



Summary of Results

External Quality Assessment of Food Microbiology *Staphylococcus aureus* Enterotoxin Scheme

Distribution Number: STA048

Sample Numbers: ST0095, ST0096

Distribution Date:	September 2022
Results Due:	07 October 2022
Report Date:	11 October 2022
Samples prepared and quality control tested by:	Divya George Cansev Katar Zak Prior Sidney Sandiford Jake Videlefsky
Data analysed by:	Joanna Donn Nita Patel
Report compiled by:	Joanna Donn Nita Patel
Authorised by:	Nita Patel

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For general information about the scheme please refer to:

Scheme Guide:

<https://www.gov.uk/government/publications/food-and-water-proficiency-testing-schemes-scheme-guide>

For more specific information about results assessments, scoring systems, statistics, and guidance on analysing your results for the proficiency testing samples please refer to:

Guide to Scoring Systems and Statistics:

<https://www.gov.uk/government/publications/food-and-water-proficiency-testing-schemes-scoring-systems-and-statistics>

This Scheme provides external quality assessment (EQA) samples for laboratories that examine for *Staphylococcus aureus* enterotoxin in food samples. Staphylococcal food poisoning is an intoxication due to consumption of food or beverages containing pre-formed enterotoxins (SE). *S.aureus* is known to produce at least 14 different SEs (Leloir, Y., Baron, F. and Gautier, M. (2003) *Staphylococcus aureus* and food poisoning. *Genet. Mol Res.* 2, 63 - 76)

Strains included in these samples are tested using a modification of a PCR-based technique. (McLauchlin, J., Narayanan G.L., Mithani, V. and O'Neill, G. (2000) The detection of enterotoxins and toxic shock syndrome genes in *Staphylococcus aureus* by polymerase chain reaction. *J. Food Protect.* 63, 479 - 488). Copies of this publication are available to participants on request. Quality control testing and determination of the assigned value (expected results) is undertaken using passive latex agglutination (RPLA).

Refer to section 17.0 of the Scheme Guide if you have experienced difficulties with any of the examinations .

<https://www.gov.uk/government/publications/food-and-water-proficiency-testing-schemes-scheme-guide>

All participants are reminded that reporting incorrect results for detection of *S.aureus* enterotoxin isolated from food samples could have serious public health implications.

Scores are not allocated for results reported for the *S.aureus* enterotoxin Scheme. Comments relating to performance are included in Table 1.

Please contact FEPTU staff for advice and information:

Repeat samples	Carmen Gomes or Kermin Daruwalla	Tel: +44 (0)20 8327 7119
Data Analysis	Nita Patel	Fax:
Microbiological advice	Nita Patel or Zak Prior	Email: foodeqa@ukhsa.gov.uk
General comments and complaints	Nita Patel or Zak Prior	FEPTU's website
Scheme consultants	Melody Greenwood	
Scheme Co-ordinator	Nita Patel	

Accreditation: UKHSA *Staphylococcus aureus* enterotoxin EQA Scheme is accredited by the United Kingdom Accreditation Service (UKAS) to ISO/IEC 17043:2010.



0006

Sample: ST0095**Contents:***Staphylococcus aureus* (10⁵) (wild strain)

The level is presented as colony forming units (cfu) per ml reconstituted sample

Expected Results:

Examination	Expected Result	Your Result	Your Method Reported	Comments
<i>S.aureus</i> enterotoxin	Detected (Toxin group E)			

Total participants reporting for <i>S.aureus</i> enterotoxin	31
Participants reporting correctly	30

Participants correctly reporting detected for SET Group E	5
Participants correctly reporting detected for <i>S.aureus</i> enterotoxin (Toxin group not specified)	6
Participants reporting 'Not Detected' for Toxin Group E	0
Participants correctly reporting detected for SET Group A, B, C, D, E	1
Participants correctly reporting detected for <i>S. aureus</i> and 'not applicable' for toxin group	6
Participants correctly reporting detected for <i>S. aureus</i> and 'not examined' for toxin group	12

Total sent sample	34
Non-returns	1
Not examined	2

Sample: ST0096**Contents:***Staphylococcus aureus* (10⁵) (wild strain)

