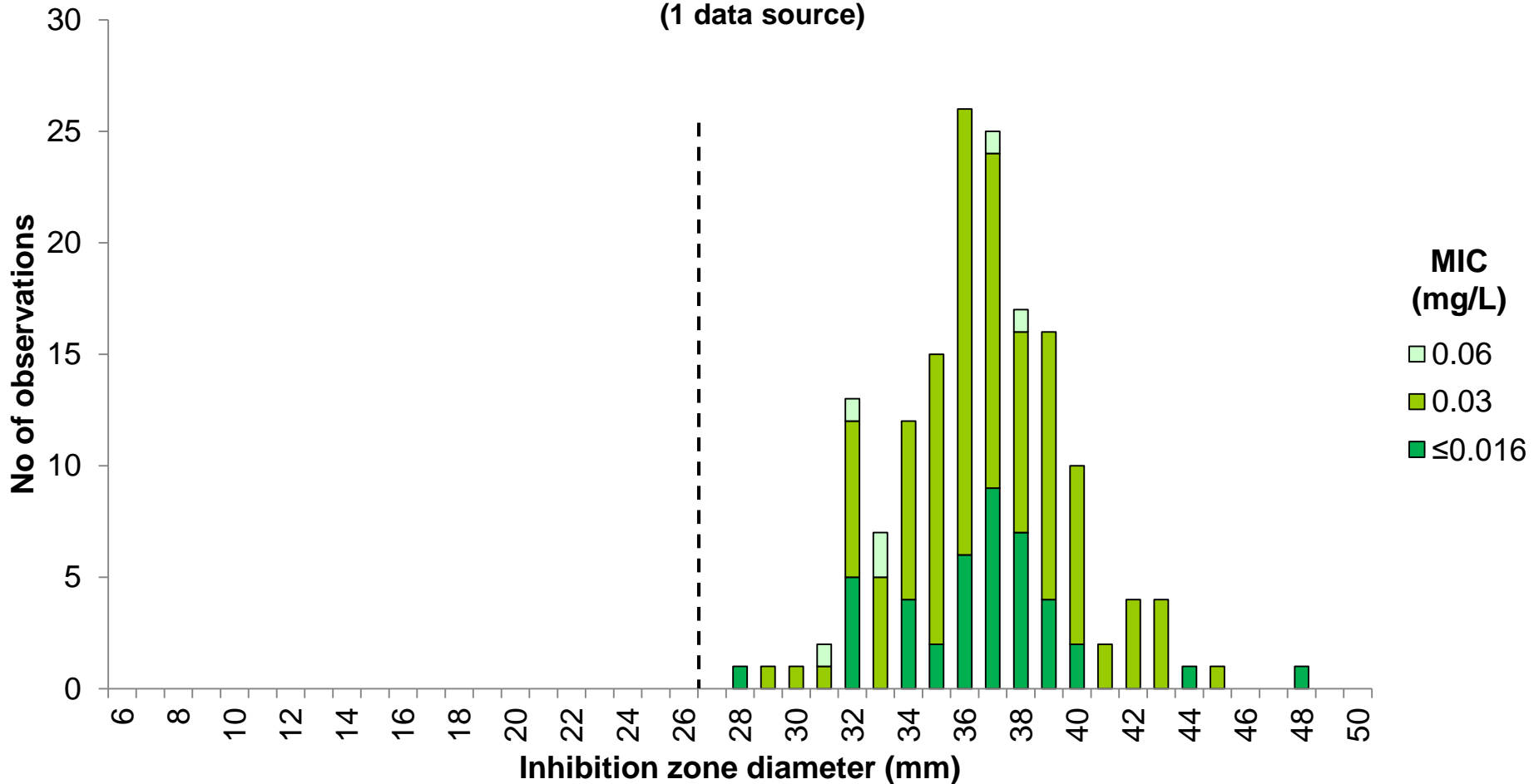
Note

Zone diameter

S \geq 22, R<22 mm

Cefotaxime 5 µg vs. MIC *Kingella kingae*, 159 isolates

(1 data source)



