



**EUCAST**

European Committee  
on Antimicrobial  
Susceptibility Testing

# Anaerobic bacteria\*

## Calibration of zone diameter breakpoints to MIC values

\*Method valid for *Bacteroides* spp., *Prevotella* spp., *Fusobacterium necrophorum*, *Clostridium perfringens* and *Cutibacterium acnes*

Version 4.1  
January 2026

# Anaerobic bacteria

## 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.

# Anaerobic bacteria

## Materials and methods

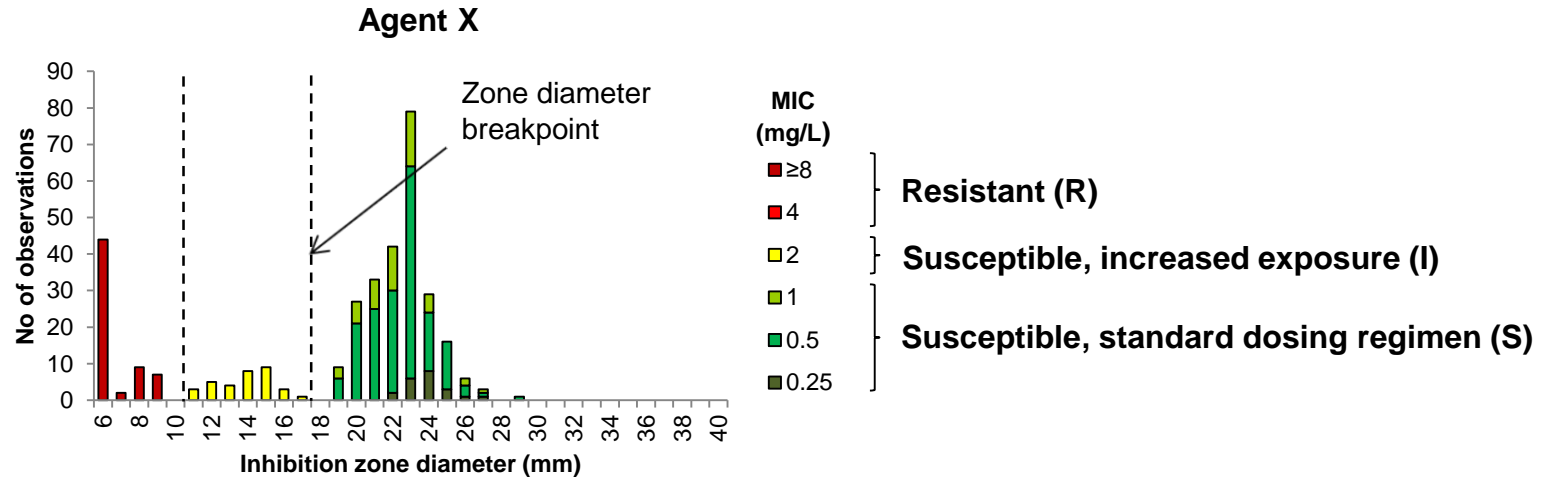
- Antimicrobial susceptibility testing was performed on a collection of *Bacteroides* spp. (n=53), *Prevotella* spp. (n=49), *Fusobacterium necrophorum* (n=51), *Clostridium perfringens* (n=58) and *Cutibacterium acnes* (n=54). Species identification was performed with MALDI-TOF MS. Disk diffusion was performed according to EUCAST methodology for rapidly growing anaerobic bacteria on Fastidious Anaerobe Agar with 5% defibrinated horse blood (FAA-HB) with a McF 1.0 inoculum and anaerobic incubation at 35-37°C for 16-20 h. MIC determination was performed with agar dilution on Fastidious Anaerobe Agar with 5% defibrinated horse blood (FAA-HB).
- The distributions of MIC vs. zone diameter in this presentation are the result of a collaboration between EUCAST and the UK Anaerobe Reference Unit, Cardiff (UK).
- This presentation is based on EUCAST Clinical Breakpoint Tables v. 16.0.

# Changes from previous version (4.0)

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

# 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.



***Bacteroides* spp.**

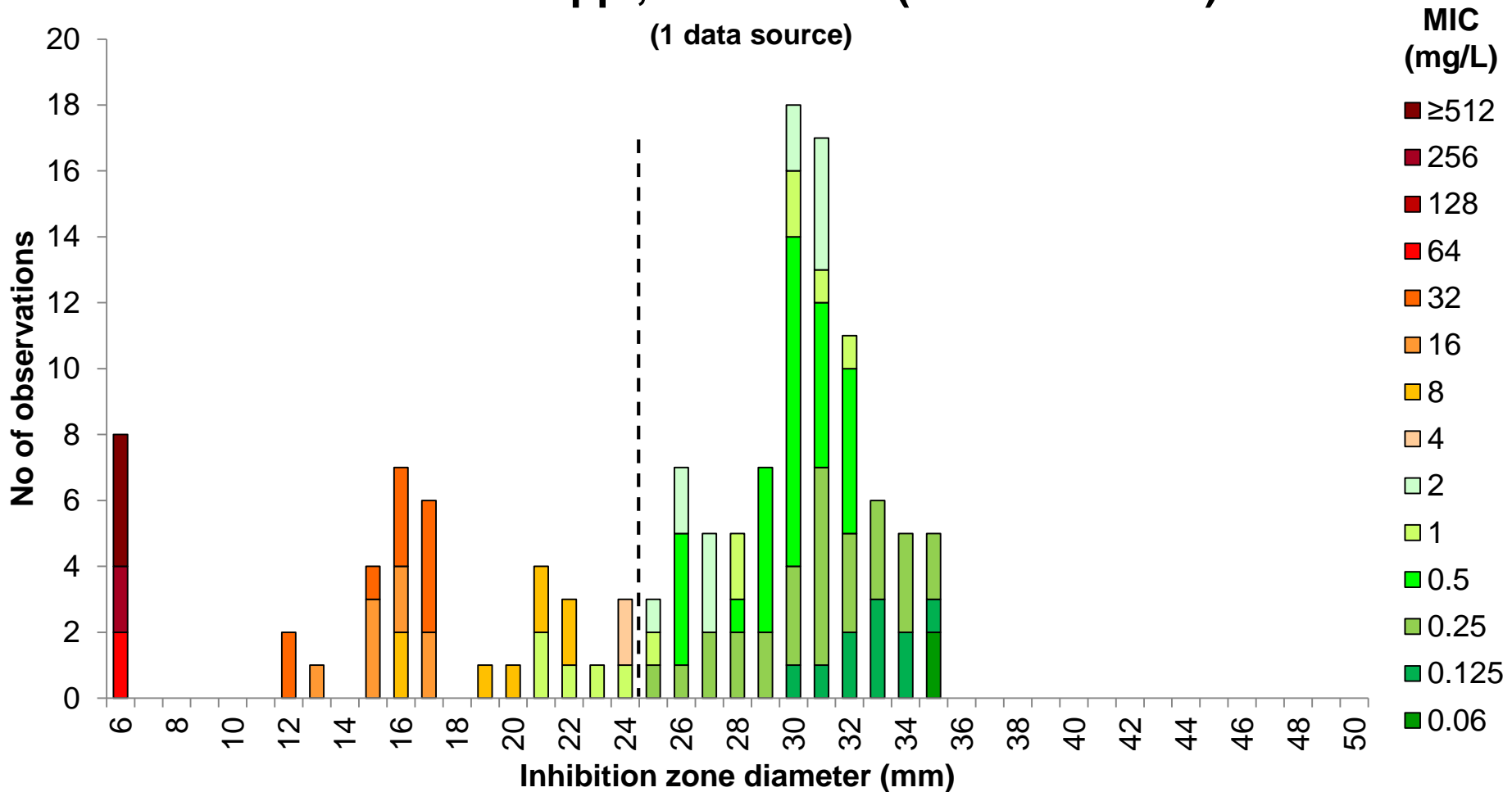
# *Bacteroides* species

- 53 clinical isolates:
  - *Bacteroides fragilis* (n=34)
  - *Bacteroides thetaiotaomicron* (n=8)
  - *Phocaeicola dorei/vulgatus*\* (n=4)
  - *Bacteroides ovatus* (n=4)
  - *Bacteroides caccae* (n=2)
  - *Parabacteroides distasonis* (n=1)

\* Previously named *Bacteroides dorei/vulgatus*

# Ampicillin-sulbactam 10-10 $\mu\text{g}$ vs. MIC *Bacteroides* spp., 65 isolates (130 correlates)

(1 data source)



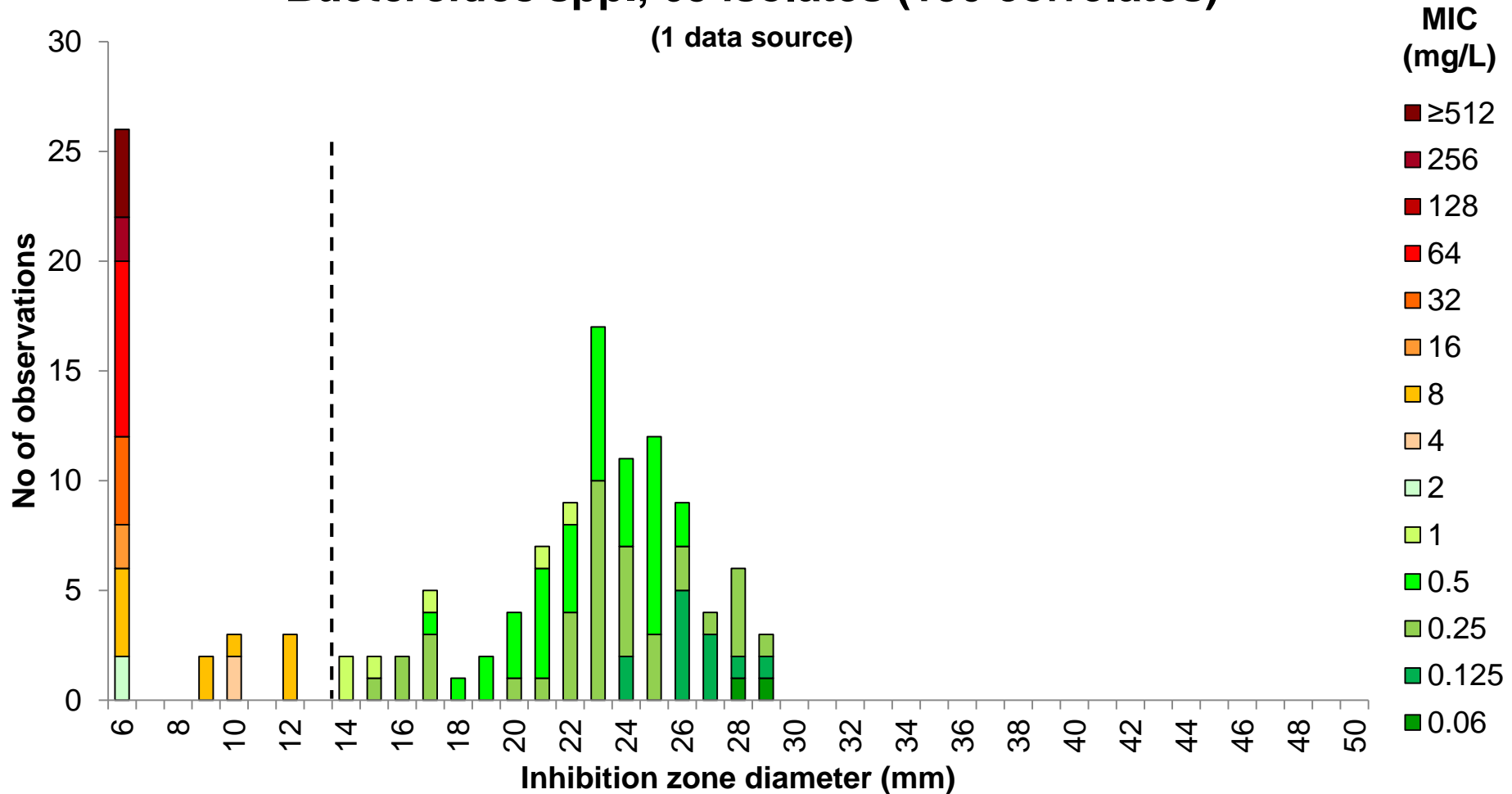
## Breakpoints

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

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

# Amoxicillin-clavulanic acid 2-1 µg vs. MIC *Bacteroides* spp., 65 isolates (130 correlates)

(1 data source)



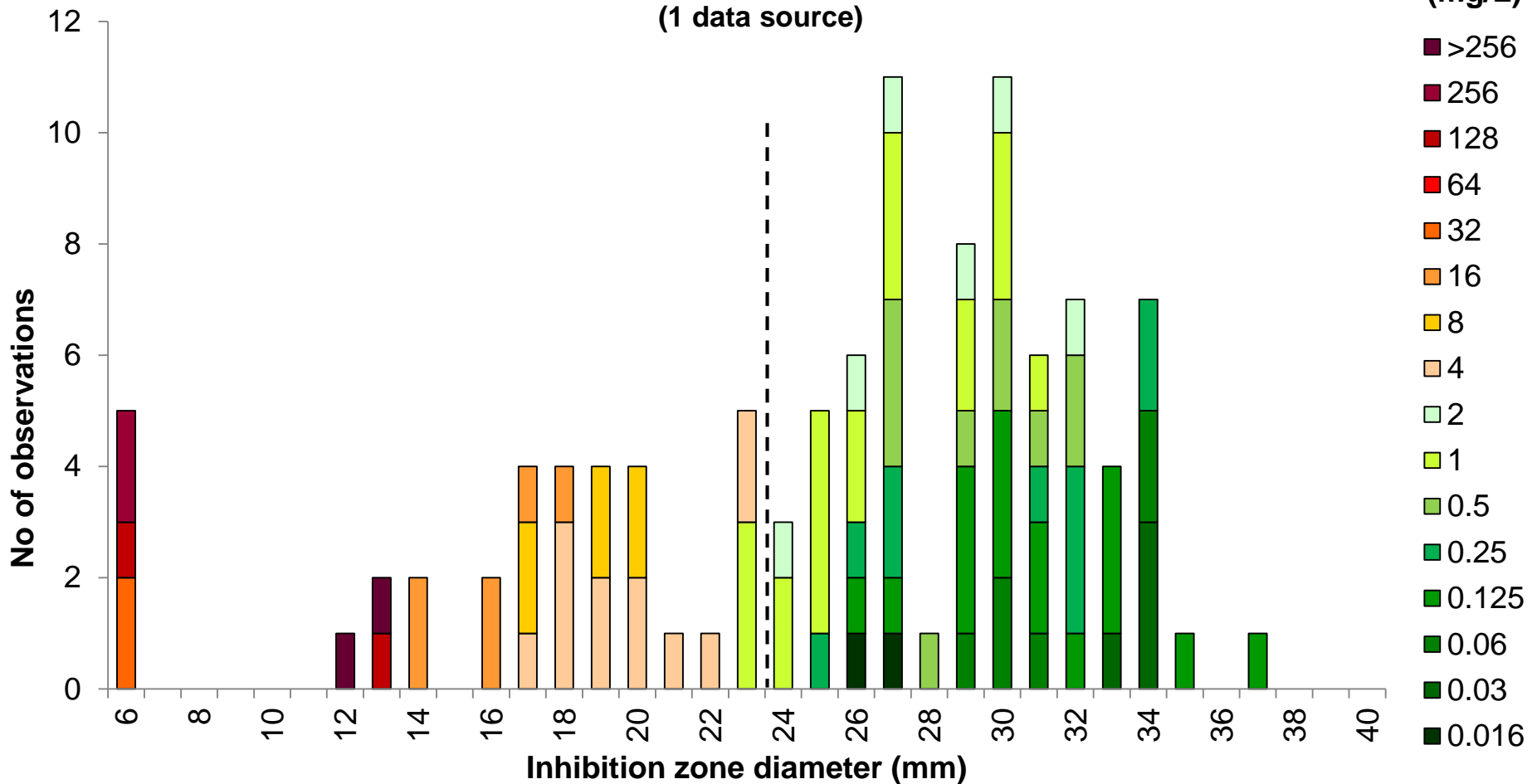
## Breakpoints

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

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

# Piperacillin-tazobactam 30-6 µg vs. MIC *Bacteroides* spp., 53 isolates (106 correlates)

(1 data source)



## Breakpoints

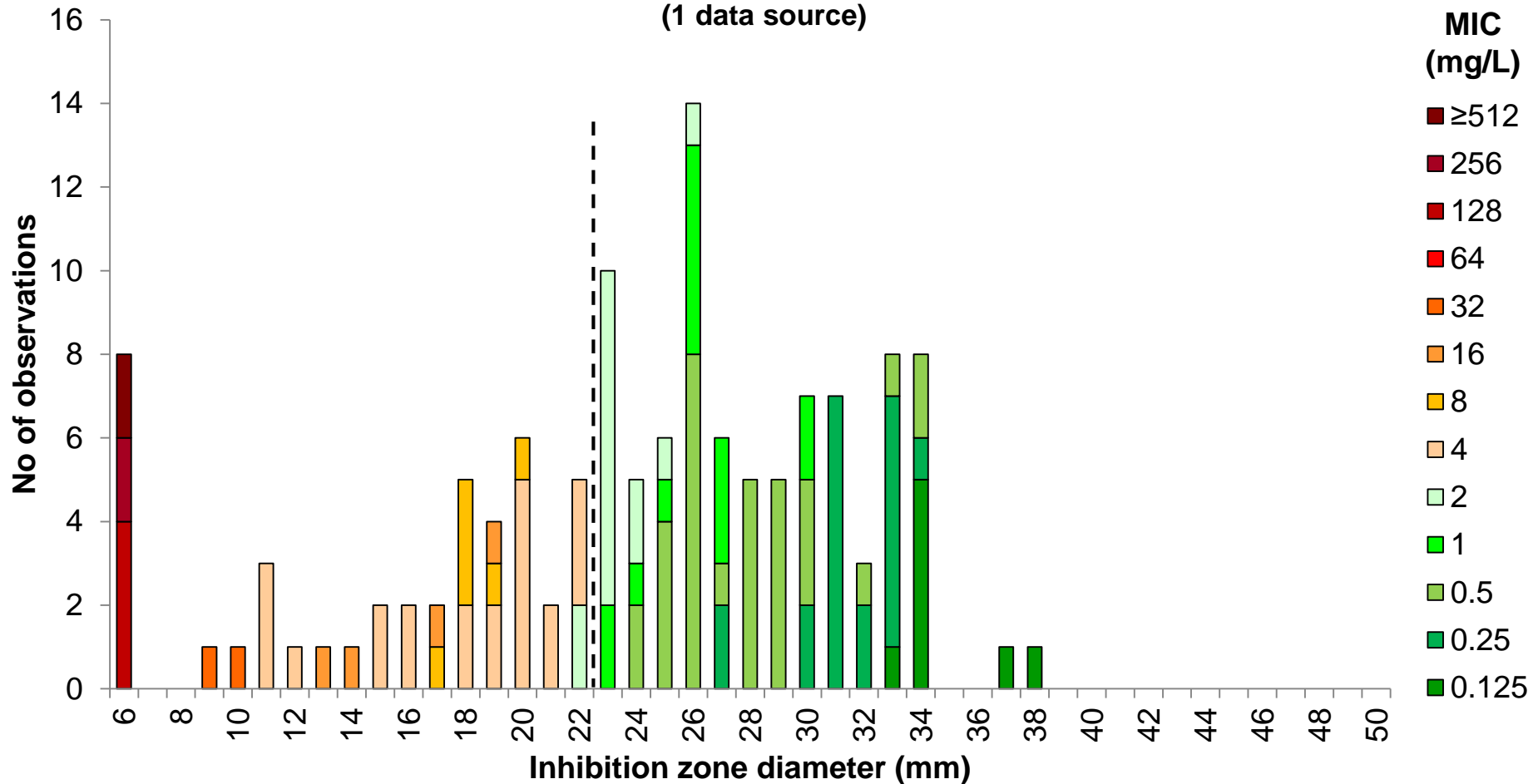
MIC S ≤ 2, R > 2 mg/L

Zone diameter S ≥ 24, R < 24 mm

# Ertapenem 10 µg vs. MIC

## *Bacteroides* spp., 65 isolates (130 correlates)

(1 data source)



### Breakpoints

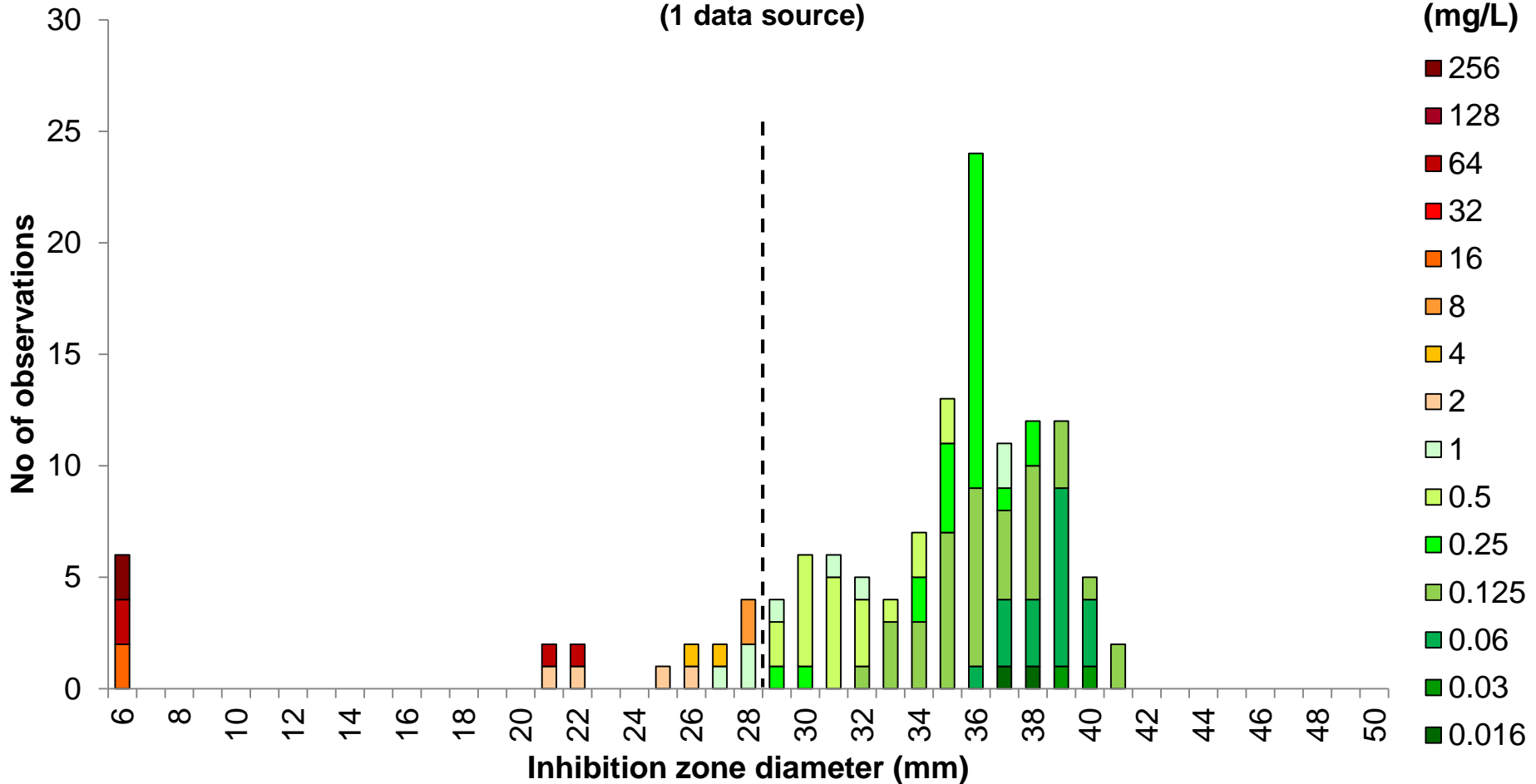
MIC  $S \leq 2, R > 2$  mg/L

Zone diameter  $S \geq 23, R < 23$  mm

# Imipenem 10 µg vs. MIC

## *Bacteroides* spp., 65 isolates (130 correlates)

(1 data source)

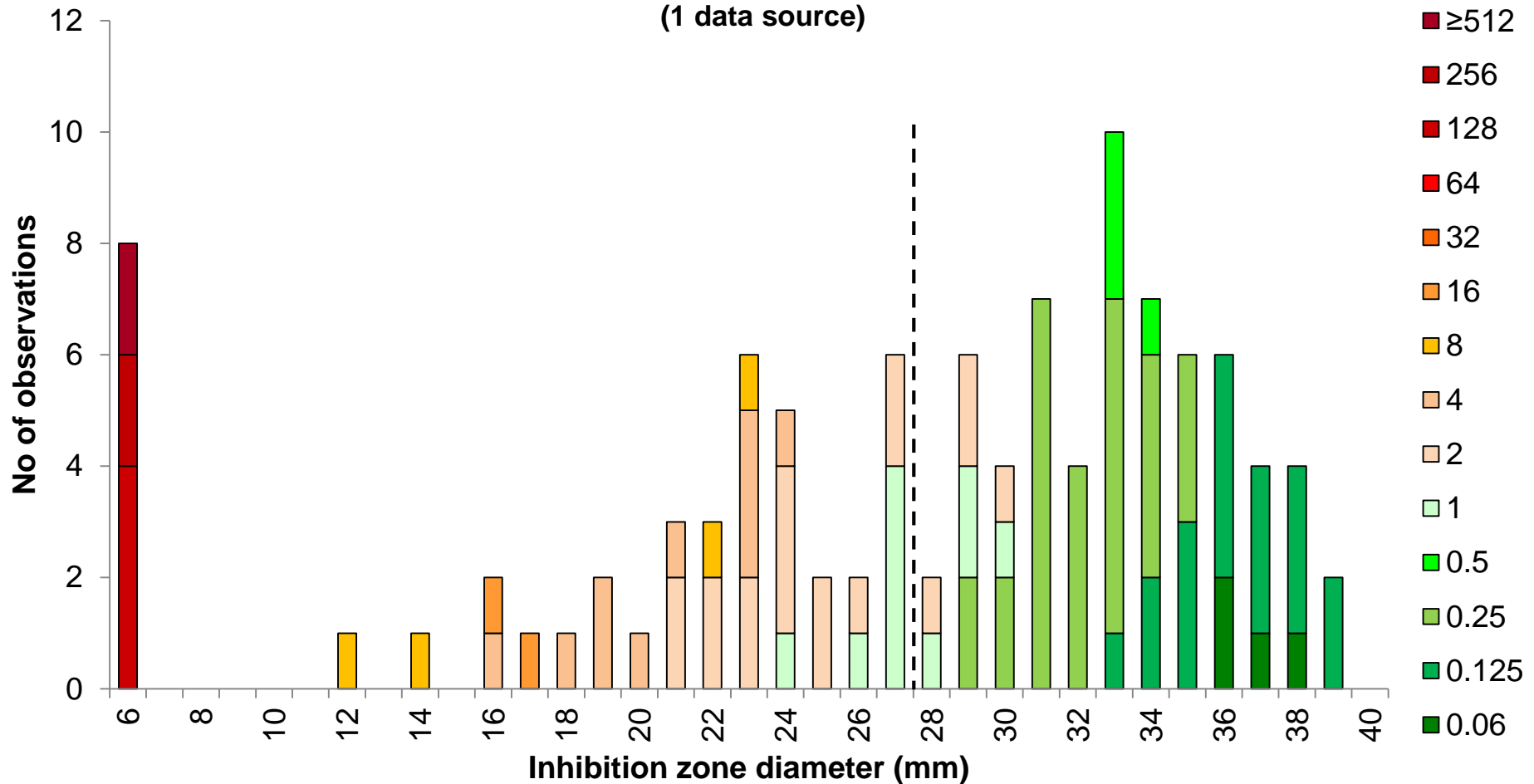


Breakpoints	
MIC	S ≤ 1, R > 1 mg/L
Zone diameter	S ≥ 29, R < 29 mm

# Meropenem 10 $\mu$ g vs. MIC

## *Bacteroides* spp., 53 isolates (106 correlates)

(1 data source)

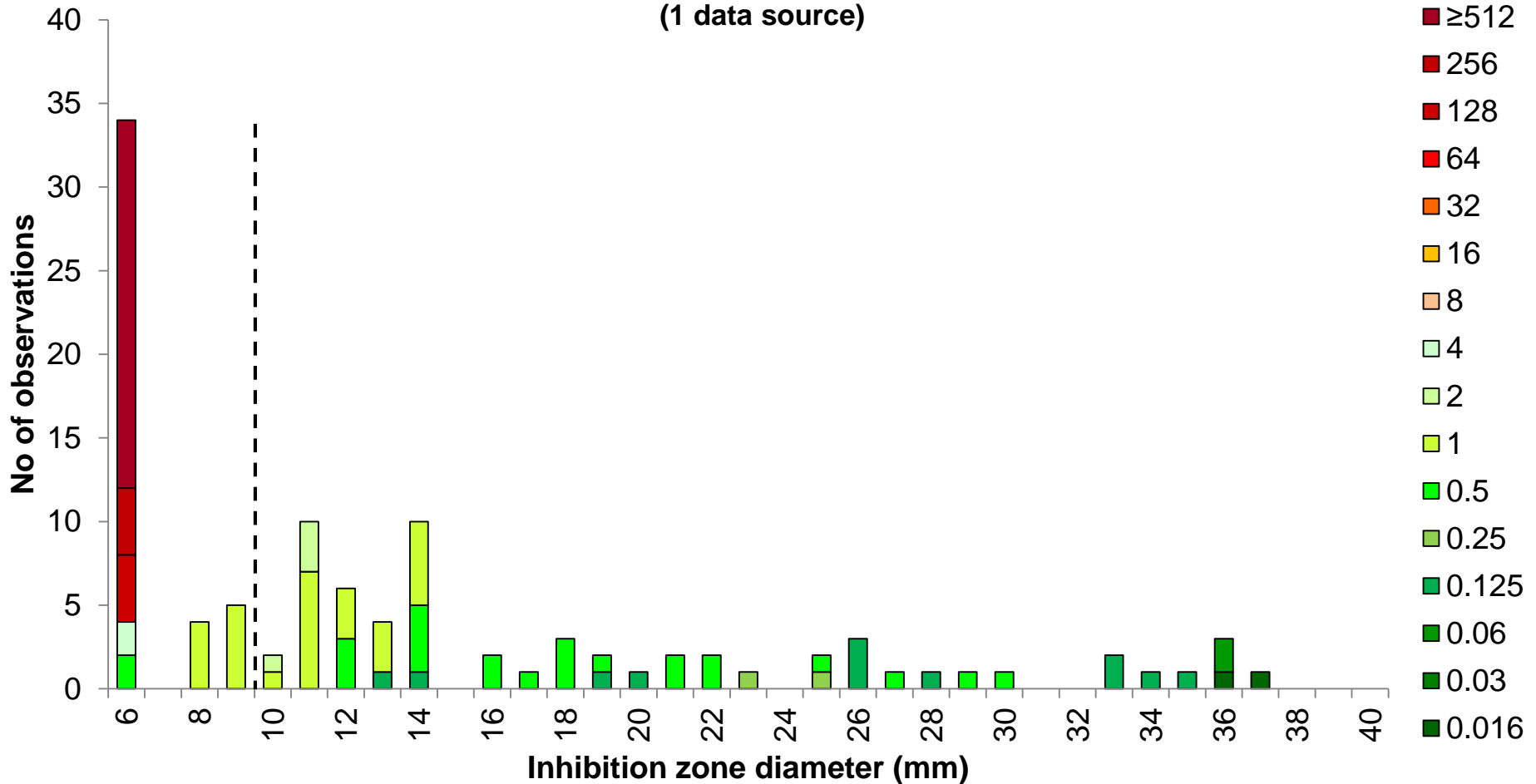


<b>Breakpoints</b>	
MIC	$S \leq 1, R > 1$ mg/L
Zone diameter	$S \geq 28, R < 28$ mm

# Clindamycin 2 µg vs. MIC

## *Bacteroides* spp., 53 isolates (106 correlates)

(1 data source)

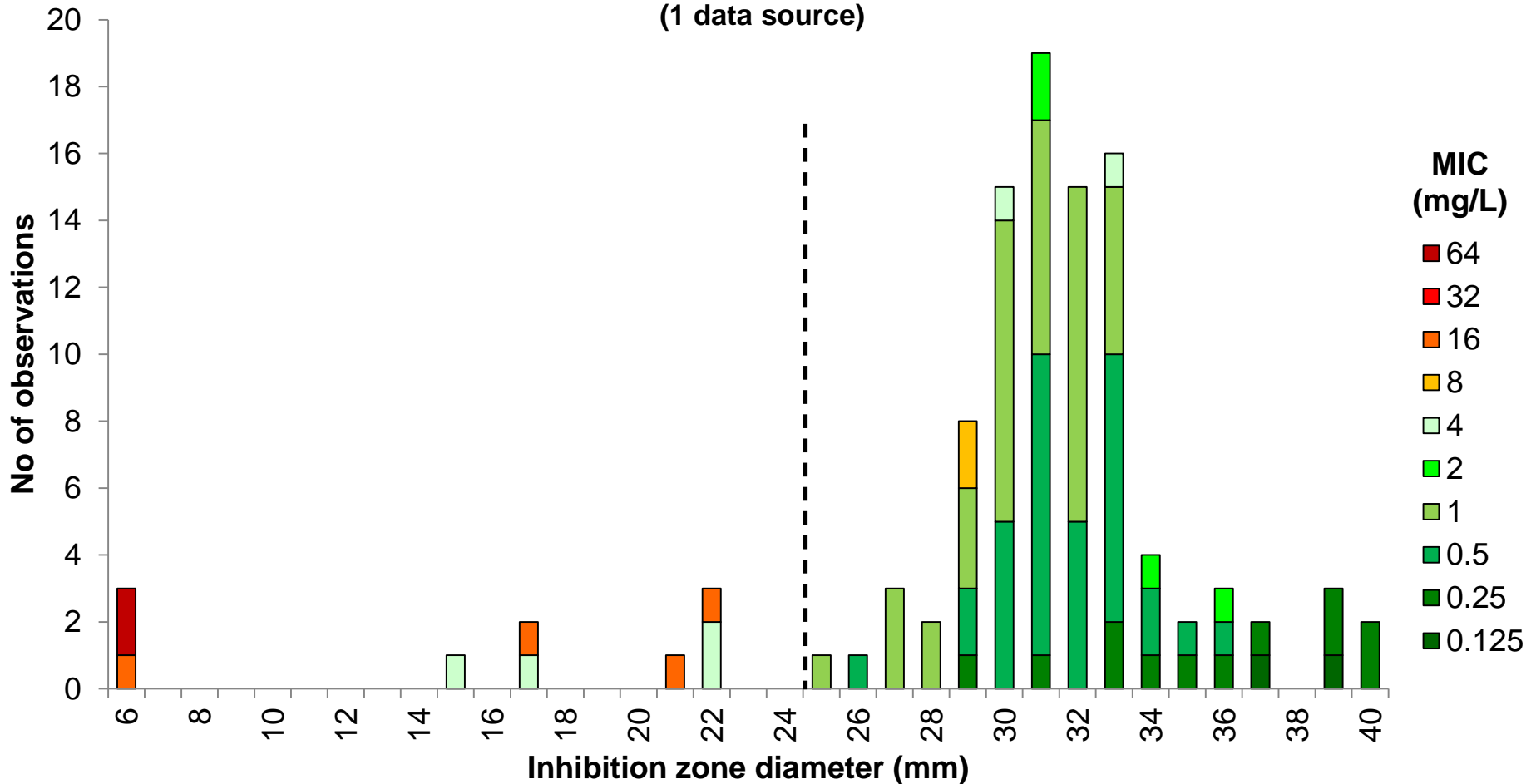


Breakpoints	
MIC	S ≤ 4, R > 4 mg/L
Zone diameter	S ≥ 10, R < 10 mm

# Metronidazole 5 µg vs. MIC

## *Bacteroides* spp., 53 isolates (106 correlates)

(1 data source)



Breakpoints	
MIC	S ≤ 4, R > 4 mg/L
Zone diameter	S ≥ 25, R < 25 mm

***Prevotella* spp.**

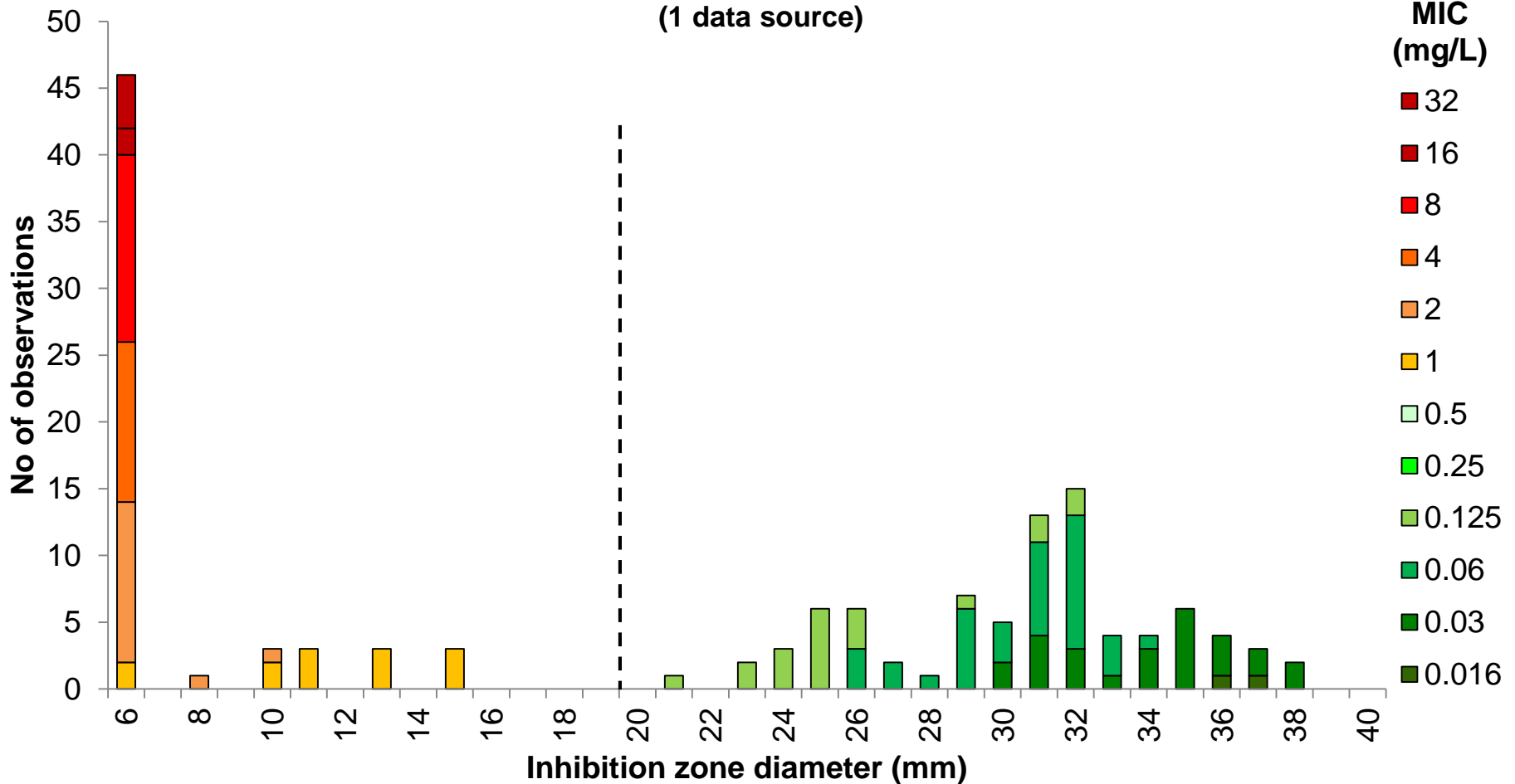
# *Prevotella* species

- 49 clinical isolates:
  - *P. bivia* (n=17)
  - *P. buccae* (n=11)
  - *P. denticola* (n=7)
  - *P. disiens* (n=3)
  - *P. melaninogenica* (n=3)
  - *P. heparinolytica* (n=2)
  - *P. nanceiensis* (n=2)
  - *P. bergensis* (n=1)
  - *P. corporis* (n=1)
  - *P. intermedia* (n=1)
  - *P. salivae* (n=1)

# Benzylpenicillin 1 unit vs. MIC

## *Prevotella* spp., 49 isolates (143 correlates)

(1 data source)



