**Supplementary material**

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**Table S1. Seasonal variation.** Monthly number of samples, confirmed positives by VP6 detection assay, positive predictive values (PPV), standard error (SE) and confidence intervals (95%CI) were calculated for each group. Highest (*) and lowest (**) PPV values for each category are indicated.

| Month | Rapid Test | | | | | | EIA | | | | | | PCR | | | | | |
| | Samples (n) | Confirmed | | SE | Lower CI | Upper CI | Samples (n) | Confirmed | | SE | Lower CI | Upper CI | Samples (n) | Confirmed | | SE | Lower CI | Upper CI |
| | | (n) | PPV (%) | | | | | (n) | PPV (%) | | | | | (n) | PPV (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jan | 171 | 120 | 70.2 | 3.5 | 62.9 | 76.6 | 32 | 27 | 84.4 | 6.5 | 67.1 | 93.4 | 57 | 52 | 91.2 | 3.8 | 80.4 | 96.3 |
| Feb | 301 | 249 | 82.7* | 2.2 | 78 | 86.6 | 51 | 49 | 96.1 | 2.7 | 85.4 | 99 | 80 | 77 | 96.3* | 2.1 | 88.9 | 98.8 |
| Mar | 435 | 338 | 77.7 | 2 | 73.5 | 81.4 | 60 | 51 | 85.0 | 4.6 | 73.5 | 92.1 | 68 | 65 | 95.6 | 2.5 | 87.1 | 98.6 |
| Apr | 373 | 287 | 76.9 | 2.2 | 72.4 | 80.9 | 88 | 85 | 96.6* | 1.9 | 89.9 | 98.9 | 43 | 37 | 86.0 | 5.3 | 72 | 93.7 |
| May | 349 | 266 | 76.2 | 2.3 | 71.5 | 80.4 | 131 | 119 | 90.8 | 2.5 | 84.5 | 94.7 | 35 | 33 | 94.3 | 4 | 79.4 | 98.6 |
| Jun | 179 | 121 | 67.6 | 3.5 | 60.4 | 74.1 | 72 | 63 | 87.5 | 3.9 | 77.6 | 93.4 | 39 | 30 | 76.9 | 6.8 | 61 | 87.7 |
| Jul | 133 | 86 | 64.7 | 4.2 | 56.1 | 72.3 | 53 | 47 | 88.7 | 4.4 | 76.8 | 94.9 | 39 | 21 | 53.8** | 8.1 | 38.1 | 68.9 |
| Aug | 145 | 70 | 48.3 | 4.2 | 40.2 | 56.4 | 29 | 21 | 72.4 | 8.4 | 53.4 | 85.8 | 43 | 36 | 83.7 | 5.7 | 69.4 | 92.1 |
| Sep | 106 | 38 | 35.8 | 4.7 | 27.3 | 45.4 | 12 | 9 | 75.0 | 13.1 | 43.3 | 92.2 | 22 | 20 | 90.9 | 6.3 | 69.2 | 97.8 |
| Oct | 136 | 50 | 36.8 | 4.1 | 29.1 | 45.2 | 15 | 6 | 40.0** | 13.1 | 18.6 | 66.1 | 27 | 19 | 70.4 | 9 | 50.5 | 84.7 |
| Nov | 150 | 50 | 33.3** | 3.9 | 26.2 | 41.3 | 12 | 11 | 91.7 | 8.3 | 56.3 | 98.9 | 29 | 28 | 96.6 | 3.4 | 78.5 | 99.5 |
| Dec | 130 | 71 | 54.6 | 4.4 | 46 | 63 | 23 | 17 | 73.9 | 9.4 | 52.2 | 88 | 53 | 47 | 88.7 | 4.4 | 76.8 | 94.9 |

**Table S2. Seasonal variation for rapid test RORT3 in 2017.** Monthly number of samples, confirmed positives by VP6 detection assay, positive predictive values (PPV), standard error (SE) and confidence intervals (95%CI) were calculated for each group. Highest (*) and lowest (**) PPV values are indicated.

| Month | Samples (n) | Confirmed | | SE | Lower CI | Upper CI |
|---|---|---|---|---|---|---|
| | | (n) | PPV (%) | | | |
| Jan | 68 | 53 | 77.9 | 5.1 | 66.5 | 86.3 |
| Feb | 123 | 114 | 92.7* | 2.4 | 86.5 | 96.2 |
| Mar | 152 | 138 | 90.8 | 2.4 | 85 | 94.5 |
| Apr | 107 | 98 | 91.6 | 2.7 | 84.6 | 95.6 |
| May | 98 | 82 | 83.7 | 3.8 | 74.9 | 89.8 |
| Jun | 35 | 24 | 68.6 | 8 | 51.4 | 81.8 |
| Jul | 14 | 2 | 14.3 | 9.7 | 3.4 | 44.1 |
| Aug | 52 | 17 | 32.7 | 6.6 | 21.3 | 46.6 |
| Sep | 15 | 1 | 6.7** | 6.7 | 0.9 | 36.9 |
| Oct | 31 | 5 | 16.1 | 6.7 | 6.8 | 33.8 |
| Nov | 37 | 7 | 18.9 | 6.5 | 9.2 | 35 |
| Dec | 29 | 7 | 24.1 | 8.1 | 11.8 | 43.1 |

## Supplementary Materials and Methods

### *Electron microscopy*

A 10% w/v faecal suspension was made in water for each sample. This was mixed thoroughly and allowed to settle overnight at +4C. The less turbid material at the top of the suspension was used for negative staining. 5µl of sample was incubated for 1 minute on a glow-discharged, carbon-pioloform coated 600 mesh thin bar electron microscopy (EM) grid. Excess sample was removed by blotting and grid surface washed twice with water, before being negatively stained for 10-15 seconds with 1.5% phosphotungstic acid (pH 6.5). The stain was removed to dryness by blotting and the grids were observed in a JEM1400 transmission electron microscope fitted with an AMT digital camera. For a semi-quantitative comparison, 25 grid squares were screened at 8000x mag for each grid and the number of rotavirus particles seen recorded.

**Table S3. Particle visualisation by electron microscopy.**

| Sample ID | Method Referring Lab | Screening Result | VP6 qRT-PCR Result | Number of particles* |
|-----------|----------------------|------------------|--------------------|----------------------|
| #1 | | | Negative | 0 |
| #2 | | | Negative | 0 |
| #3 | RART11 | Positive | | 0 |
| #4 | | | Positive | 127 |
| #5 | | | Positive | 1054 |
| #6 | | | Negative | 0 |
| #7 | RORT2 | Positive | Negative | 0 |
| #8 | | | Positive | 2315 |
| #9 | | | Positive | 243 |
| #10 | | | Negative | 0 |
| #11 | | | Negative | 0 |
| #12 | RORT3 | Positive | | 0 |
| #13 | | | Positive | 117 |
| #14 | | | Positive | 303 |
| #15 | | | Negative | 0 |
| #16 | | | Negative | 0 |
| #17 | RORT4 | Positive | | 0 |
| #18 | | | Positive | 30 |
| #19 | | | Positive | 449 |

* Number of particles in 25 grids squares.