



EUCAST

European Committee
on Antimicrobial
Susceptibility Testing

Pseudomonas aeruginosa

Calibration of zone diameter
breakpoints to MIC values

Version 11.1
January 2026

Pseudomonas aeruginosa

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.

Pseudomonas aeruginosa

Materials and methods

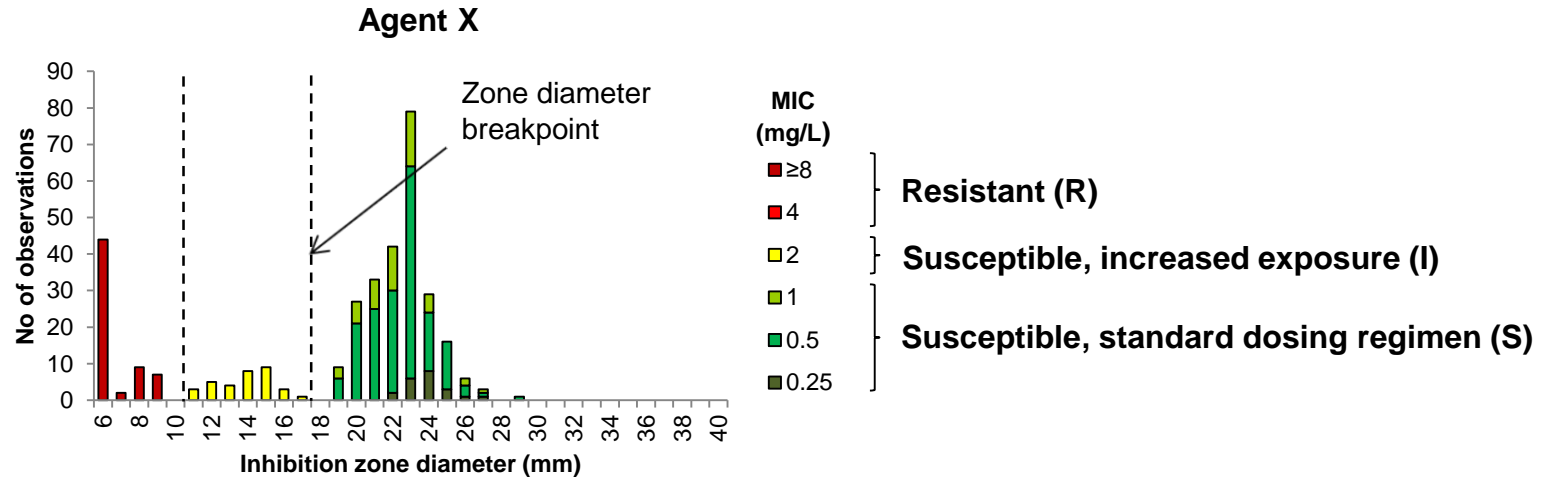
- Antimicrobial susceptibility testing was performed on clinical isolates of *Pseudomonas aeruginosa*. Disk diffusion was performed according to EUCAST methodology and MIC determination was performed with broth microdilution.
- The distributions of MIC vs. zone diameter in this presentation are the result of a collaboration between EUCAST and JMI Laboratories (USA), North Estonia Medical Centre, PERH (Estonia), Skåne University Hospital (Sweden) and Laboratory Specialists Inc. (USA).
- This presentation is based on EUCAST Clinical Breakpoint Tables v. 16.0.

Changes from previous version (11.0)

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

Explanation of graphs:

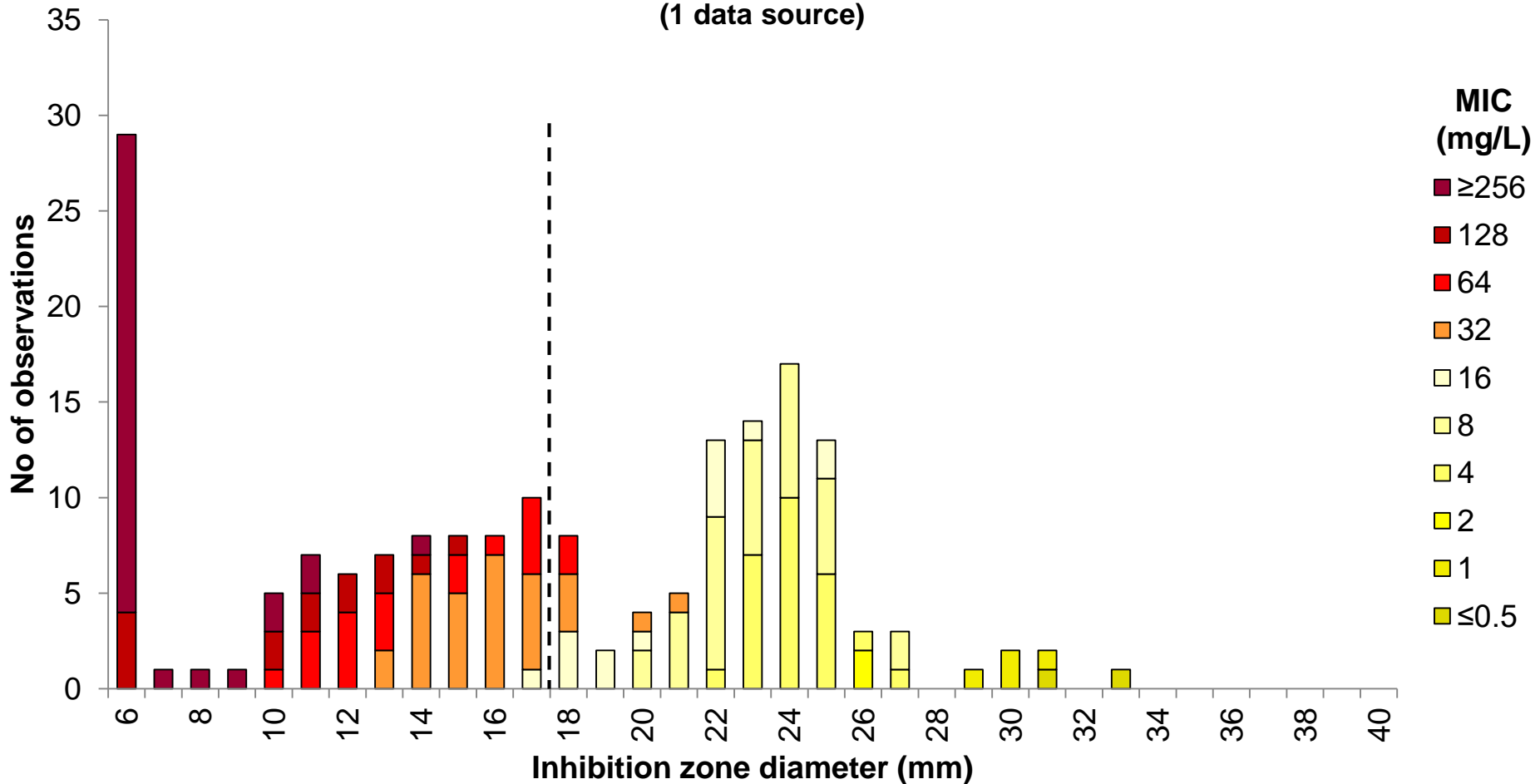
- These graphs show zone diameter distributions with MIC values or resistance mechanisms as coloured bars. Colours are related to current EUCAST MIC breakpoints.



Piperacillin 30 µg vs. MIC

P. aeruginosa, 103 isolates (179 correlates)

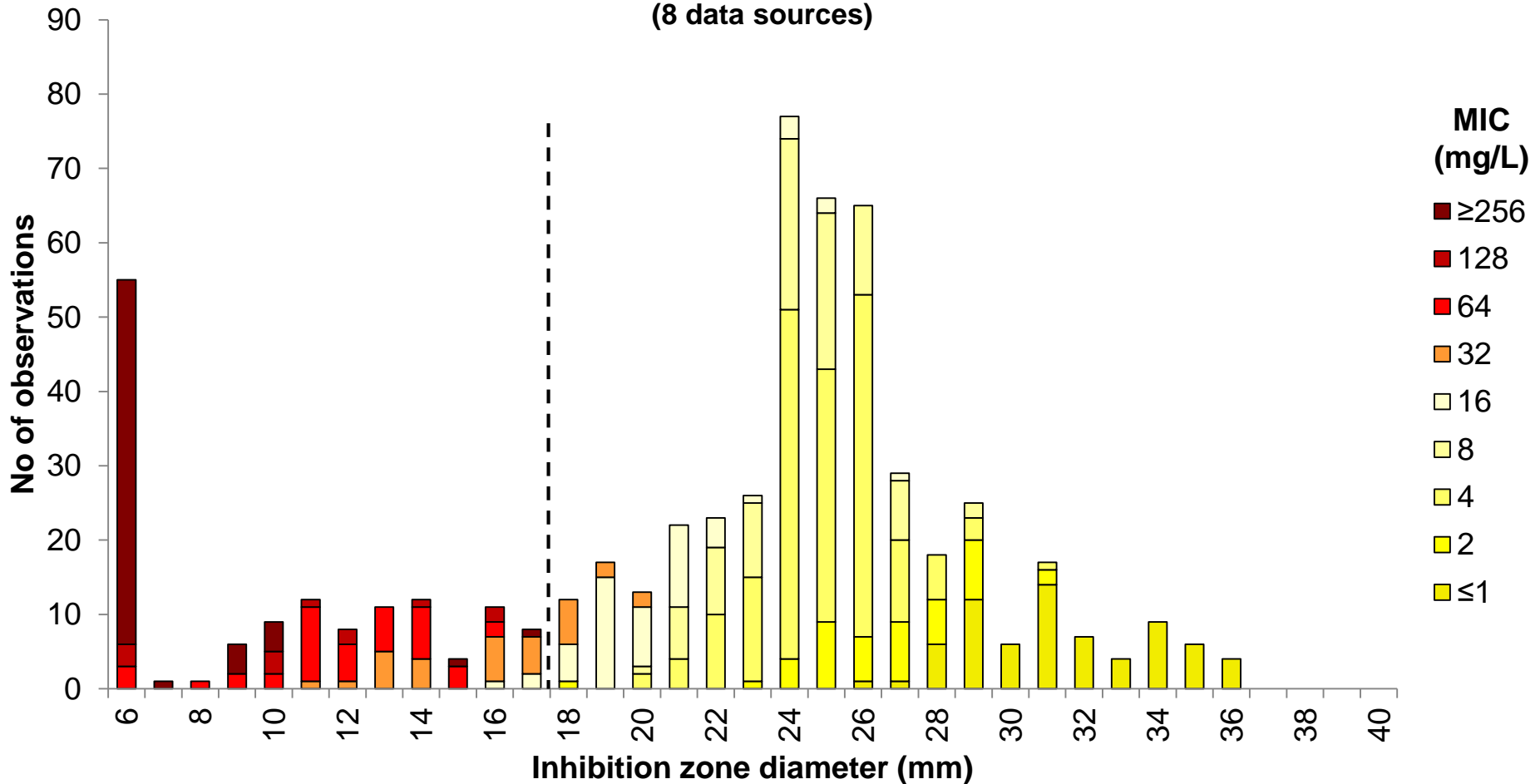
(1 data source)