### Breakpoints

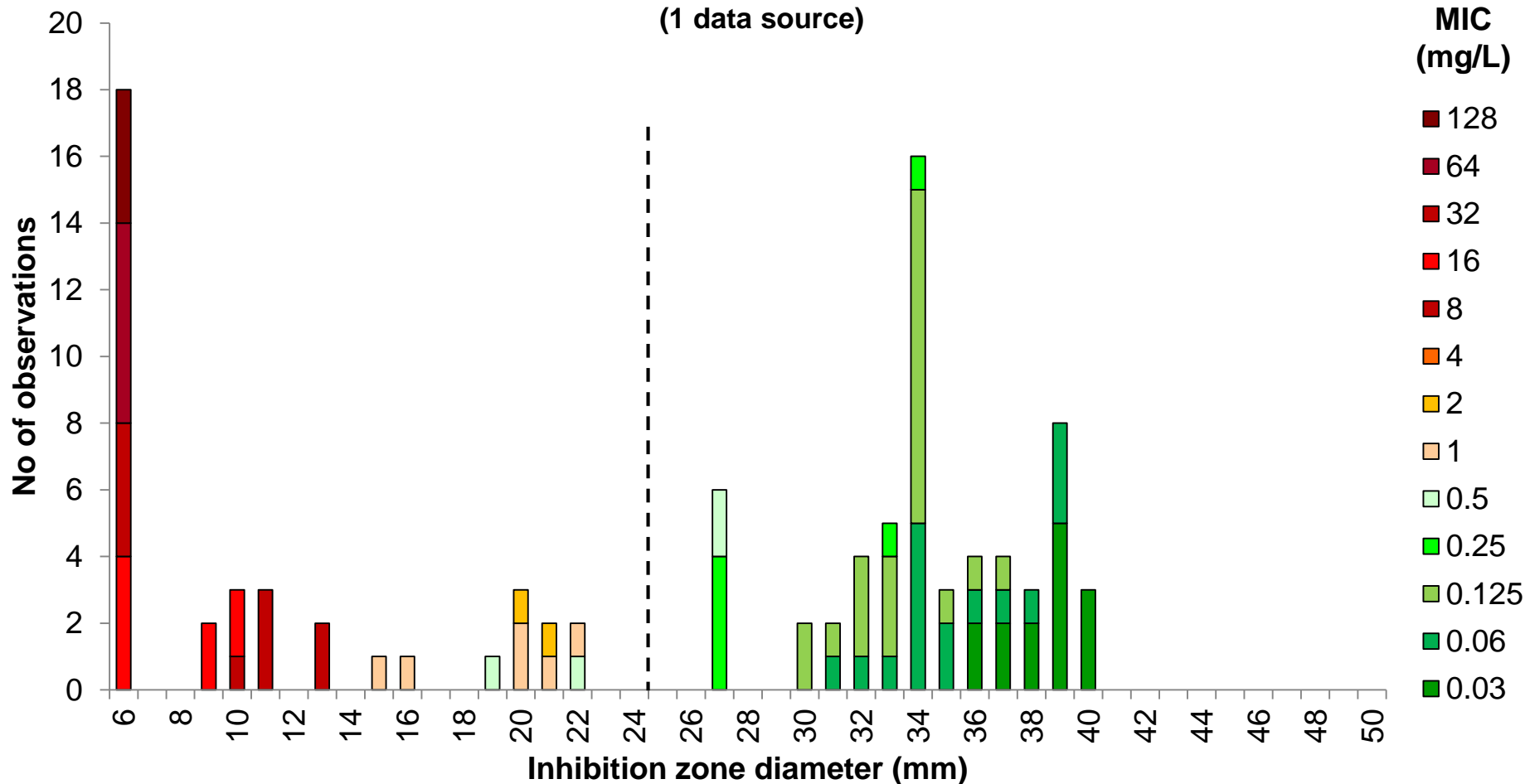
MIC  $S \leq 0.5$ ,  $R > 0.5$  mg/L

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

# Ampicillin 2 $\mu$ g vs. MIC

## *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)

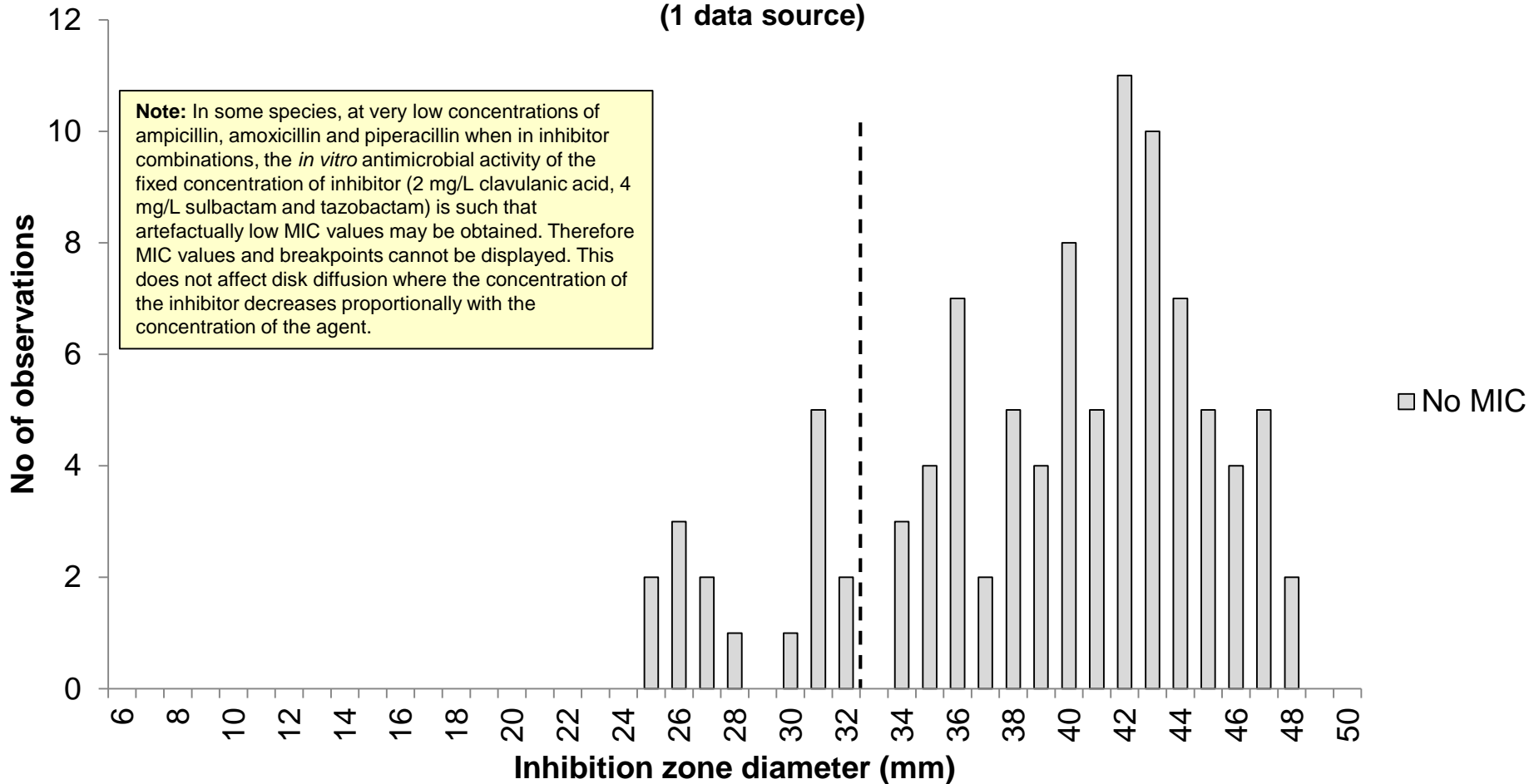


### Breakpoints

MIC	S $\leq$ 0.5, R $>$ 0.5 mg/L
Zone diameter	S $\geq$ 25, R $<$ 25 mm

# Ampicillin-sulbactam 10-10 µg *Prevotella* spp., 49 isolates (98 results)

(1 data source)

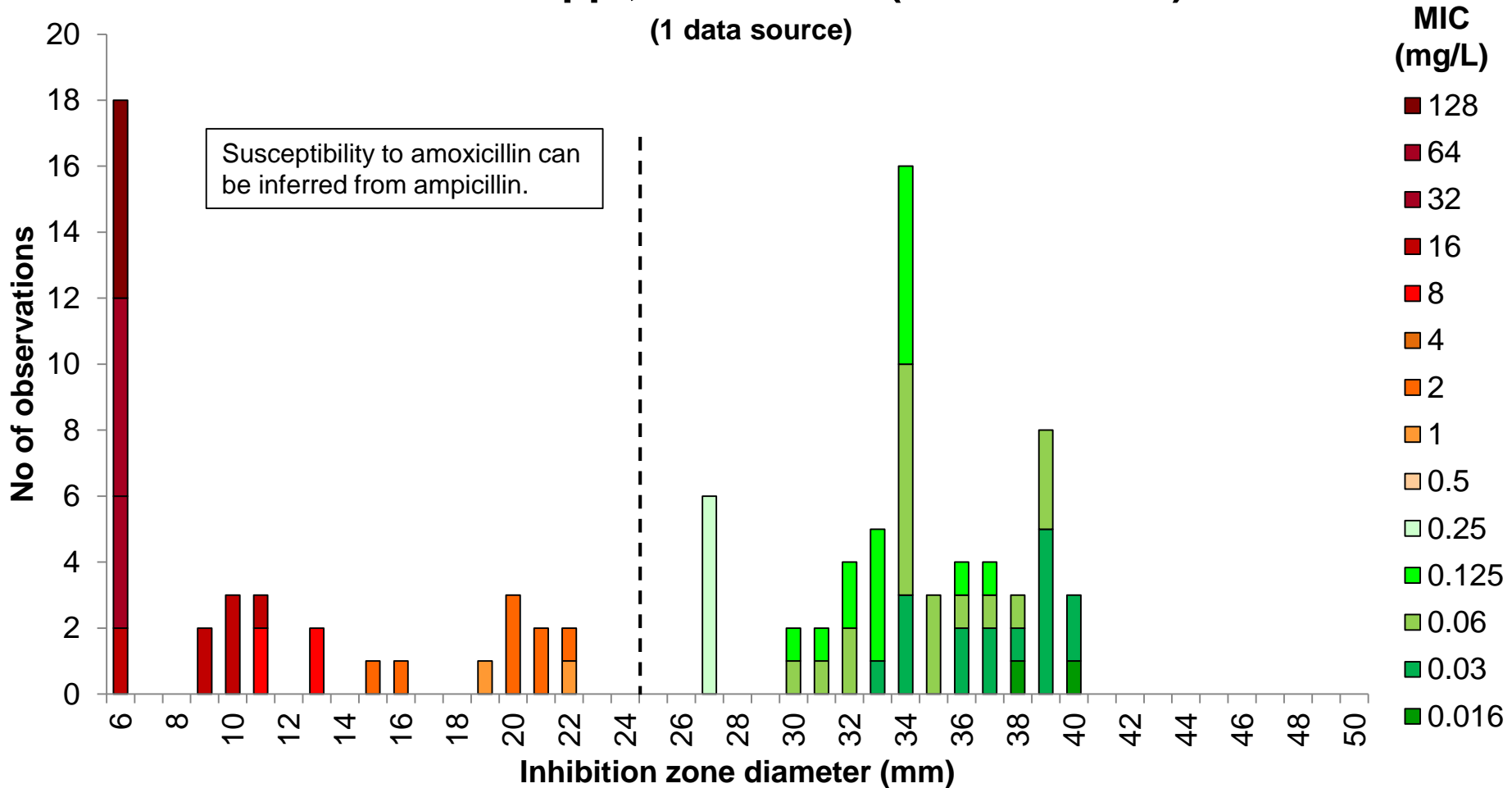


<b>Breakpoints</b>	
MIC	Note
Zone diameter	S≥33, R<33 mm

# Ampicillin 2 µg vs. Amoxicillin MIC

## *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)

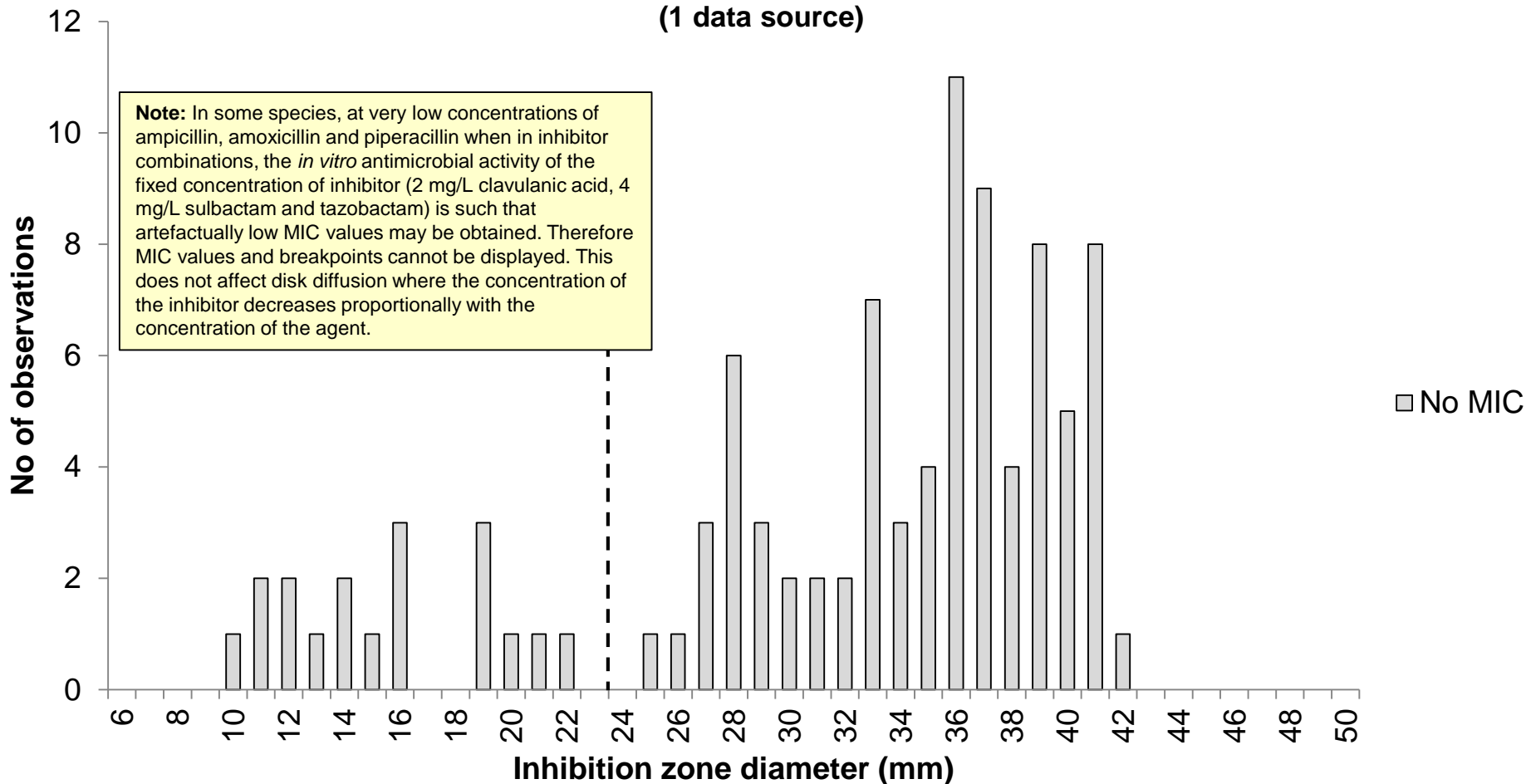


### Breakpoints

Amoxicillin MIC	$S \leq 0.25$ , $R > 0.25$ mg/L
Ampicillin zone diameter	$S \geq 25$ , $R < 25$ mm

# Amoxicillin-clavulanic acid 2-1 µg *Prevotella* spp., 49 isolates (98 results)

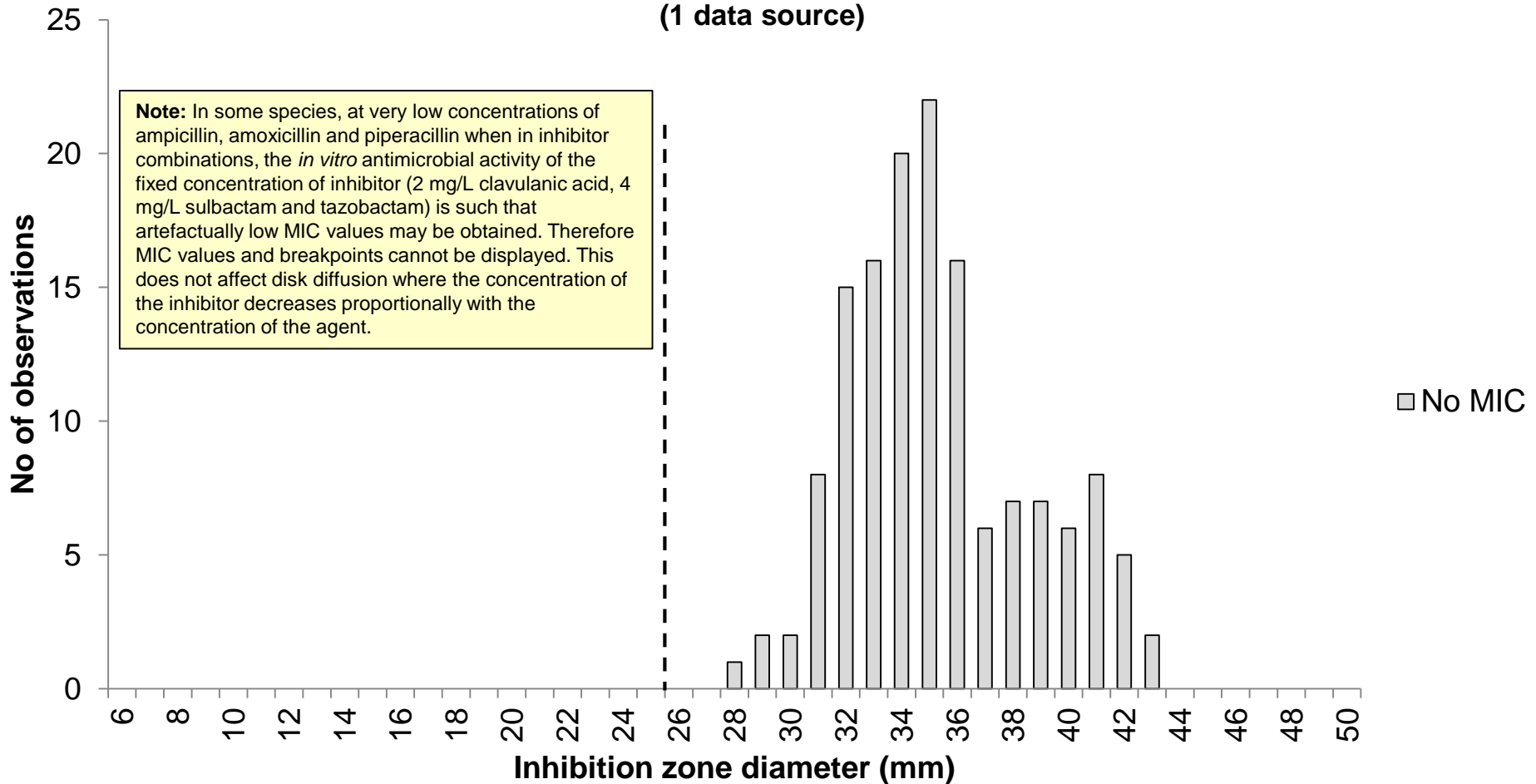
(1 data source)



<b>Breakpoints</b>	
MIC	Note
Zone diameter	S≥24, R<24 mm

# Piperacillin-tazobactam 30-6 µg *Prevotella* spp., 49 isolates (143 results)

(1 data source)

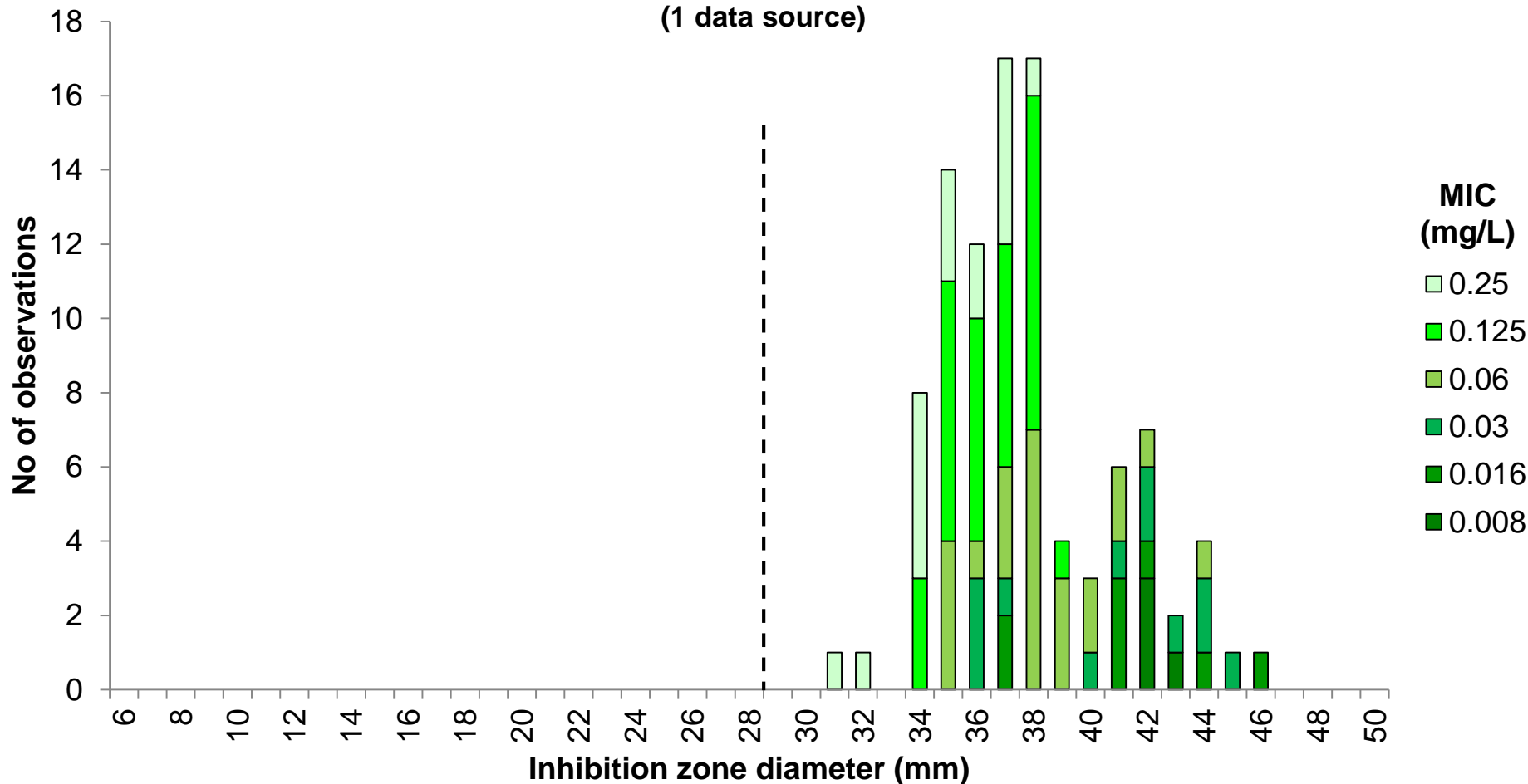


<b>Breakpoints</b>	
MIC	Note
Zone diameter	S≥26, R<26 mm

# Ertapenem 10 µg vs. MIC

## *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)



### Breakpoints

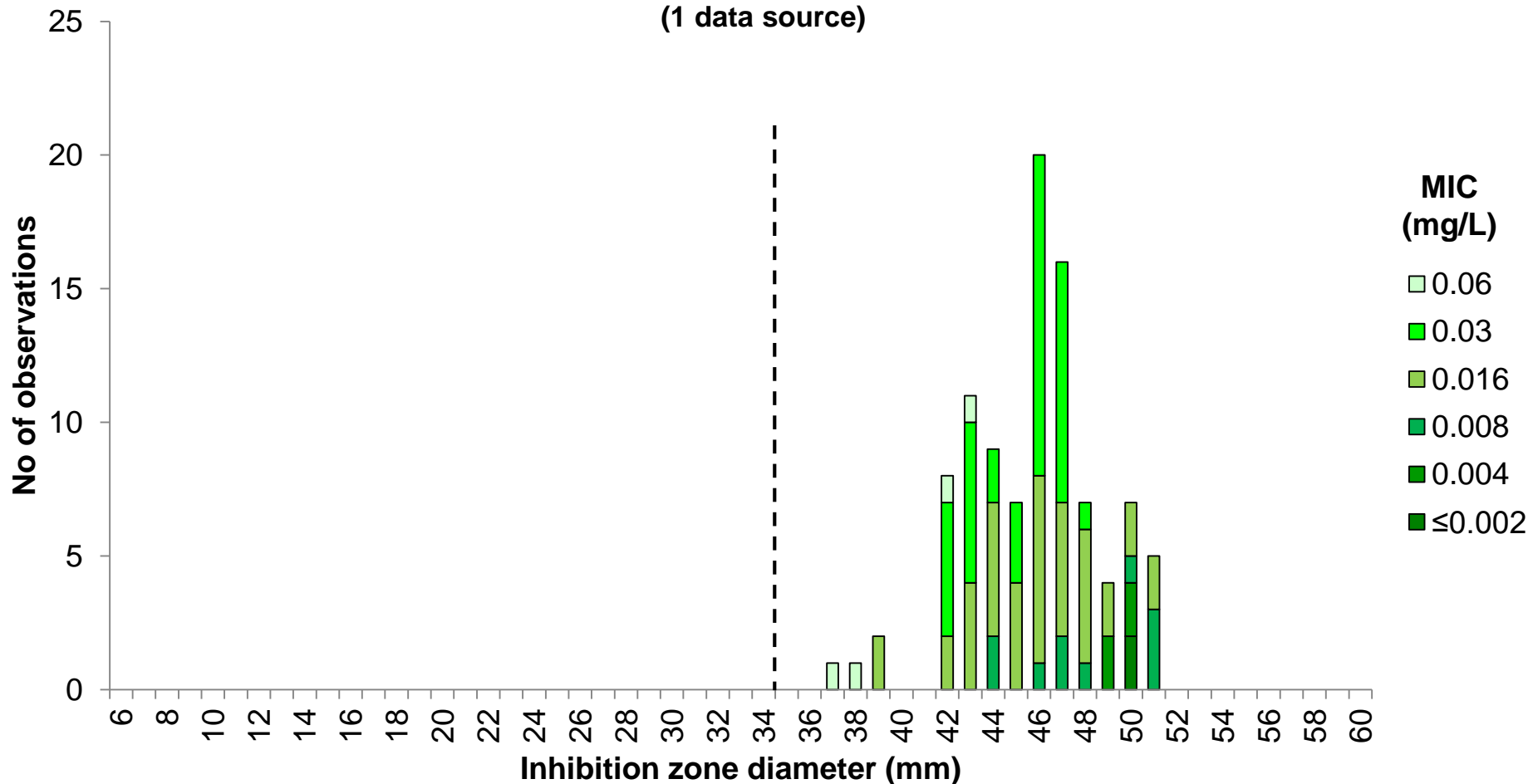
MIC  $S \leq 0.5$ ,  $R > 0.5$  mg/L

Zone diameter  $S \geq 29$ ,  $R < 29$  mm

# Imipenem 10 µg vs. MIC

## *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)



### Breakpoints

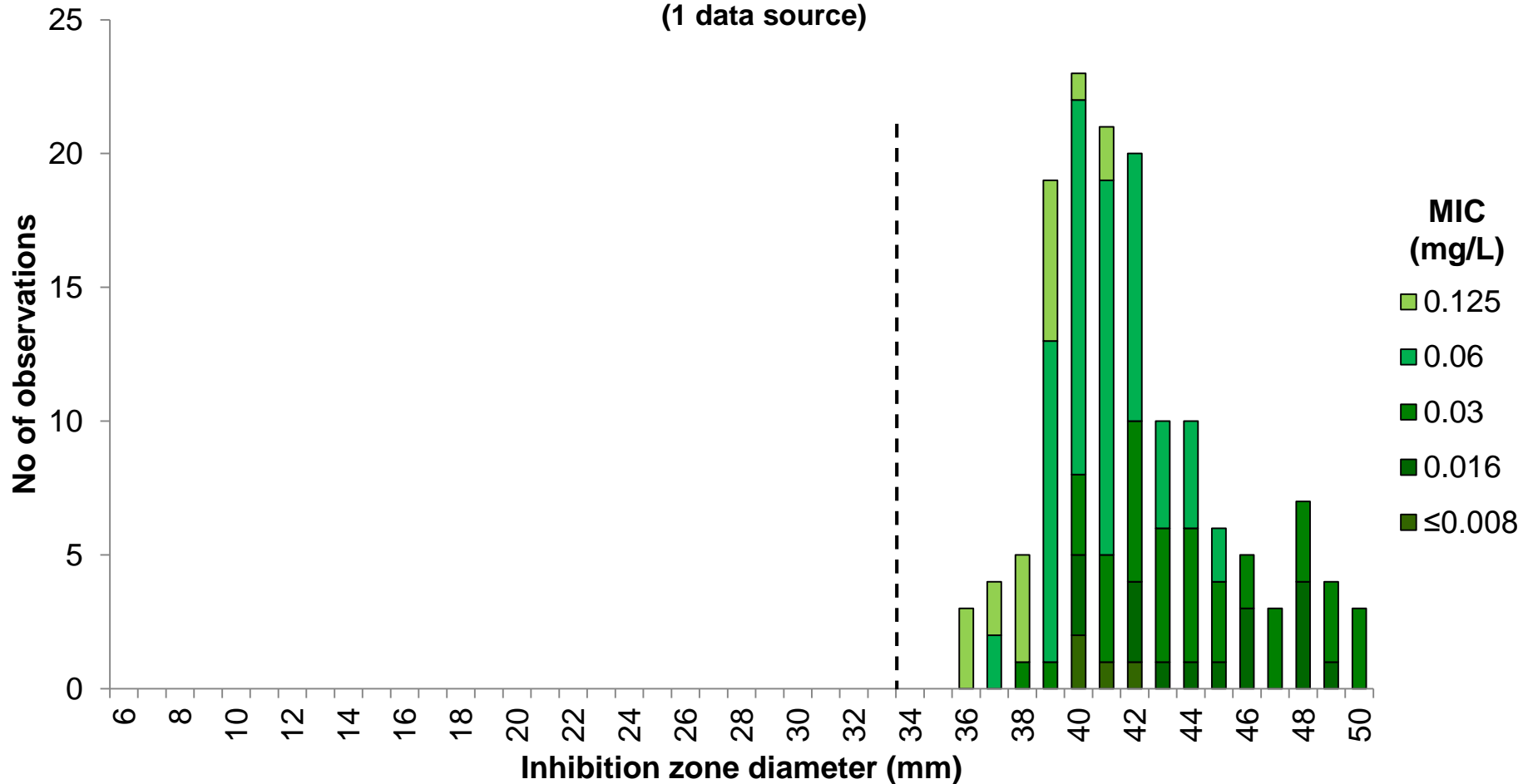
MIC  $S \leq 0.125$ ,  $R > 0.125$  mg/L

Zone diameter  $S \geq 35$ ,  $R < 35$  mm

# Meropenem 10 µg vs. MIC

## *Prevotella* spp., 49 isolates (143 correlates)

(1 data source)



### Breakpoints

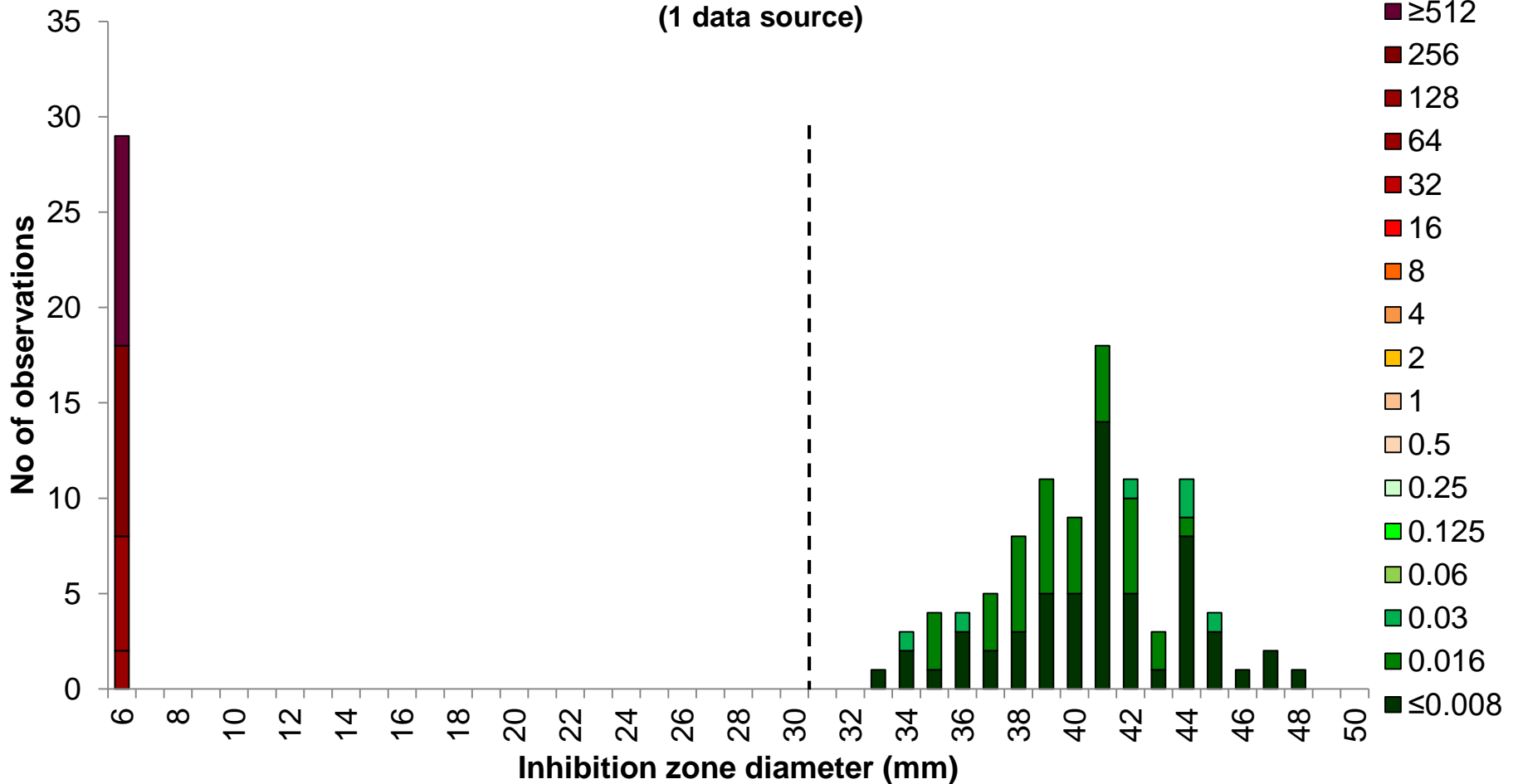
MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 34, R < 34 mm

# Clindamycin 2 µg vs. MIC

## *Prevotella* spp., 49 isolates (125 correlates)

(1 data source)



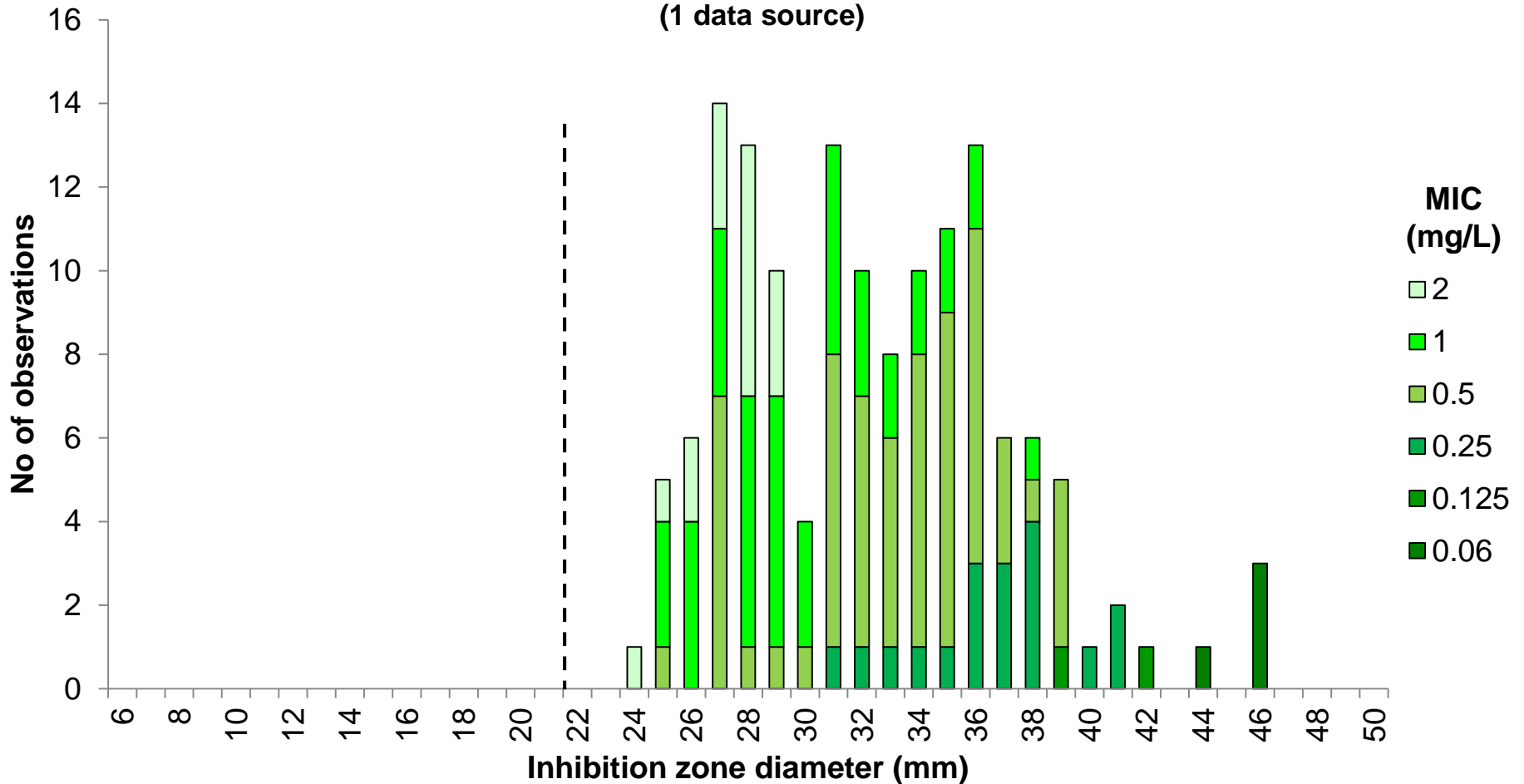
### Breakpoints

MIC	S $\leq 0.25$ , R $> 0.25$ mg/L
Zone diameter	S $\geq 31$ , R $< 31$ mm

# Metronidazole 5 µg vs. MIC

## *Prevotella* spp., 49 isolates (143 correlates)

(1 data source)



### Breakpoints

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

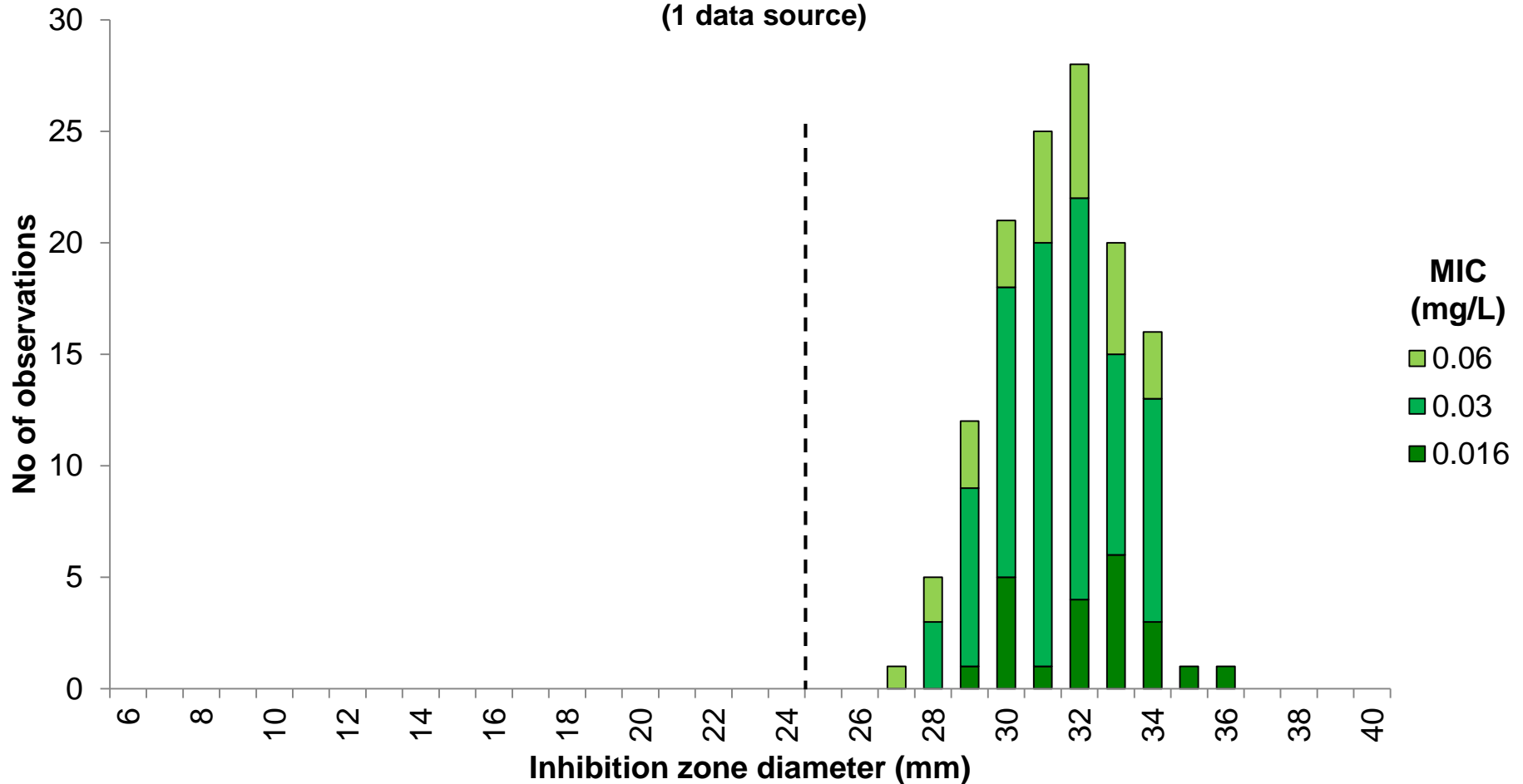
Zone diameter  $S \geq 22$ ,  $R < 22$  mm