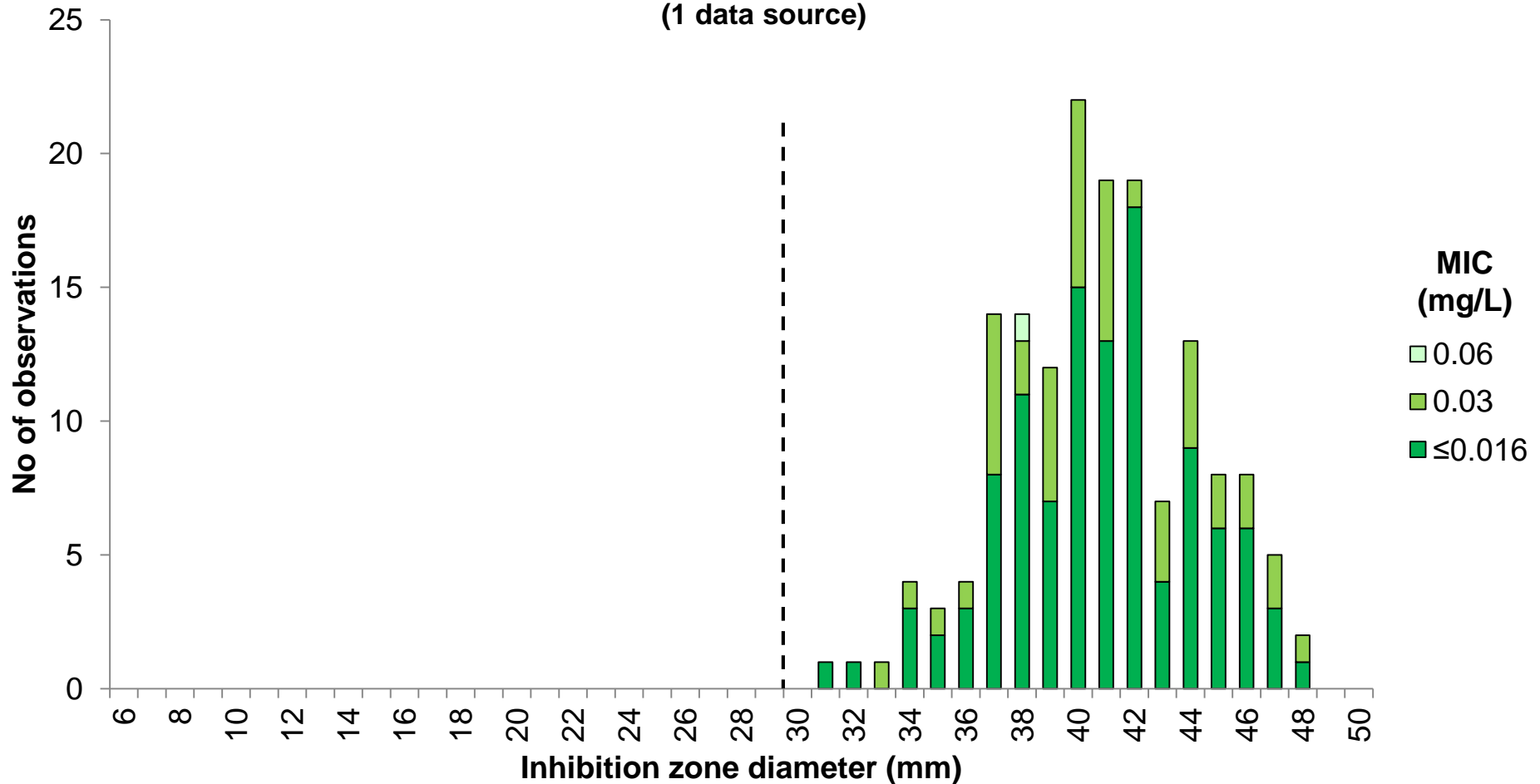
Breakpoints

MIC $S \leq 0.125$, $R > 0.125$ mg/L

Zone diameter $S \geq 27$, $R < 27$ mm

Ceftriaxone 30 µg vs. MIC *Kingella kingae*, 158 isolates

(1 data source)



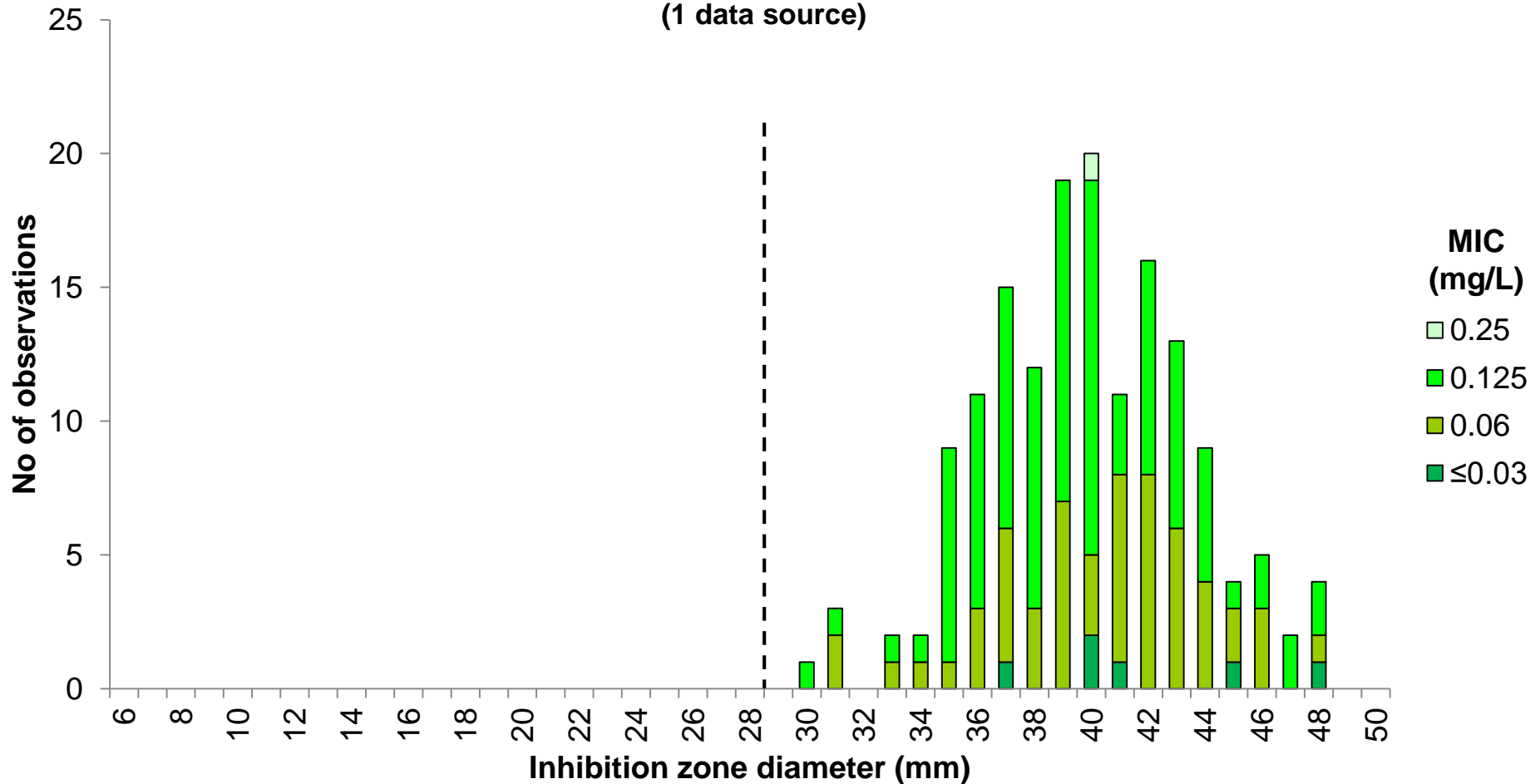
Breakpoints

MIC $S \leq 0.06$, $R > 0.06$ mg/L

Zone diameter $S \geq 30$, $R < 30$ mm

Cefuroxime 30 µg vs. MIC *Kingella kingae*, 158 isolates

(1 data source)