Breakpoints	
MIC	S ≤ 0.001, R > 16 mg/L
Zone diameter	S ≥ 50, R < 18 mm

Piperacillin-tazobactam 30-6 μg vs. MIC *P. aeruginosa*, 318 isolates (584 correlates)

(8 data sources)



Breakpoints

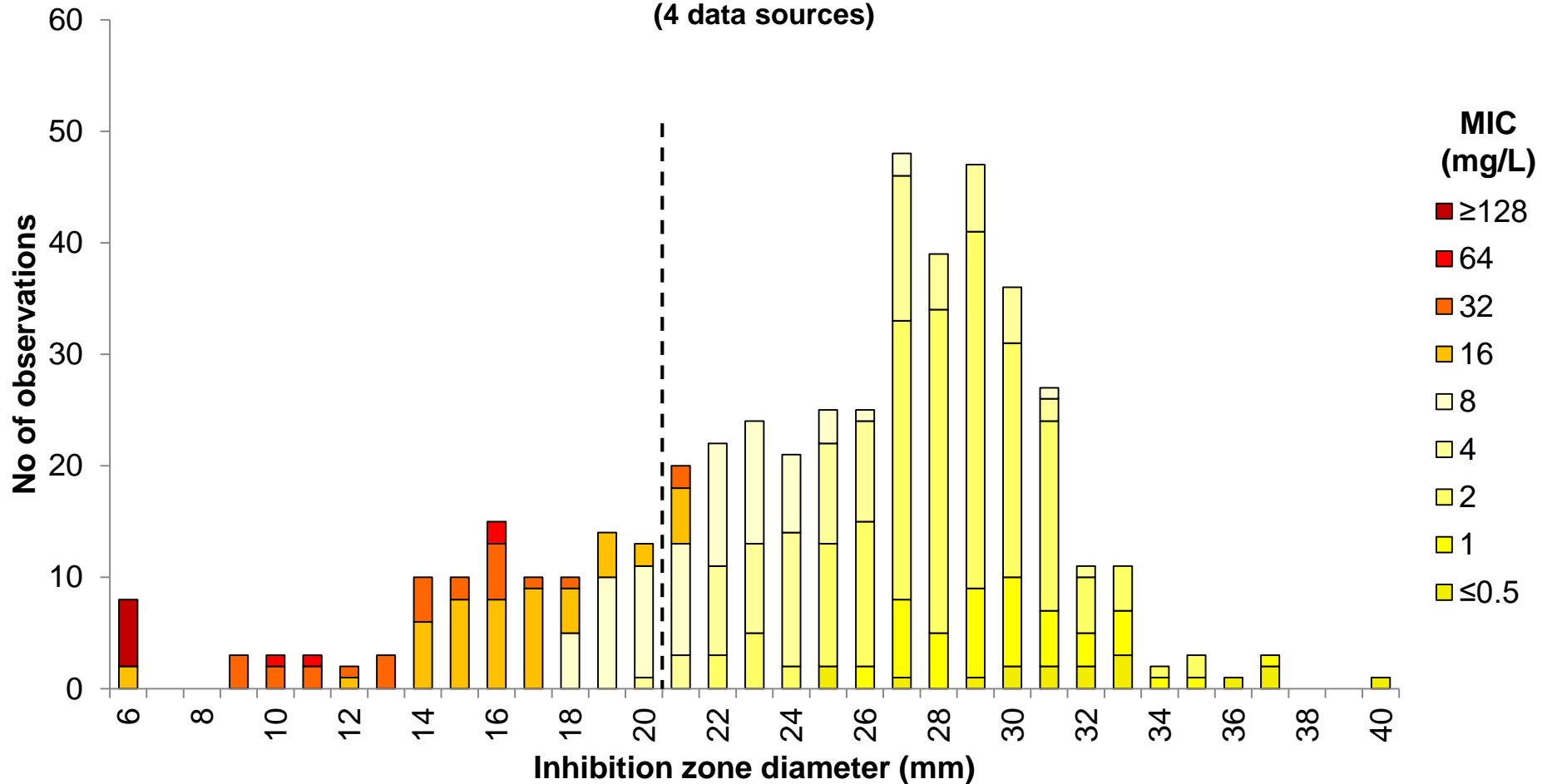
MIC $S \leq 0.001$, $R > 16$ mg/L

Zone diameter $S \geq 50$, $R < 18$ mm

Cefepime 30 μ g vs. MIC

P. aeruginosa, 316 isolates (470 correlates)

(4 data sources)



Breakpoints

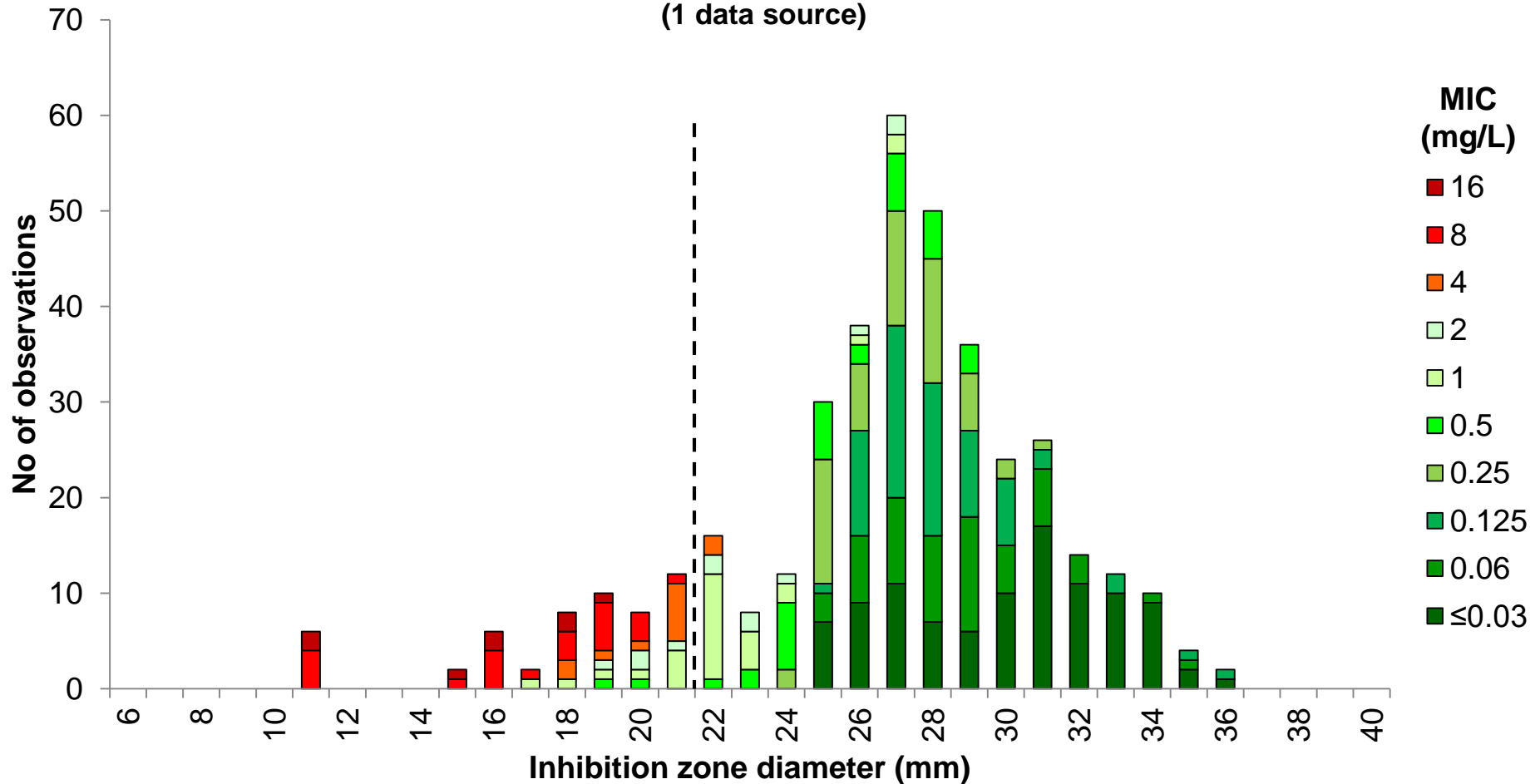
MIC $S \leq 0.001$, $R > 8$ mg/L

Zone diameter $S \geq 50$, $R < 21$ mm

Cefiderocol 30 µg vs. MIC

P. aeruginosa, 99 isolates (396 correlates)

(1 data source)