***Fusobacterium necrophorum***

# Benzylpenicillin 1 unit vs. MIC

## *F. necrophorum*, 51 isolates (130 correlates)

(1 data source)



### Breakpoints

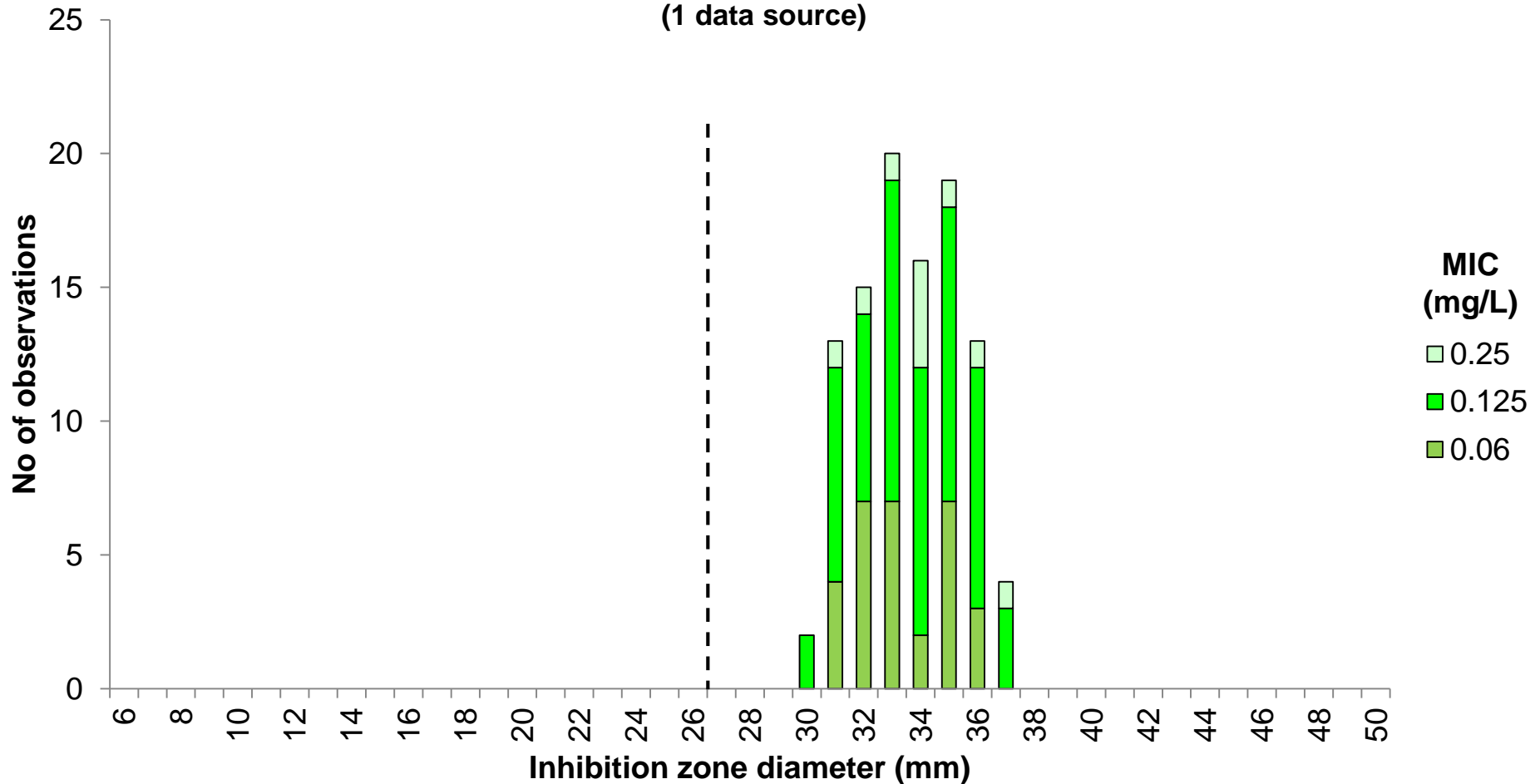
MIC  $S \leq 0.125$ ,  $R > 0.125$  mg/L

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

# Ampicillin 2 µg vs. MIC

## *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



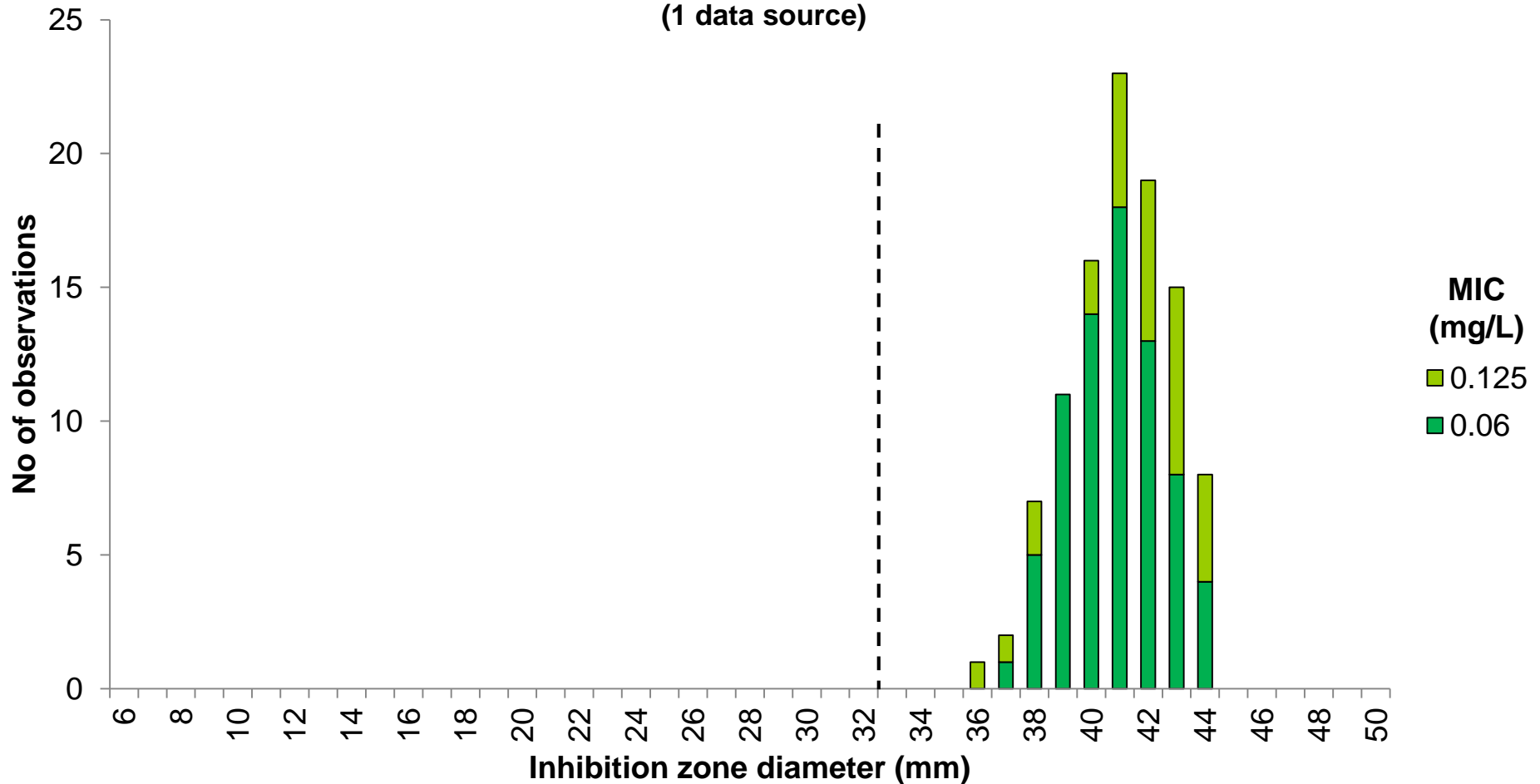
### Breakpoints

MIC S ≤ 0.5, R > 0.5 mg/L

Zone diameter S ≥ 27, R < 27 mm

# Ampicillin-sulbactam 10-10 $\mu\text{g}$ vs. MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

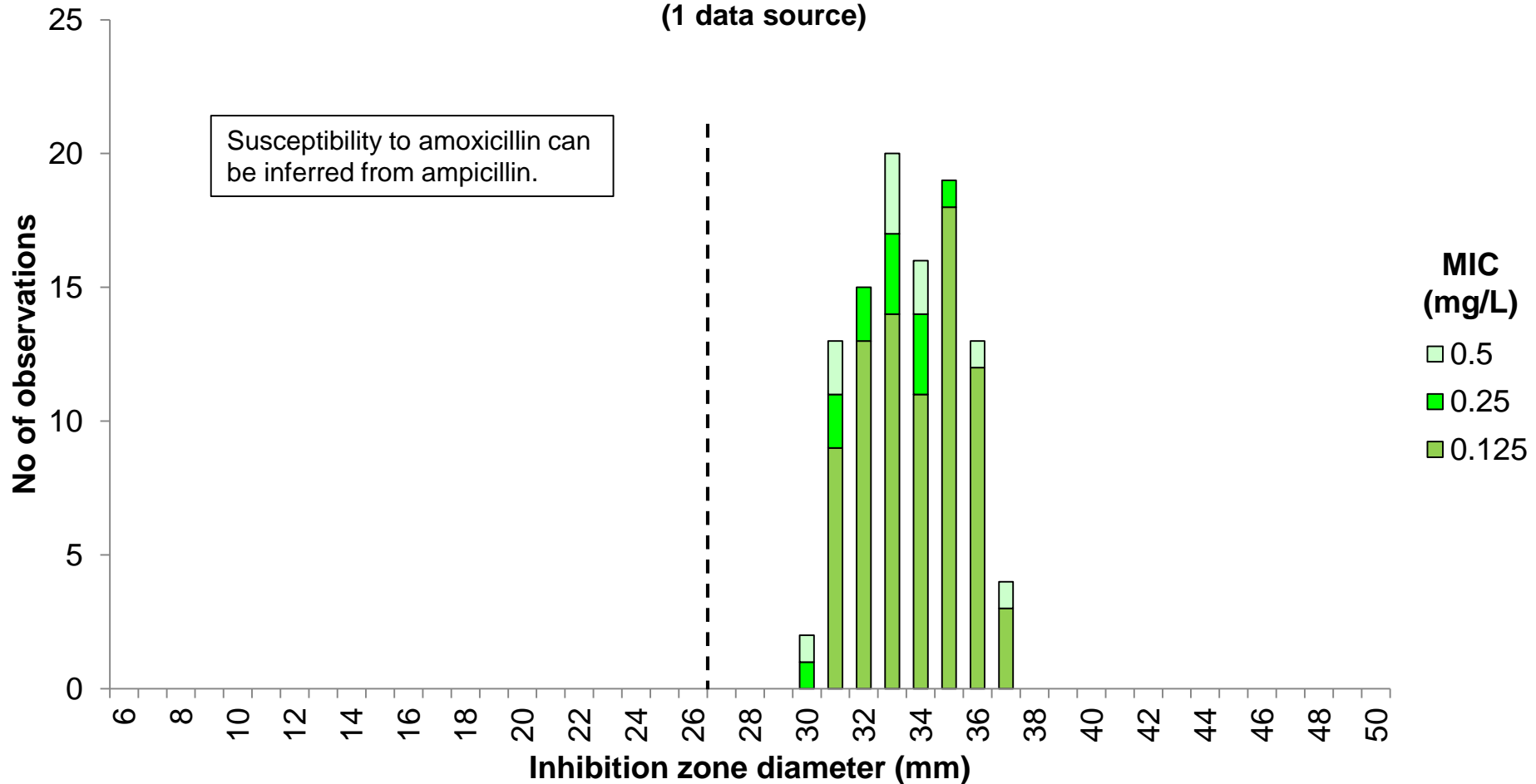
MIC  $S \leq 0.5$ ,  $R > 0.5$  mg/L

Zone diameter  $S \geq 33$ ,  $R < 33$  mm

# Ampicillin 2 µg vs. Amoxicillin MIC

## *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)

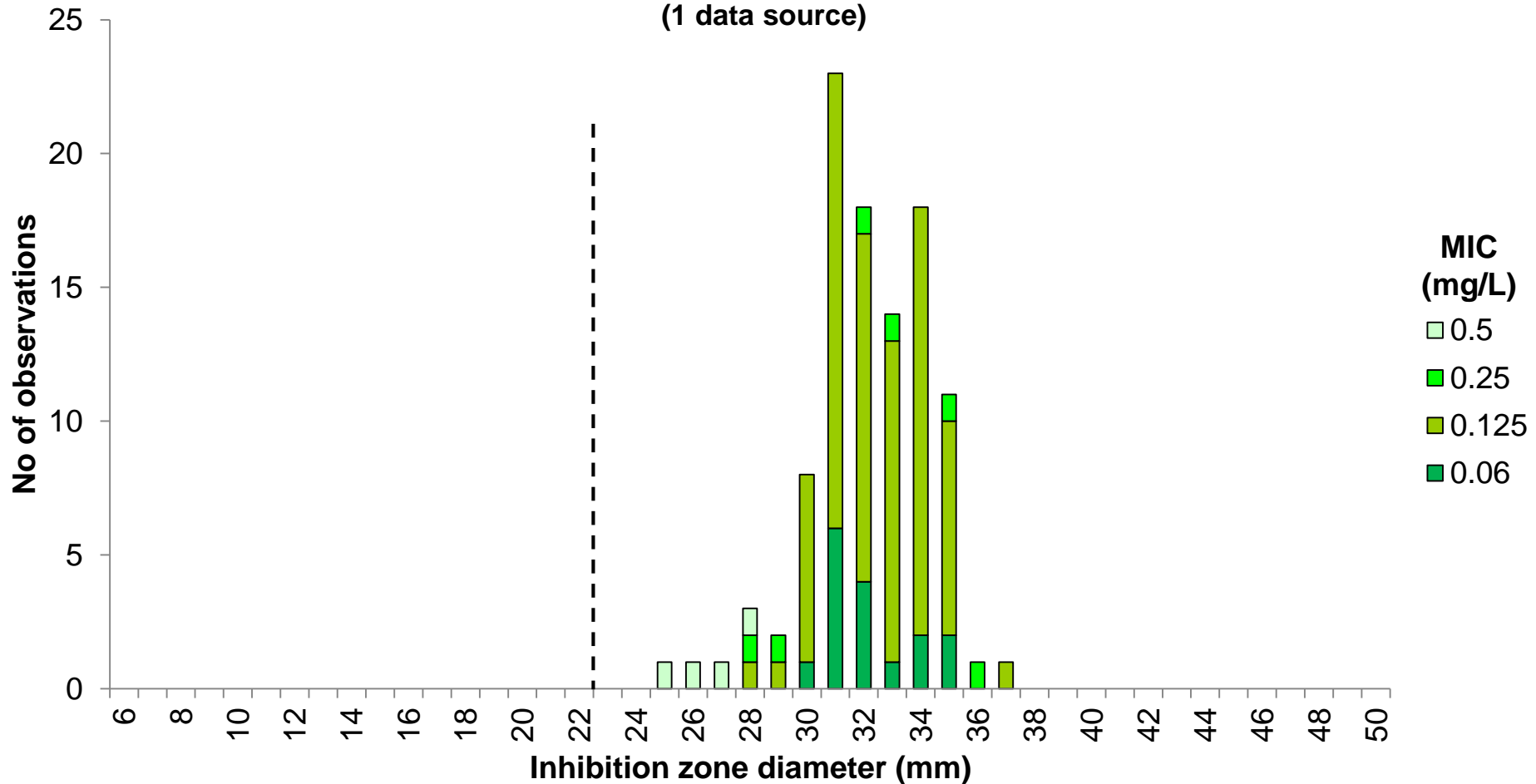


### Breakpoints

Amoxicillin MIC	$S \leq 0.5$ , $R > 0.5$ mg/L
Ampicillin zone diameter	$S \geq 27$ , $R < 27$ mm

# Amoxicillin-clavulanic acid 2-1 $\mu\text{g}$ vs. MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



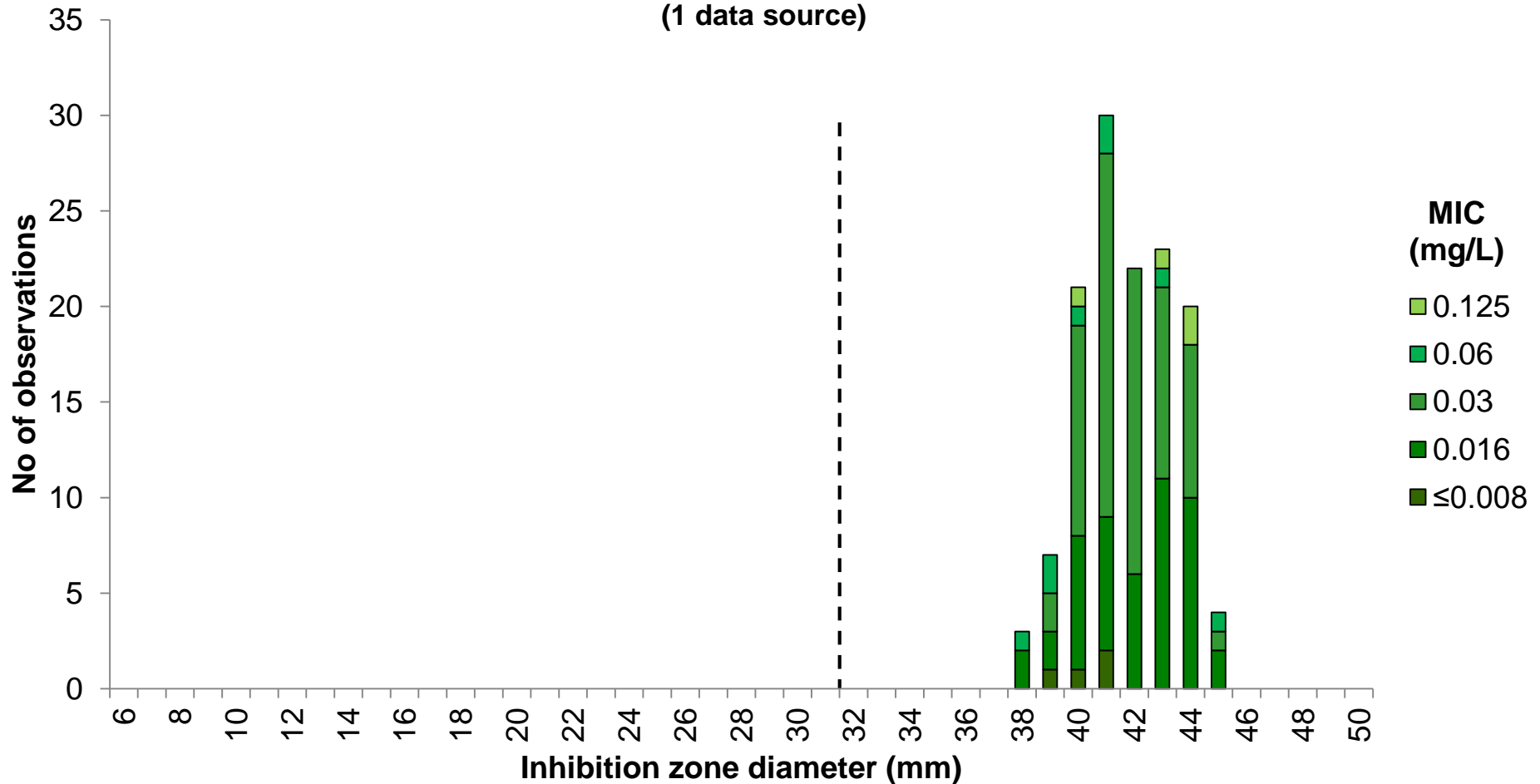
## Breakpoints

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

Zone diameter  $S \geq 23$ ,  $R < 23$  mm

# Piperacillin-tazobactam 30-6 $\mu$ g vs. MIC *F. necrophorum*, 51 isolates (130 correlates)

(1 data source)



## Breakpoints

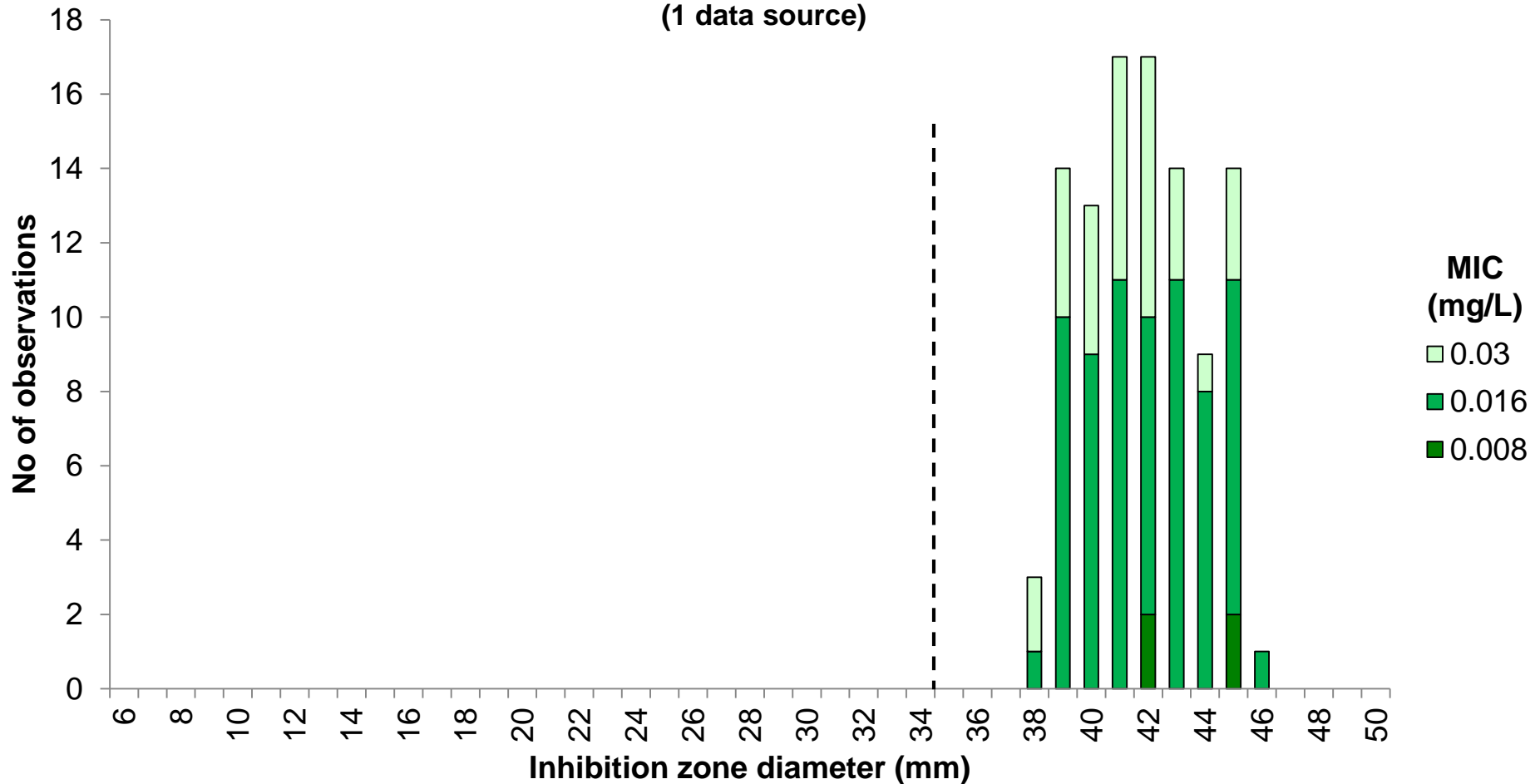
MIC  $S \leq 0.5$ ,  $R > 0.5$  mg/L

Zone diameter  $S \geq 32$ ,  $R < 32$  mm

# Ertapenem 10 µg vs. MIC

## *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



### Breakpoints

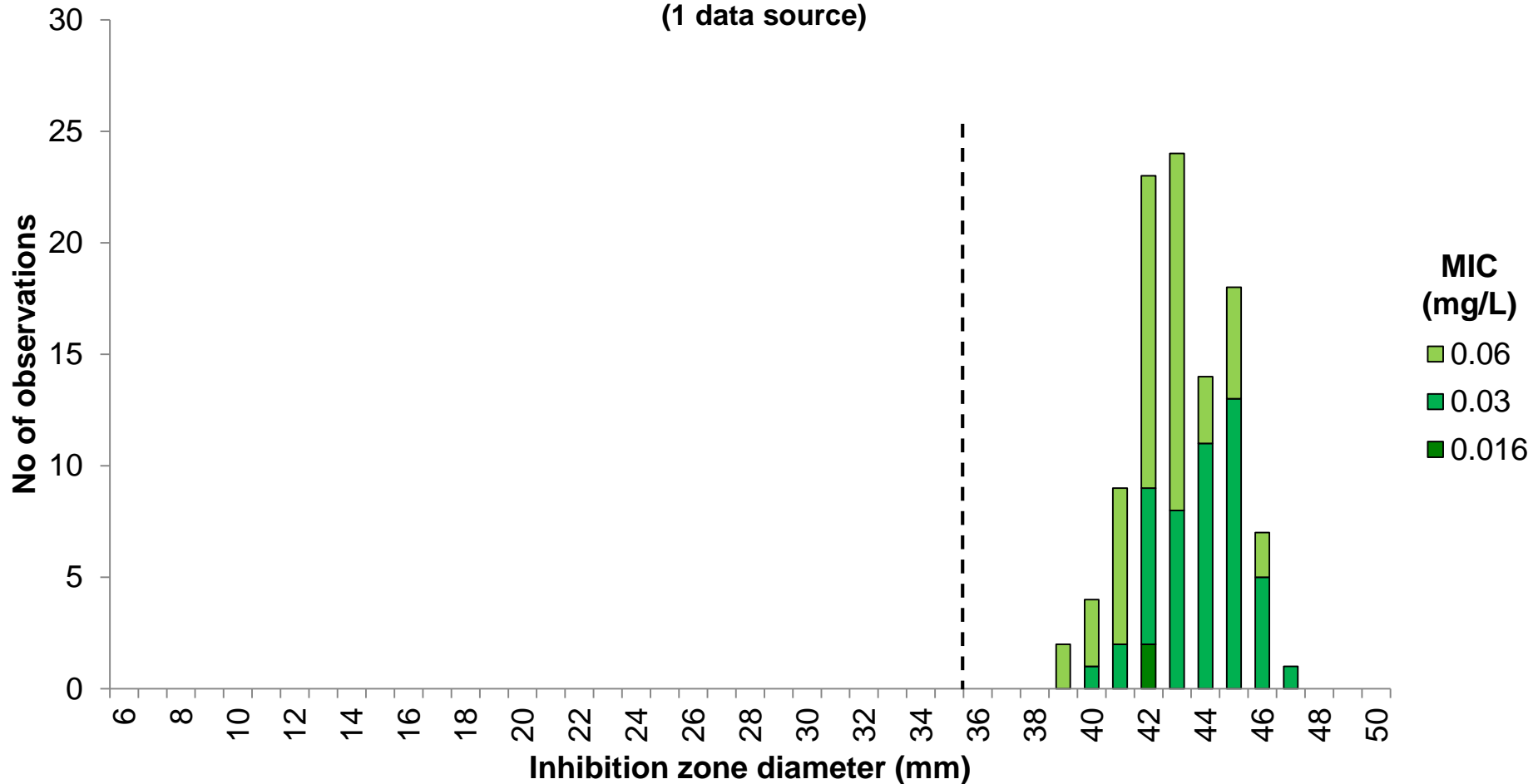
MIC  $S \leq 0.06$ ,  $R > 0.06$  mg/L

Zone diameter  $S \geq 35$ ,  $R < 35$  mm

# Imipenem 10 µg vs. MIC

## *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



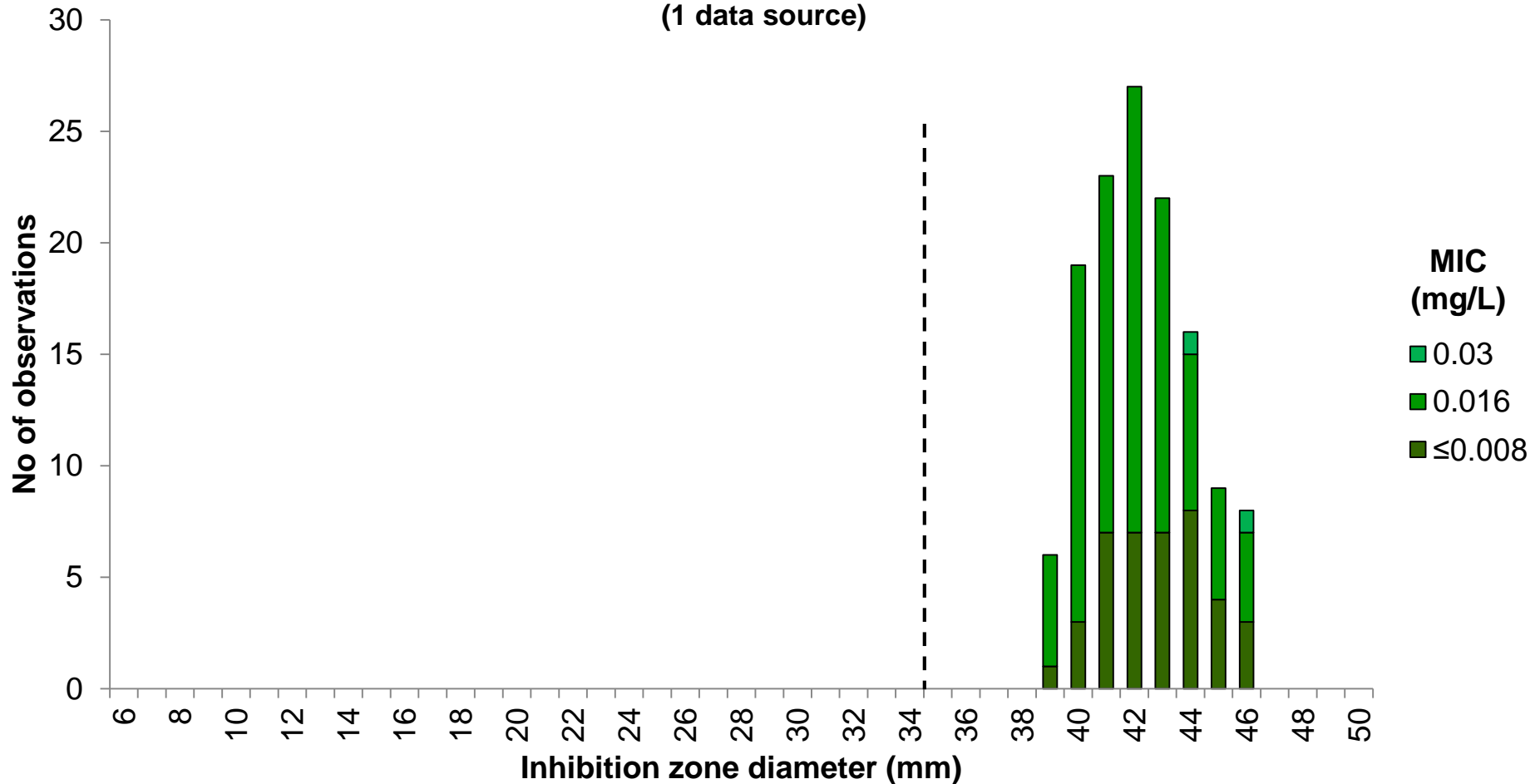
### Breakpoints

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

Zone diameter  $S \geq 36$ ,  $R < 36$  mm

# Meropenem 10 µg vs. MIC *F. necrophorum*, 51 isolates (130 correlates)

(1 data source)



## Breakpoints

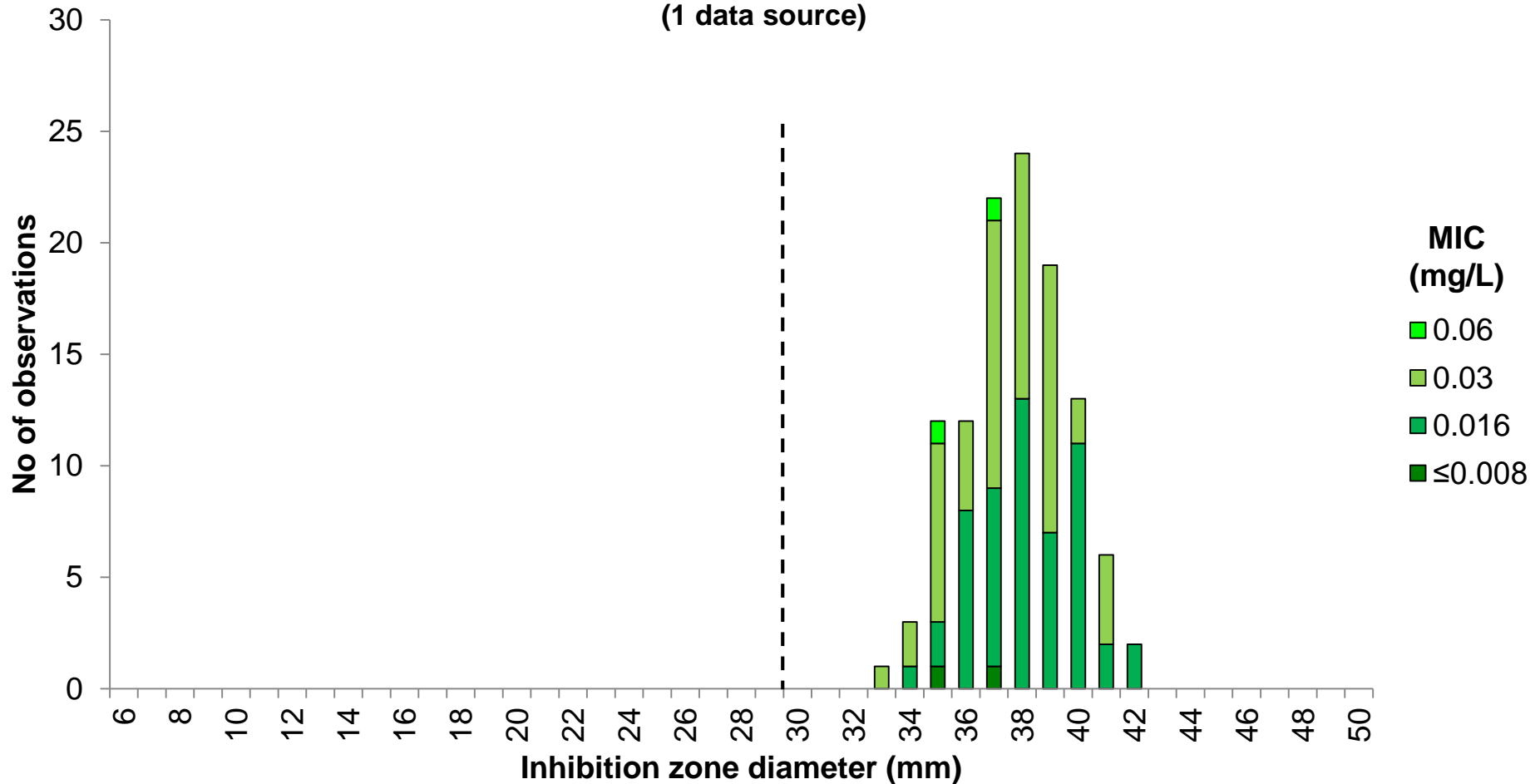
MIC S ≤ 0.03, R > 0.03 mg/L

Zone diameter S ≥ 35, R < 35 mm

# Clindamycin 2 µg vs. MIC

## *F. necrophorum*, 51 isolates (114 correlates)

(1 data source)



### Breakpoints

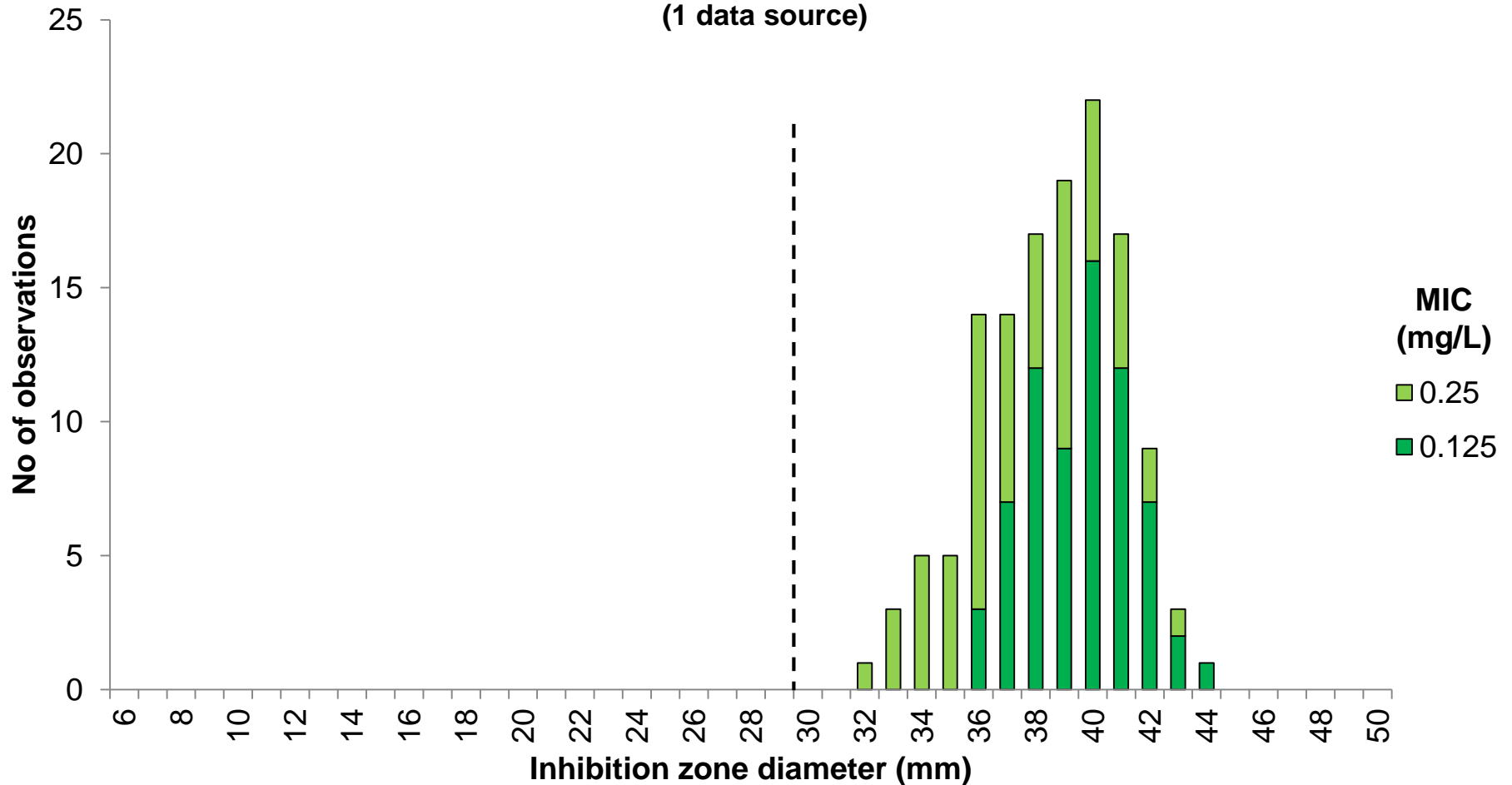
MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 30, R < 30 mm

# Metronidazole 5 µg vs. MIC

## *F. necrophorum*, 51 isolates (130 correlates)

(1 data source)



### Breakpoints

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

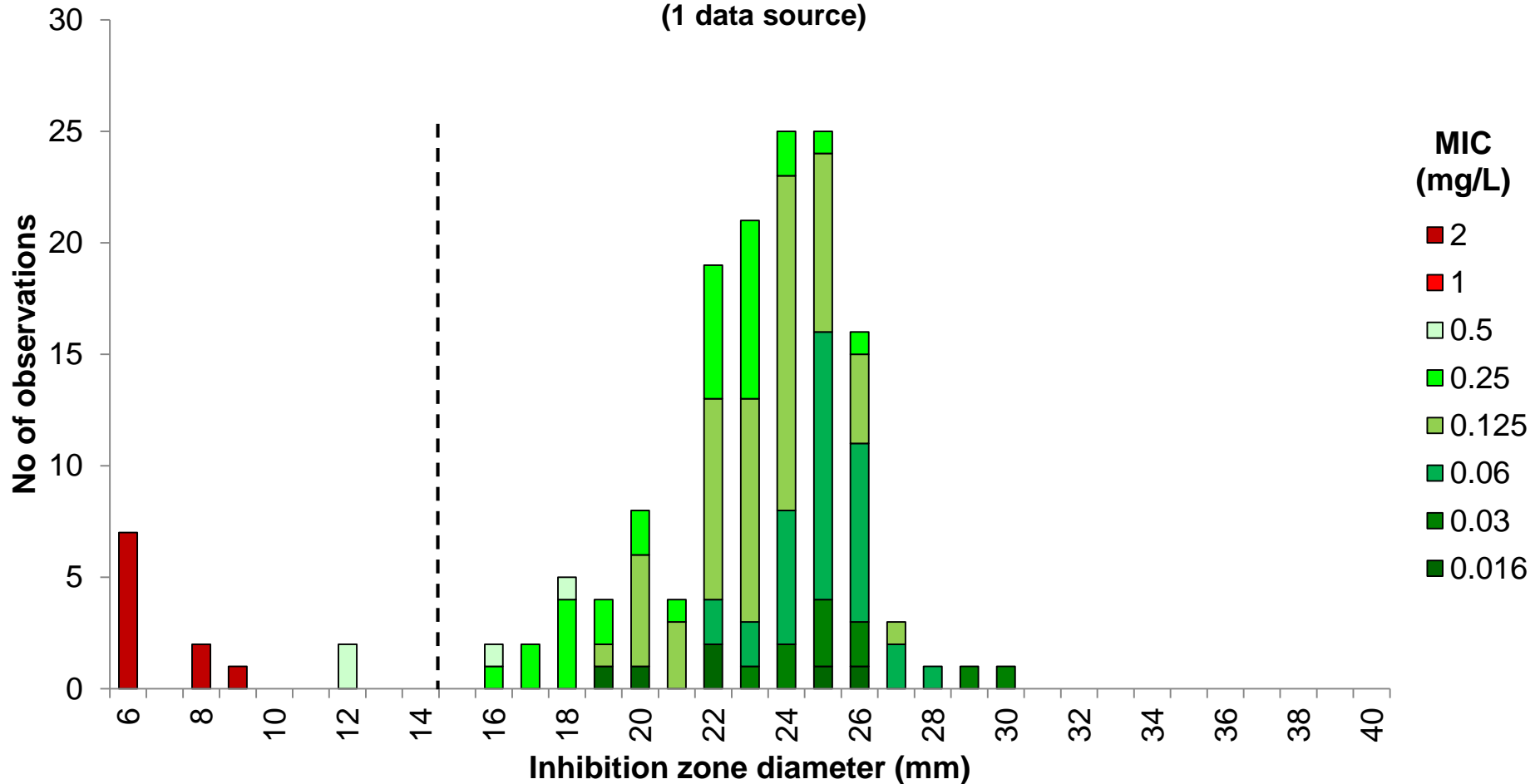
Zone diameter  $S \geq 30$ ,  $R < 30$  mm