The level is presented as colony forming units (cfu) per ml reconstituted sample

Expected Results:

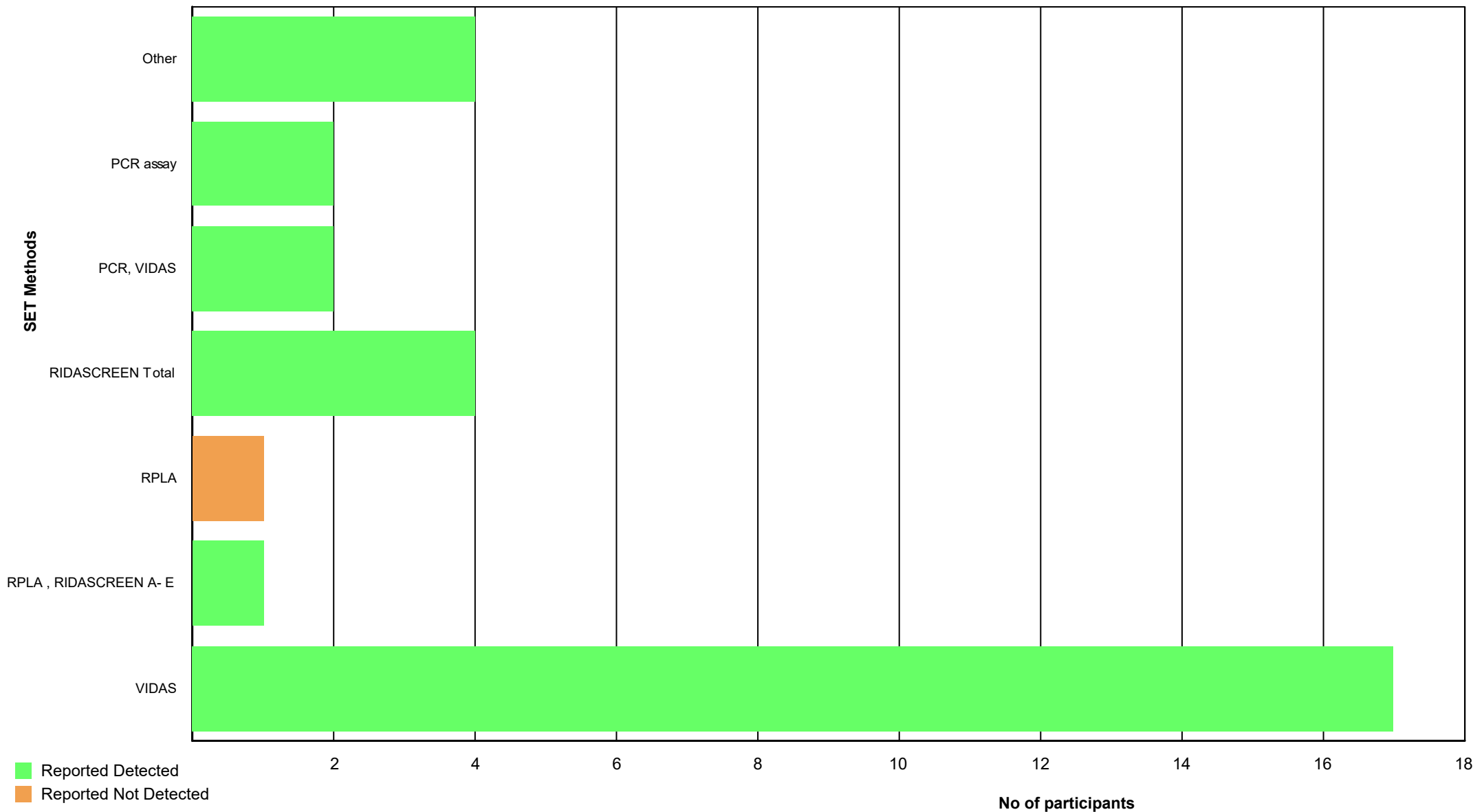
Examination	Expected Result	Your Result	Your Method Reported	Comments
<i>S.aureus</i> enterotoxin	Detected (Toxin group A)			