Breakpoints

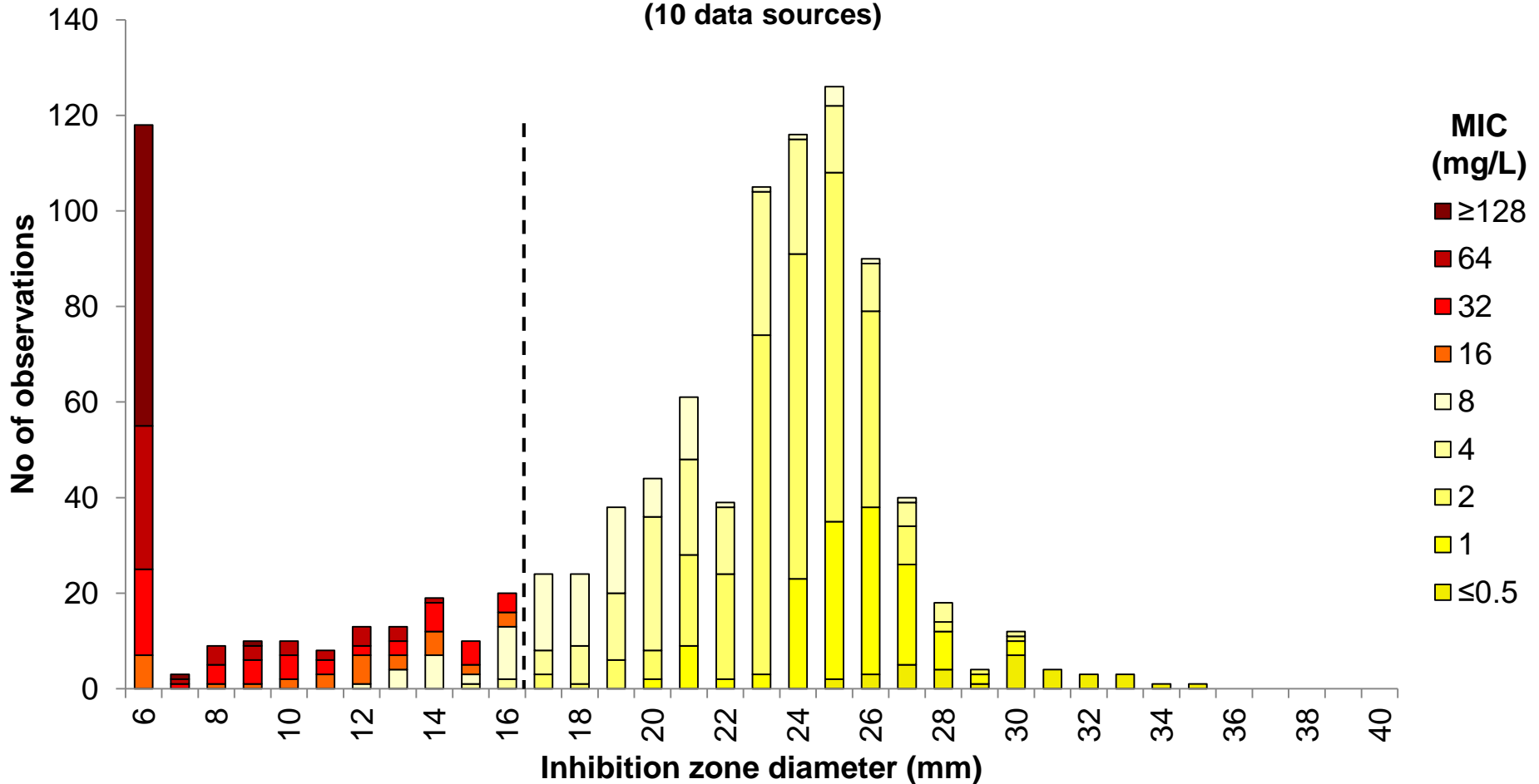
MIC S ≤ 2, R > 2 mg/L

Zone diameter S ≥ 22, R < 22 mm

Ceftazidime 10 µg vs. MIC

P. aeruginosa, 504 isolates (986 correlates)

(10 data sources)



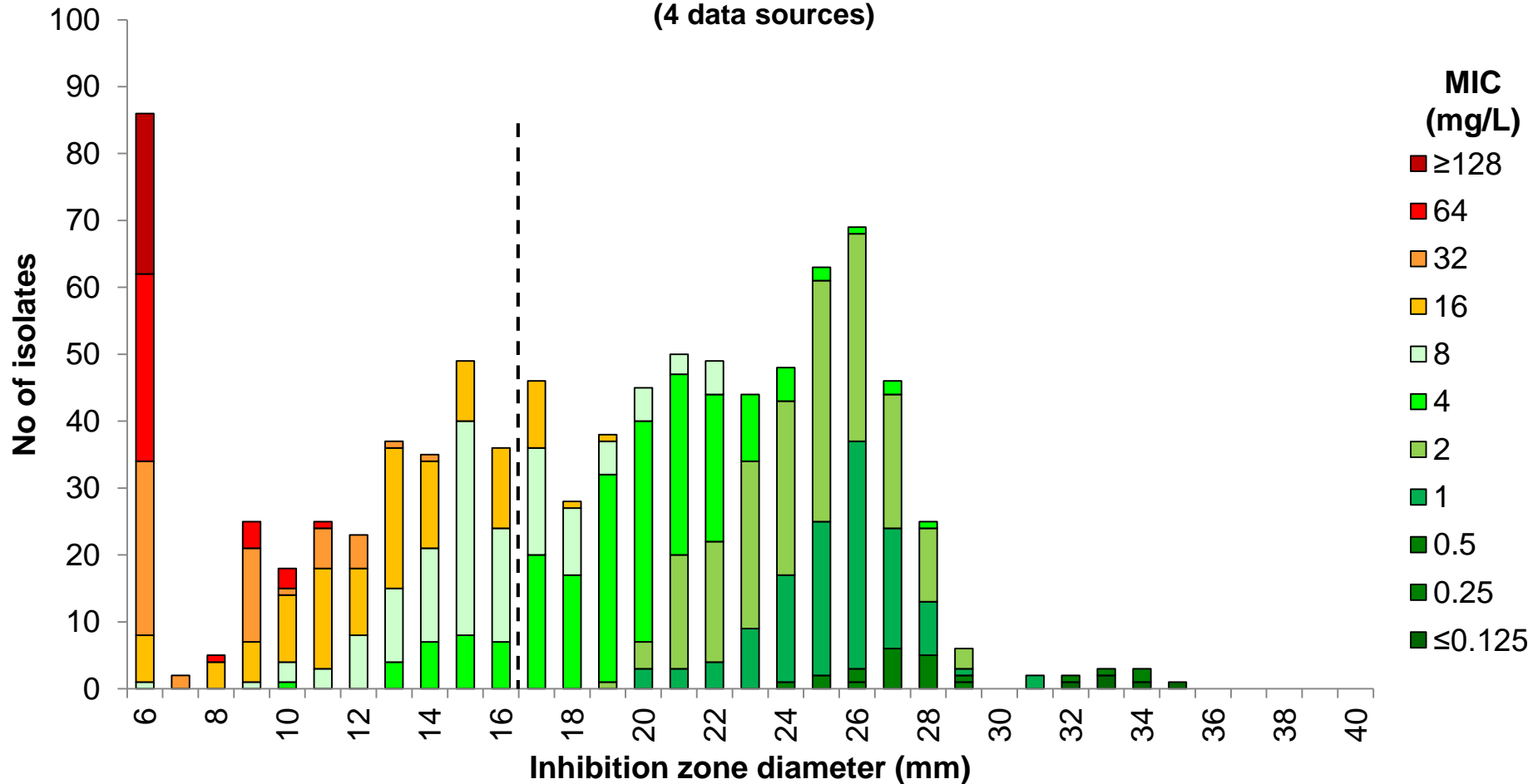
Breakpoints

MIC $S \leq 0.001$, $R > 8$ mg/L

Zone diameter $S \geq 50$, $R < 17$ mm

Ceftazidime-avibactam 10-4 µg vs. MIC *P. aeruginosa*, 254 isolates (909 correlates)

(4 data sources)