***Clostridium perfringens***

# Benzylpenicillin 1 unit vs. MIC

## *C. perfringens*, 58 isolates (149 correlates)

(1 data source)



### Breakpoints

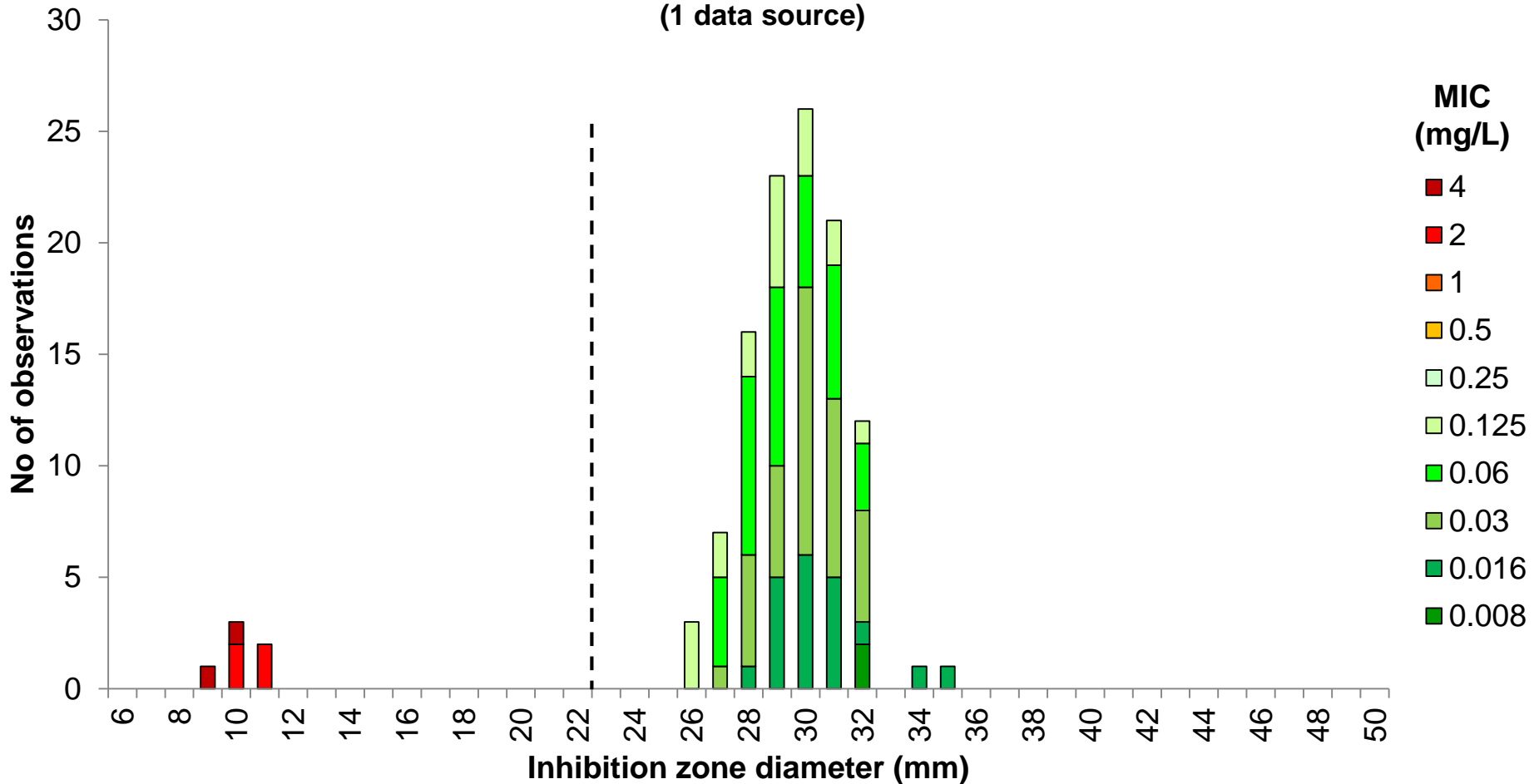
MIC  $S \leq 0.5$ ,  $R > 0.5$  mg/L

Zone diameter  $S \geq 15$ ,  $R < 15$  mm

# Ampicillin 2 µg vs. MIC

## *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



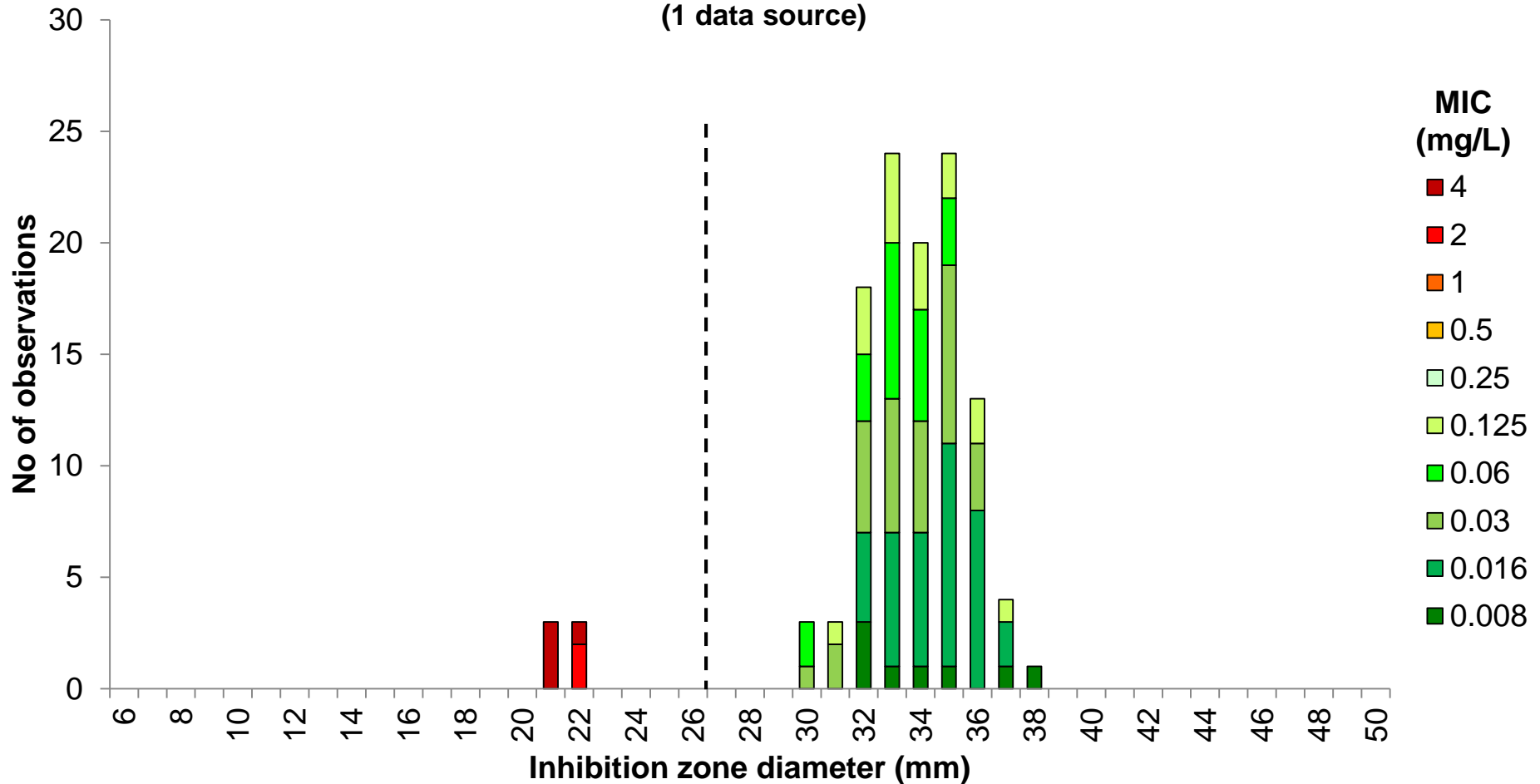
### Breakpoints

MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 23, R < 23 mm

# Ampicillin-sulbactam 10-10 µg vs. MIC *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



## Breakpoints

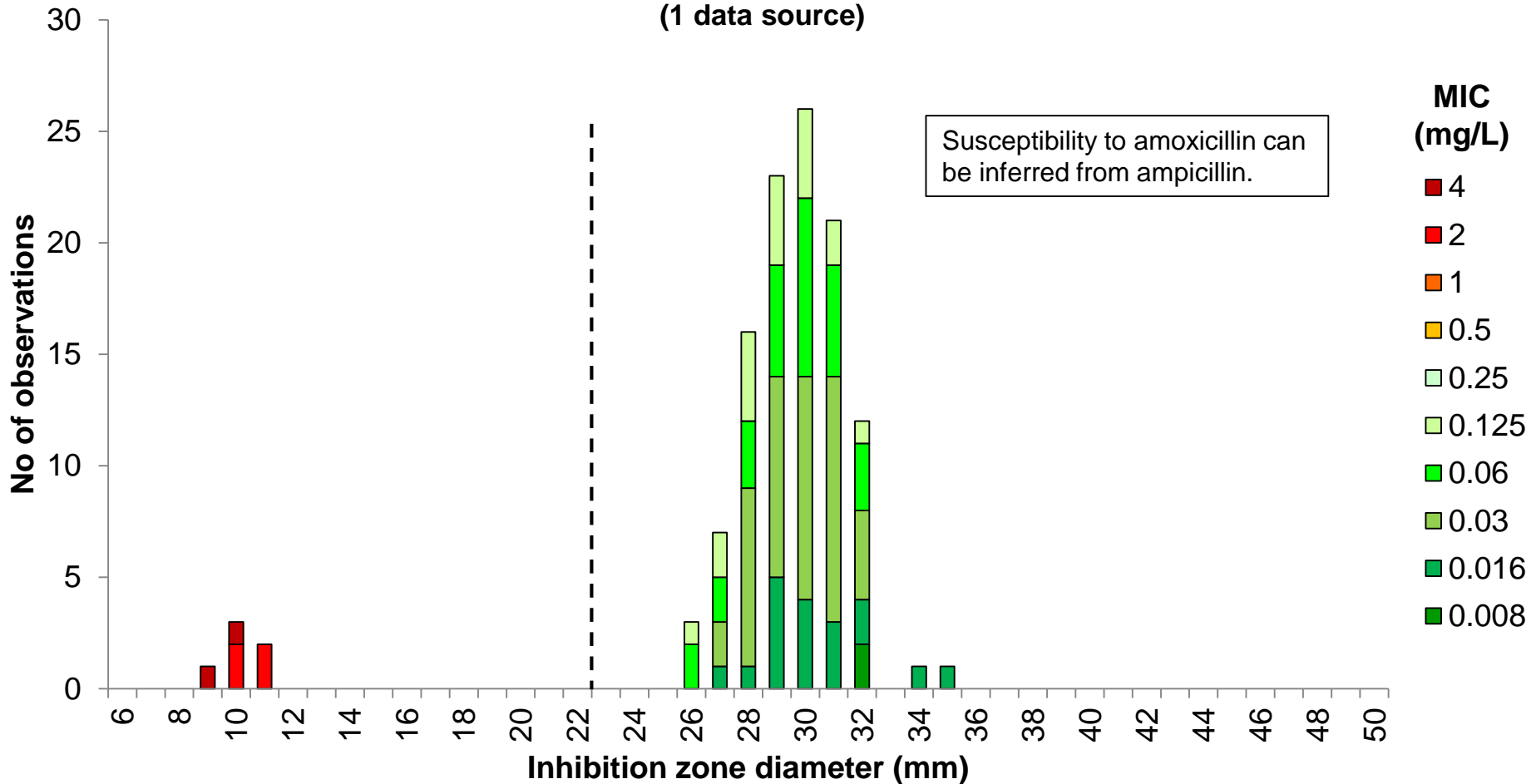
MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 27, R < 27 mm

# Ampicillin 2 µg vs. Amoxicillin MIC

## *C. perfringens*, 58 isolates (116 correlates)

(1 data source)

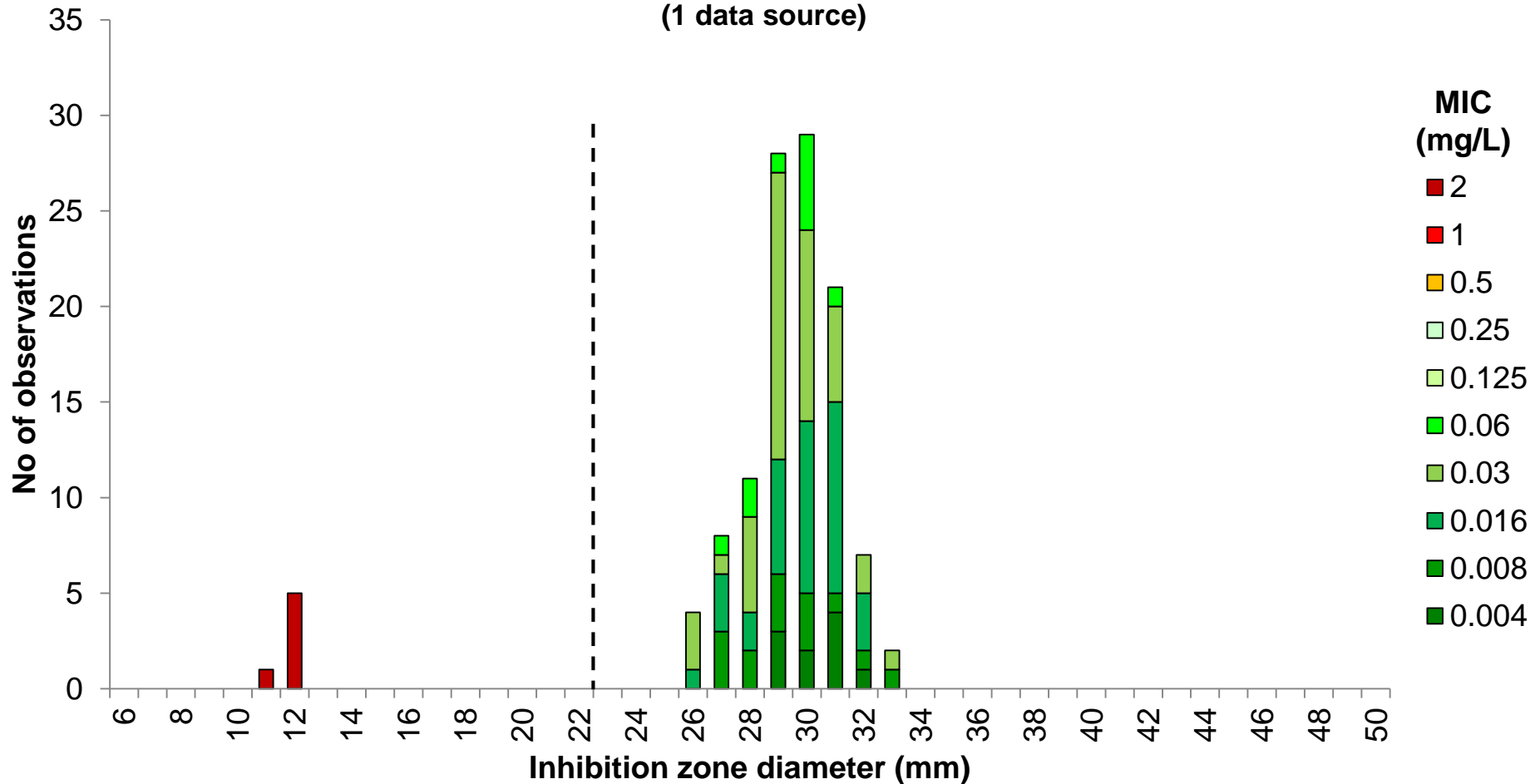


### Breakpoints

Amoxicillin MIC	$S \leq 0.25$ , $R > 0.25$ mg/L
Ampicillin zone diameter	$S \geq 23$ , $R < 23$ mm

# Amoxicillin-clavulanic acid 2-1 µg vs. MIC *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



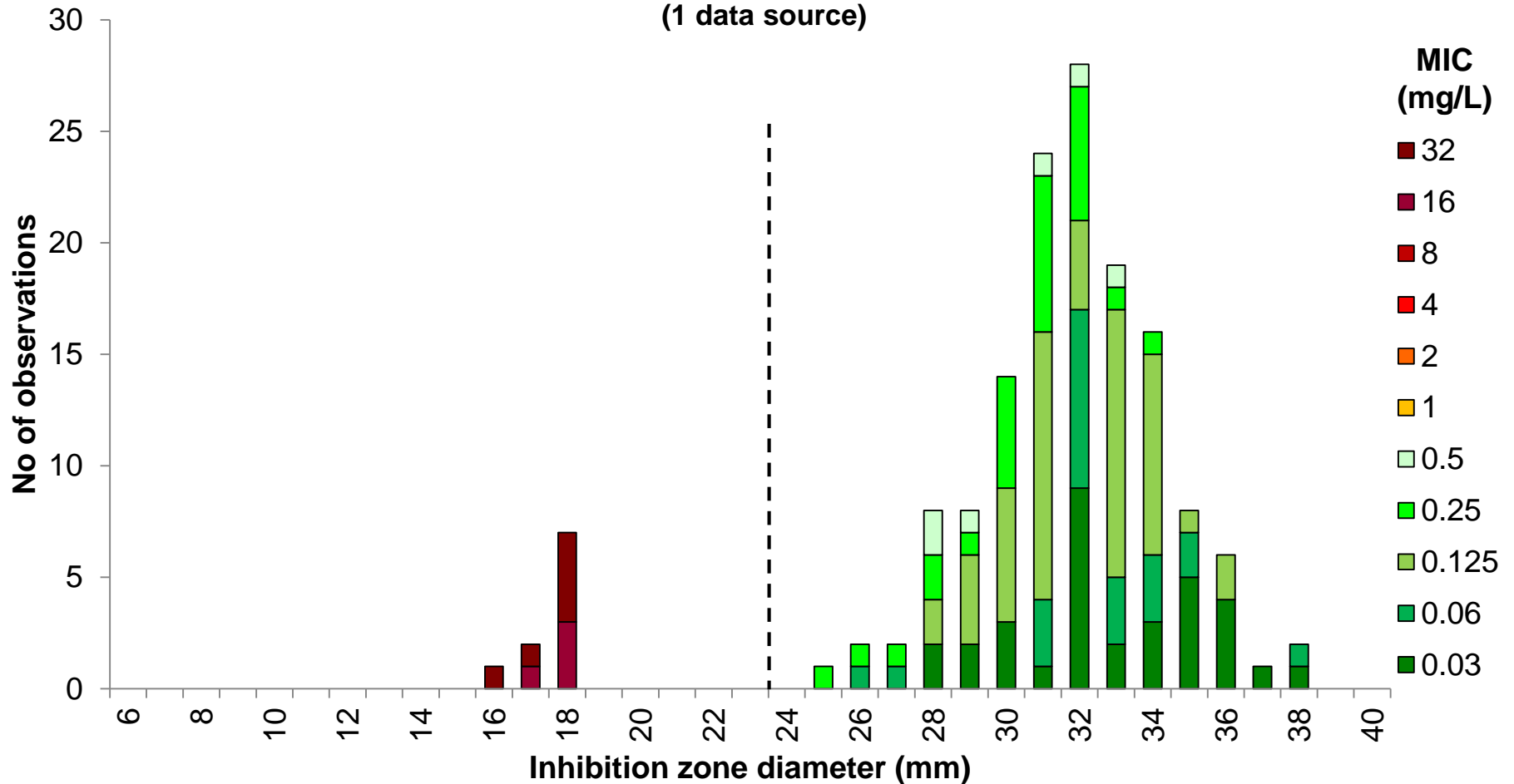
## Breakpoints

MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 23, R < 23 mm

# Piperacillin-tazobactam 30-6 µg vs. MIC *C. perfringens*, 58 isolates (149 correlates)

(1 data source)



## Breakpoints

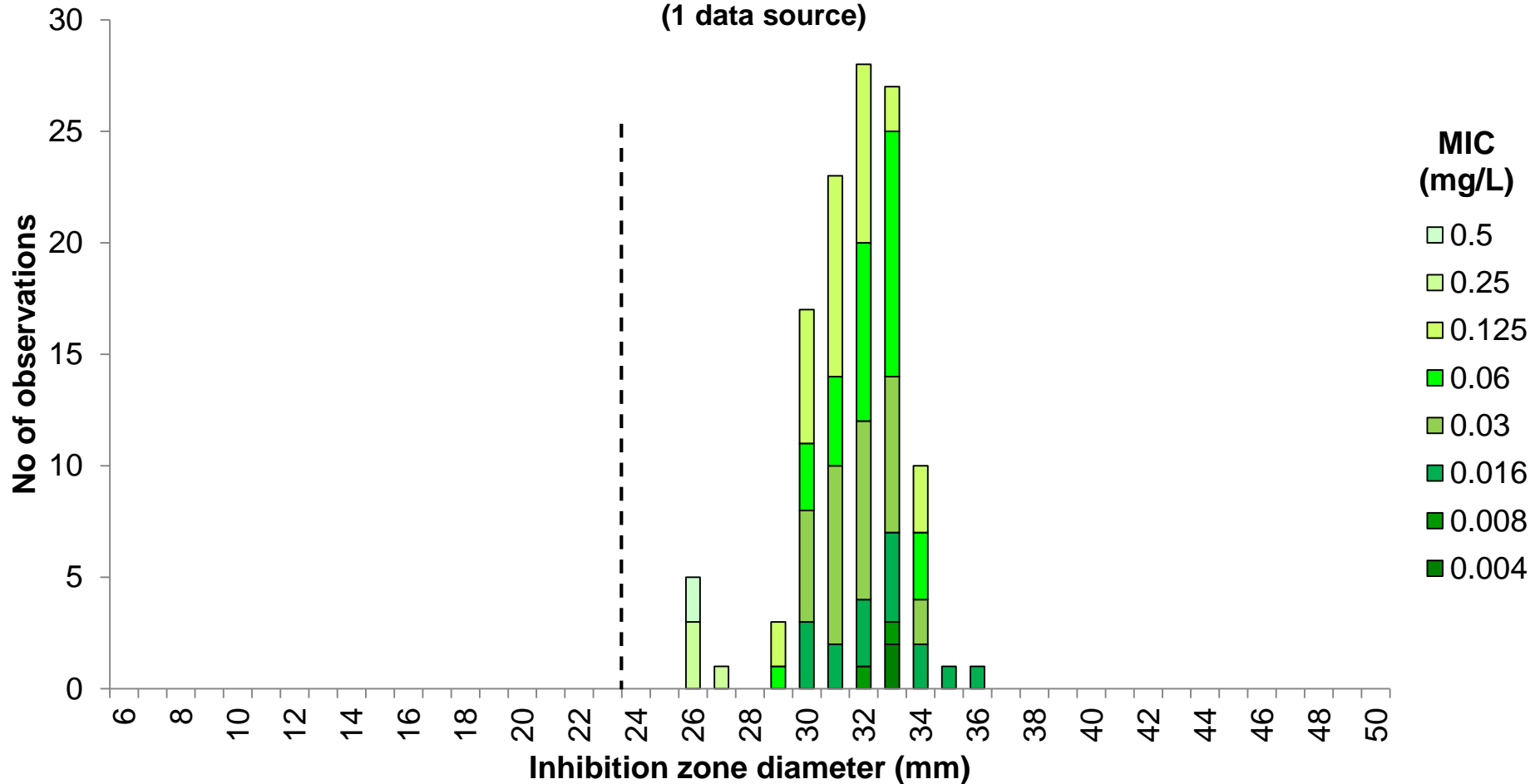
MIC  $S \leq 0.5$ ,  $R > 0.5$  mg/L

Zone diameter  $S \geq 24$ ,  $R < 24$  mm

# Ertapenem 10 µg vs. MIC

## *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



### Breakpoints

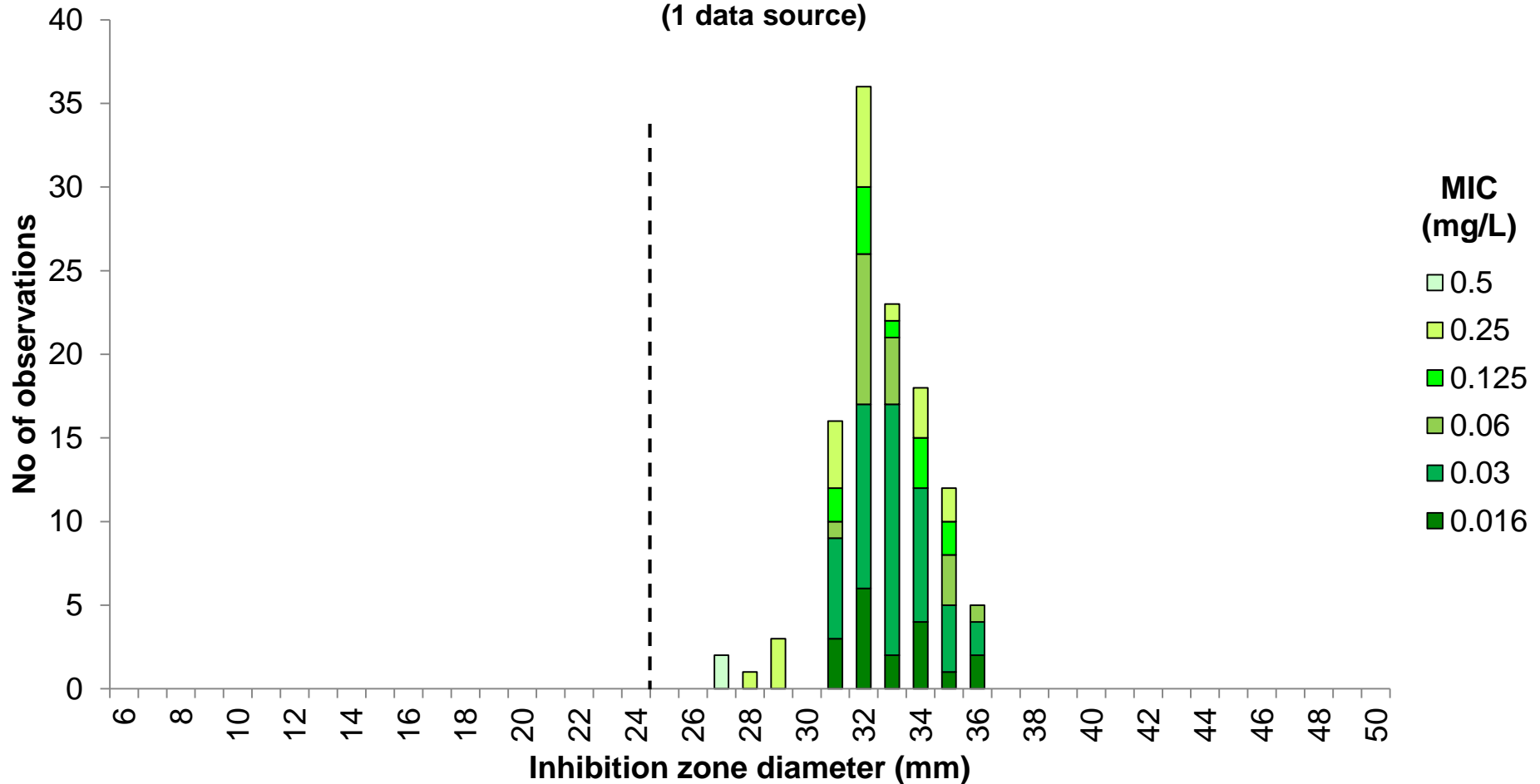
MIC S ≤ 0.5, R > 0.5 mg/L

Zone diameter S ≥ 24, R < 24 mm

# Imipenem 10 µg vs. MIC

## *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



### Breakpoints

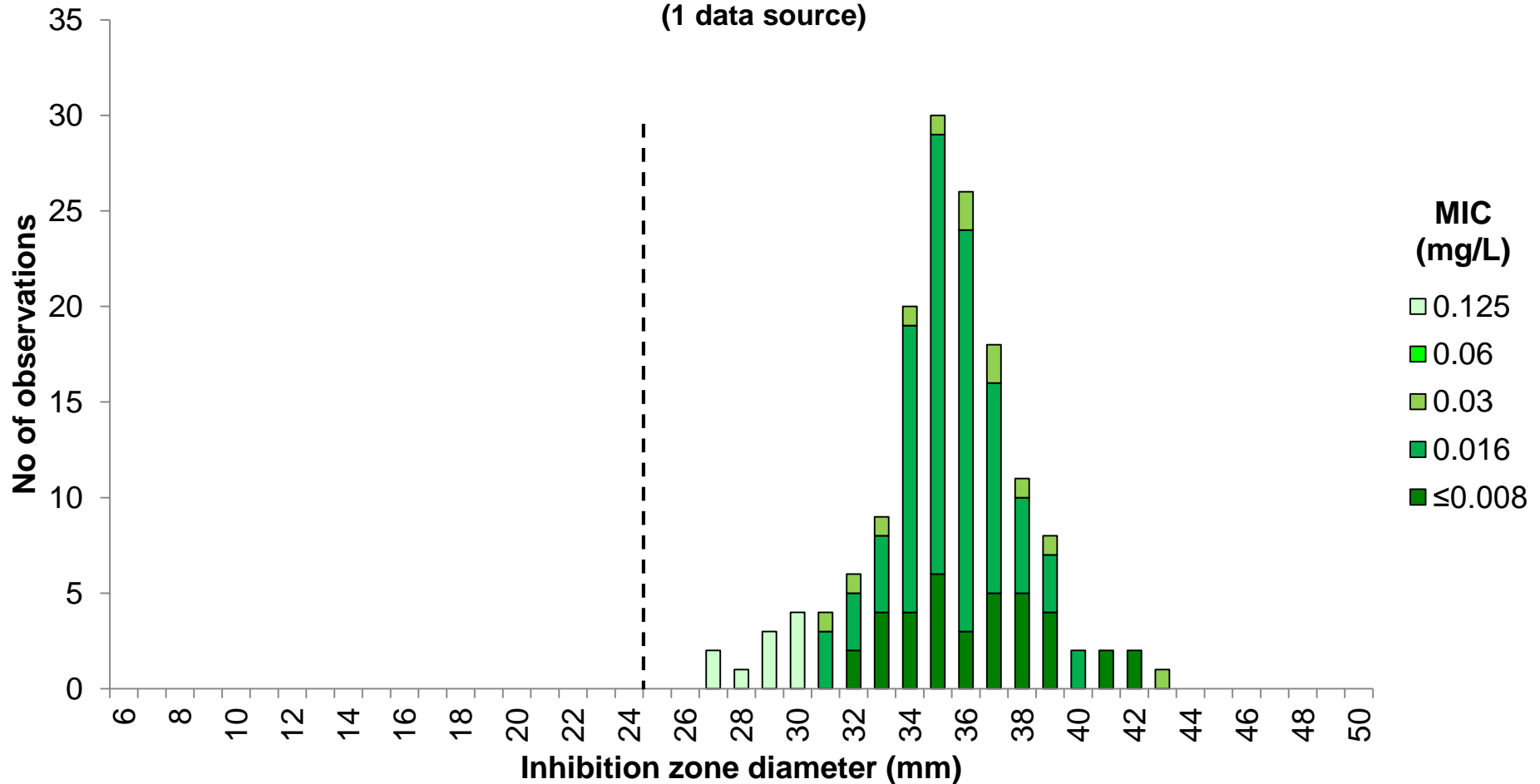
MIC S ≤ 0.5, R > 0.5 mg/L

Zone diameter S ≥ 25, R < 25 mm

# Meropenem 10 µg vs. MIC

## *C. perfringens*, 58 isolates (149 correlates)

(1 data source)



### Breakpoints

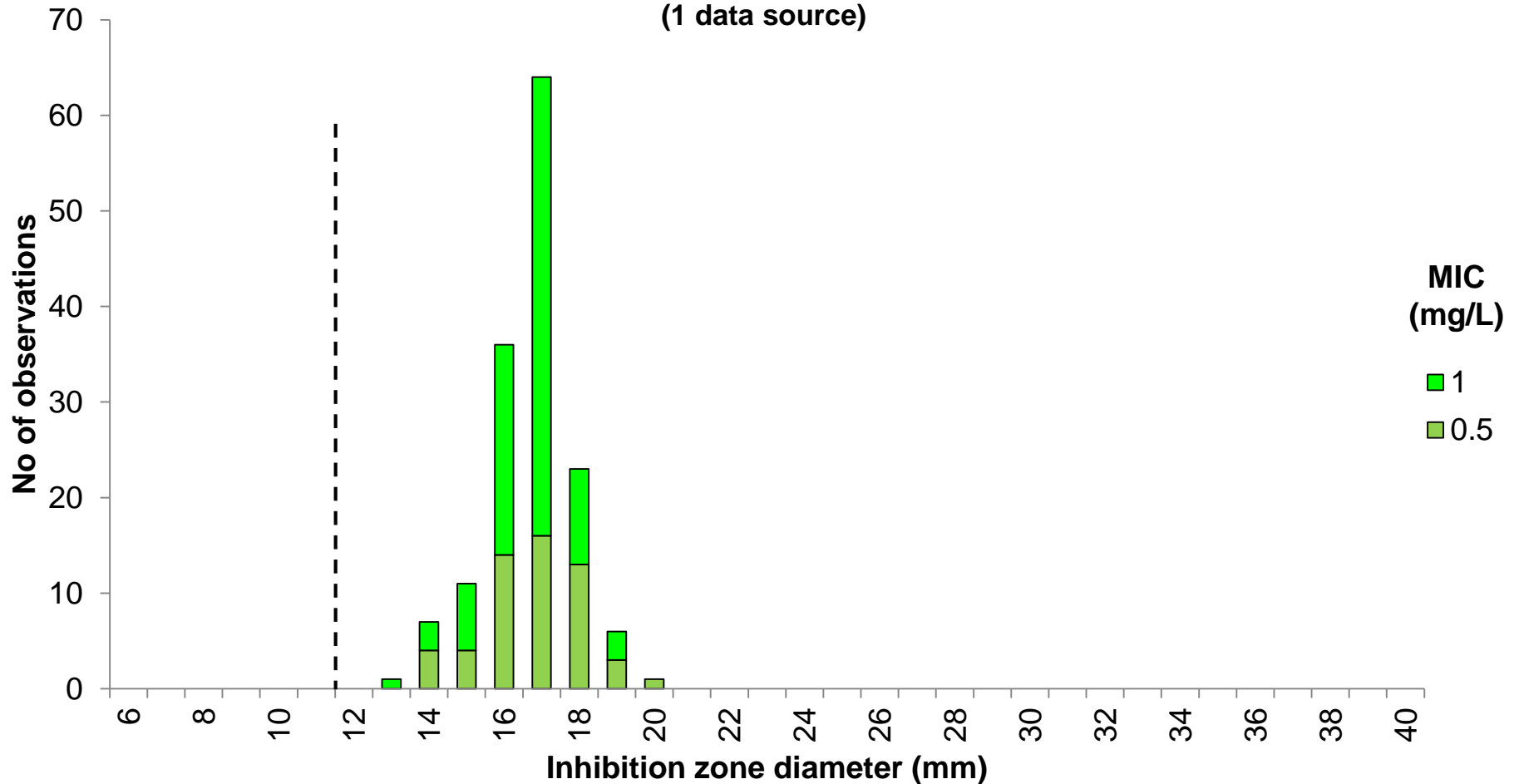
MIC S≤0.125, R>0.125 mg/L

Zone diameter S≥25, R<25 mm

# Vancomycin 5 µg vs. MIC

## *C. perfringens*, 58 isolates (149 correlates)

(1 data source)



### Breakpoints

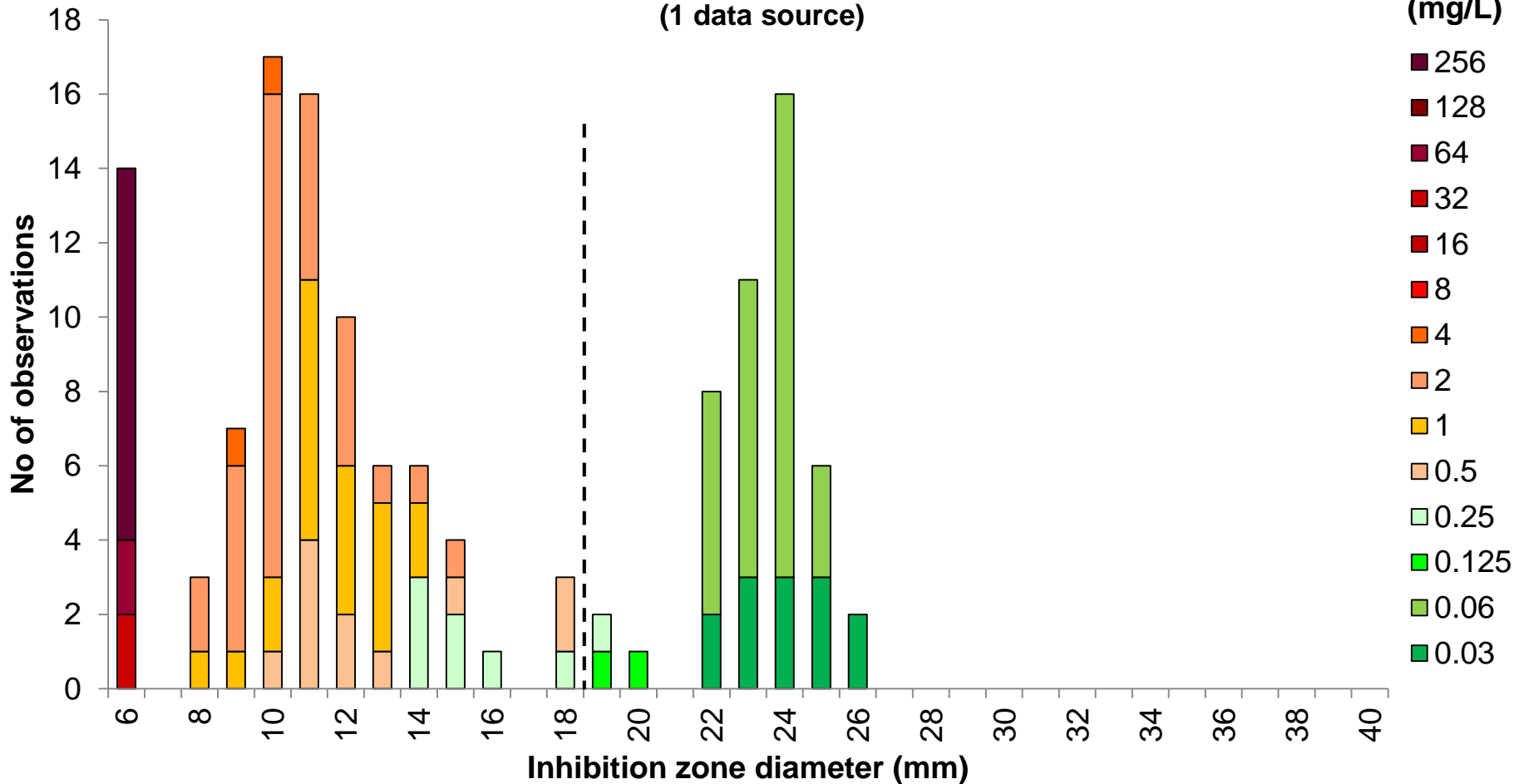
MIC  $S \leq 2$ ,  $R > 2$  mg/L

Zone diameter  $S \geq 12$ ,  $R < 12$  mm

# Clindamycin 2 µg vs. MIC

## *C. perfringens*, 58 isolates (133 correlates)

(1 data source)