Total participants reporting for <i>S.aureus</i> enterotoxin	31
Participants reporting correctly	31

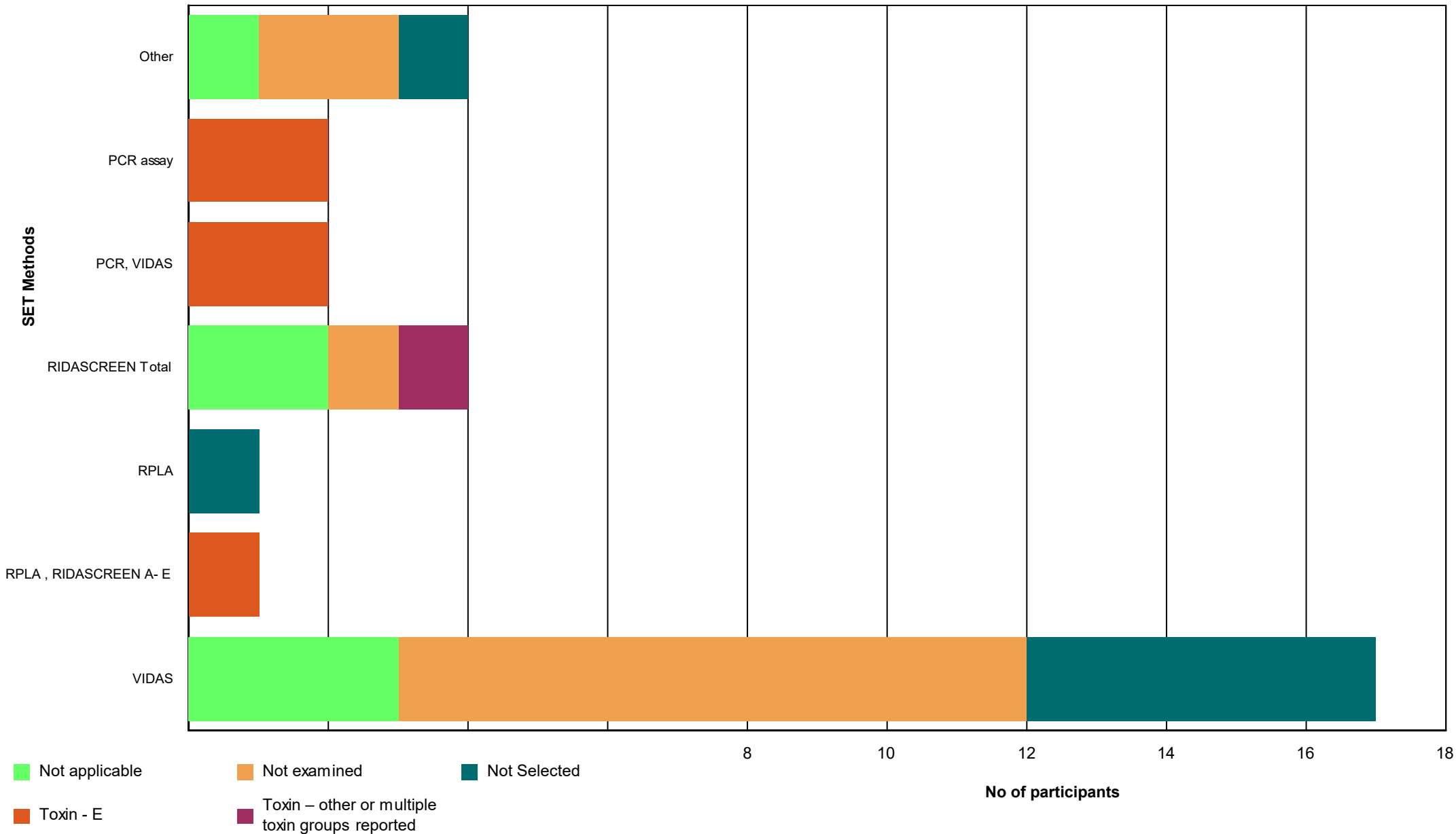
Participants correctly reporting detected for SET Group A	7
Participants correctly reporting detected for <i>S.aureus</i> enterotoxin (Toxin group not specified)	5
Participants reporting 'Not Detected' for Toxin Group A	0
Participants correctly reporting detected for SET Group A, B, C, D, E	1
Participants correctly reporting detected for <i>S. aureus</i> and 'not applicable' for toxin group	6
Participants correctly reporting detected for <i>S. aureus</i> and 'not examined' for toxin group	12