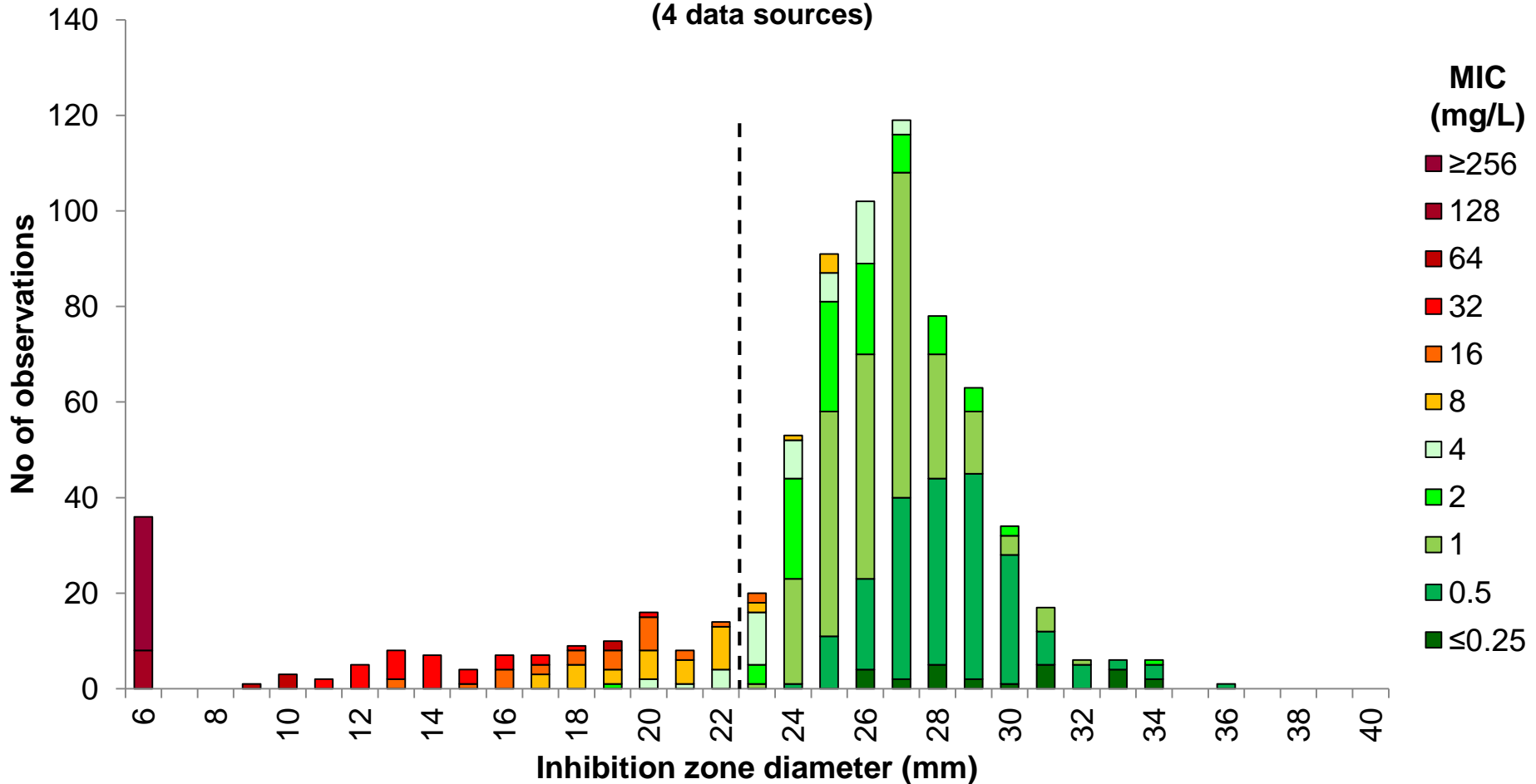
Breakpoints

MIC S ≤ 8, R > 8 mg/L

Zone diameter S ≥ 17, R < 17 mm

Ceftolozane-tazobactam 30-10 µg vs. MIC *P. aeruginosa*, 299 isolates (733 correlates)

(4 data sources)

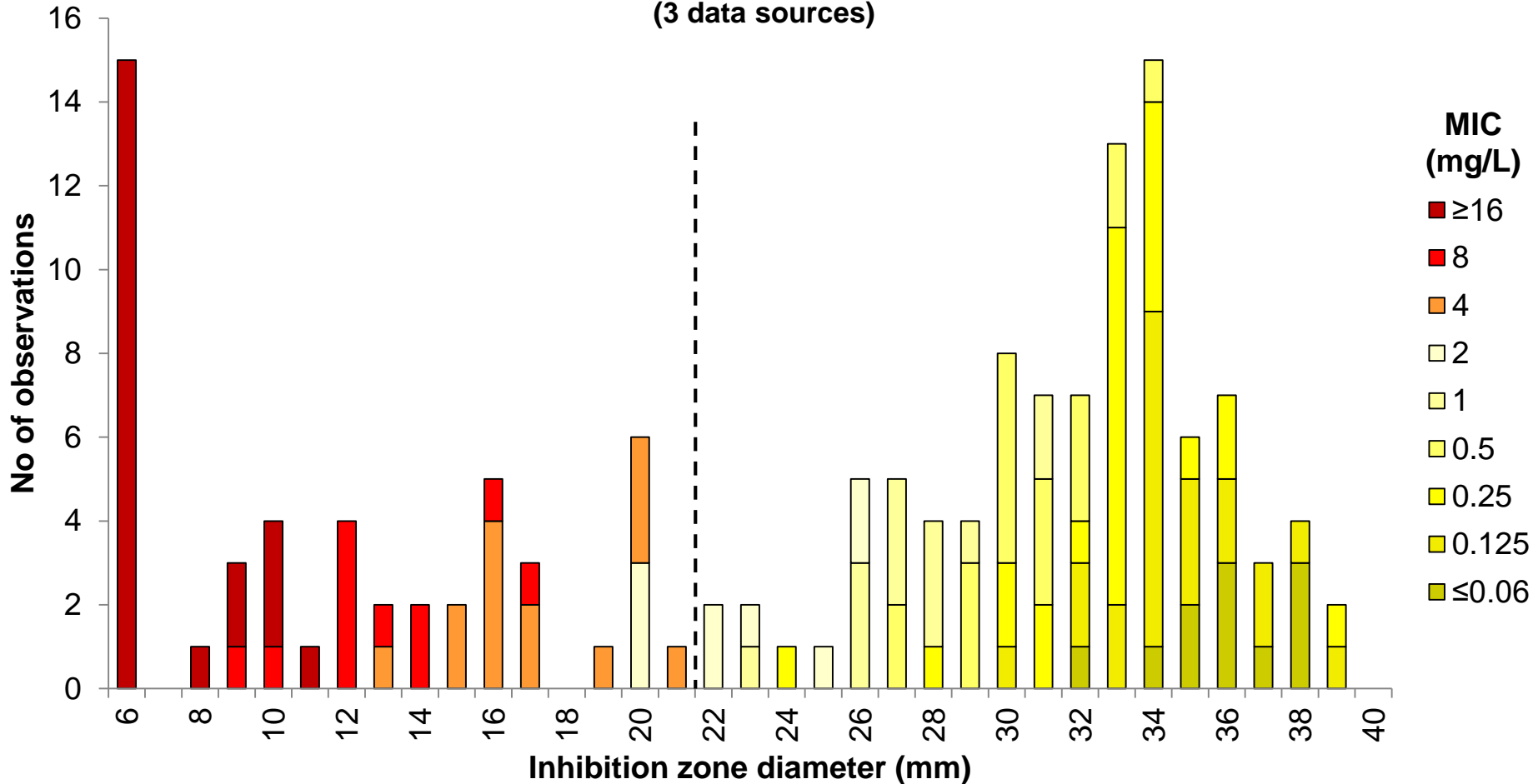


Breakpoints	
MIC	S ≤ 4, R > 4 mg/L
Zone diameter	S ≥ 23, R < 23 mm

Doripenem 10 µg vs. MIC

Pseudomonas aeruginosa, 146 isolates

(3 data sources)