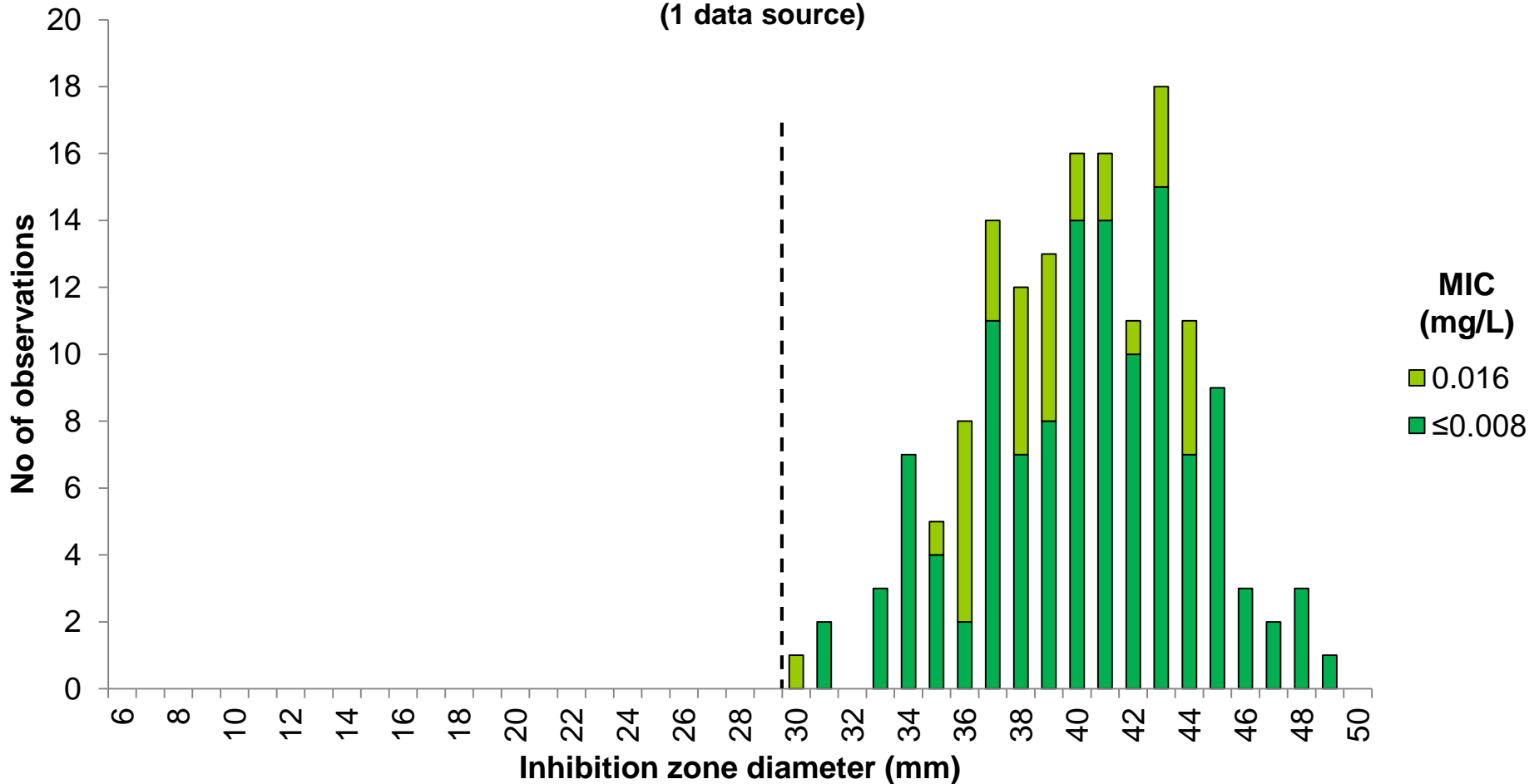
Breakpoints (iv)

MIC S ≤ 0.5, R > 0.5 mg/L

Zone diameter S ≥ 29, R < 29 mm

Meropenem 10 µg vs. MIC *Kingella kingae*, 155 isolates

(1 data source)



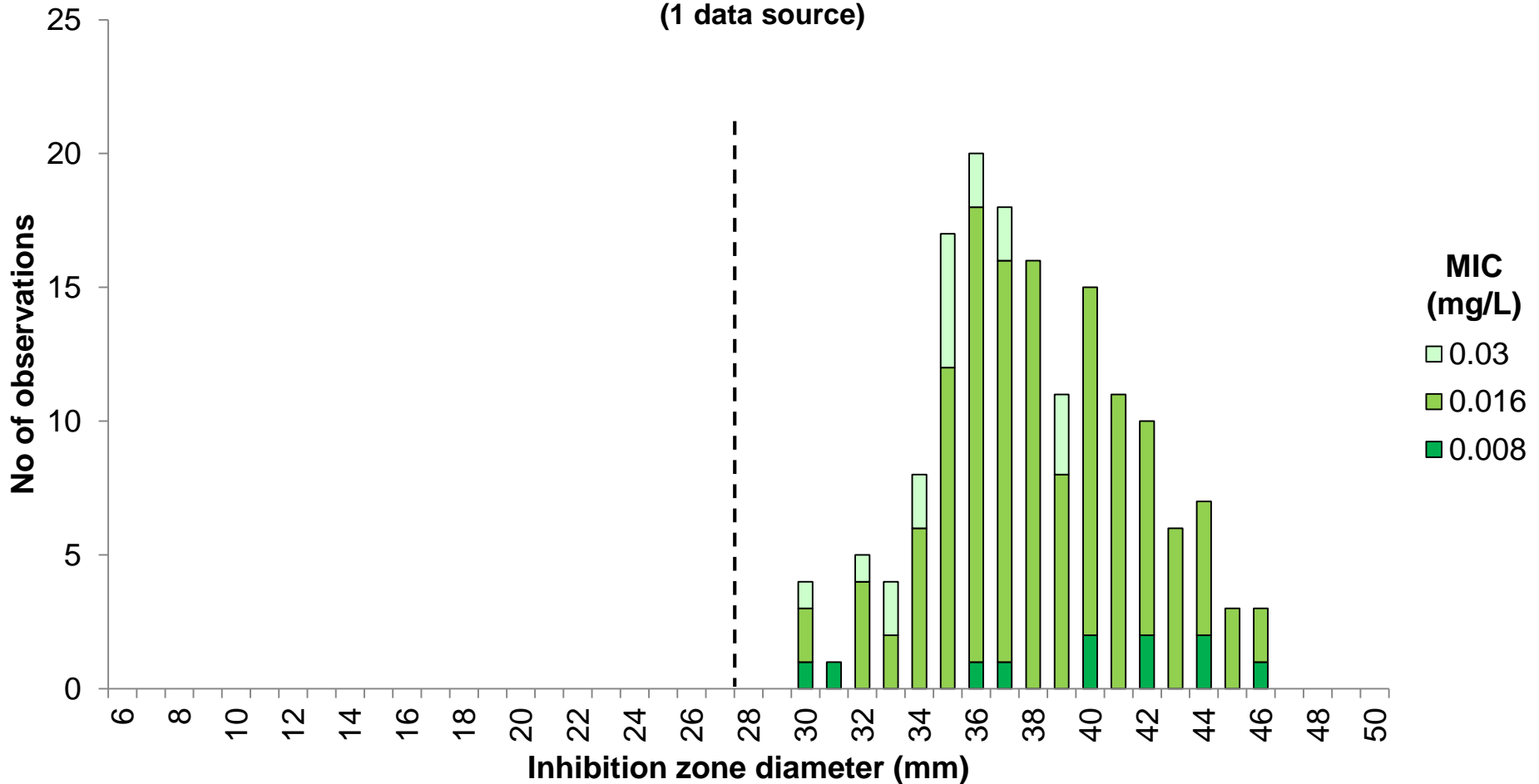
Breakpoints

MIC $S \leq 0.03$, $R > 0.03$ mg/L

Zone diameter $S \geq 30$, $R < 30$ mm

Ciprofloxacin 5 µg vs. MIC *Kingella kingae*, 159 isolates

(1 data source)