Total sent sample	34
Non-returns	1
Not examined	2

Sample ST0095 : *Staphylococcus aureus* enterotoxin results reported by participants



Sample ST0095 : *Staphylococcus aureus* enterotoxin group reported by method(s)



Not applicable

Not examined

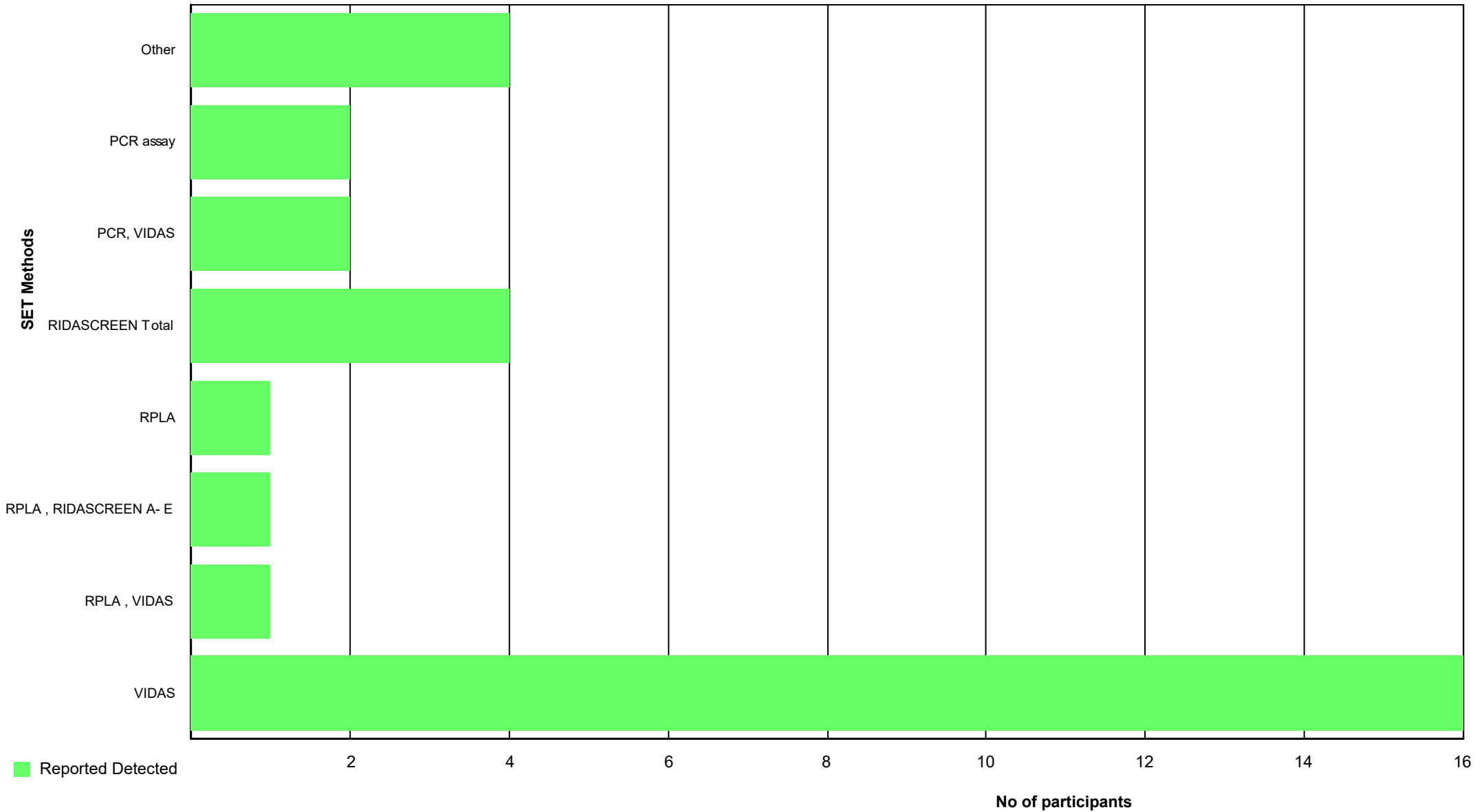
Not Selected

Toxin - E

Toxin - other or multiple toxin groups reported

No of participants

Sample ST0096: *Staphylococcus aureus* enterotoxin results reported by participants