Breakpoints

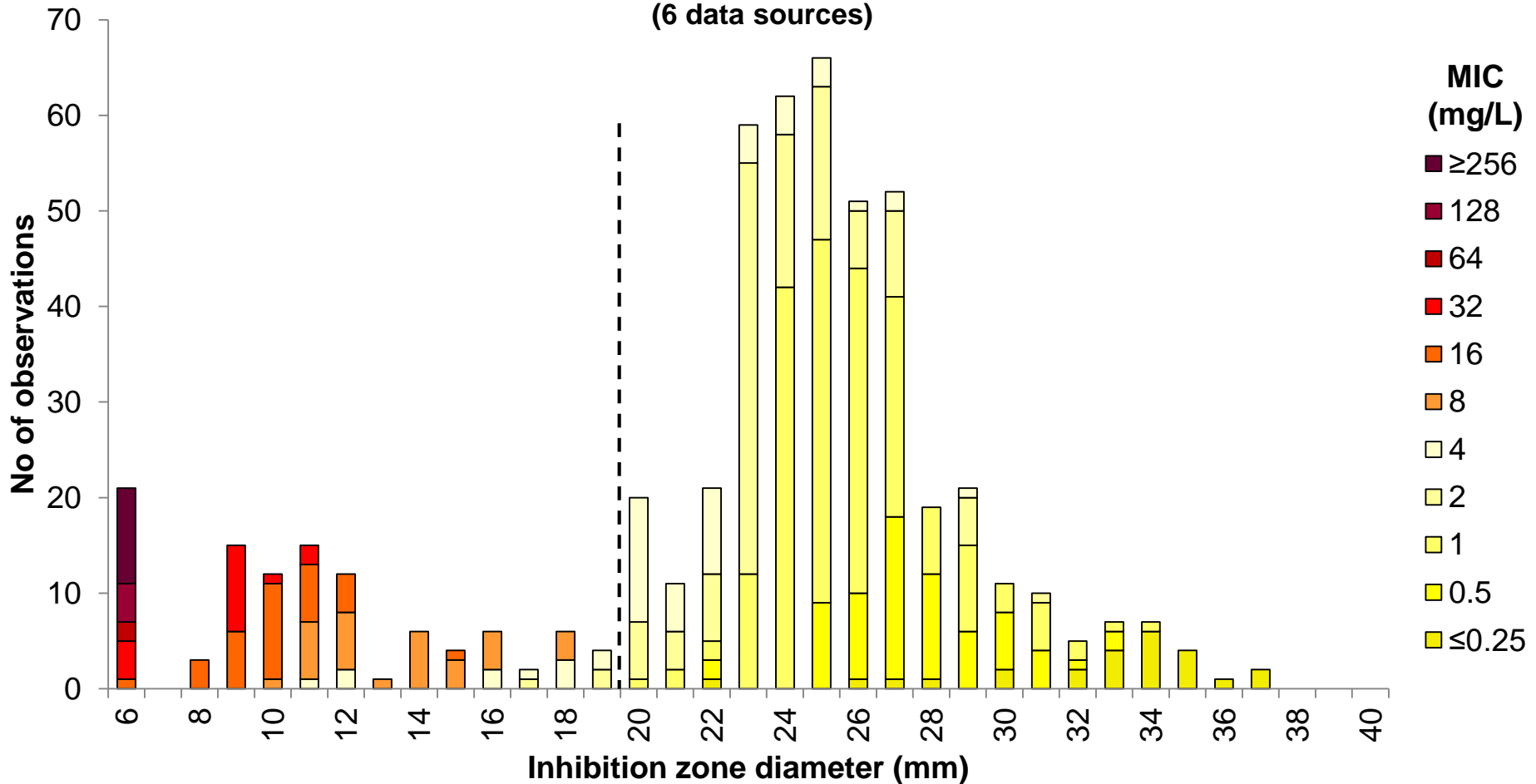
MIC $S \leq 0.001$, $R > 2$ mg/L

Zone diameter $S \geq 50$, $R < 22$ mm

Imipenem 10 µg vs. MIC

P. aeruginosa, 293 isolates (536 correlates)

(6 data sources)



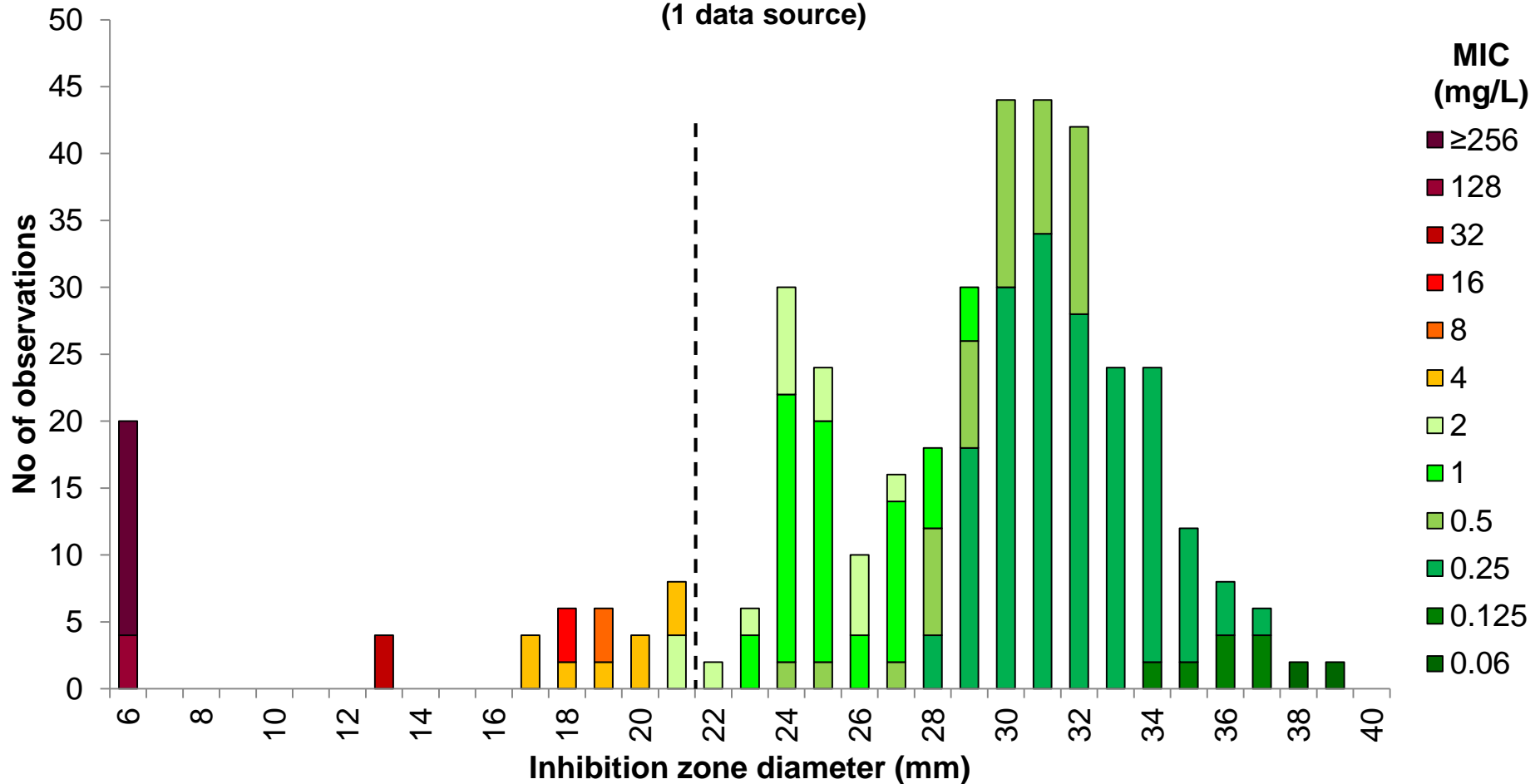
Breakpoints

MIC $S \leq 0.001$, $R > 4$ mg/L

Zone diameter $S \geq 50$, $R < 20$ mm

Imipenem-relebactam 10-25 µg vs. MIC *P. aeruginosa*, 99 isolates (396 correlates)

(1 data source)