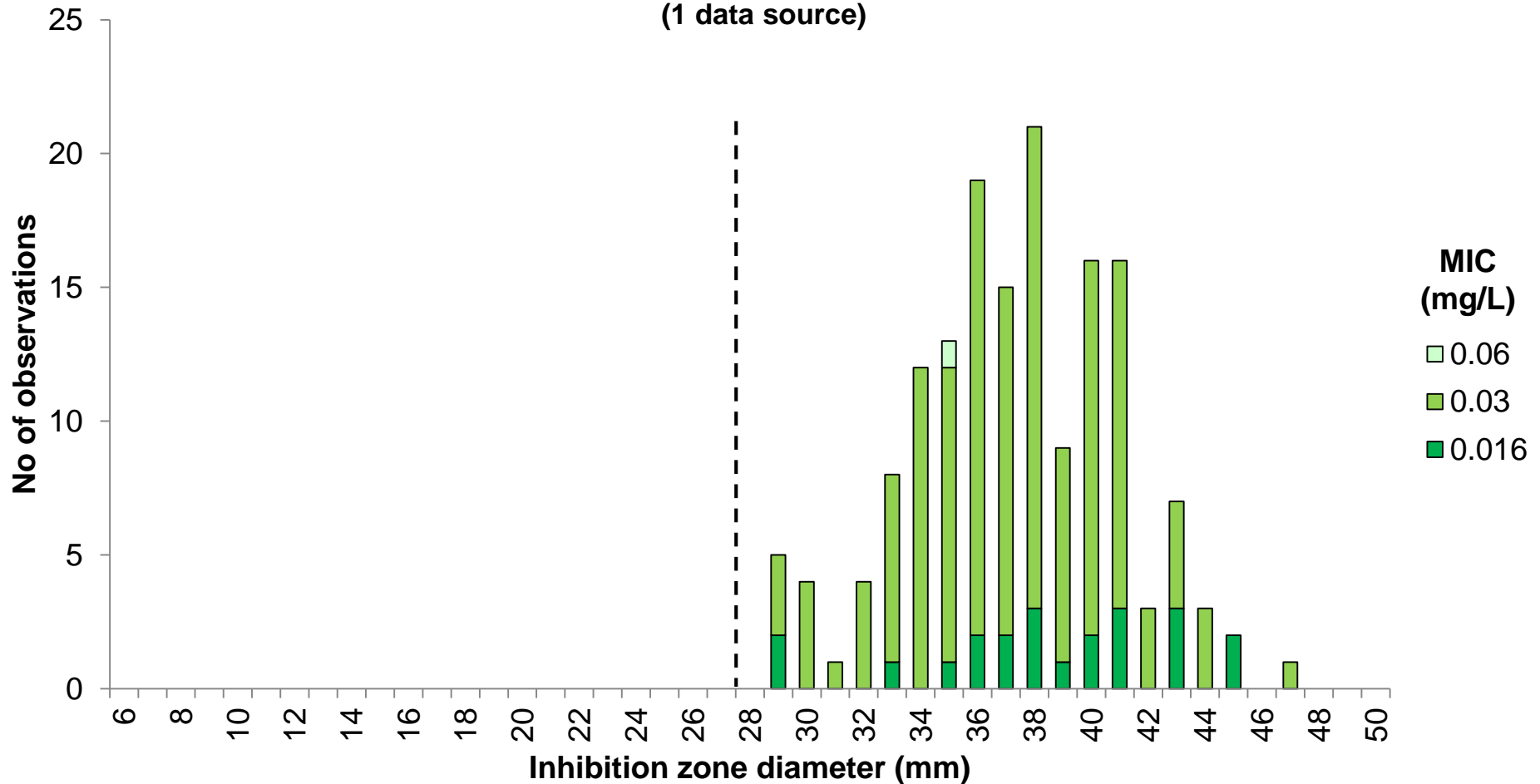
Breakpoints

MIC $S \leq 0.06$, $R > 0.06$ mg/L

Zone diameter $S \geq 28$, $R < 28$ mm

Levofloxacin 5 µg vs. MIC *Kingella kingae*, 159 isolates

(1 data source)