### Breakpoints

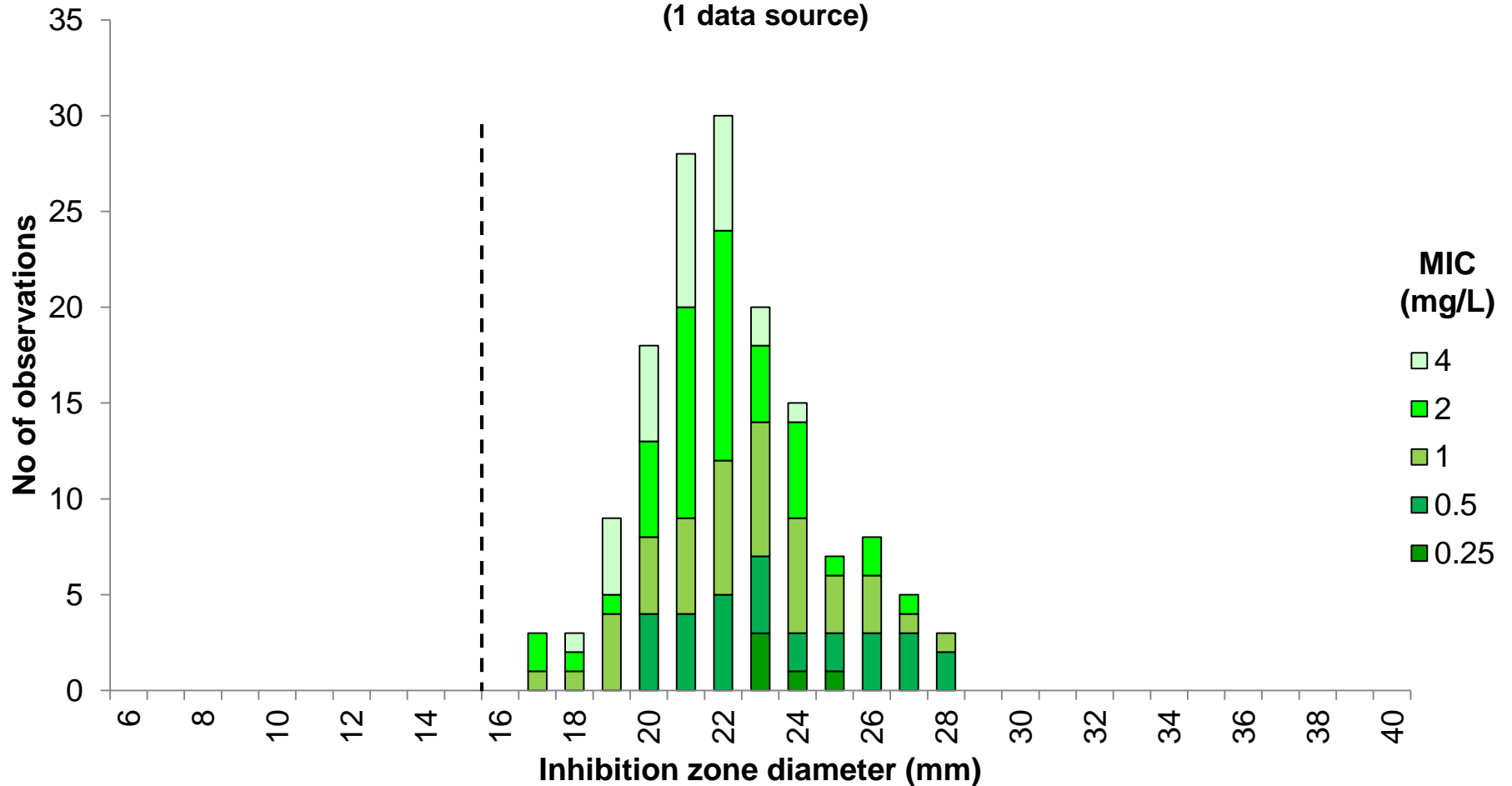
MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 19, R < 19 mm

# Metronidazole 5 µg vs. MIC

## *C. perfringens*, 58 isolates (149 correlates)

(1 data source)



### Breakpoints

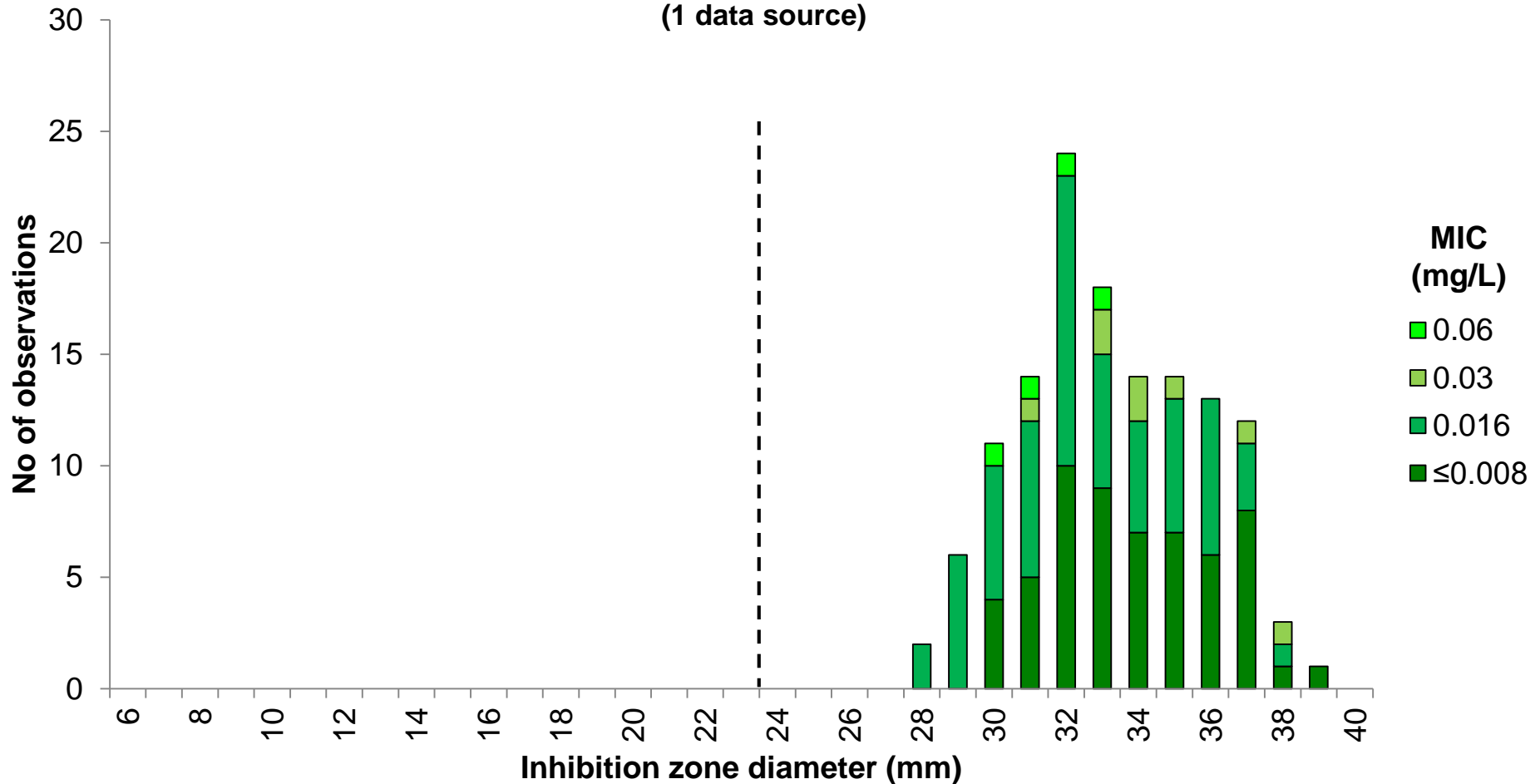
MIC  $S \leq 4$ ,  $R > 4$  mg/L

Zone diameter  $S \geq 16$ ,  $R < 16$  mm

***Cutibacterium acnes***

# Benzylpenicillin 1 unit vs. MIC *C. acnes*, 54 isolates (132 correlates)

(1 data source)



## Breakpoints

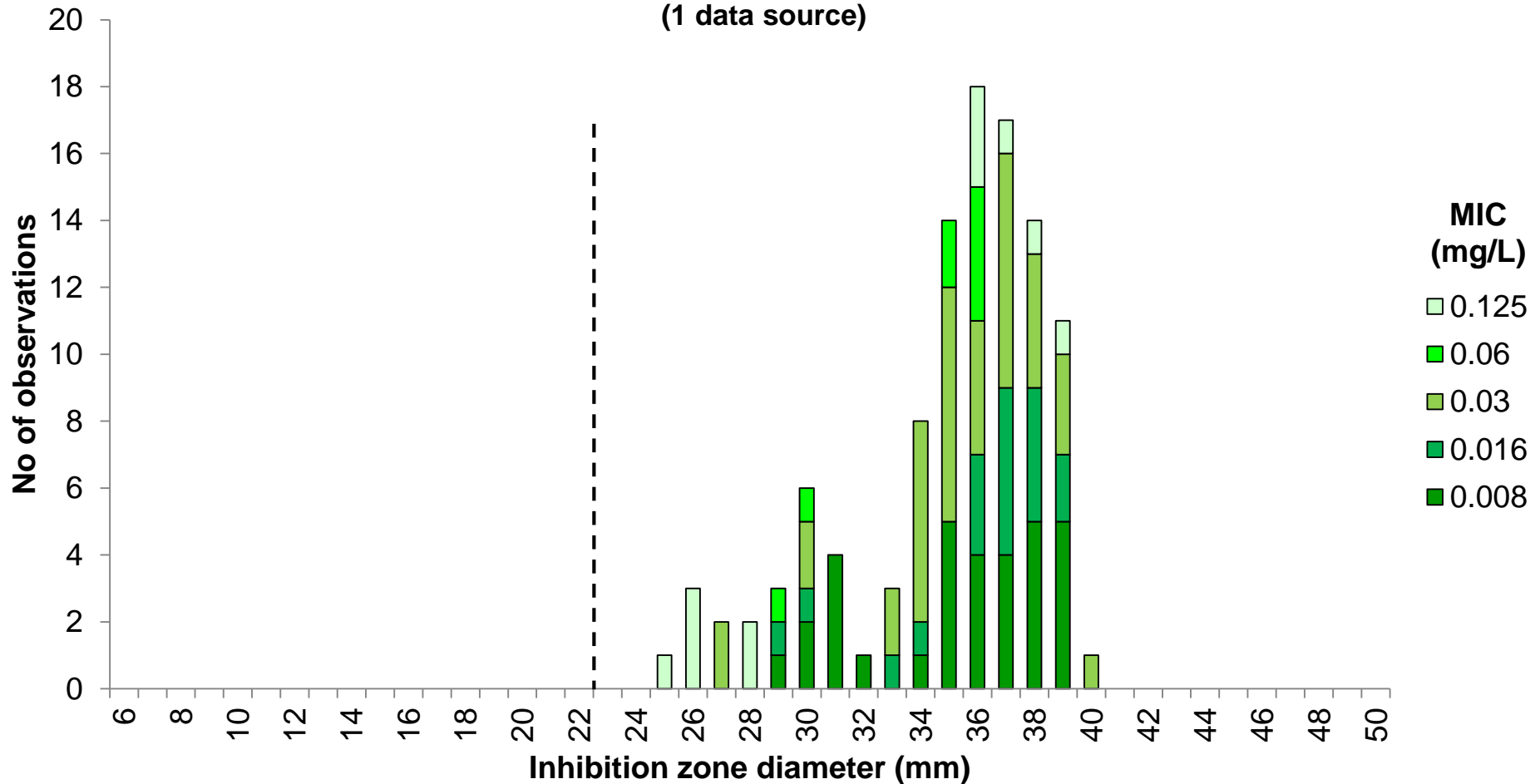
MIC  $S \leq 0.06$ ,  $R > 0.06$  mg/L

Zone diameter  $S \geq 24$ ,  $R < 24$  mm

# Ampicillin 2 µg vs. MIC

## *C. acnes*, 54 isolates (108 correlates)

(1 data source)



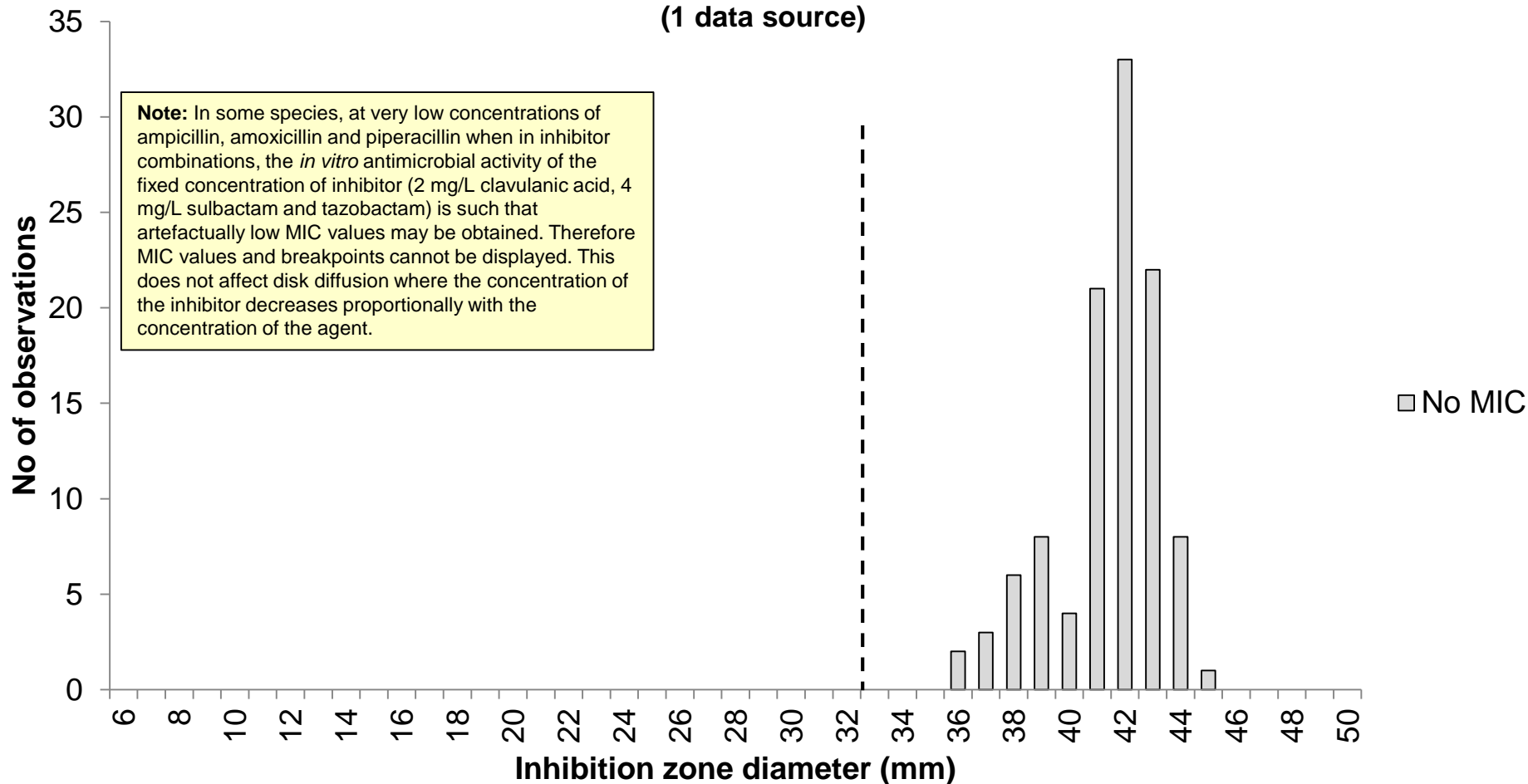
### Breakpoints

MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 23, R < 23 mm

# Ampicillin-sulbactam 10-10 µg *C. acnes*, 54 isolates (108 results)

(1 data source)

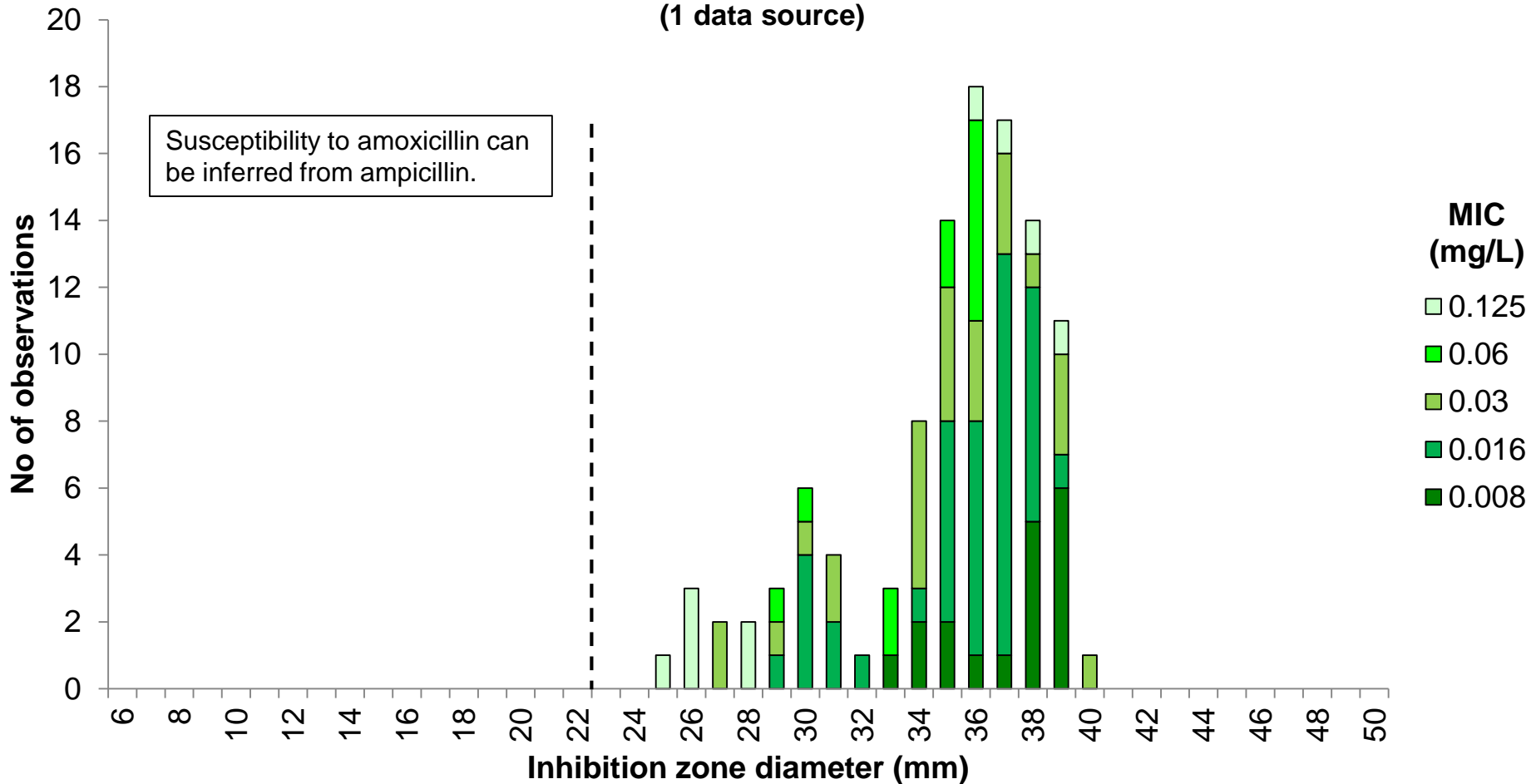


<b>Breakpoints</b>	
MIC	Note
Zone diameter	S≥33, R<33 mm

# Ampicillin 2 µg vs. Amoxicillin MIC

## *C. acnes*, 53 isolates (106 correlates)

(1 data source)



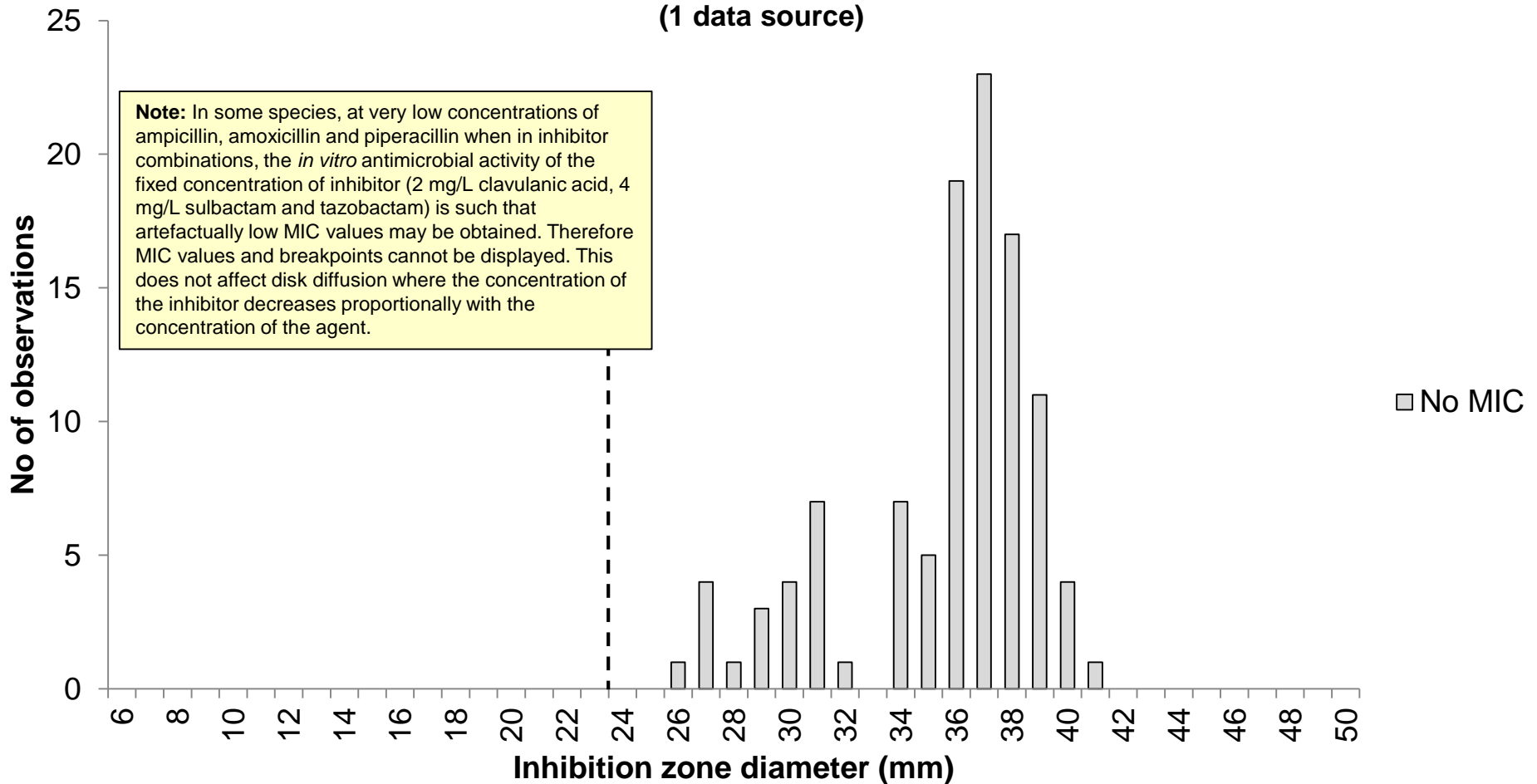
### Breakpoints

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

Ampicillin zone diameter  $S \geq 23$ ,  $R < 23$  mm

# Amoxicillin-clavulanic acid 2-1 $\mu\text{g}$ *C. acnes*, 54 isolates (108 results)

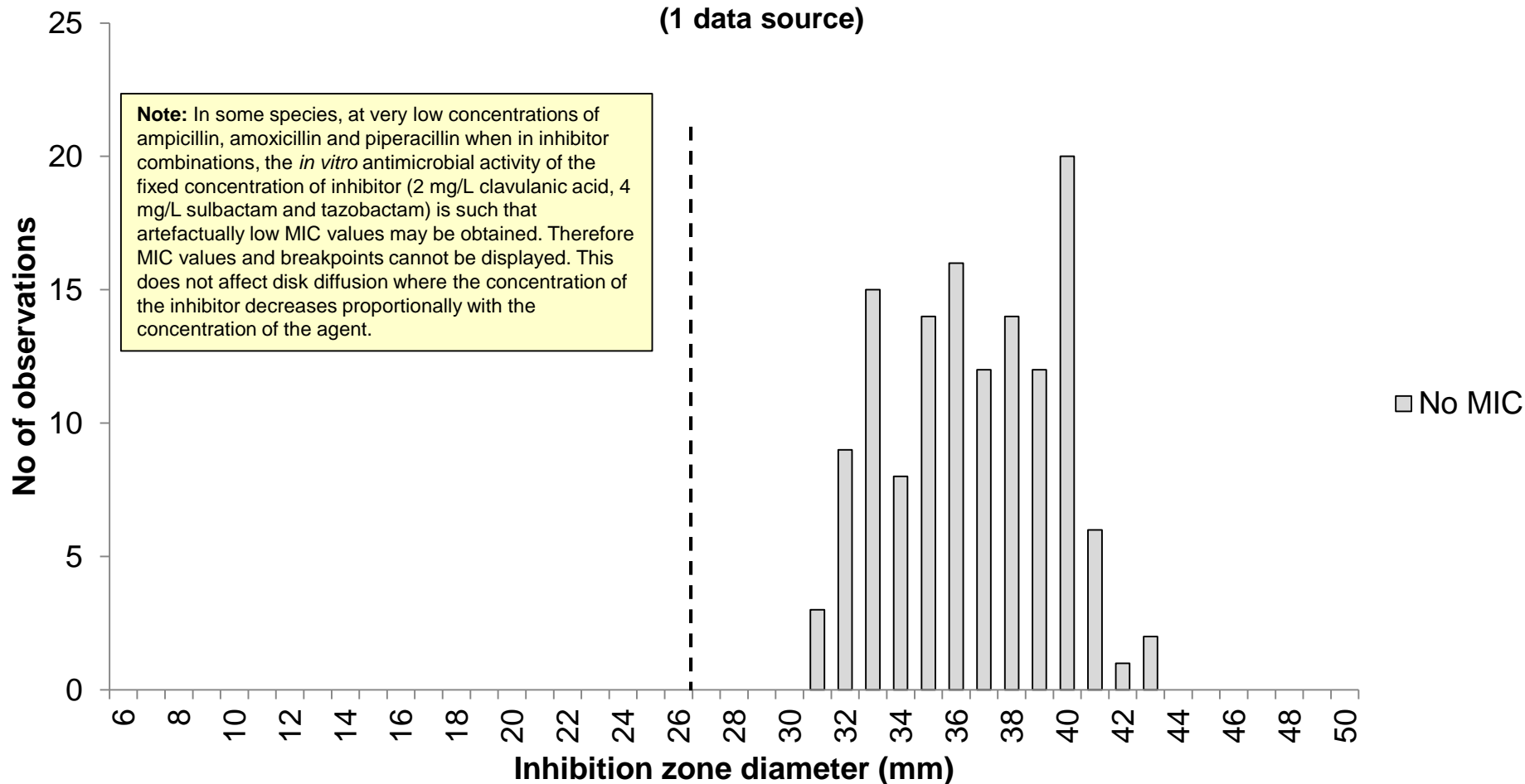
(1 data source)



<b>Breakpoints</b>	
MIC	Note
Zone diameter	$S \geq 24$ , $R < 24$ mm

# Piperacillin-tazobactam 30-6 µg *C. acnes*, 54 isolates (132 results)

(1 data source)



## Breakpoints

MIC

Note

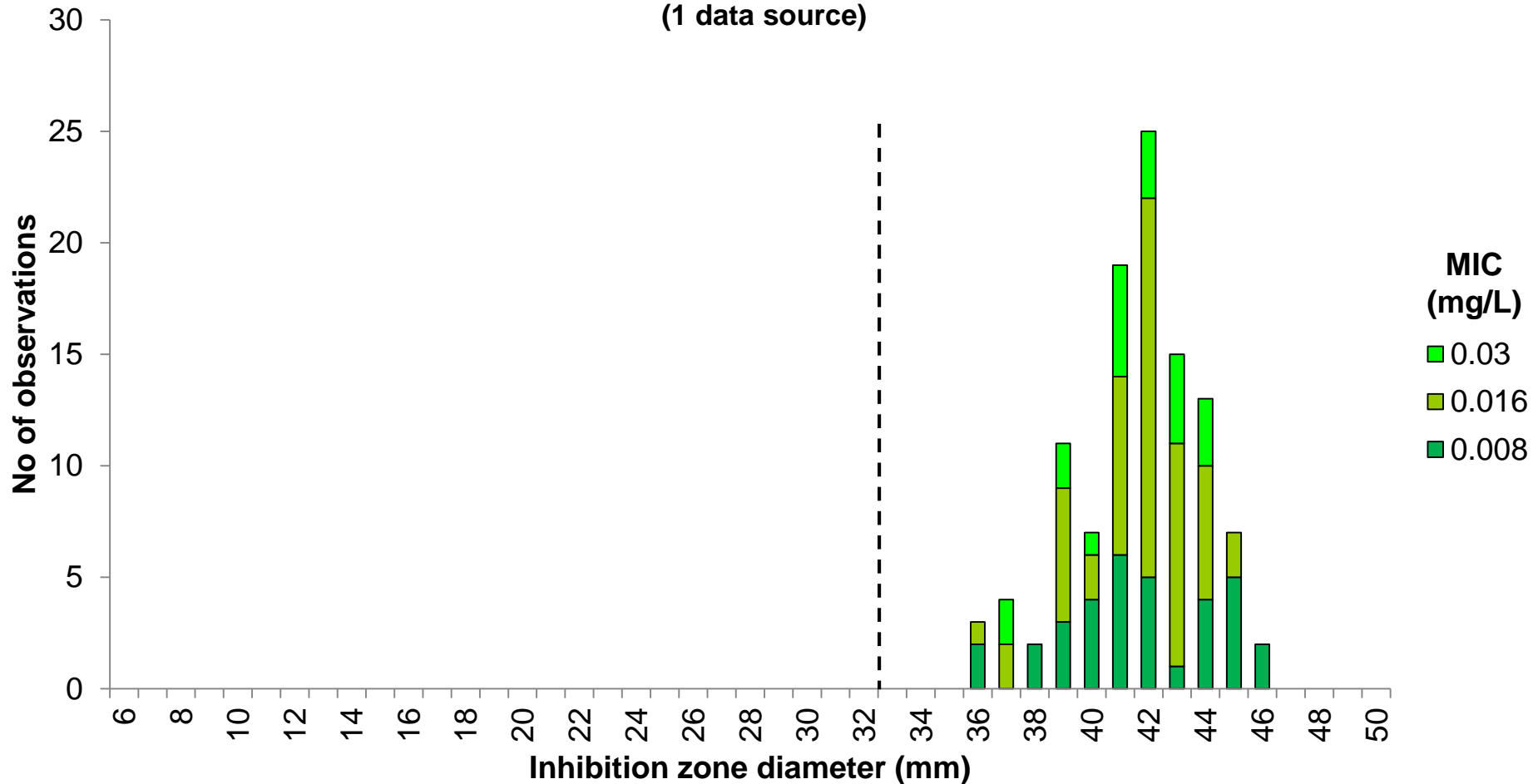
Zone diameter

S $\geq$ 27, R<27 mm

# Ceftriaxone 30 µg vs. MIC

## *C. acnes*, 54 isolates (108 correlates)

(1 data source)



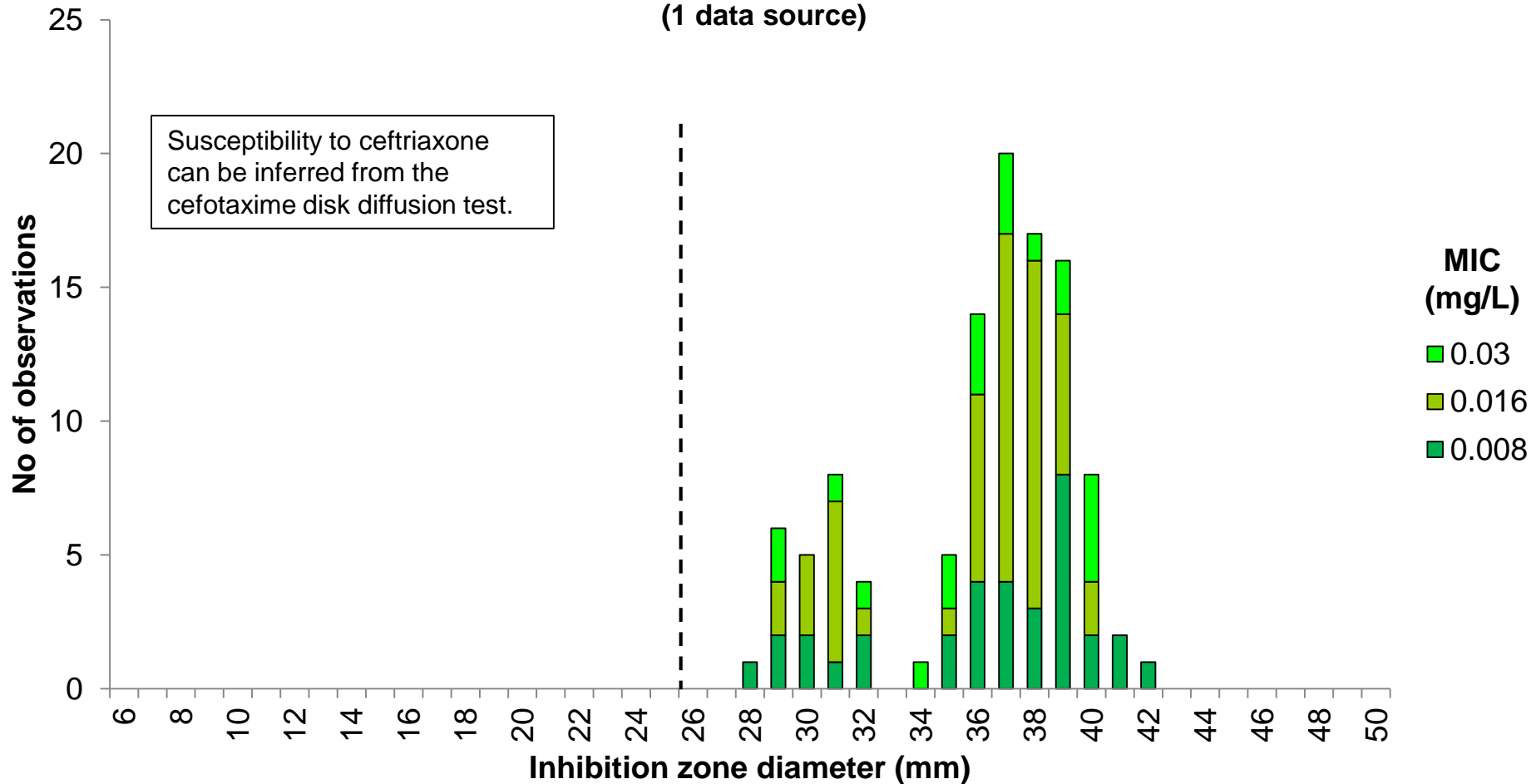
### Breakpoints

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

Zone diameter  $S \geq 33$ ,  $R < 33$  mm

# Cefotaxime 5 µg vs. Ceftriaxone MIC *C. acnes*, 54 isolates (108 correlates)

(1 data source)



## Breakpoints

Ceftriaxone MIC

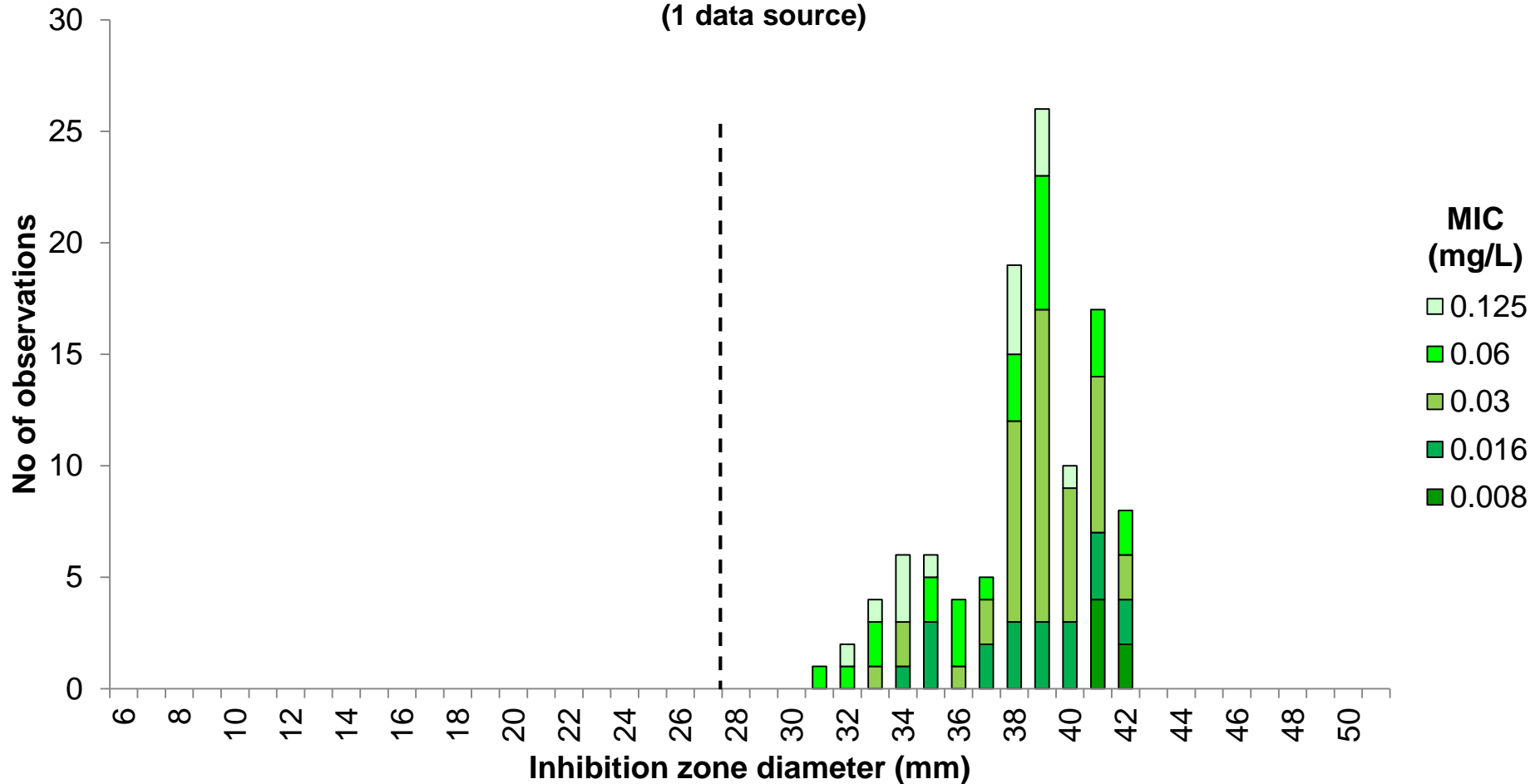
$S \leq 0.06$ ,  $R > 0.06$  mg/L

Cefotaxime zone diameter  $S \geq 26$ ,  $R < 26$  mm

# Ertapenem 10 µg vs. MIC

## *C. acnes*, 54 isolates (108 correlates)

(1 data source)



### Breakpoints

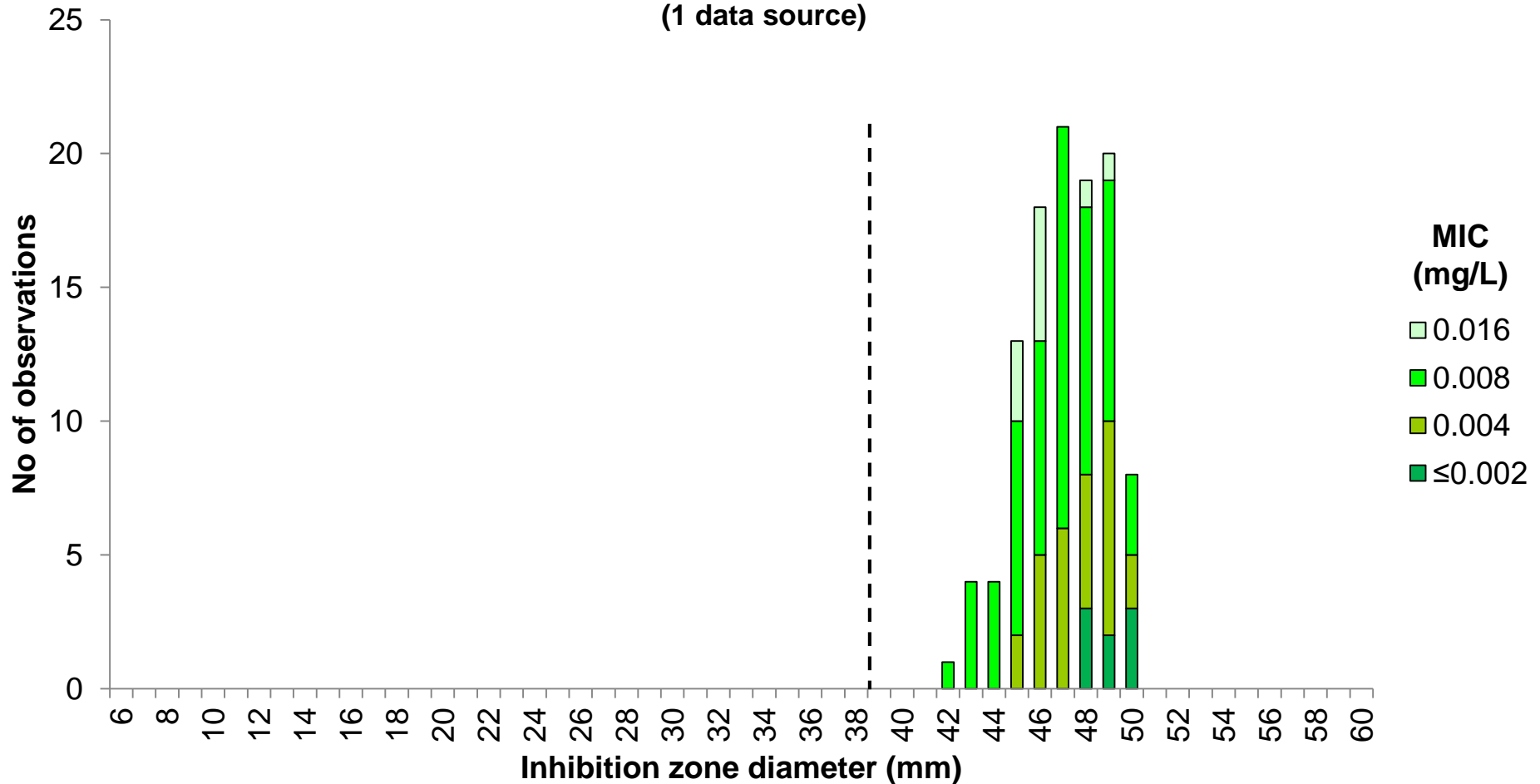
MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 28, R < 28 mm