Breakpoints

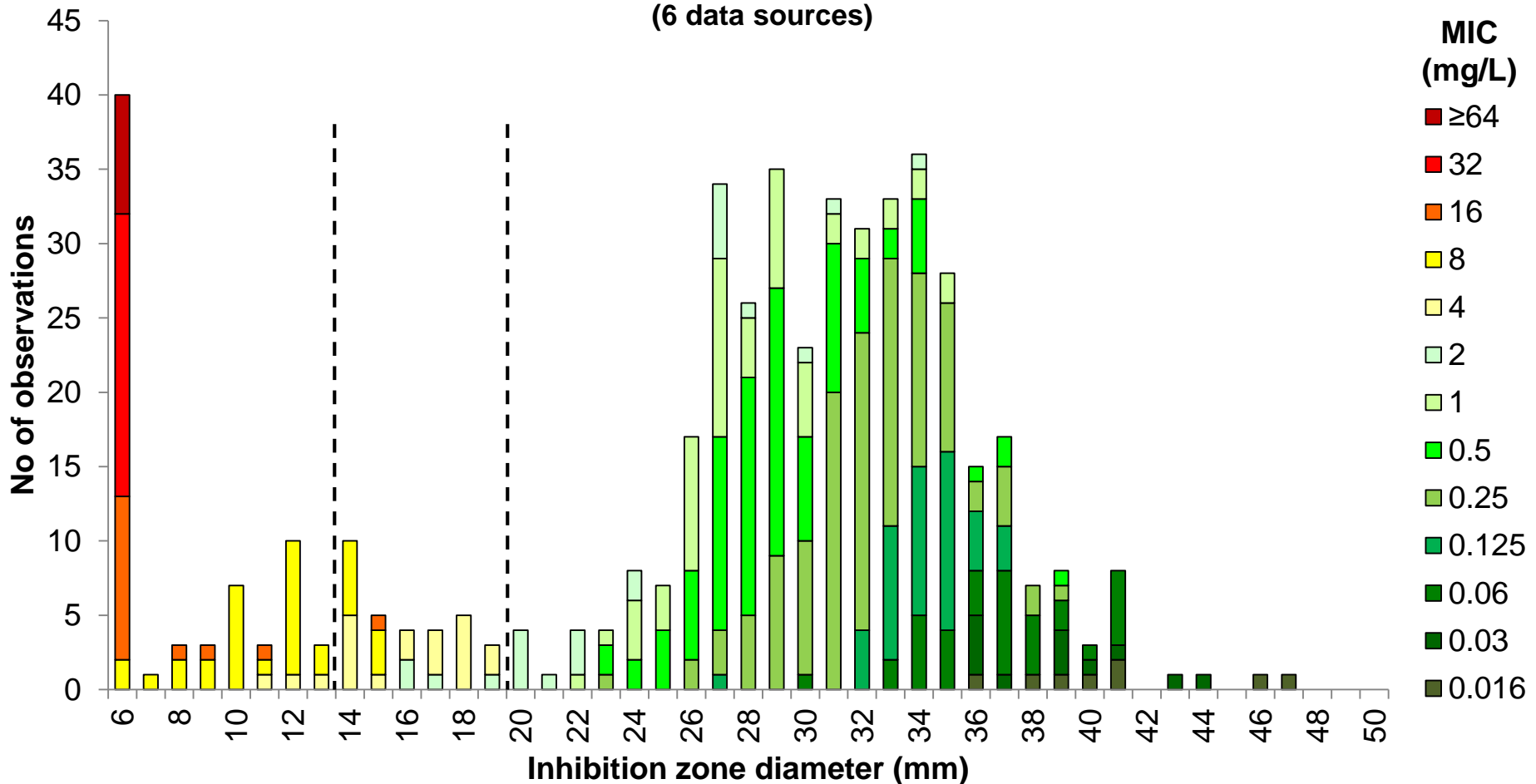
MIC $S \leq 2, R > 2$ mg/L

Zone diameter $S \geq 22, R < 22$ mm

Meropenem 10 µg vs. MIC

P. aeruginosa, 263 isolates (487 correlates)

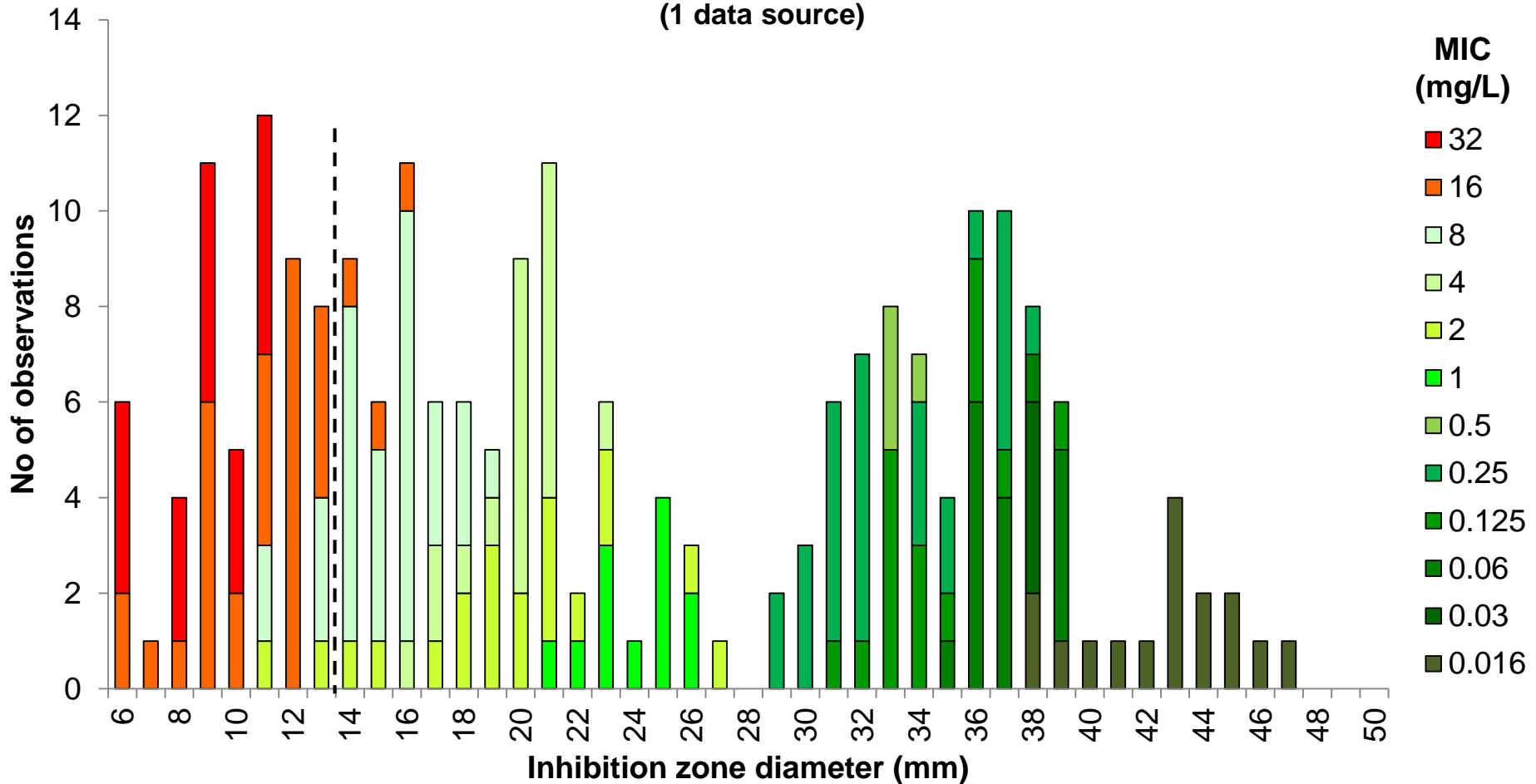
(6 data sources)



Breakpoints (non-meningitis)	
MIC	S ≤ 2, R > 8 mg/L
Zone diameter	S ≥ 20, R < 14 mm

Meropenem-vaborbactam 20-10 µg vs. MIC *P. aeruginosa*, 55 isolates (220 correlates)

(1 data source)



Breakpoints

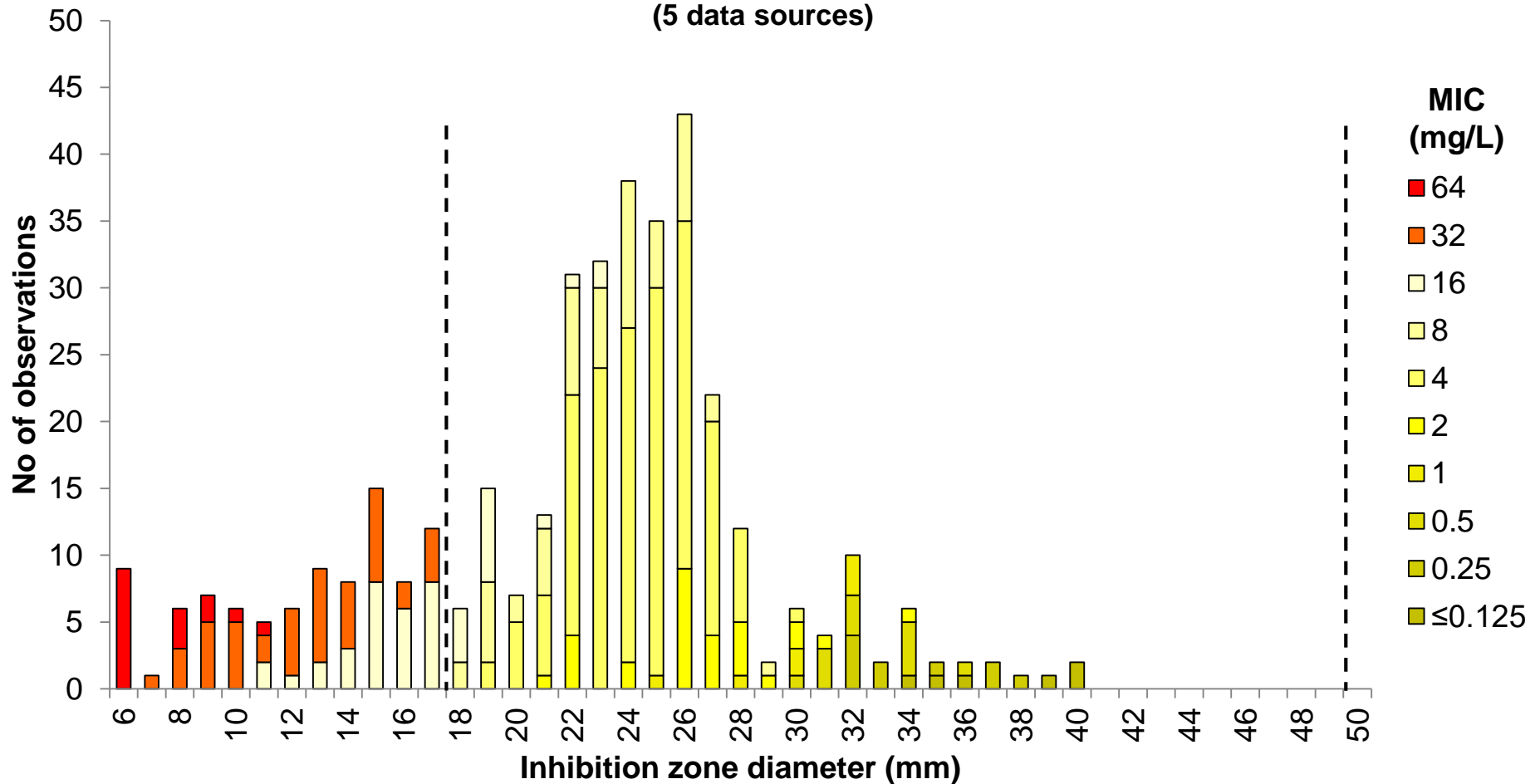
MIC $S \leq 8$, $R > 8$ mg/L

Zone diameter $S \geq 14$, $R < 14$ mm

Aztreonam 30 µg vs. MIC

P. aeruginosa, 340 isolates (386 correlates)

(5 data sources)