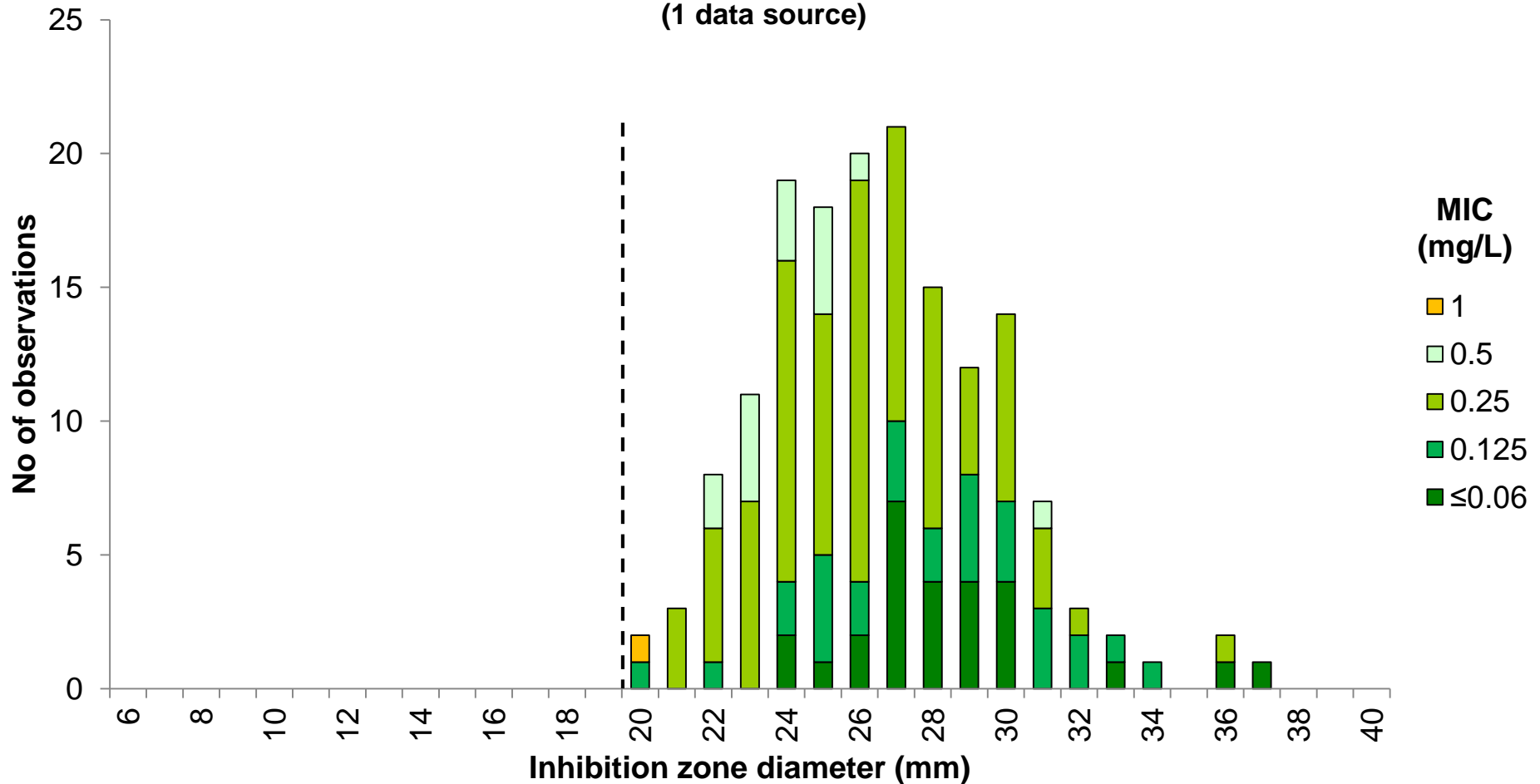
Breakpoints

MIC $S \leq 0.125$, $R > 0.125$ mg/L

Zone diameter $S \geq 28$, $R < 28$ mm

Erythromycin 15 µg vs. MIC *Kingella kingae*, 159 clinical isolates

(1 data source)



Breakpoints

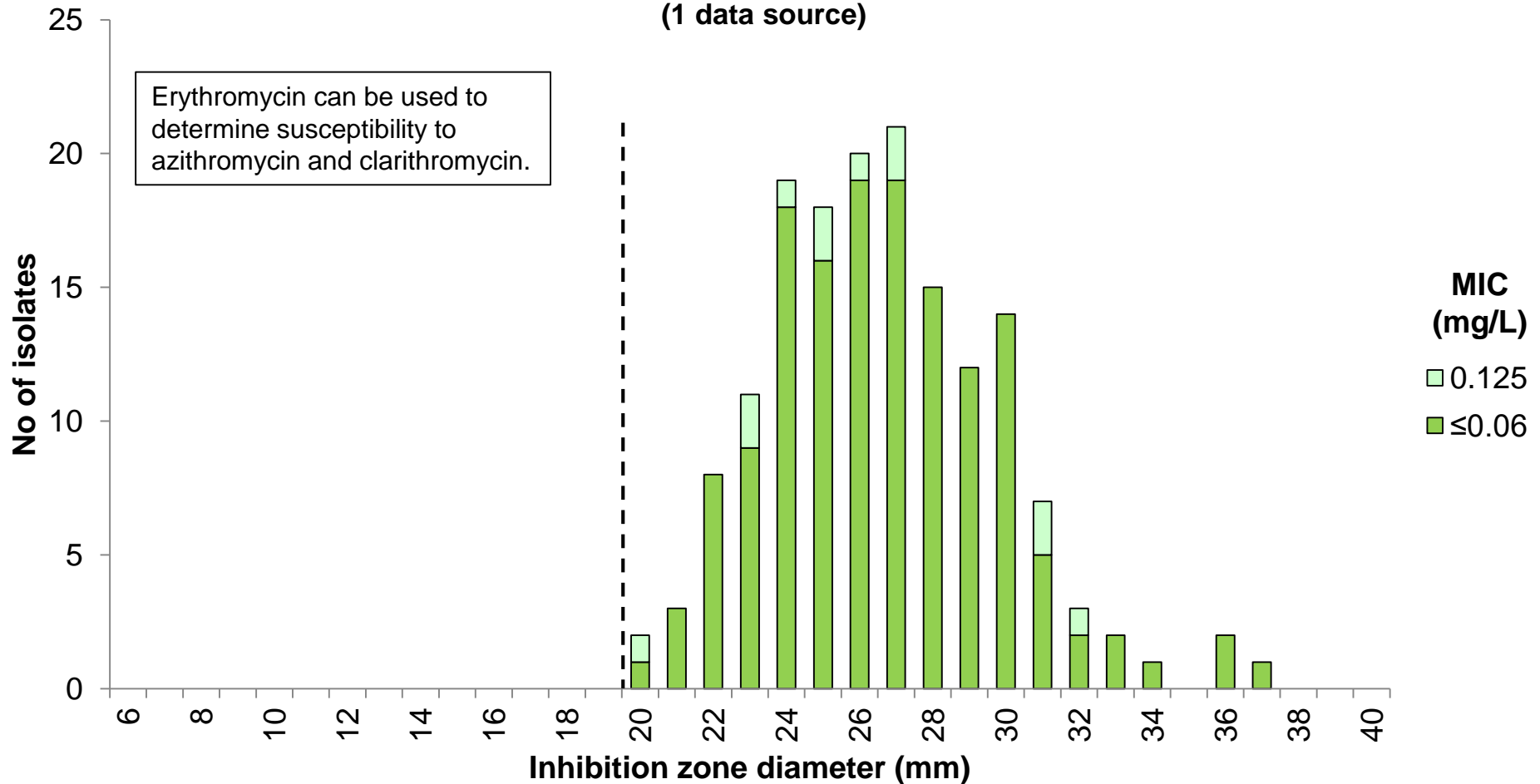
MIC S ≤ 0.5, R > 0.5 mg/L

Zone diameter S ≥ 20, R < 20 mm

Erythromycin 15 µg vs. Azithromycin MIC

Kingella kingae, 159 clinical isolates

(1 data source)