Sample ST0096: *Staphylococcus aureus* enterotoxin group reported by method(s)

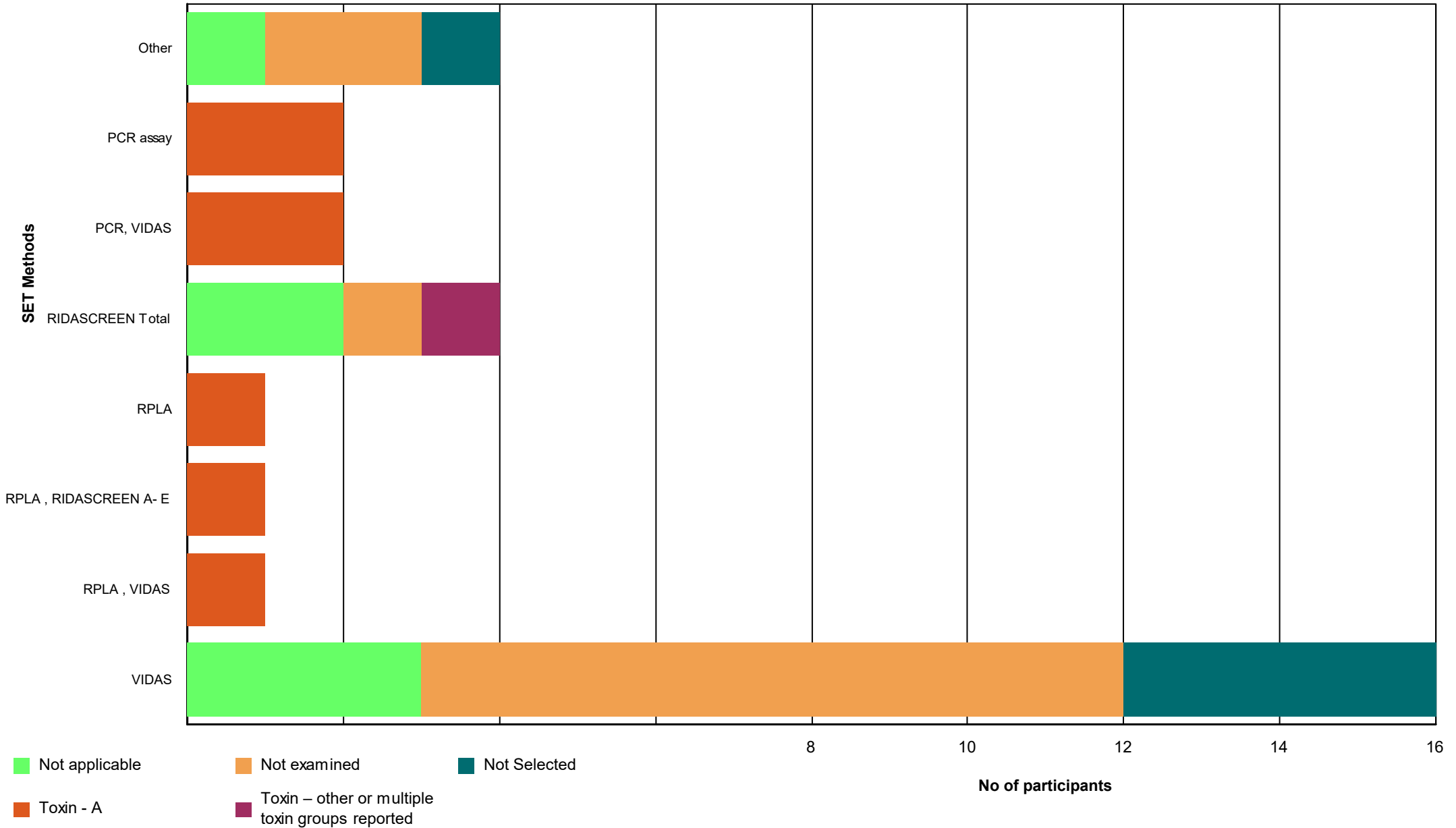


Table 1 - Participants results for samples ST0095 and ST0096

(NE - not examined, NR - not returned)