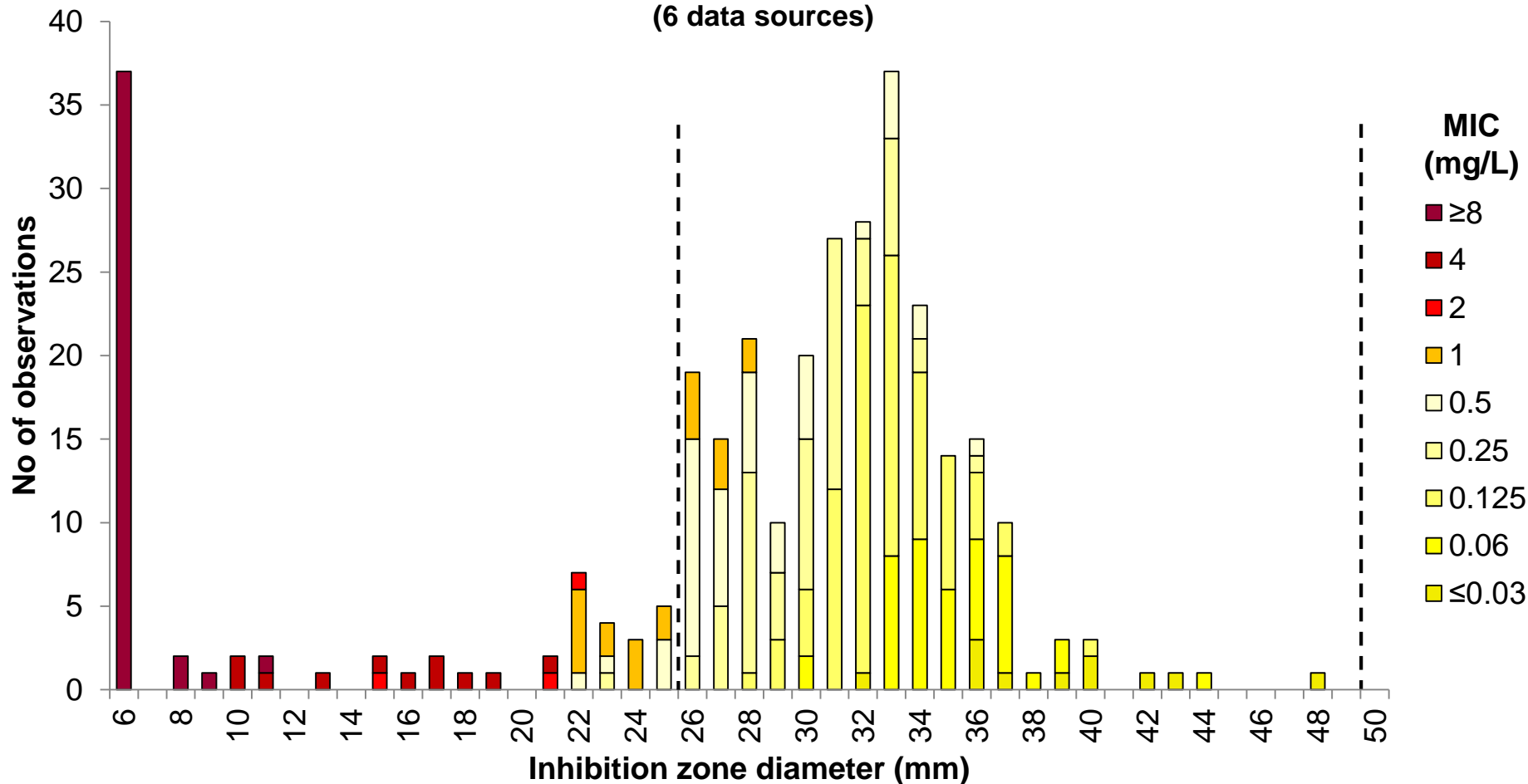
Breakpoints

MIC	$S \leq 0.001$, $R > 16$ mg/L
Zone diameter	$S \geq 50$, $R < 18$ mm

Ciprofloxacin 5 μ g vs. MIC

P. aeruginosa, 275 isolates (323 correlates)

(6 data sources)

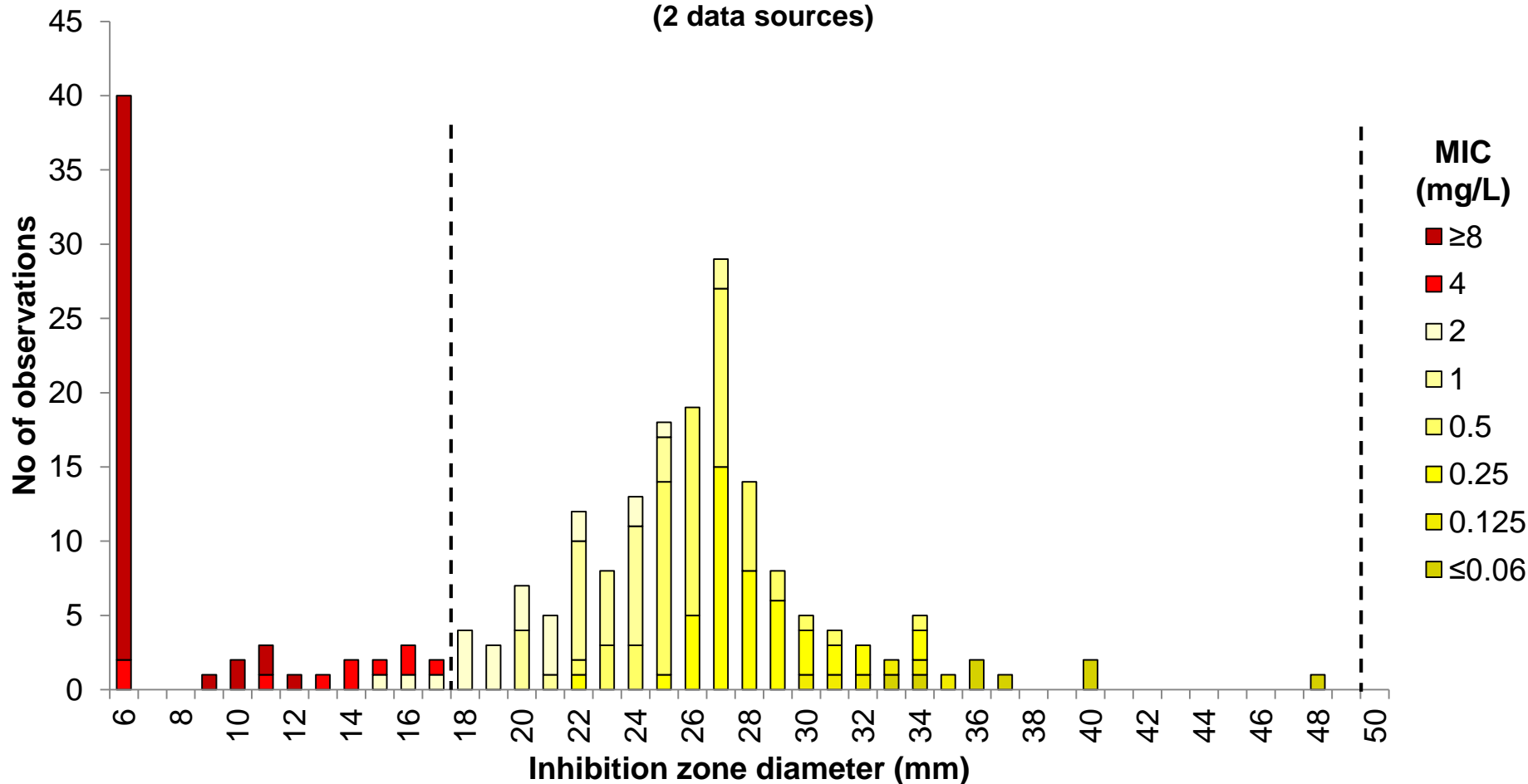


Breakpoints

MIC	$S \leq 0.001$, $R > 0.5$ mg/L
Zone diameter	$S \geq 50$, $R < 26$ mm

Levofloxacin 5 μ g vs. MIC *P. aeruginosa*, 223 isolates

(2 data sources)



Breakpoints

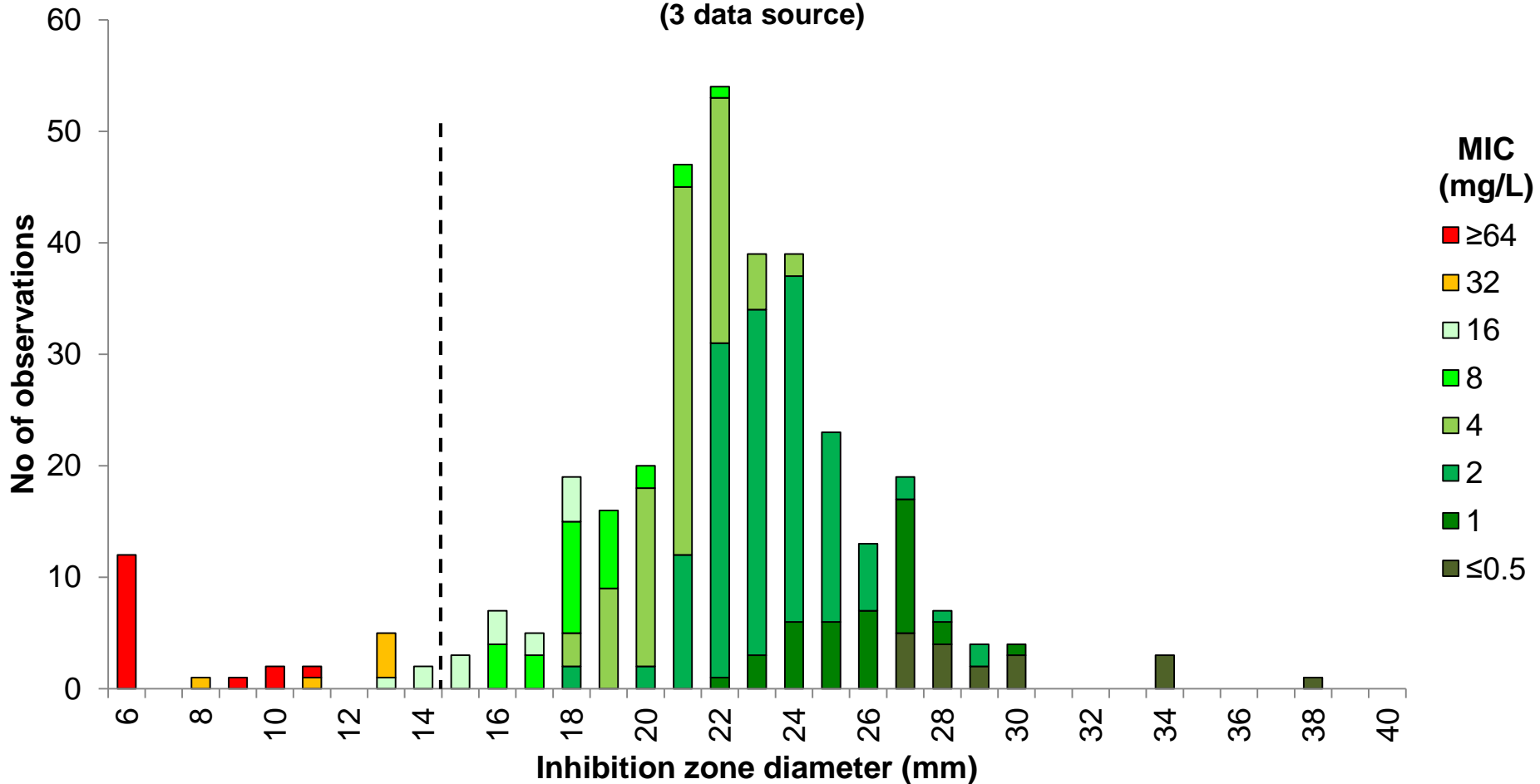
MIC $S \leq 0.001$, $R > 2$ mg/L

Zone diameter $S \geq 50$, $R < 18$ mm

Amikacin 30 µg vs. MIC

P. aeruginosa, 241 isolates (348 correlates)

(3 data source)