Breakpoints

Azithromycin MIC

S≤0.25, R>0.25 mg/L

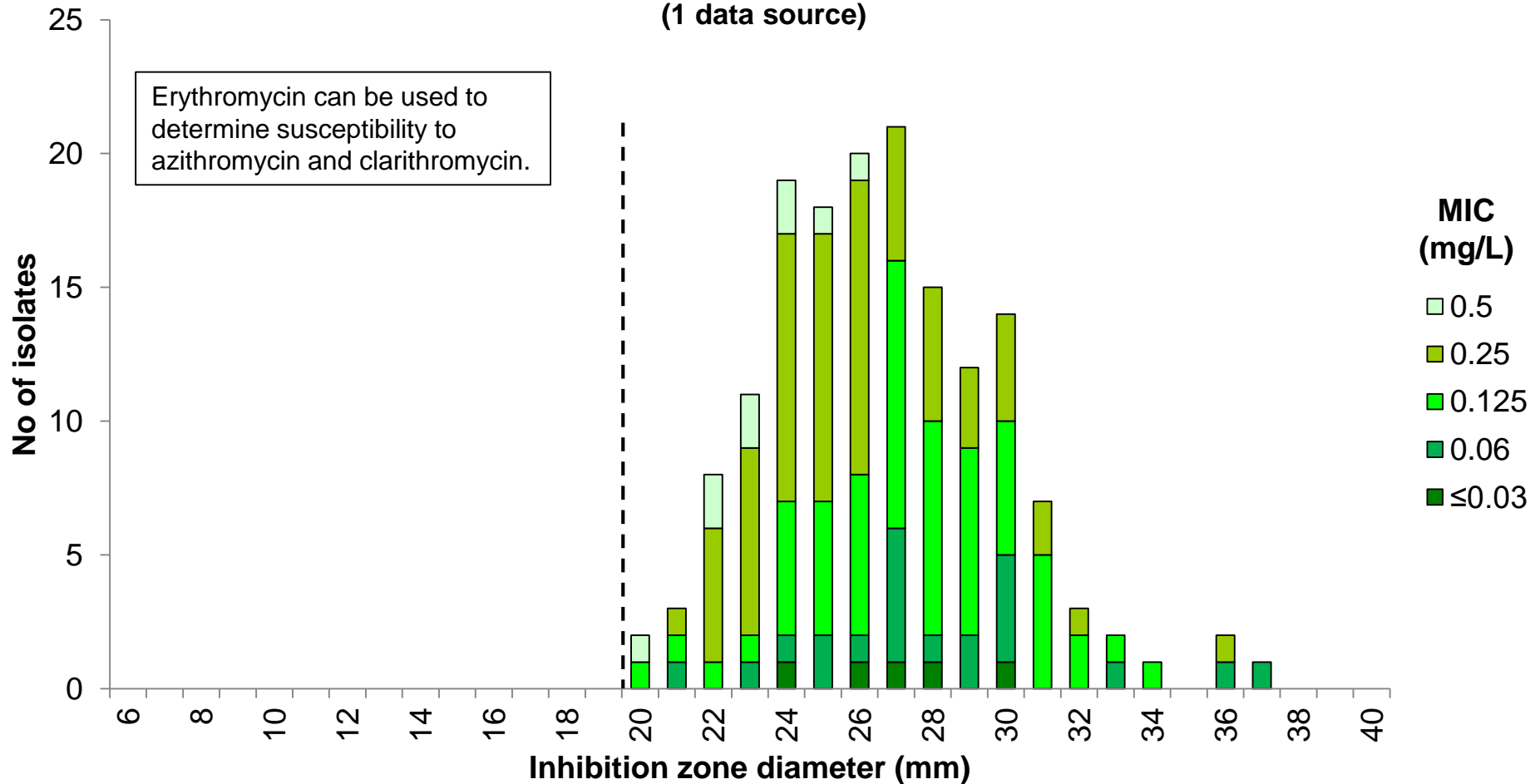
Erythromycin zone diameter

S≥20, R<20 mm

Erythromycin 15 µg vs. Clarithromycin MIC

Kingella kingae, 159 clinical isolates

(1 data source)



Breakpoints

Clarithromycin MIC

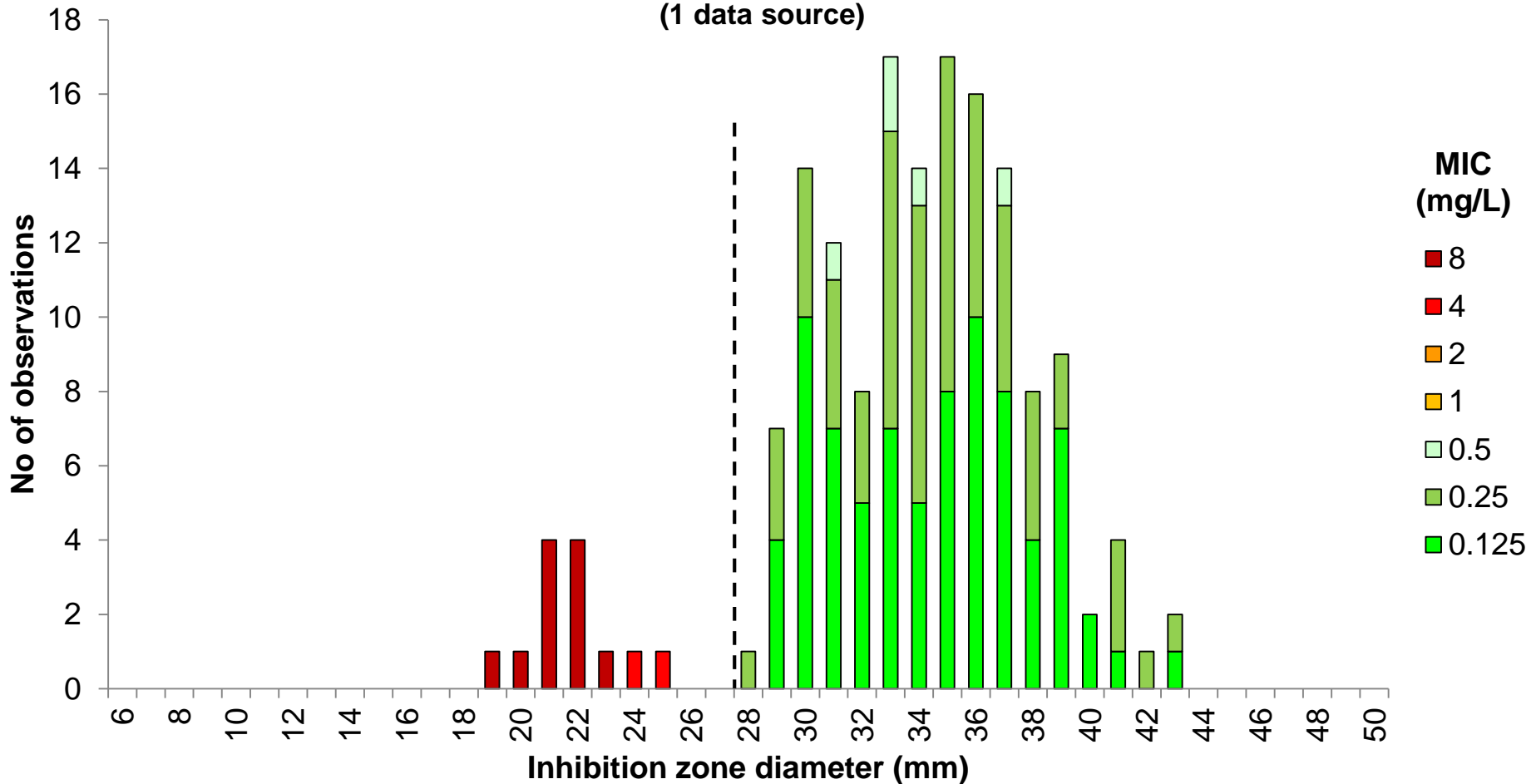
S ≤ 0.5, R > 0.5 mg/L

Erythromycin zone diameter

S ≥ 20, R < 20 mm

Tetracycline 30 µg vs. MIC *Kingella kingae*, 159 isolates

(1 data source)