# Imipenem 10 µg vs. MIC

## *C. acnes*, 54 isolates (108 correlates)

(1 data source)



### Breakpoints

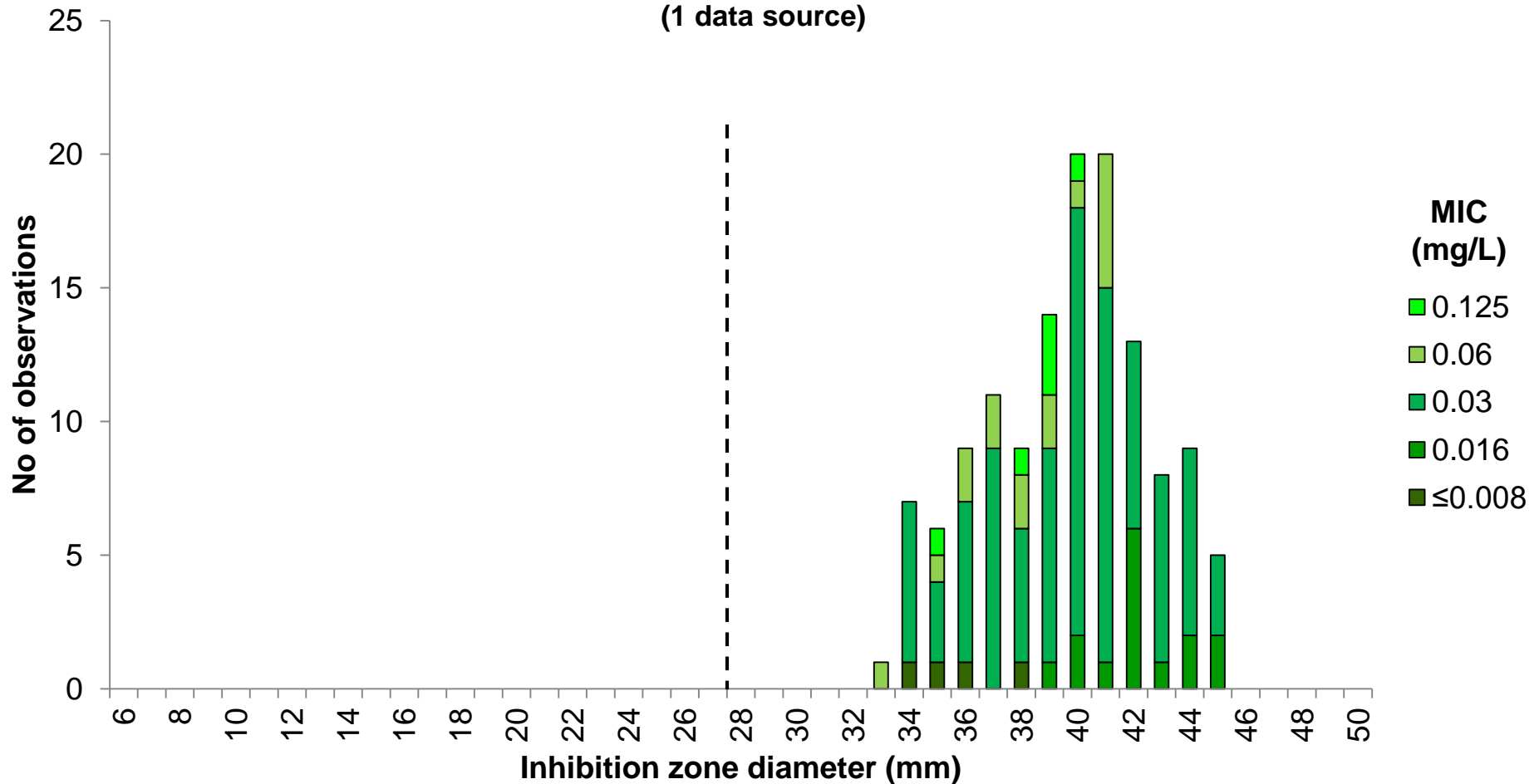
MIC S ≤ 0.03, R > 0.03 mg/L

Zone diameter S ≥ 39, R < 39 mm

# Meropenem 10 µg vs. MIC

## *C. acnes*, 54 isolates (132 correlates)

(1 data source)



### Breakpoints

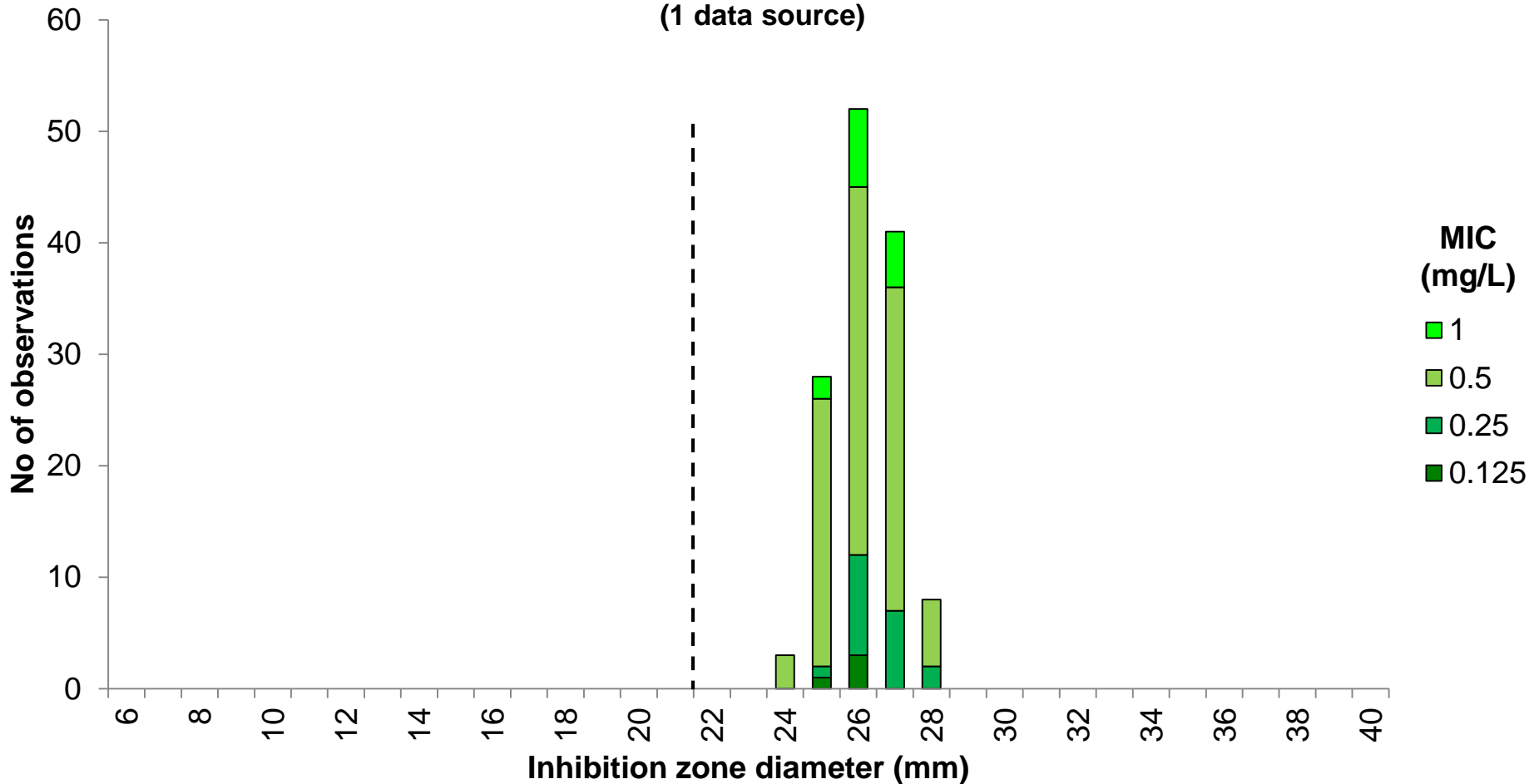
MIC  $S \leq 0.125$ ,  $R > 0.125$  mg/L

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

# Vancomycin 5 µg vs. MIC

## *C. acnes*, 54 isolates (132 correlates)

(1 data source)



### Breakpoints

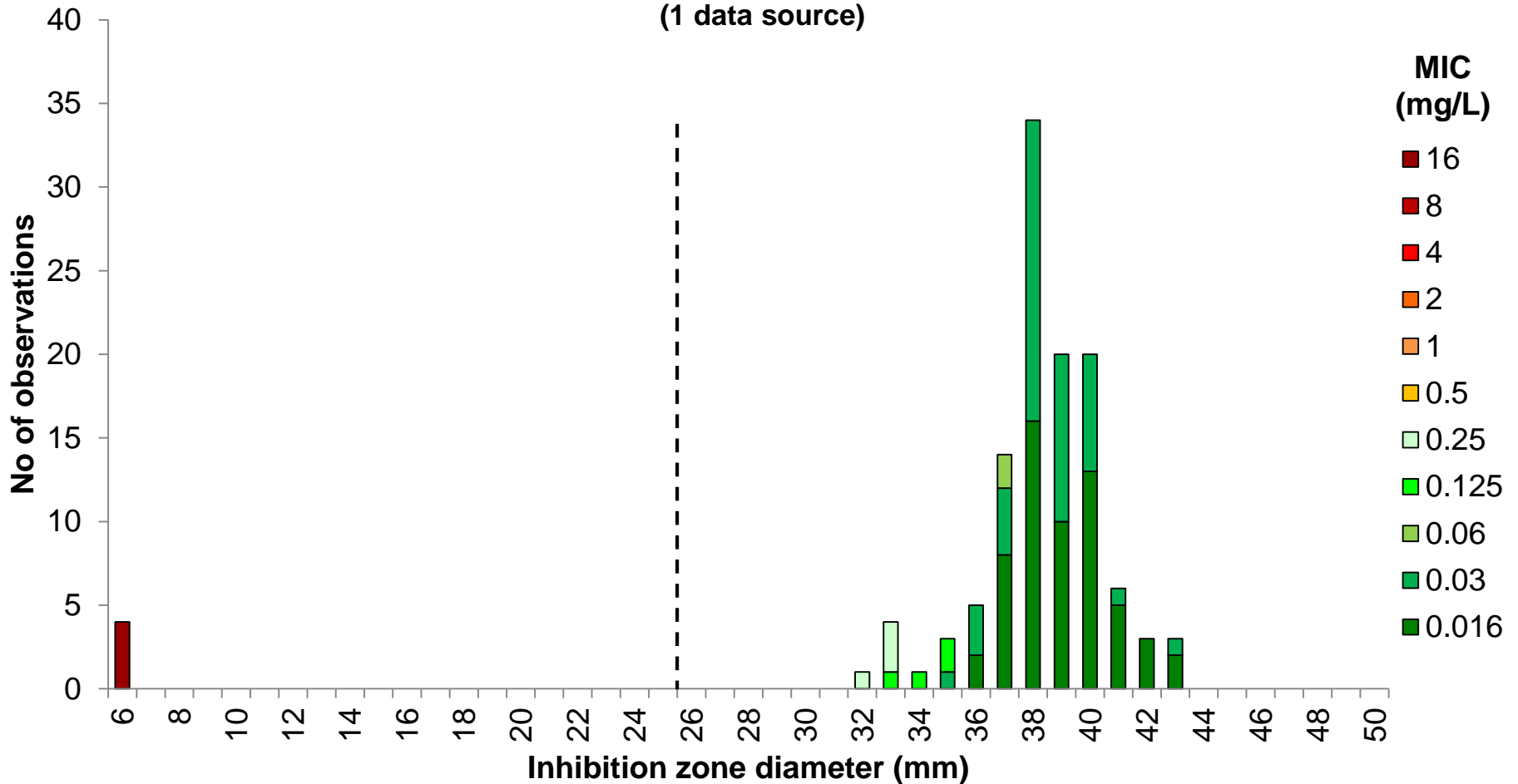
MIC S ≤ 2, R > 2 mg/L

Zone diameter S ≥ 22, R < 22 mm

# Clindamycin 2 µg vs. MIC

## *C. acnes*, 54 isolates (118 correlates)

(1 data source)



### Breakpoints

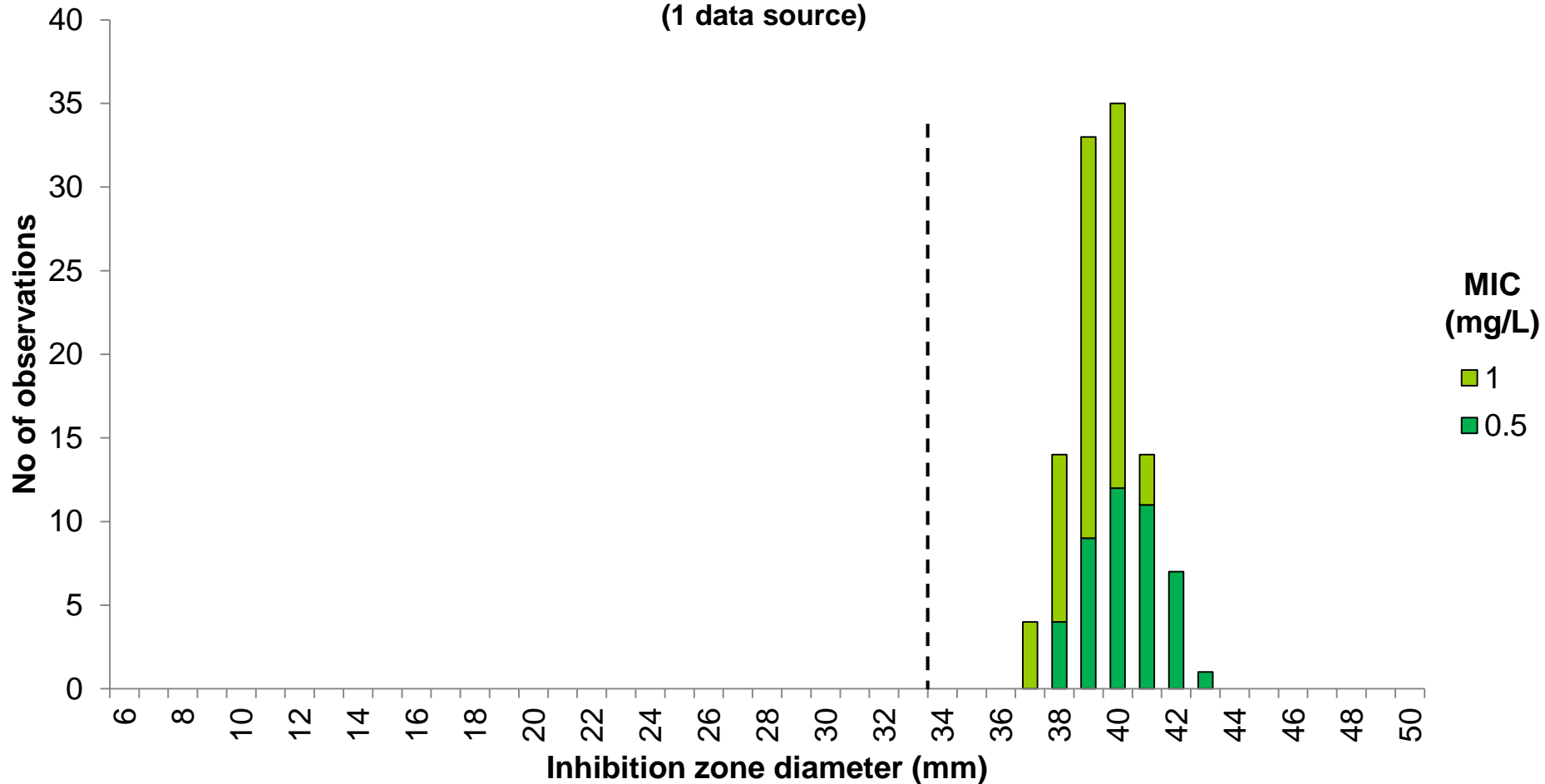
MIC S ≤ 0.25, R > 0.25 mg/L

Zone diameter S ≥ 26, R < 26 mm

# Linezolid 10 µg vs. MIC

## *C. acnes*, 54 isolates (108 correlates)

(1 data source)



### Breakpoints

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

Zone diameter  $S \geq 34$ ,  $R < 34$  mm

# Anaerobic bacteria\*

Correlation between benzylpenicillin susceptibility and susceptibility to other beta-lactam agents

\**Prevotella* spp., *F. necrophorum*, *C. perfringens* and *C. acnes*

# Anaerobic bacteria

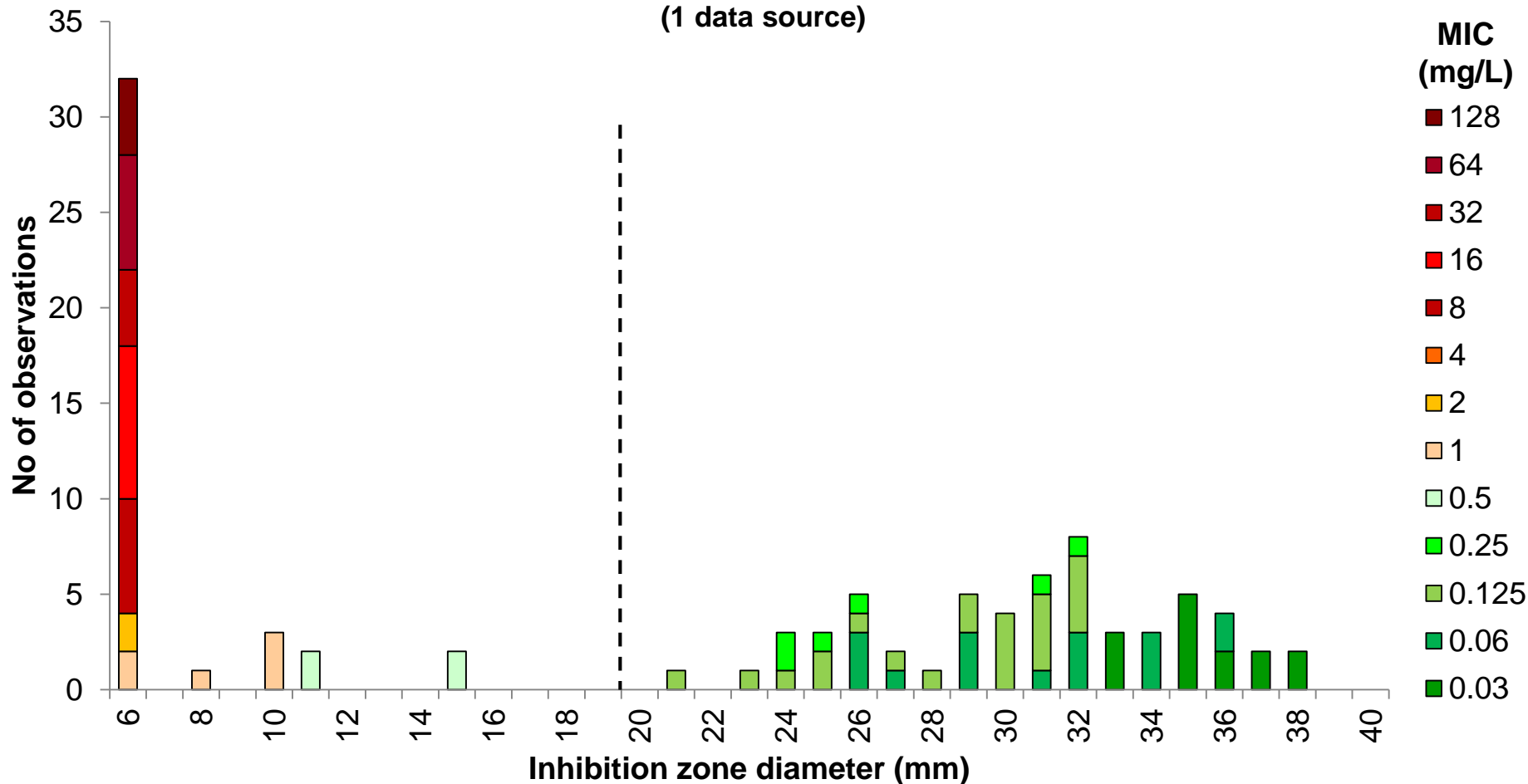
- Benzylpenicillin (MIC or disk diffusion) susceptibility can predict susceptibility to other beta-lactam agents in *Prevotella* spp., *F. necrophorum*, *C. perfringens* and *C. acnes*.
- Isolates susceptible to benzylpenicillin can be reported susceptible to all beta-lactam agents with breakpoints (including those with “Note”) without further testing.
- Isolates resistant to benzylpenicillin should be tested for susceptibility to individual agents.

***Prevotella* spp.**

# Benzylpenicillin 1 unit vs. Ampicillin MIC

## *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)



### Breakpoints

Ampicillin MIC

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

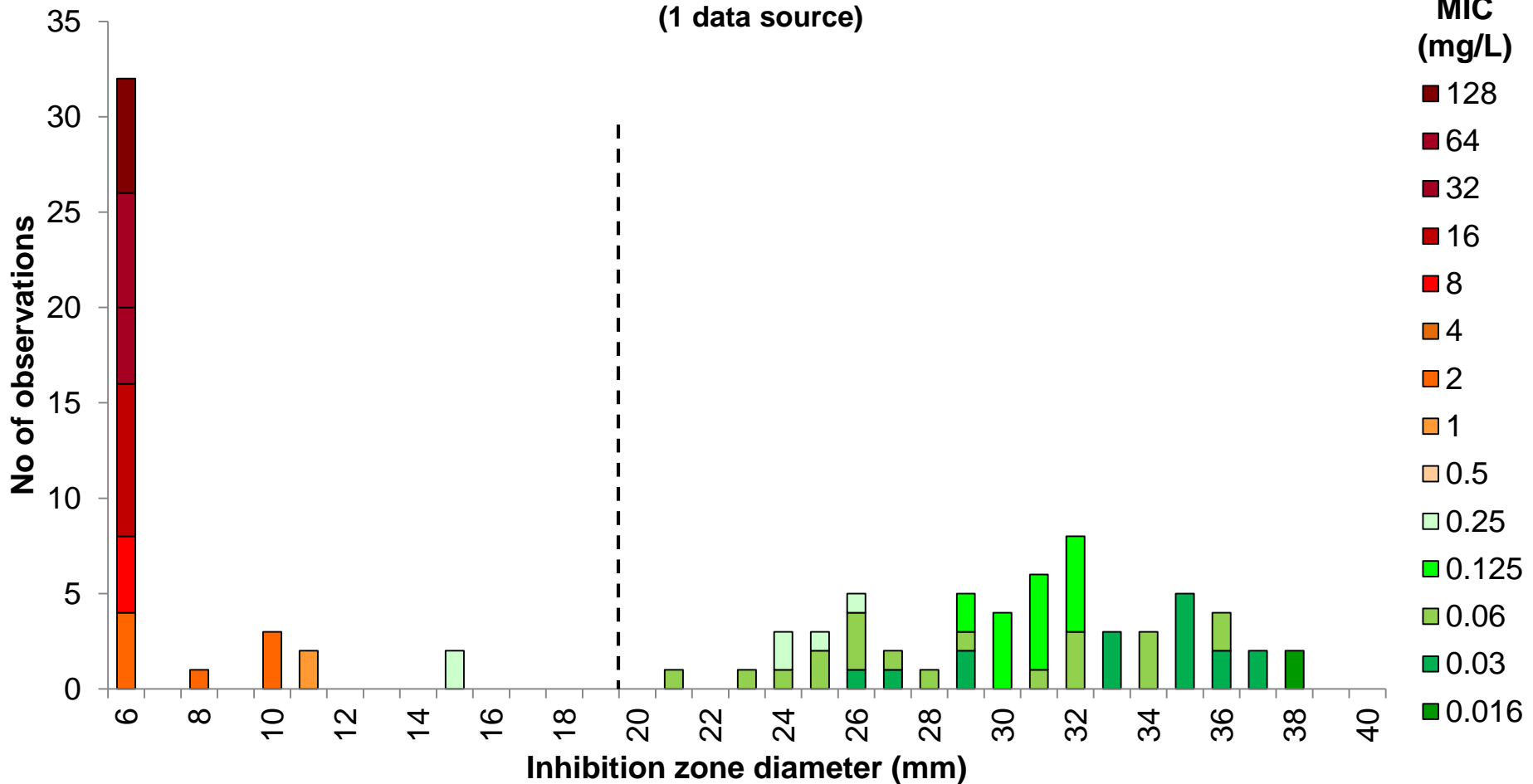
Benzylpenicillin zone diameter

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

# Benzylpenicillin 1 unit vs. Amoxicillin MIC

## *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)



### Breakpoints

Amoxicillin MIC

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

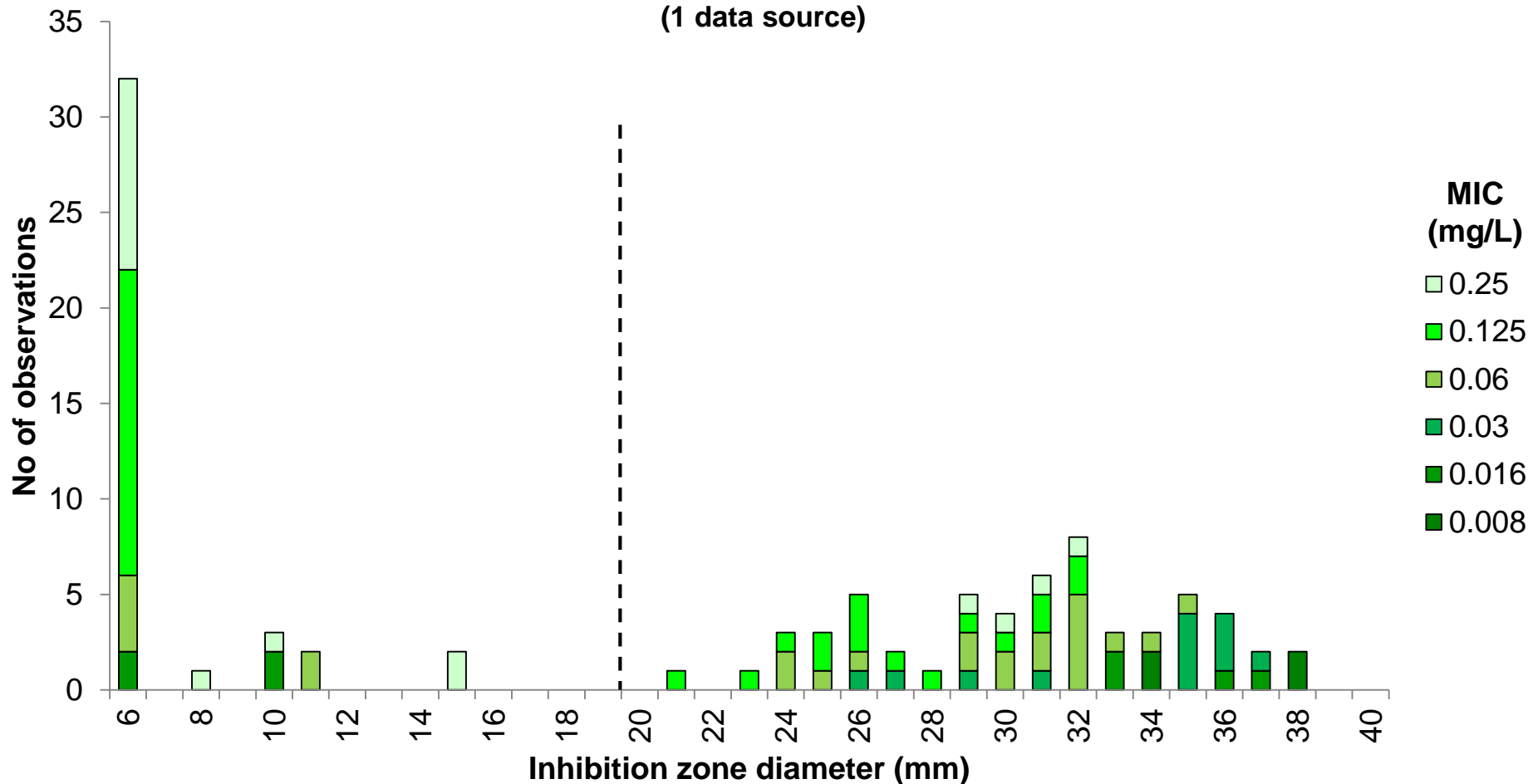
Benzylopenicillin zone diameter

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

# Benzylpenicillin 1 unit vs. Ertapenem MIC

## *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)



### Breakpoints

Ertapenem MIC

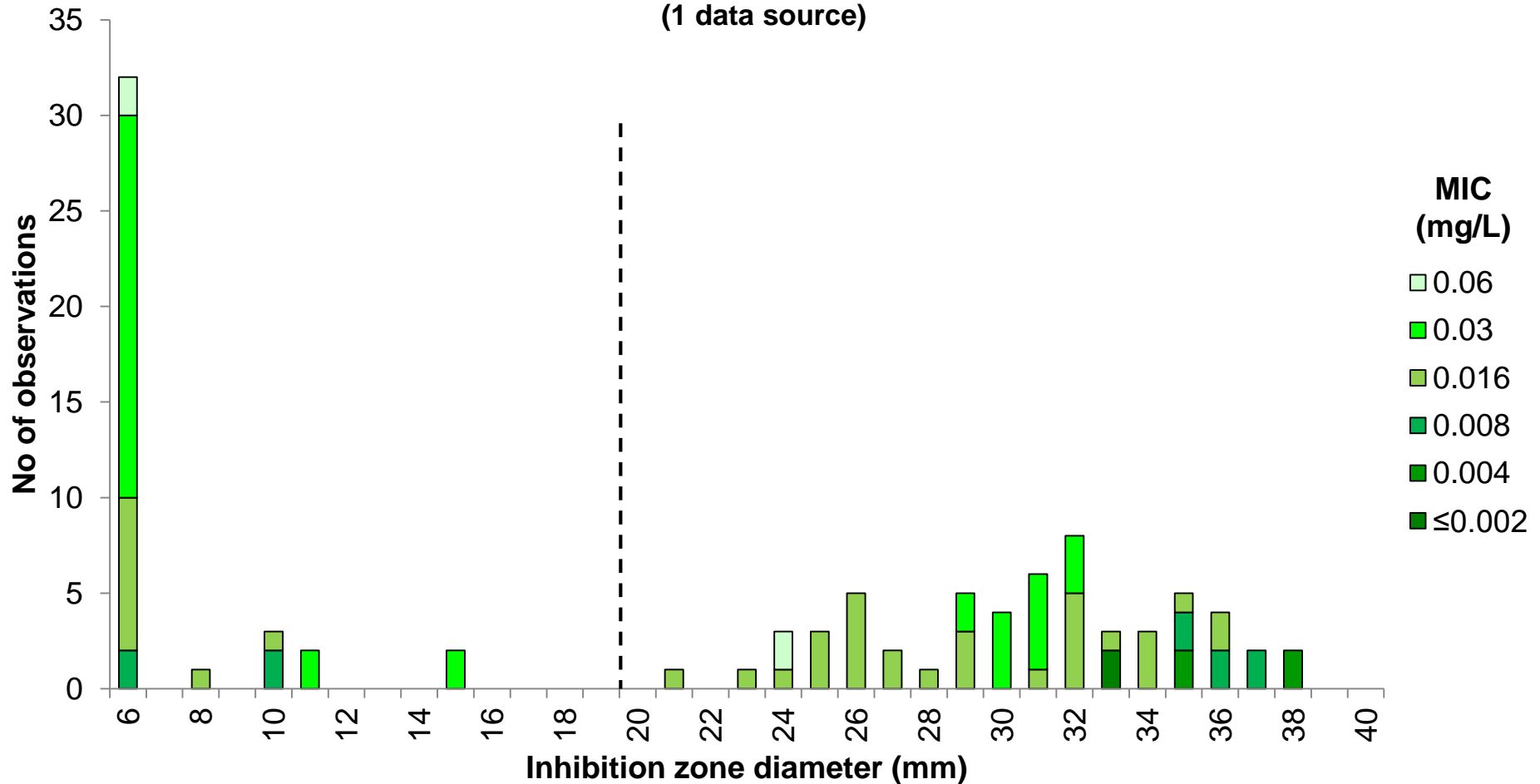
$S \leq 0.5$ ,  $R > 0.5$  mg/L

Benzylpenicillin zone diameter

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

# Benzylpenicillin 1 unit vs. Imipenem MIC *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)



## Breakpoints

Imipenem MIC

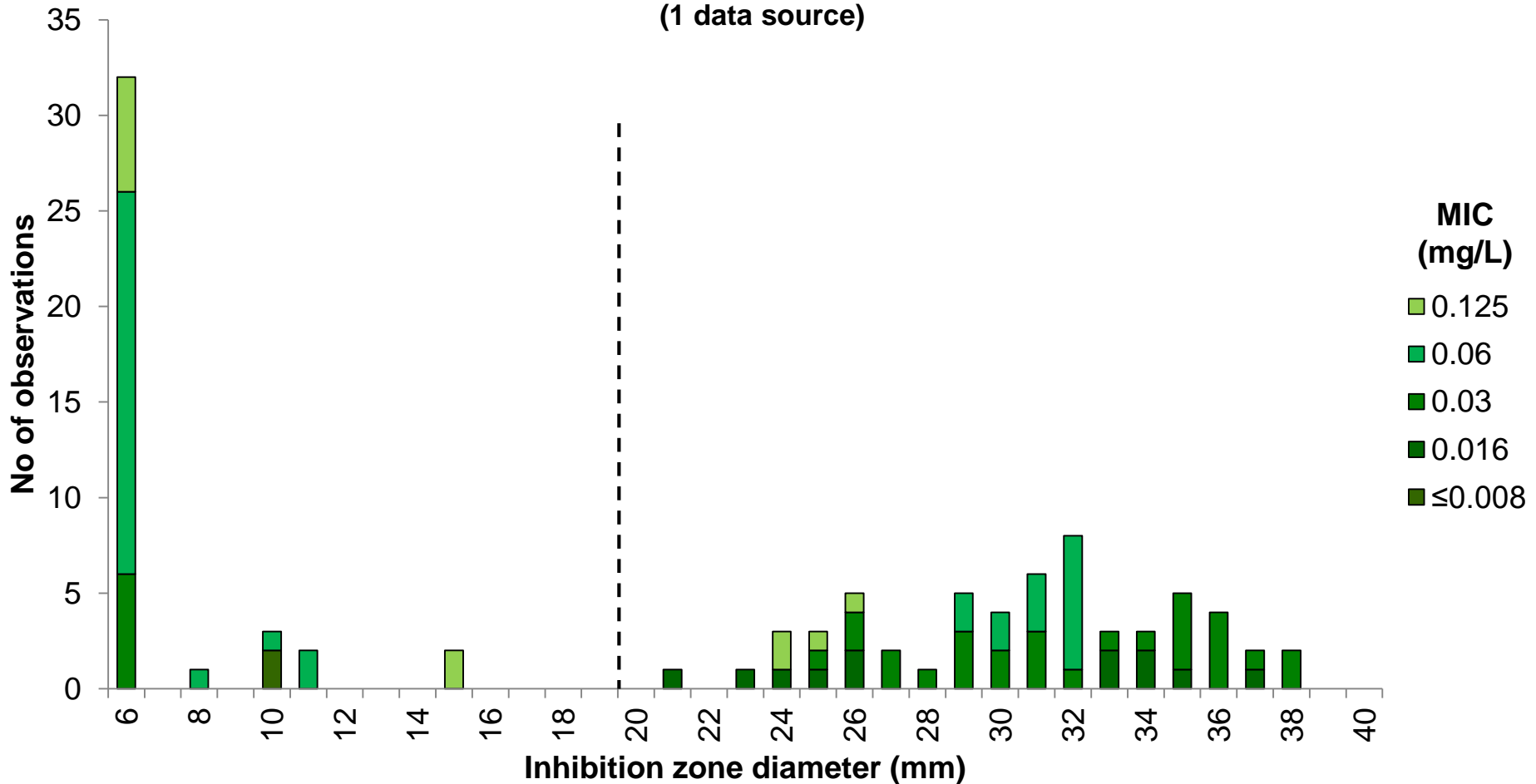
S≤0.125, R>0.125 mg/L

Benzylpenicillin zone diameter

S≥20, R<20 mm

# Benzylpenicillin 1 unit vs. Meropenem MIC *Prevotella* spp., 49 isolates (98 correlates)

(1 data source)