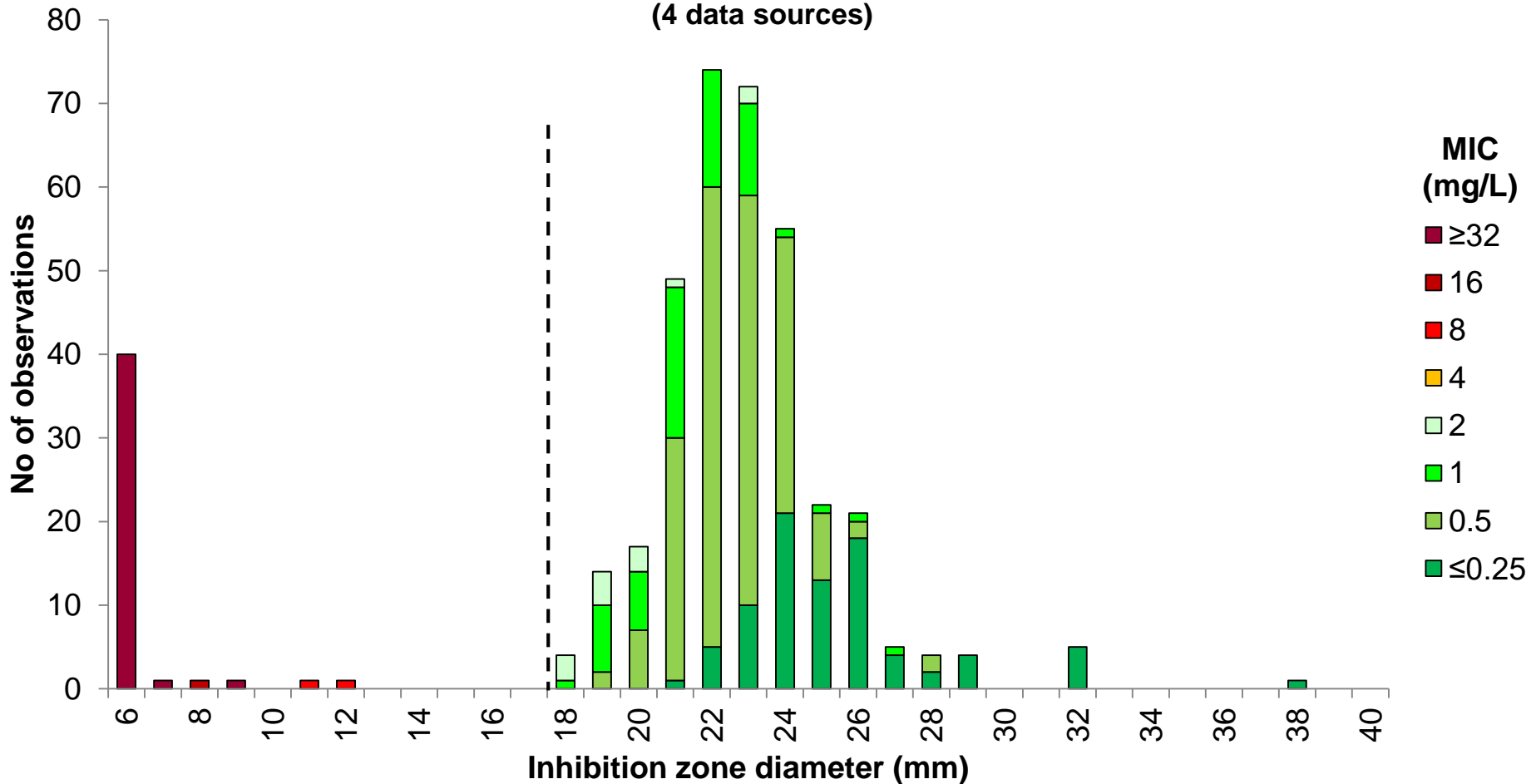


Breakpoints	
MIC	S ≤ 16, R > 16 mg/L
Zone diameter	S ≥ 15, R < 15 mm

Tobramycin 10 µg vs. MIC

P. aeruginosa, 285 isolates (392 correlates)

(4 data sources)



Breakpoints

MIC S ≤ 2, R > 2 mg/L

Zone diameter S ≥ 18, R < 18 mm

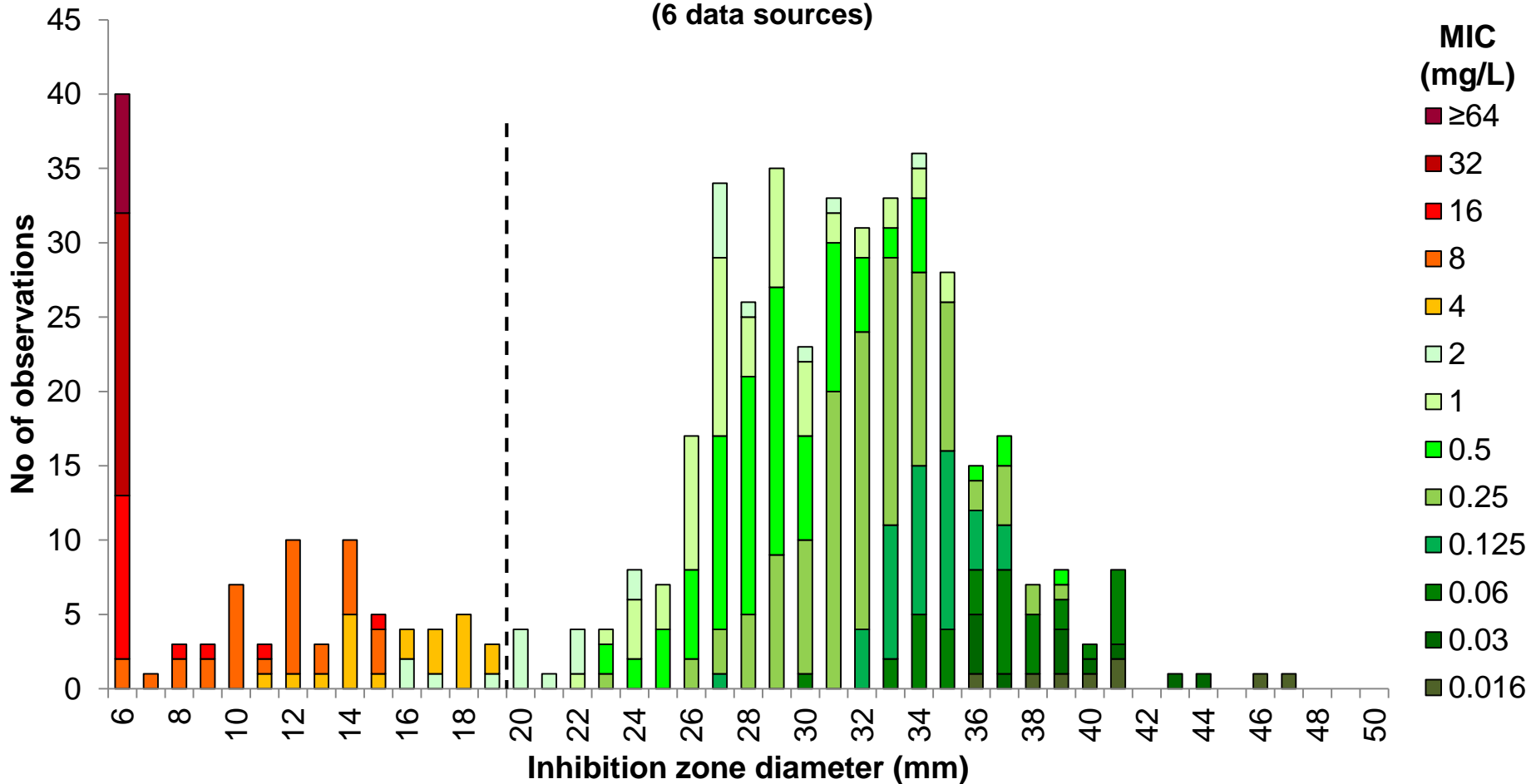
Pseudomonas aeruginosa

Distributions with separate
breakpoints for meningitis

Meropenem 10 µg vs. MIC

P. aeruginosa, 263 isolates (487 correlates)

(6 data sources)



Breakpoints (meningitis)

MIC S ≤ 2, R > 2 mg/L

Zone diameter S ≥ 20, R < 20 mm



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