Lab Number	ST0095	ST0096	Comment
0	Not Examined	Not Examined	ST0095 - Not Examined ST0096 - Not Examined
100	Absent	Present (Toxin group A)	ST0095 - Unsatisfactory ST0096 - Satisfactory
121	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
255	Present	Present	ST0095 - Satisfactory ST0096 - Satisfactory
264	Present (Toxin group E)	Present (Toxin group A)	ST0095 - Satisfactory ST0096 - Satisfactory
266	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
293	Present	Present	ST0095 - Satisfactory ST0096 - Satisfactory
336	Present	Present (Toxin group A)	ST0095 - Satisfactory ST0096 - Satisfactory
355	Present (Toxin group Not applicable)	Present (Toxin group Not applicable)	ST0095 - Satisfactory ST0096 - Satisfactory
399	Present	Present	ST0095 - Satisfactory ST0096 - Satisfactory
422	Present (Toxin group E)	Present (Toxin group A)	ST0095 - Satisfactory ST0096 - Satisfactory
443	Present	Present	ST0095 - Satisfactory ST0096 - Satisfactory

Table 1 (cont'd) - Participants results for samples ST0095 and ST0096

(NE - not examined, NR - not returned)

Lab Number	ST0095	ST0096	Comment
459	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
663	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
861	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
1753	Not Examined	Not Examined	ST0095 - Not Examined ST0096 - Not Examined
1775	Present (Toxin group E)	Present (Toxin group A)	ST0095 - Satisfactory ST0096 - Satisfactory
1854			ST0095 - Results not returned ST0096 - Results not returned
1861	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
1907	Present (Toxin group Not applicable)	Present (Toxin group Not applicable)	ST0095 - Satisfactory ST0096 - Satisfactory
1928	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
1936	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
1961	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
1987	Present (Toxin group E)	Present (Toxin group A)	ST0095 - Satisfactory ST0096 - Satisfactory

Table 1 (cont'd) - Participants results for samples ST0095 and ST0096

(NE - not examined, NR - not returned)

Lab Number	ST0095	ST0096	Comment
2172	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
2192	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
2297	Present (Toxin group Not examined)	Present (Toxin group Not examined)	ST0095 - Satisfactory ST0096 - Satisfactory
2320	Present (Toxin group A, B, C, D, E)	Present (Toxin group A, B, C, D, E)	ST0095 - Satisfactory ST0096 - Satisfactory
2396	Present	Present	ST0095 - Satisfactory ST0096 - Satisfactory
2401	Present (Toxin group Not applicable)	Present (Toxin group Not applicable)	ST0095 - Satisfactory ST0096 - Satisfactory
2681	Present (Toxin group E)	Present (Toxin group A)	ST0095 - Satisfactory ST0096 - Satisfactory
2779	Present (Toxin group Not applicable)	Present (Toxin group Not applicable)	ST0095 - Satisfactory ST0096 - Satisfactory
2784	Present (Toxin group Not applicable)	Present (Toxin group Not applicable)	ST0095 - Satisfactory ST0096 - Satisfactory
2786	Present (Toxin group Not applicable)	Present (Toxin group Not applicable)	ST0095 - Satisfactory ST0096 - Satisfactory

Comments

Participants are advised that if a toxin test is not carried on the sample or on the *Staphylococcus aureus* grown from the sample to return their results as 'Not examined'. Participants should only use 'Not applicable' if this has been identified as a limitation of the kits assay used.

If you do not return a result for a distribution, you will not be able to view all the participants' results data in your individualised report. To access this missing data contact us on foodeqa@ukhsa.gov.uk.

End of report.