Breakpoints

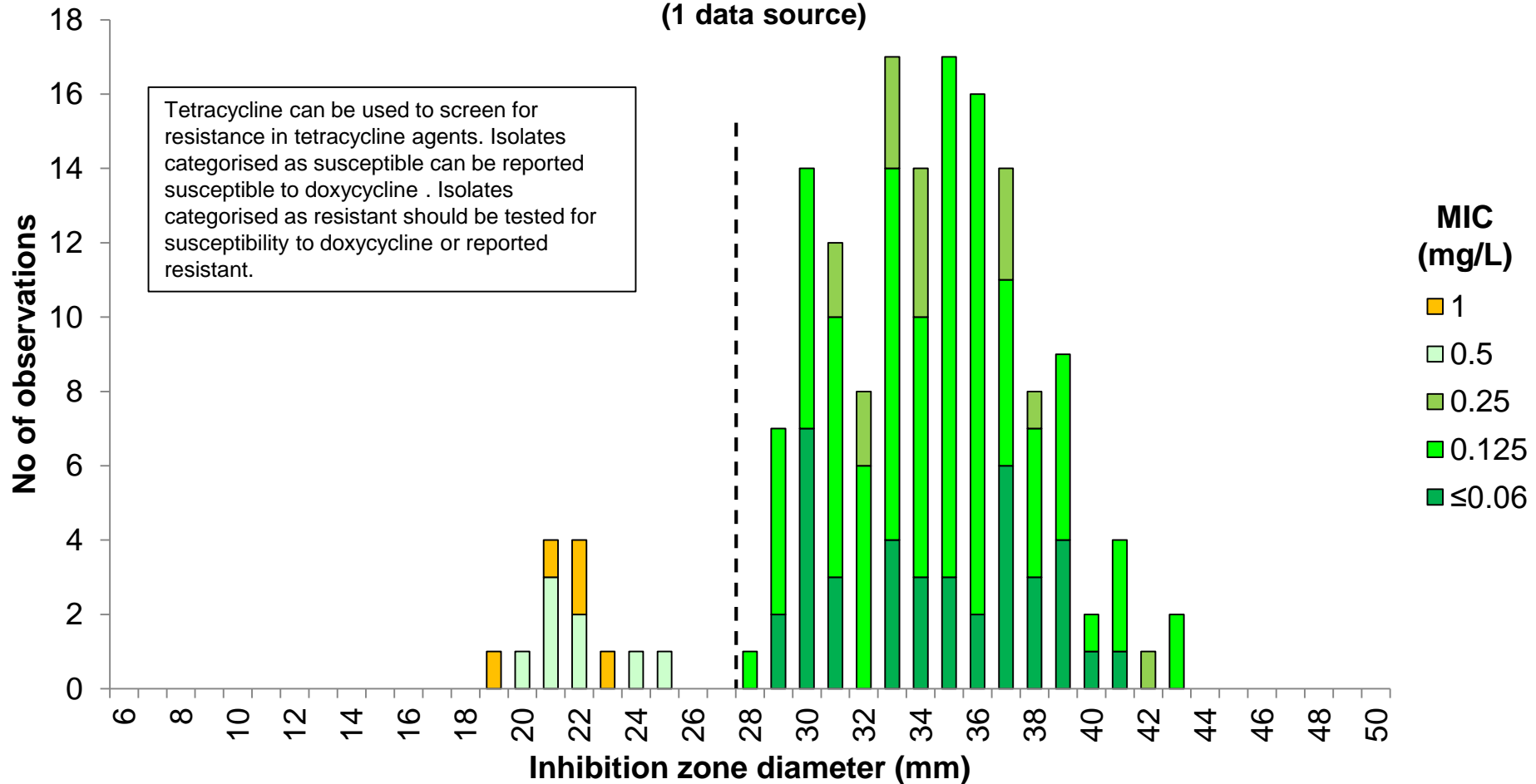
MIC $S \leq 0.5$, $R > 0.5$ mg/L

Zone diameter $S \geq 28$, $R < 28$ mm

Tetracycline 30 µg vs. Doxycycline MIC

Kingella kingae, 159 isolates

(1 data source)