## Breakpoints

Meropenem MIC

S≤0.25, R>0.25 mg/L

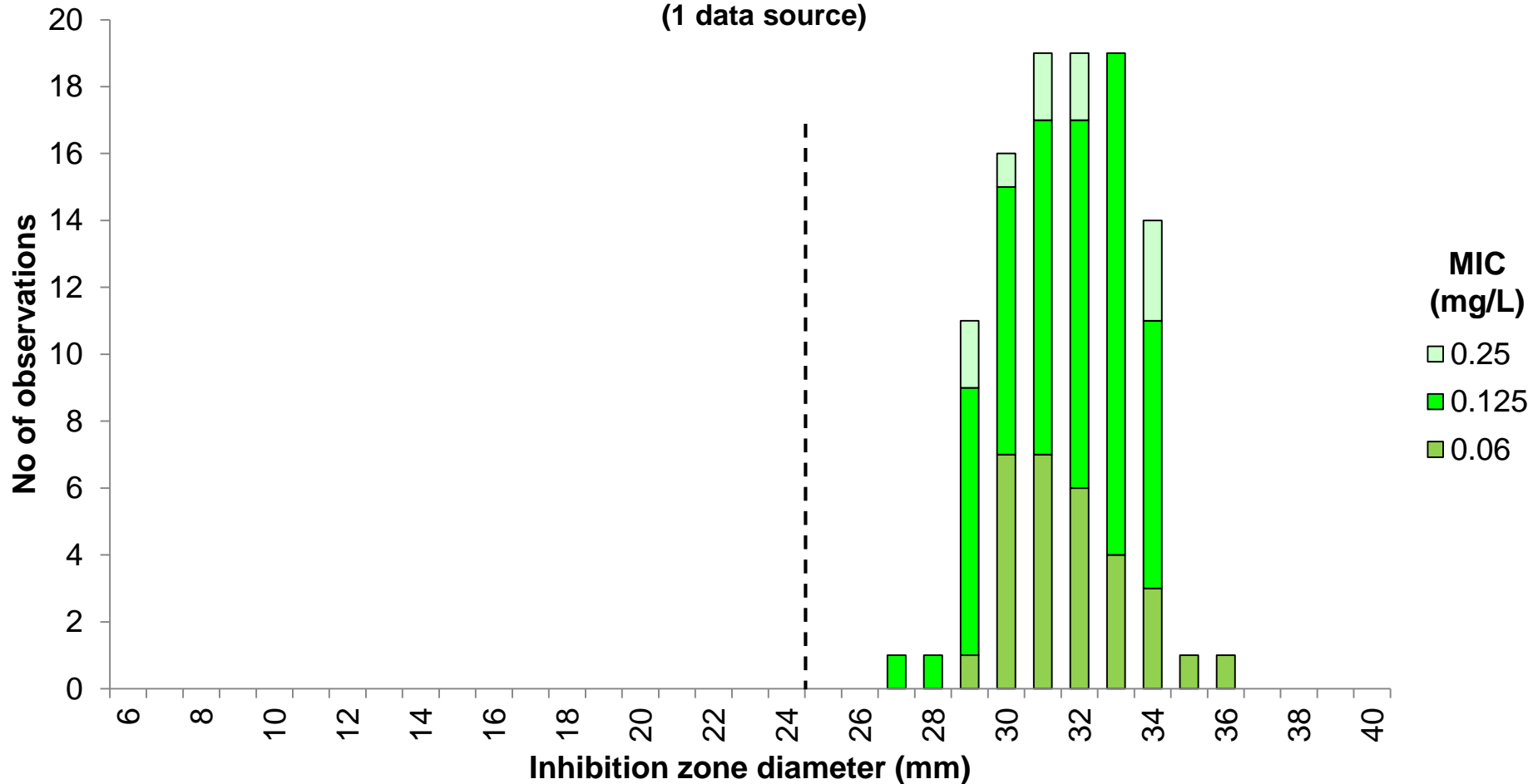
Benzylpenicillin zone diameter

S≥20, R<20 mm

***Fusobacterium necrophorum***

# Benzylpenicillin 1 unit vs. Ampicillin MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

Ampicillin MIC

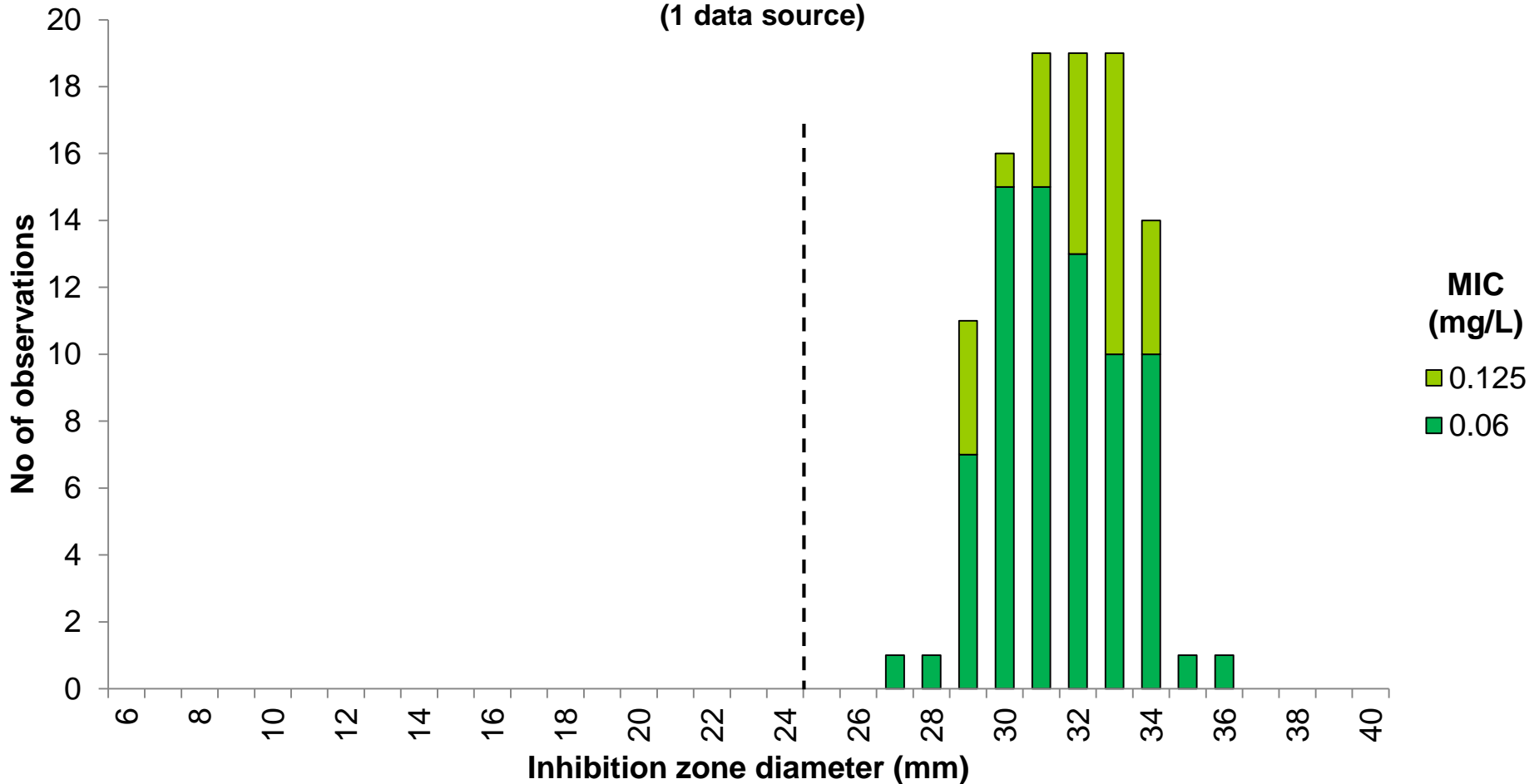
$S \leq 0.5$ ,  $R > 0.5$  mg/L

Benzylpenicillin zone diameter

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

# Benzylpenicillin 1 unit vs. Ampicillin-sulbactam MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

Ampicillin-sulbactam MIC

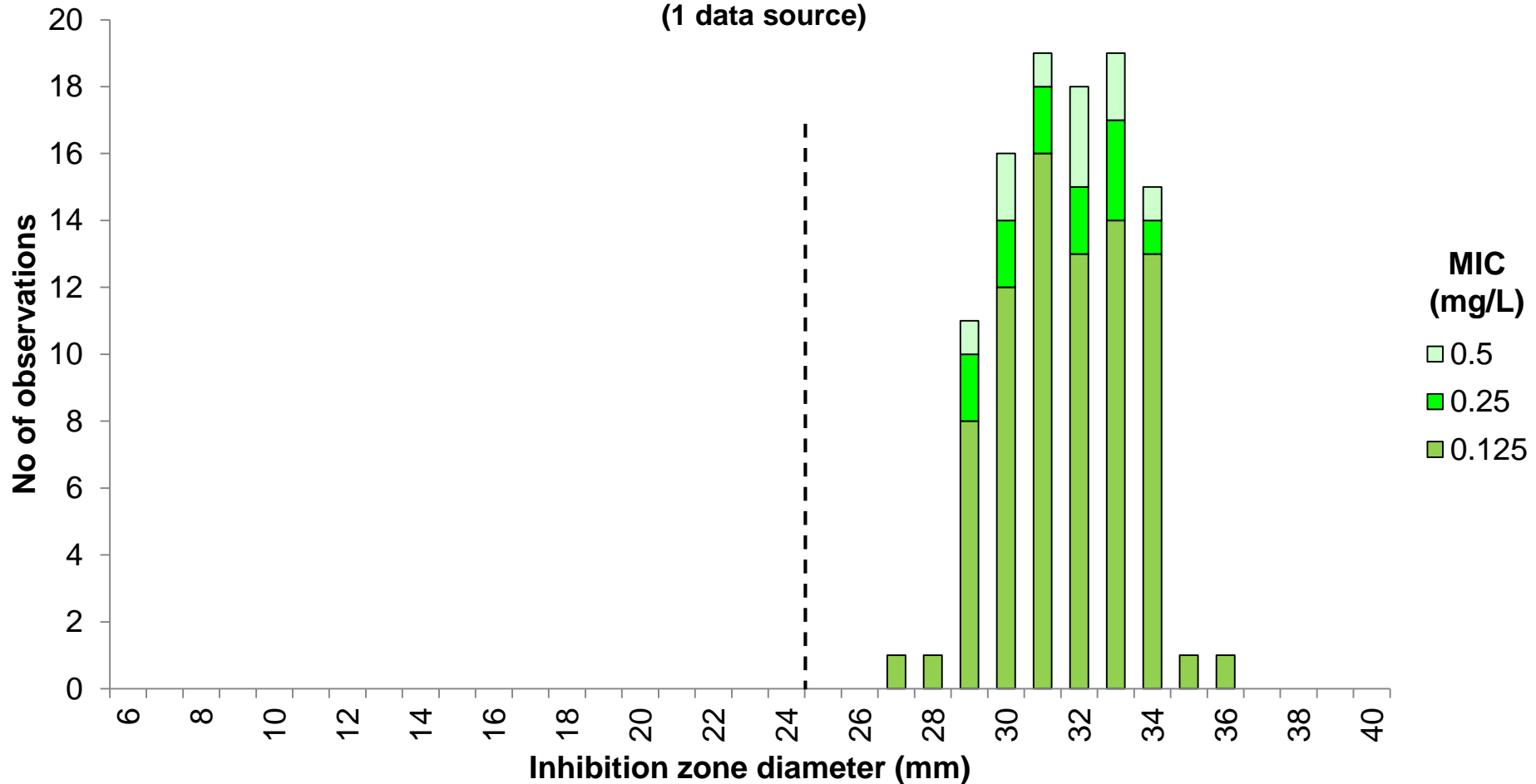
$S \leq 0.5$ ,  $R > 0.5$  mg/L

Benzylpenicillin zone diameter

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

# Benzylpenicillin 1 unit vs. Amoxicillin MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

Amoxicillin MIC

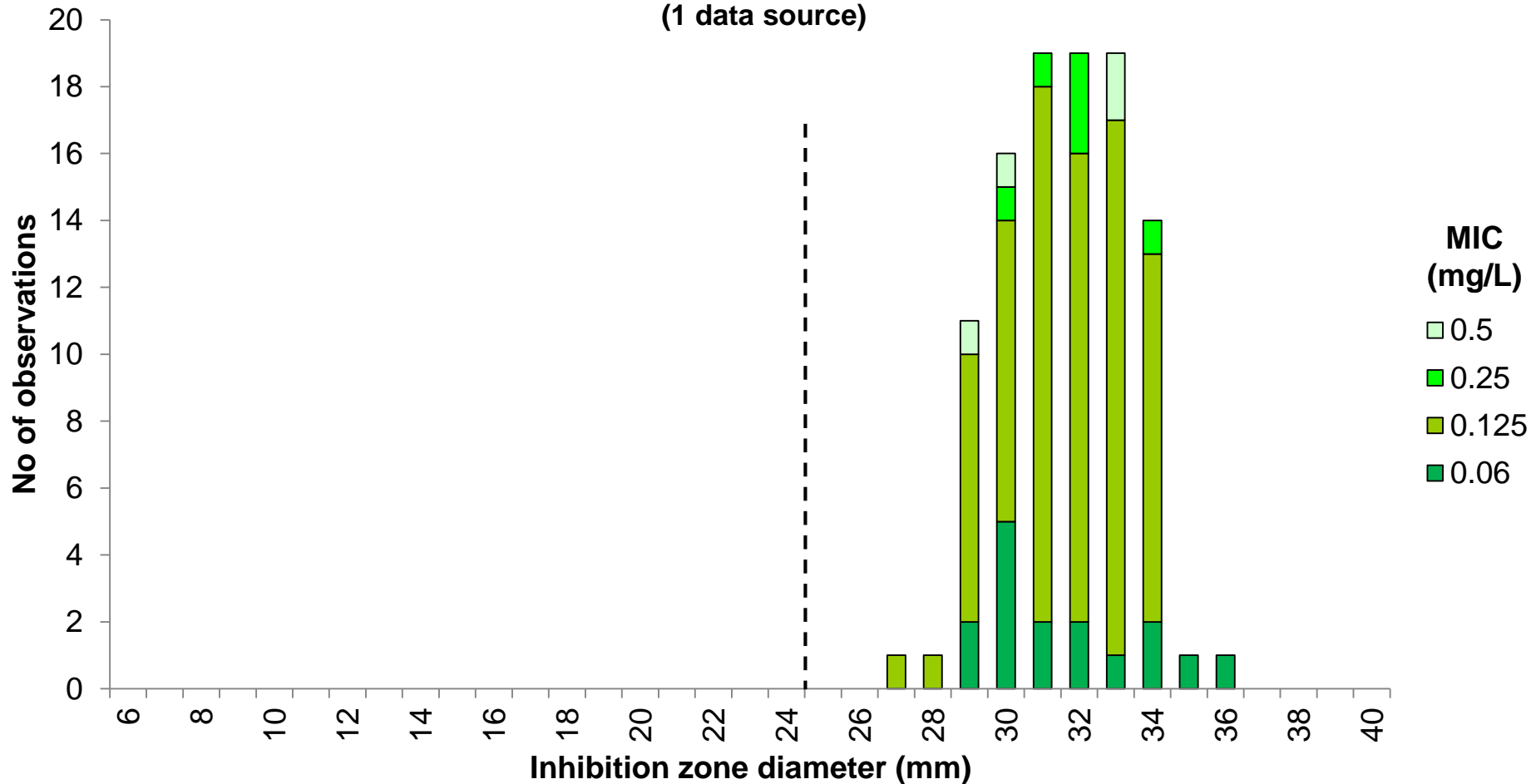
S ≤ 0.5, R > 0.5 mg/L

Benzylpenicillin zone diameter

S ≥ 25, R < 25 mm

# Benzylpenicillin 1 unit vs. Amoxicillin-clavulanic acid MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

Amoxicillin-clavulanic acid MIC

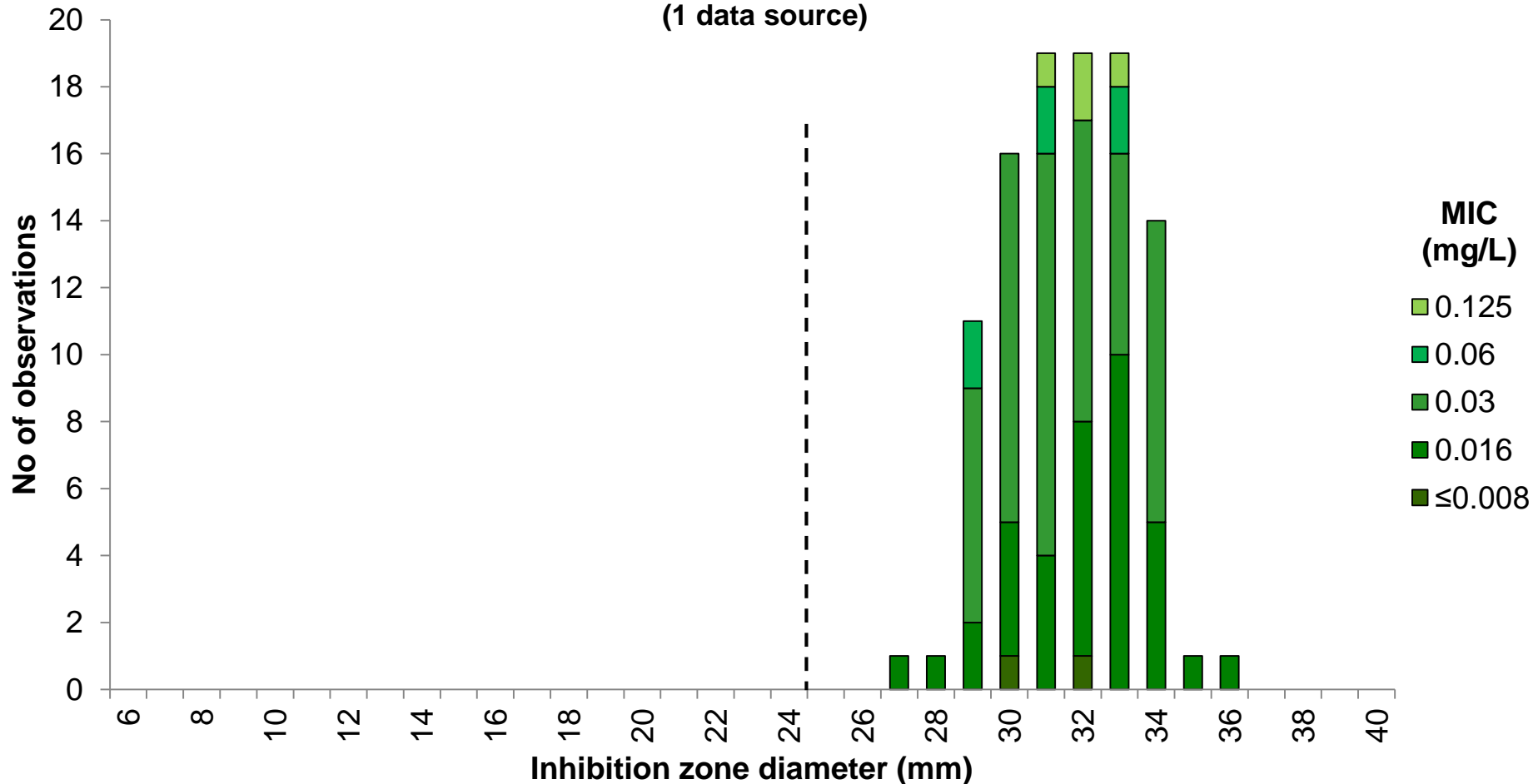
$S \leq 0.5$ ,  $R > 0.5$  mg/L

Benzylpenicillin zone diameter

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

# Benzylpenicillin 1 unit vs. Piperacillin-tazobactam MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

Piperacillin-tazobactam MIC

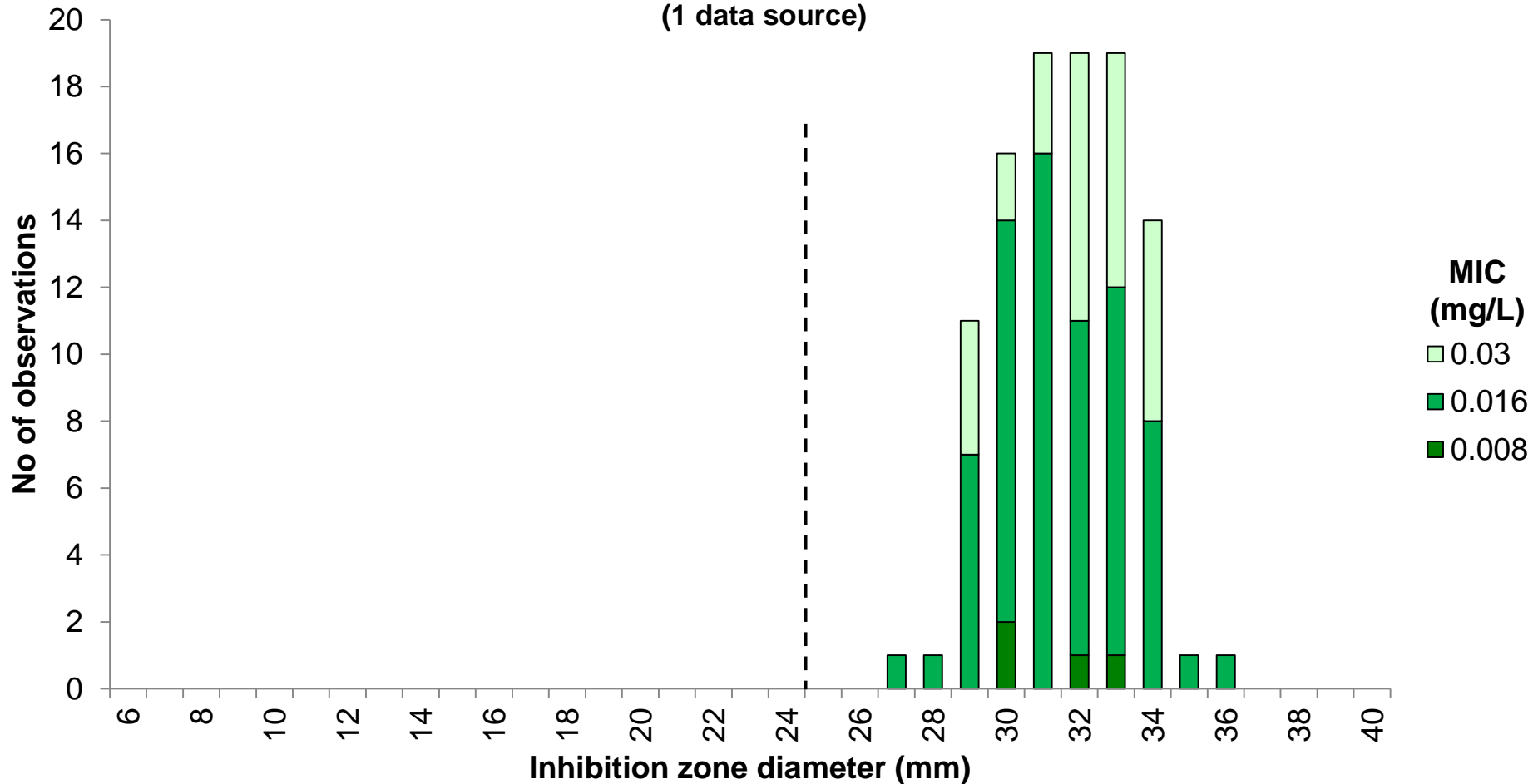
S ≤ 0.5, R > 0.5 mg/L

Benzylpenicillin zone diameter

S ≥ 25, R < 25 mm

# Benzylpenicillin 1 unit vs. Ertapenem MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

Ertapenem MIC

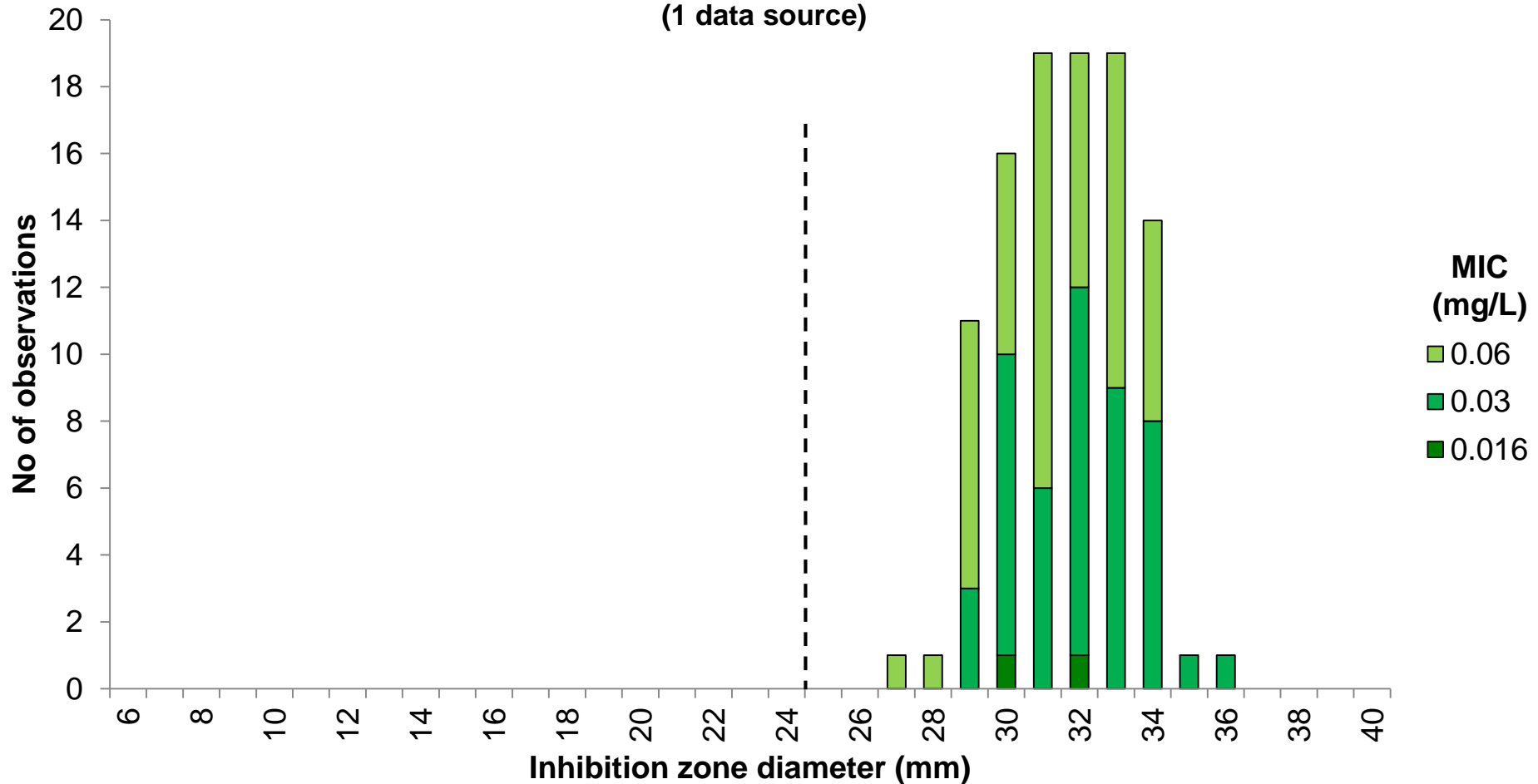
$S \leq 0.06$ ,  $R > 0.06$  mg/L

Benzylpenicillin zone diameter

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

# Benzylpenicillin 1 unit vs. Imipenem MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

Imipenem MIC

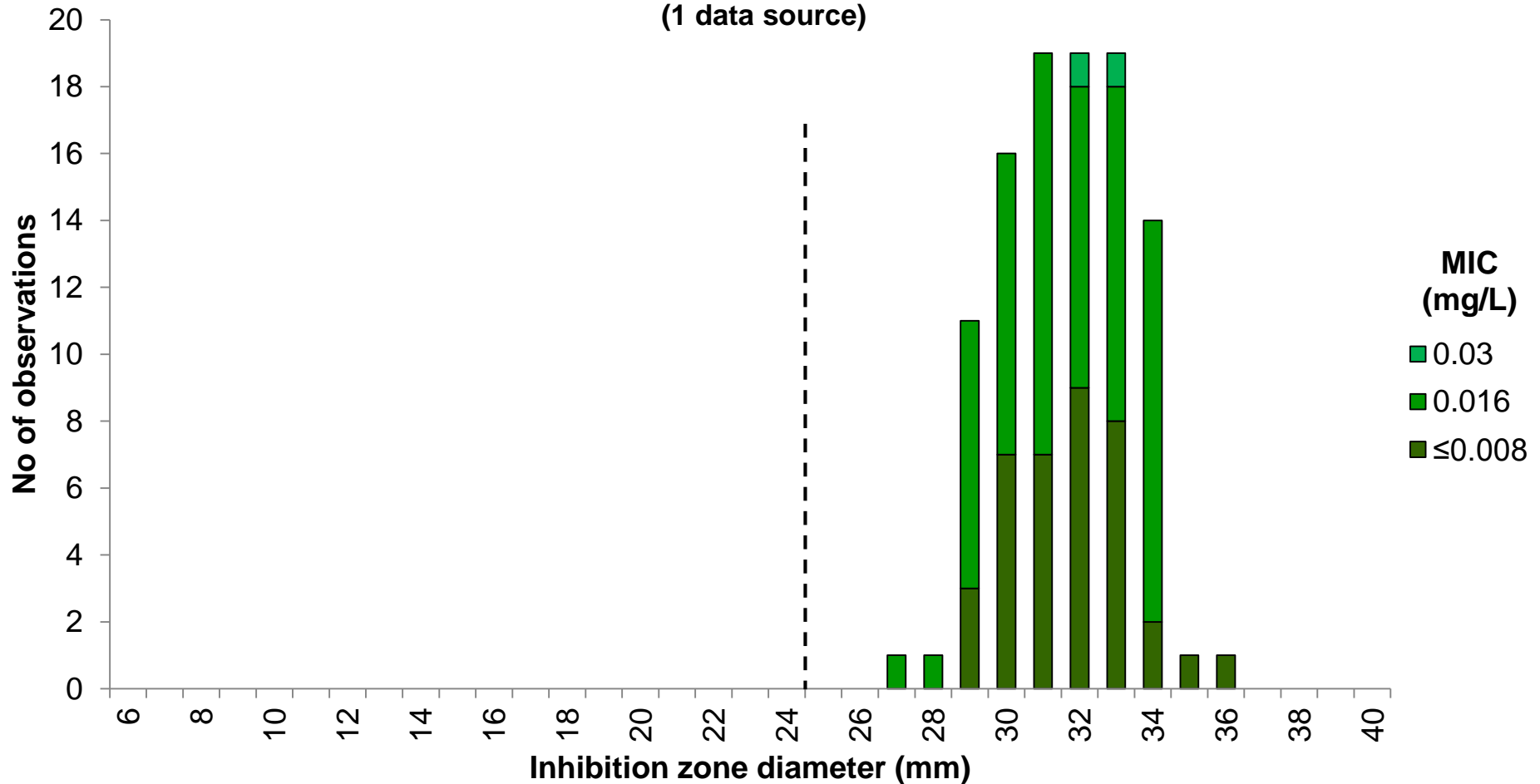
$S \leq 0.125$ ,  $R > 0.125$  mg/L

Benzylpenicillin zone diameter

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

# Benzylpenicillin 1 unit vs. Meropenem MIC *F. necrophorum*, 51 isolates (102 correlates)

(1 data source)