Breakpoints

Doxycycline MIC

S ≤ 0.5, R > 0.5 mg/L

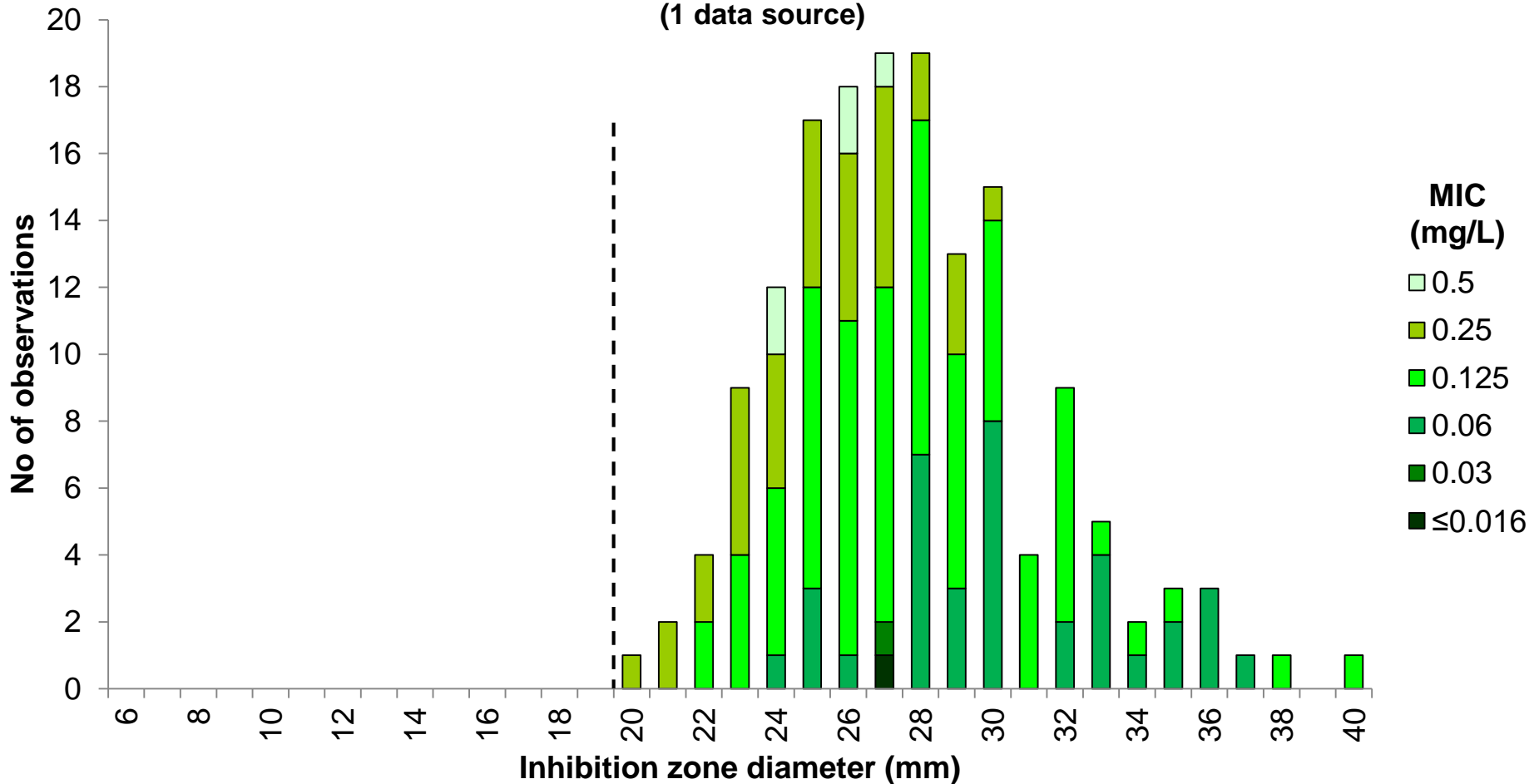
Tetracycline zone diameter

S ≥ 28, R < 28 mm

Rifampicin 5 μ g vs. MIC

Kingella kingae, 159 isolates

(1 data source)



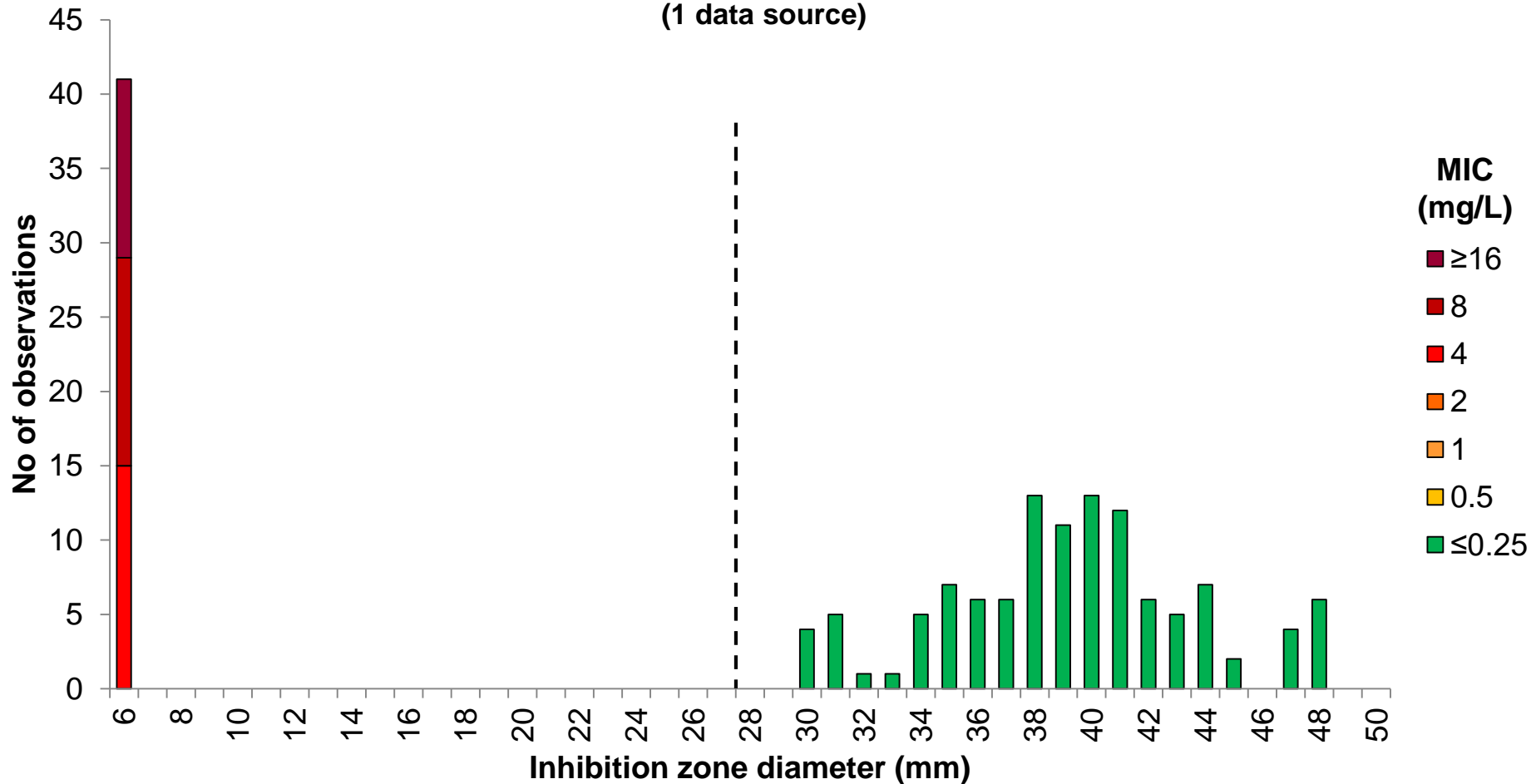
Breakpoints

MIC $S \leq 0.5$, $R > 0.5$ mg/L

Zone diameter $S \geq 20$, $R < 20$ mm

Trimethoprim-sulfamethoxazole 1.25-23.75 μg vs. MIC *Kingella kingae*, 159 isolates

(1 data source)



Breakpoints

MIC $S \leq 0.25$, $R > 0.25$ mg/L

Zone diameter $S \geq 28$, $R < 28$ mm



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