## Breakpoints

Meropenem MIC

S ≤ 0.03, R > 0.03 mg/L

Benzylpenicillin zone diameter

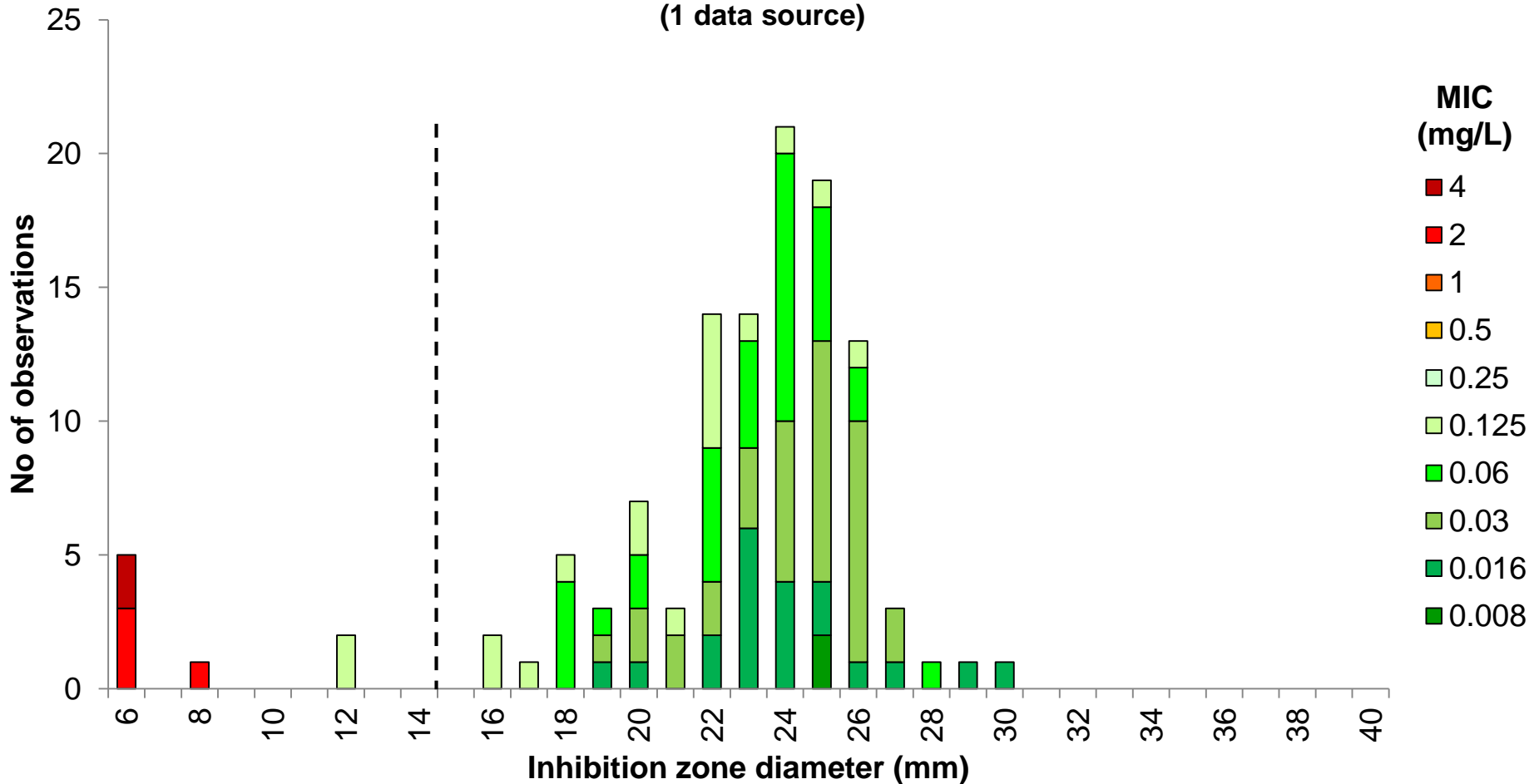
S ≥ 25, R < 25 mm

***Clostridium perfringens***

# Benzylpenicillin 1 unit vs. Ampicillin MIC

## *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



### Breakpoints

Ampicillin MIC

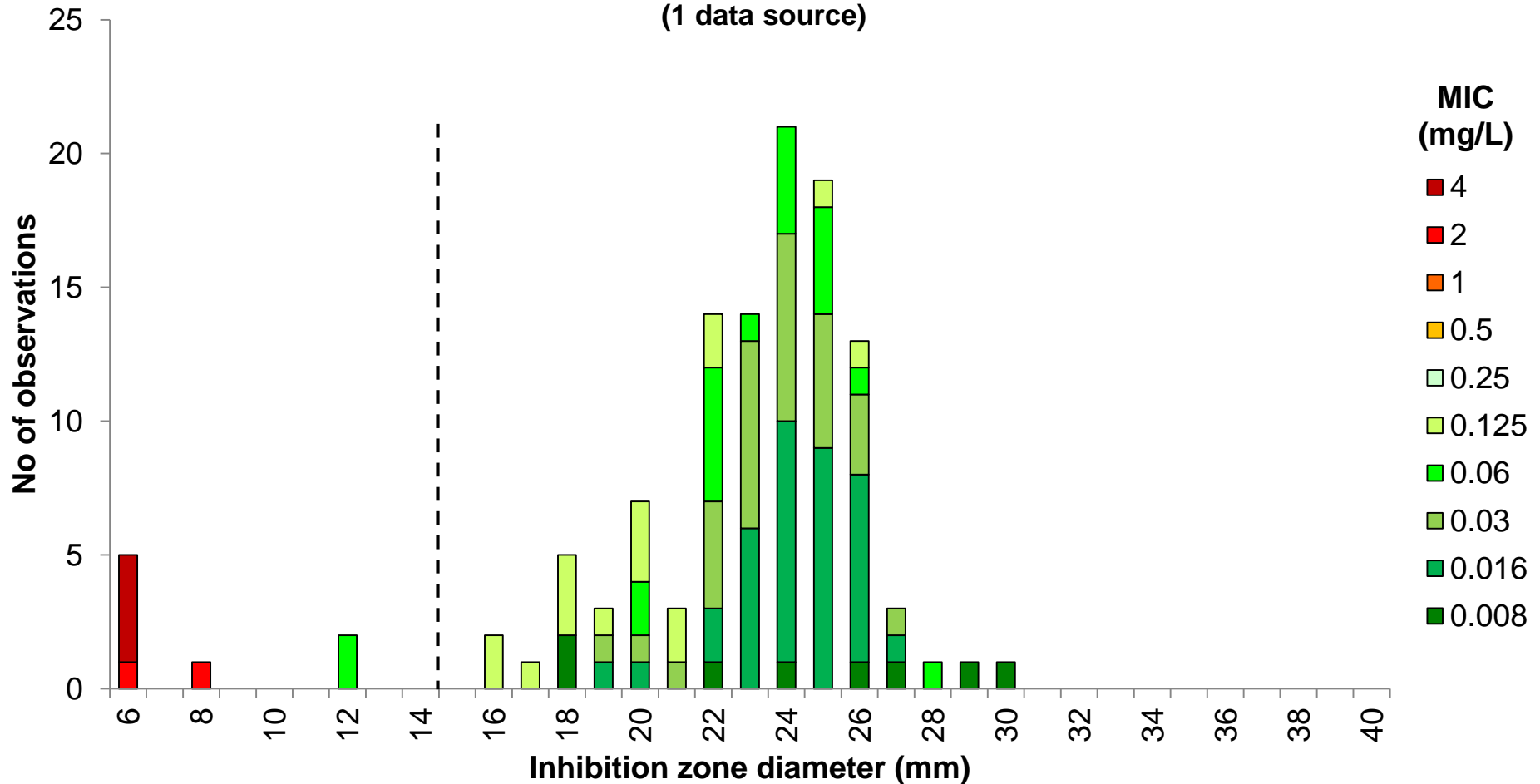
$S \leq 0.25$ ,  $R > 0.25$  mg/L

Benzylpenicillin zone diameter

$S \geq 15$ ,  $R < 15$  mm

# Benzylpenicillin 1 unit vs. Ampicillin-sulbactam MIC *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



## Breakpoints

Ampicillin-sulbactam MIC

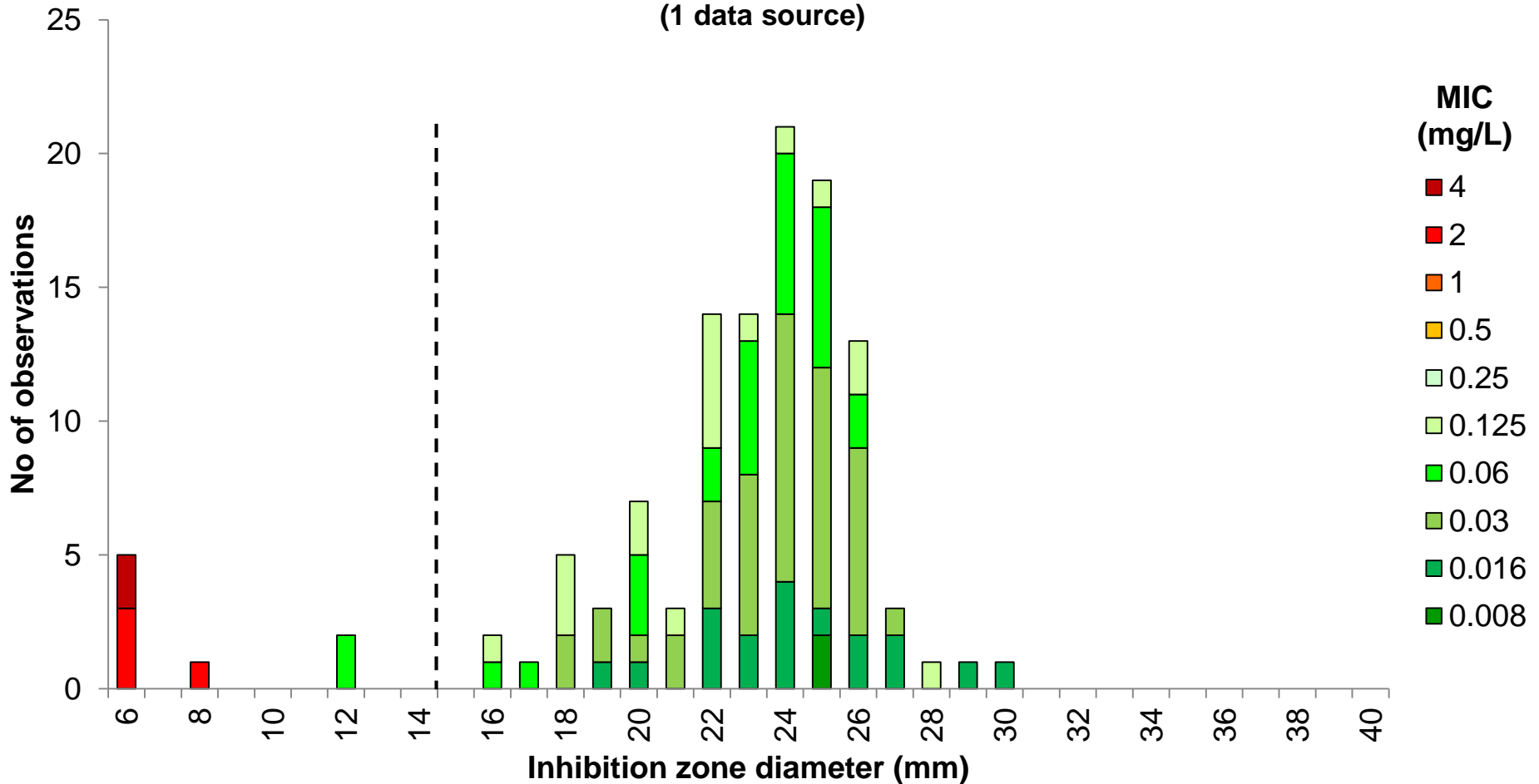
$S \leq 0.25$ ,  $R > 0.25$  mg/L

Benzylopenicillin zone diameter

$S \geq 15$ ,  $R < 15$  mm

# Benzylpenicillin 1 unit vs. Amoxicillin MIC *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



## Breakpoints

Amoxicillin MIC

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

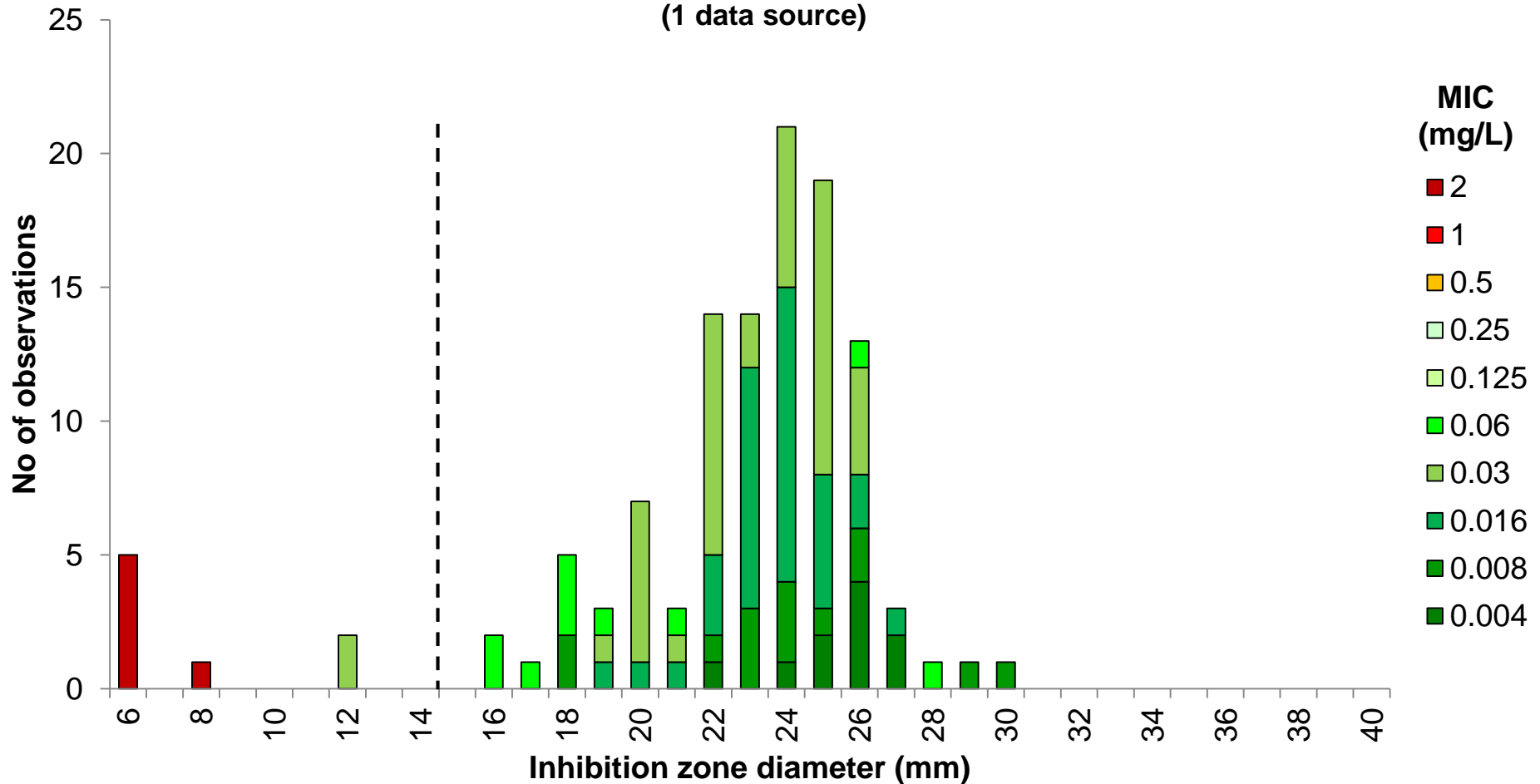
Benzylpenicillin zone diameter

$S \geq 15$ ,  $R < 15$  mm

# Benzylpenicillin 1 unit vs. Amoxicillin-clavulanic acid MIC

## *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



### Breakpoints

Amoxicillin-clavulanic acid MIC

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

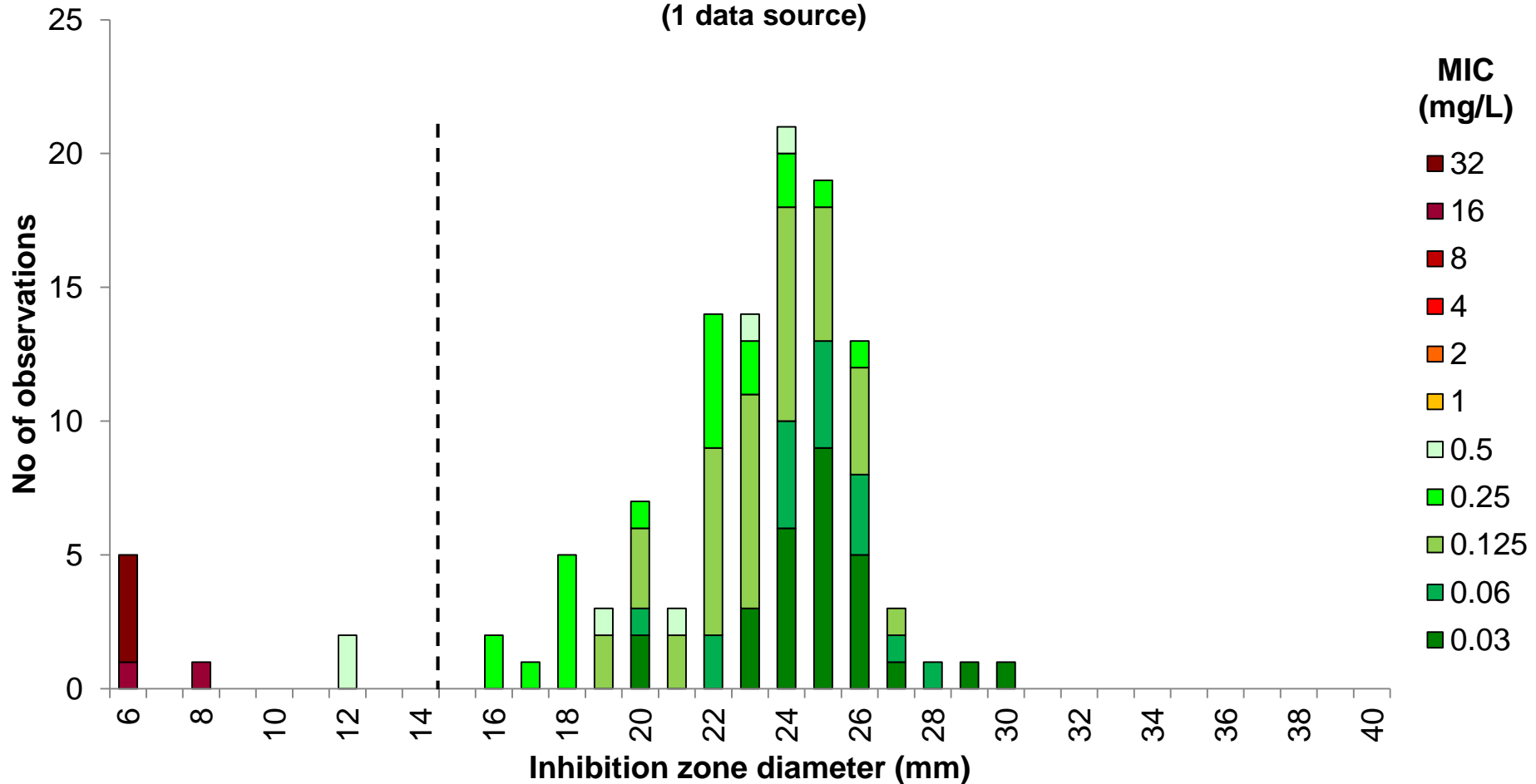
Benzylpenicillin zone diameter

$S \geq 15$ ,  $R < 15$  mm

# Benzylpenicillin 1 unit vs. Piperacillin-tazobactam MIC

## *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



### Breakpoints

Piperacillin-tazobactam MIC

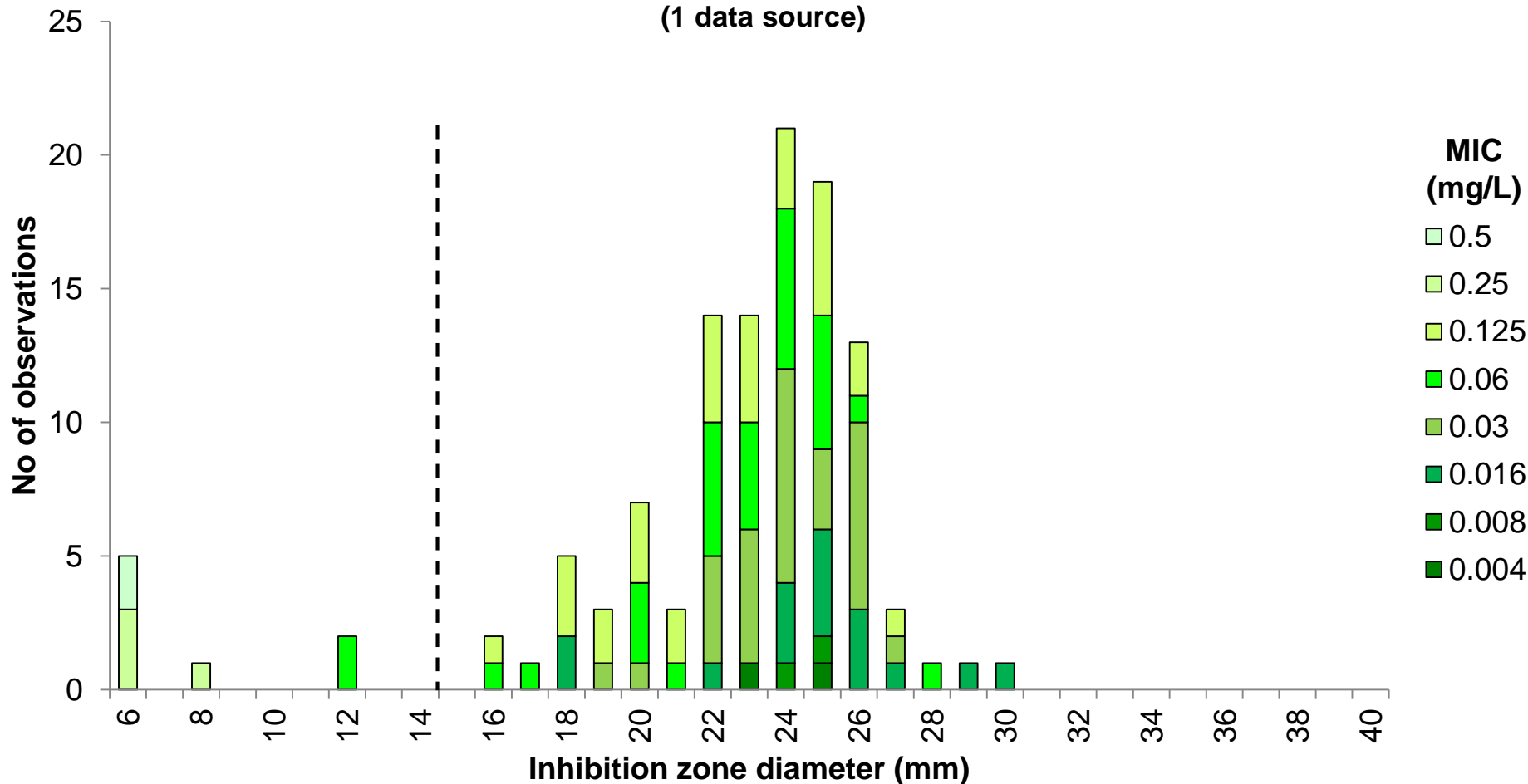
$S \leq 0.5$ ,  $R > 0.5$  mg/L

Benzylpenicillin zone diameter

$S \geq 15$ ,  $R < 15$  mm

# Benzylpenicillin 1 unit vs. Ertapenem MIC *C. perfringens*, 58 isolates (116 correlates)

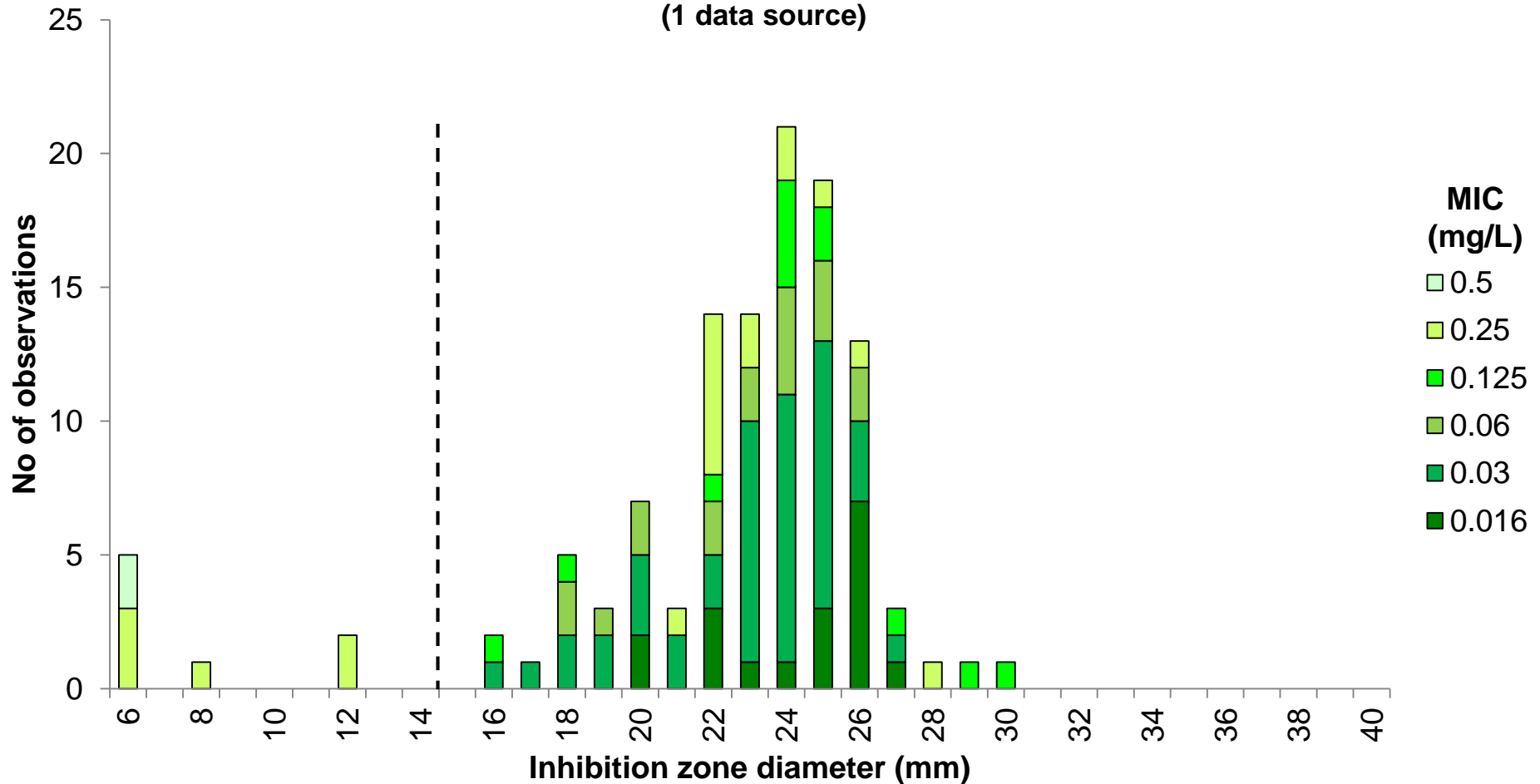
(1 data source)



<b>Breakpoints</b>	
Ertapenem MIC	$S \leq 0.5$ , $R > 0.5$ mg/L
Benzylpenicillin zone diameter	$S \geq 15$ , $R < 15$ mm

# Benzylpenicillin 1 unit vs. Imipenem MIC *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



## Breakpoints

Imipenem MIC

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

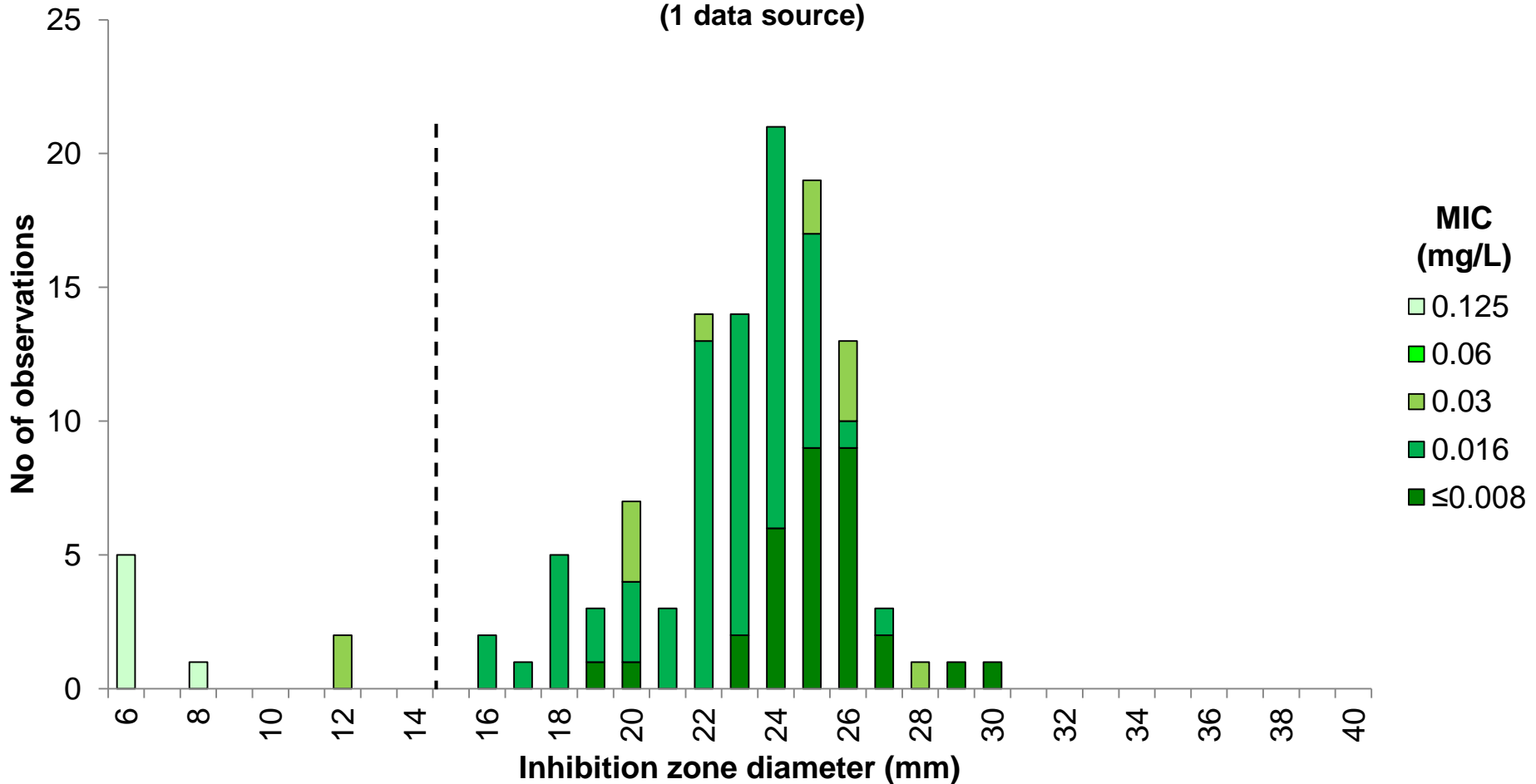
Benzylpenicillin zone diameter

$S \geq 15$ ,  $R < 15$  mm

# Benzylpenicillin 1 unit vs. Meropenem MIC

## *C. perfringens*, 58 isolates (116 correlates)

(1 data source)



### Breakpoints

Meropenem MIC

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

Benzylpenicillin zone diameter

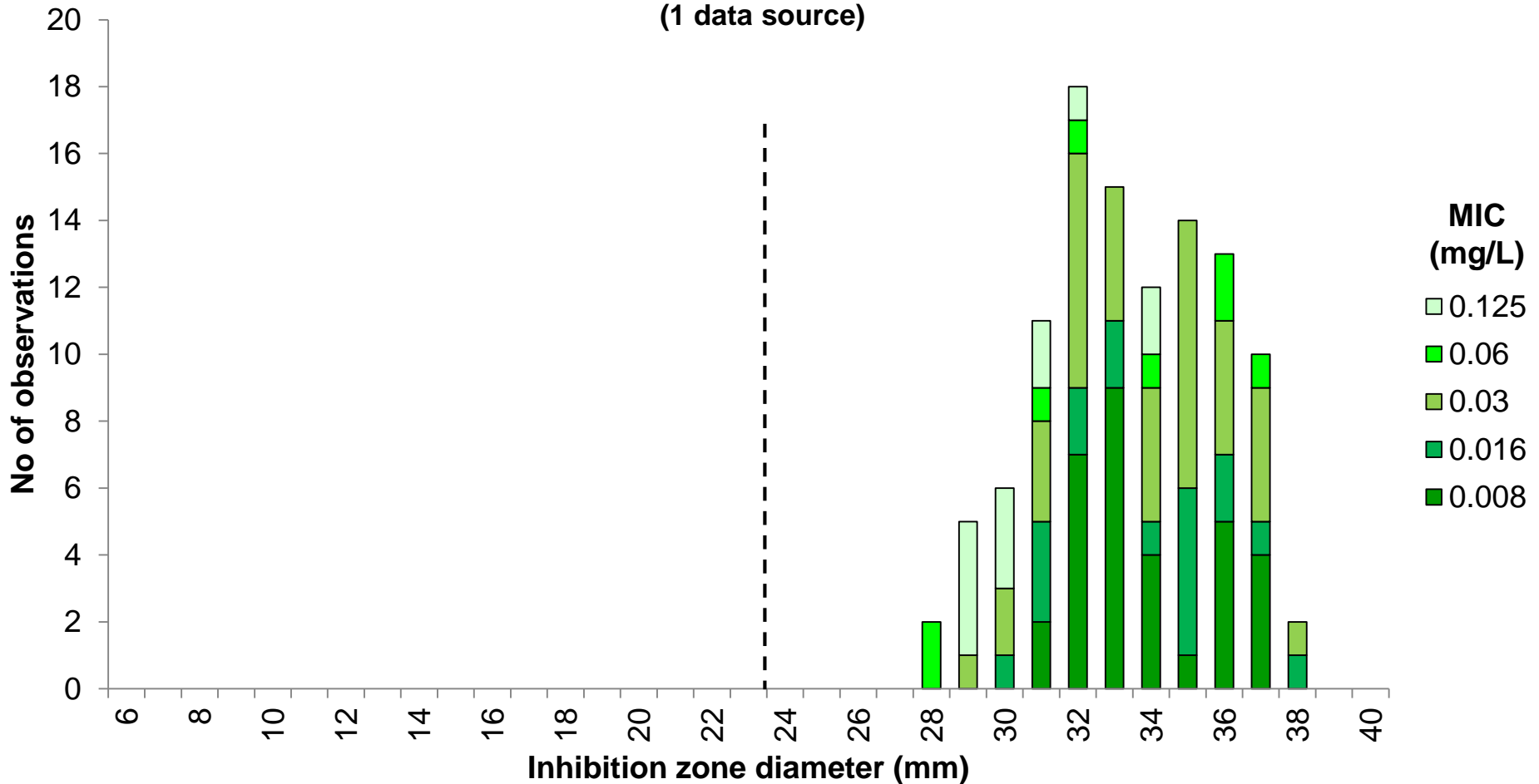
$S \geq 15$ ,  $R < 15$  mm

***Cutibacterium acnes***

# Benzylpenicillin 1 unit vs. Ampicillin MIC

## *C. acnes*, 54 isolates (108 correlates)

(1 data source)



### Breakpoints

Ampicillin MIC

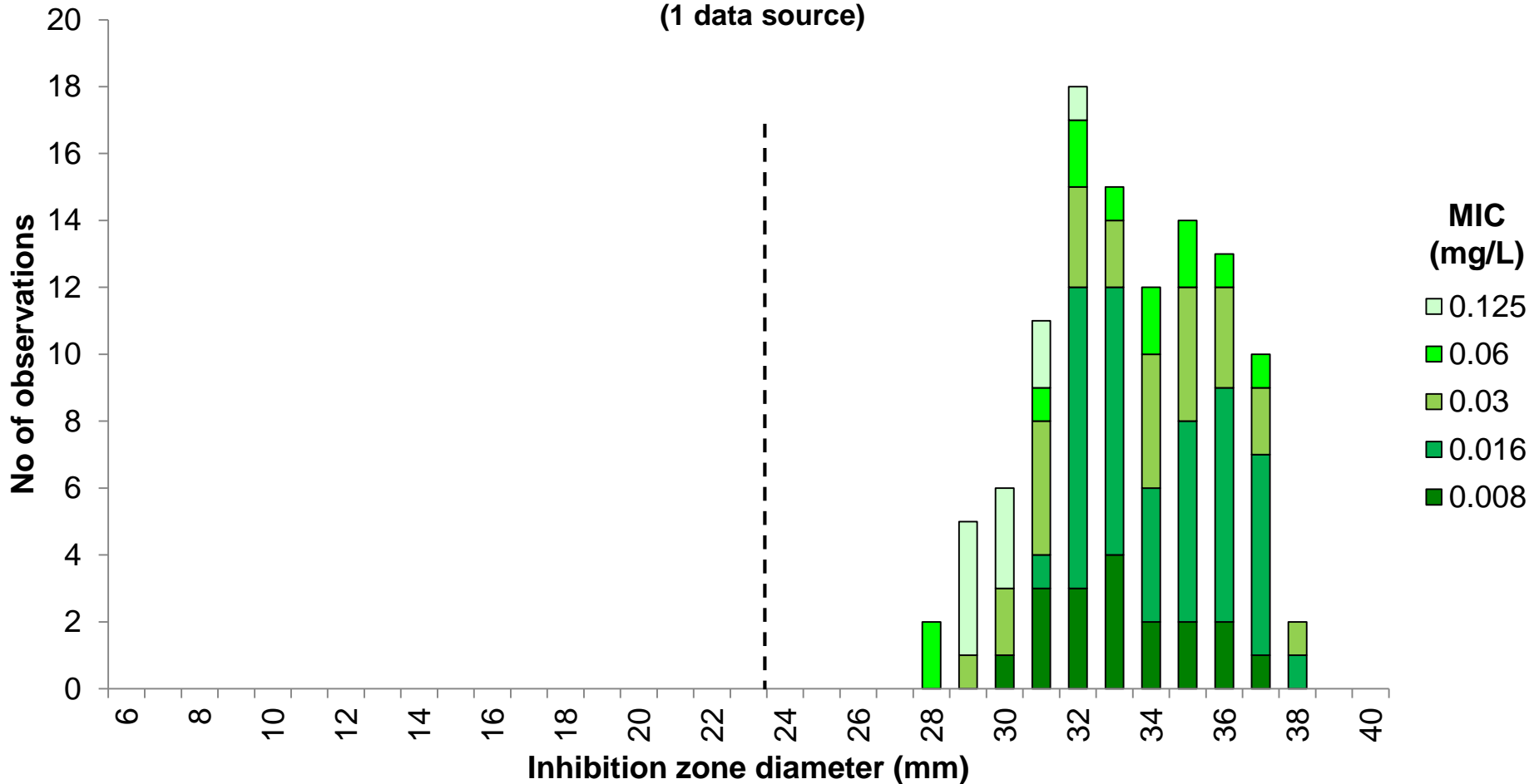
$S \leq 0.25$ ,  $R > 0.25$  mg/L

Benzylpenicillin zone diameter

$S \geq 24$ ,  $R < 24$  mm

# Benzylpenicillin 1 unit vs. Amoxicillin MIC *C. acnes*, 53 isolates (106 correlates)

(1 data source)



## Breakpoints

Amoxicillin MIC

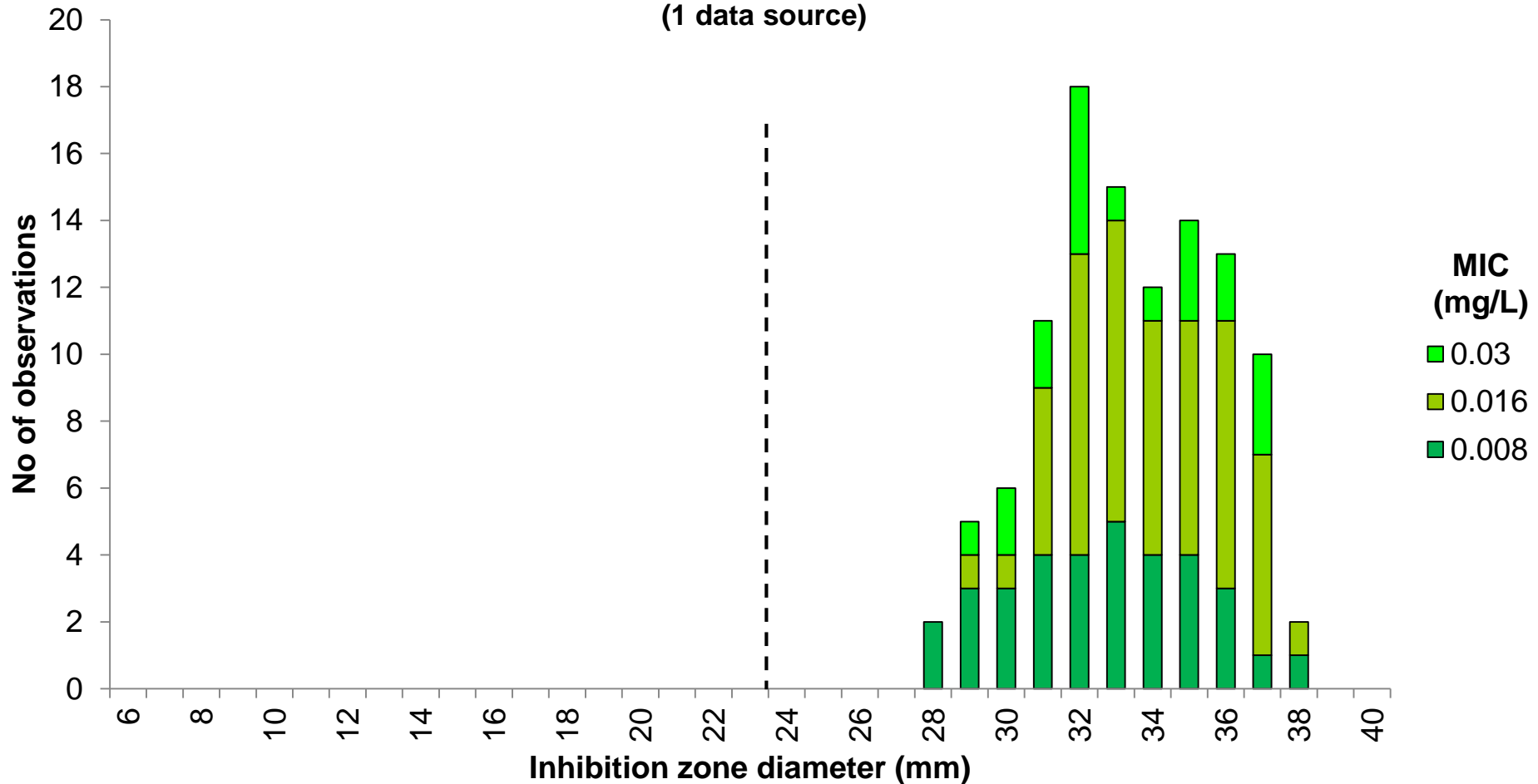
$S \leq 0.25$ ,  $R > 0.25$  mg/L

Benzylopenicillin zone diameter

$S \geq 24$ ,  $R < 24$  mm

# Benzylpenicillin 1 unit vs. Ceftriaxone MIC *C. acnes*, 54 isolates (108 correlates)

(1 data source)



## Breakpoints

Ceftriaxone MIC

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

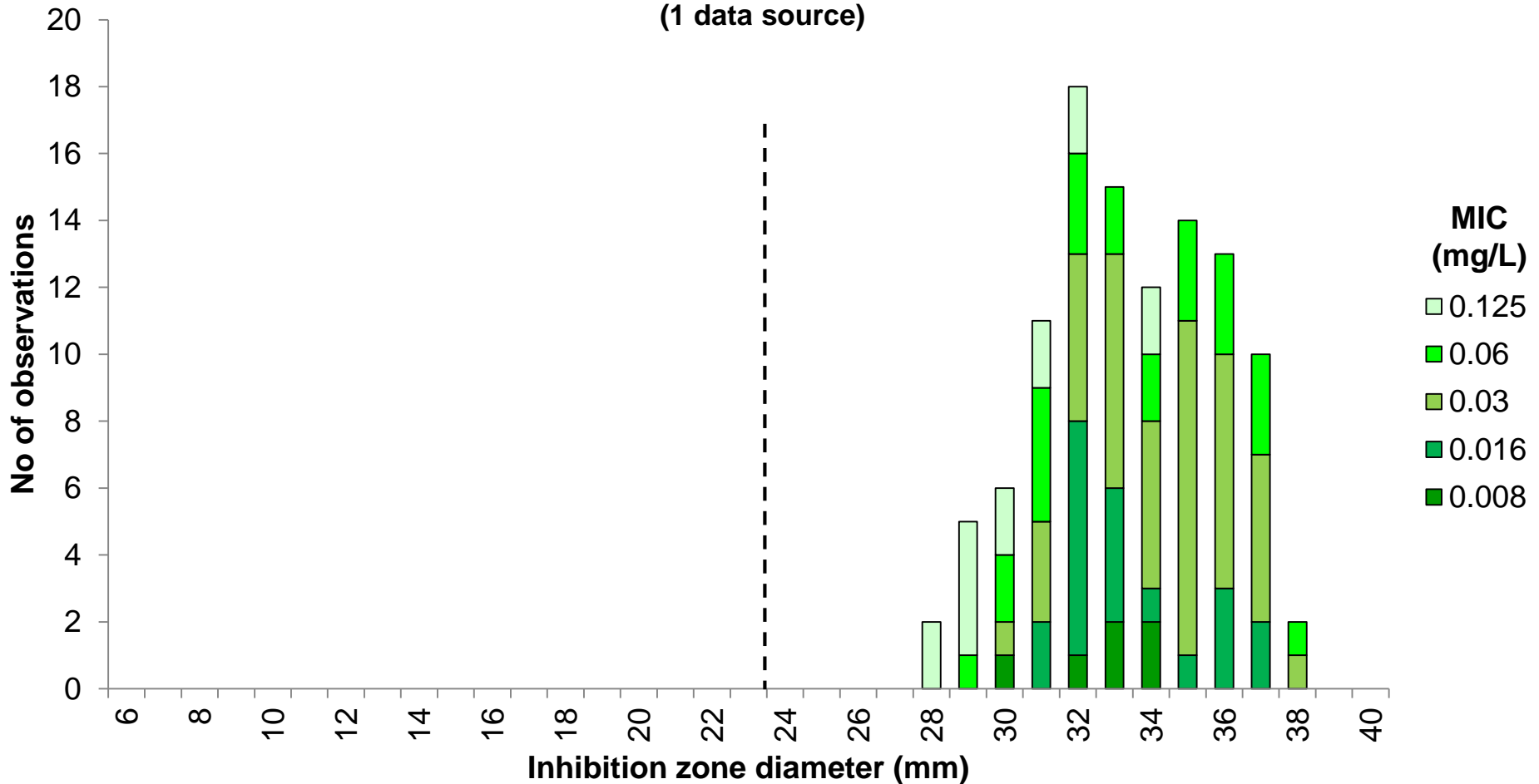
Benzylpenicillin zone diameter

$S \geq 24$ ,  $R < 24$  mm

# Benzylpenicillin 1 unit vs. Ertapenem MIC

## *C. acnes*, 54 isolates (108 correlates)

(1 data source)



### Breakpoints

Ertapenem MIC

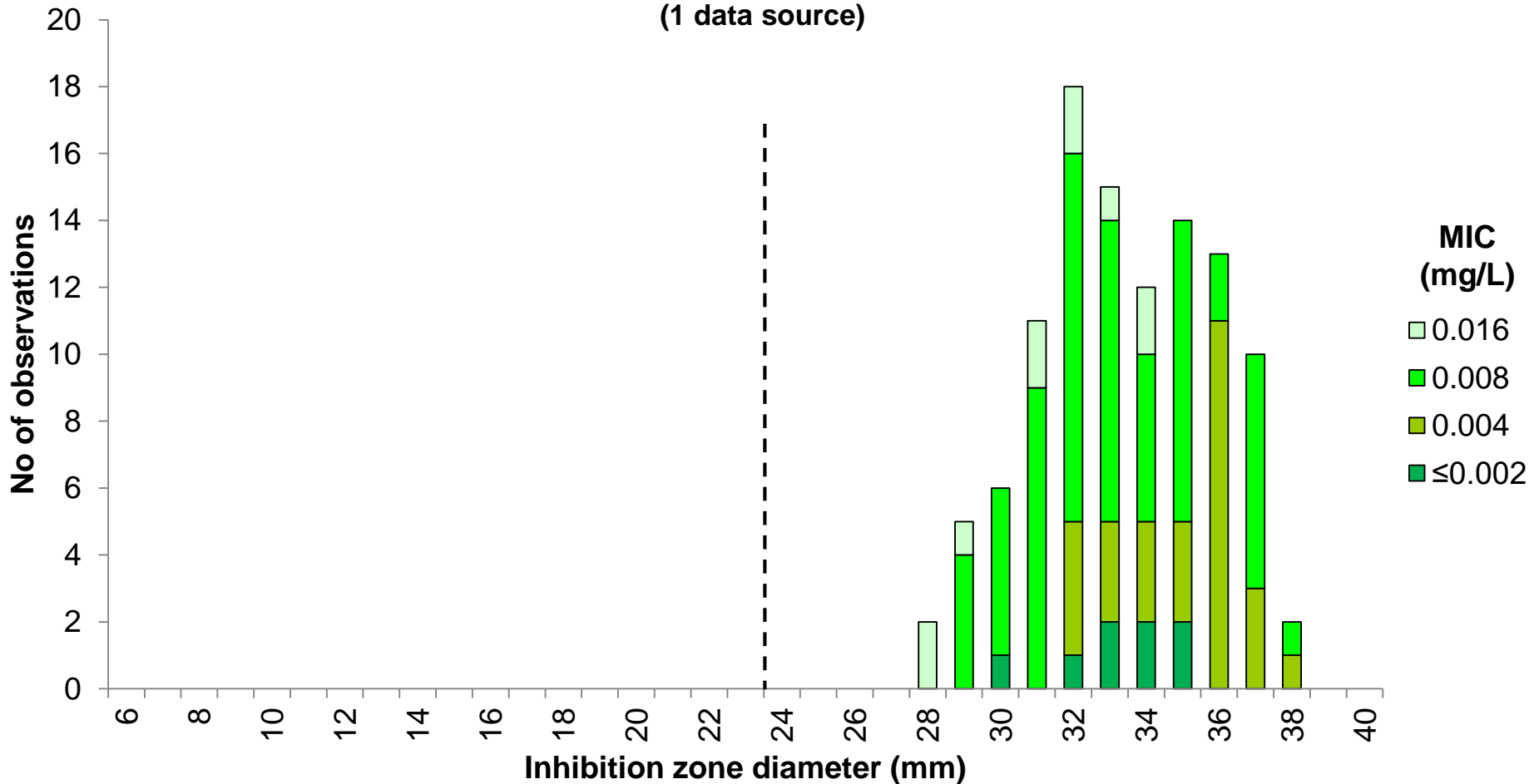
$S \leq 0.25$ ,  $R > 0.25$  mg/L

Benzylpenicillin zone diameter

$S \geq 24$ ,  $R < 24$  mm

# Benzylpenicillin 1 unit vs. Imipenem MIC *C. acnes*, 54 isolates (108 correlates)

(1 data source)



## Breakpoints

Imipenem MIC

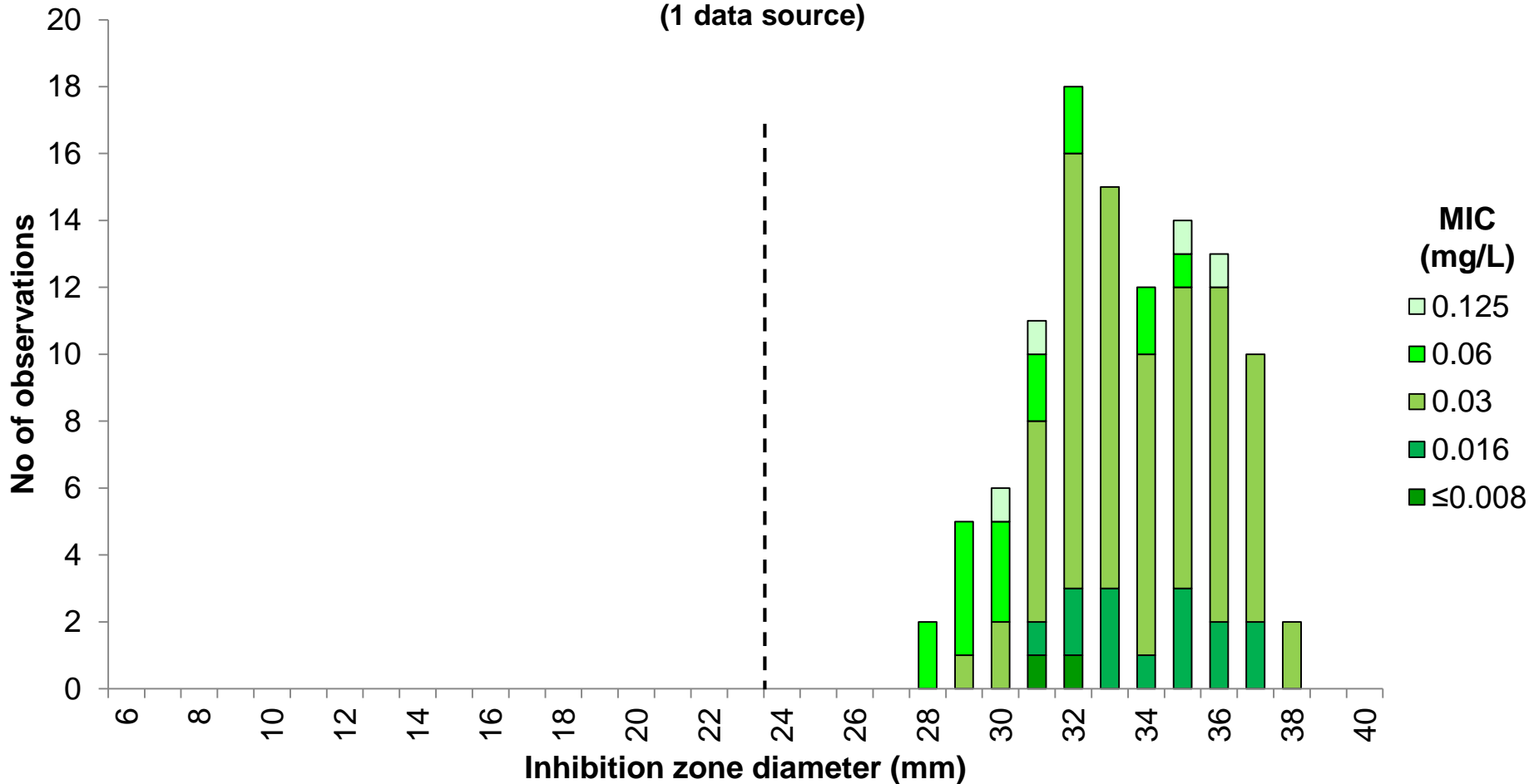
$S \leq 0.03$ ,  $R > 0.03$  mg/L

Benzylpenicillin zone diameter

$S \geq 24$ ,  $R < 24$  mm

# Benzylpenicillin 1 unit vs. Meropenem MIC *C. acnes*, 54 isolates (108 correlates)

(1 data source)



## Breakpoints

Meropenem MIC

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

Benzylpenicillin zone diameter

$S \geq 24$ ,  $R < 24$  mm



**EUCAST**

European Committee  
on Antimicrobial  
Susceptibility Testing