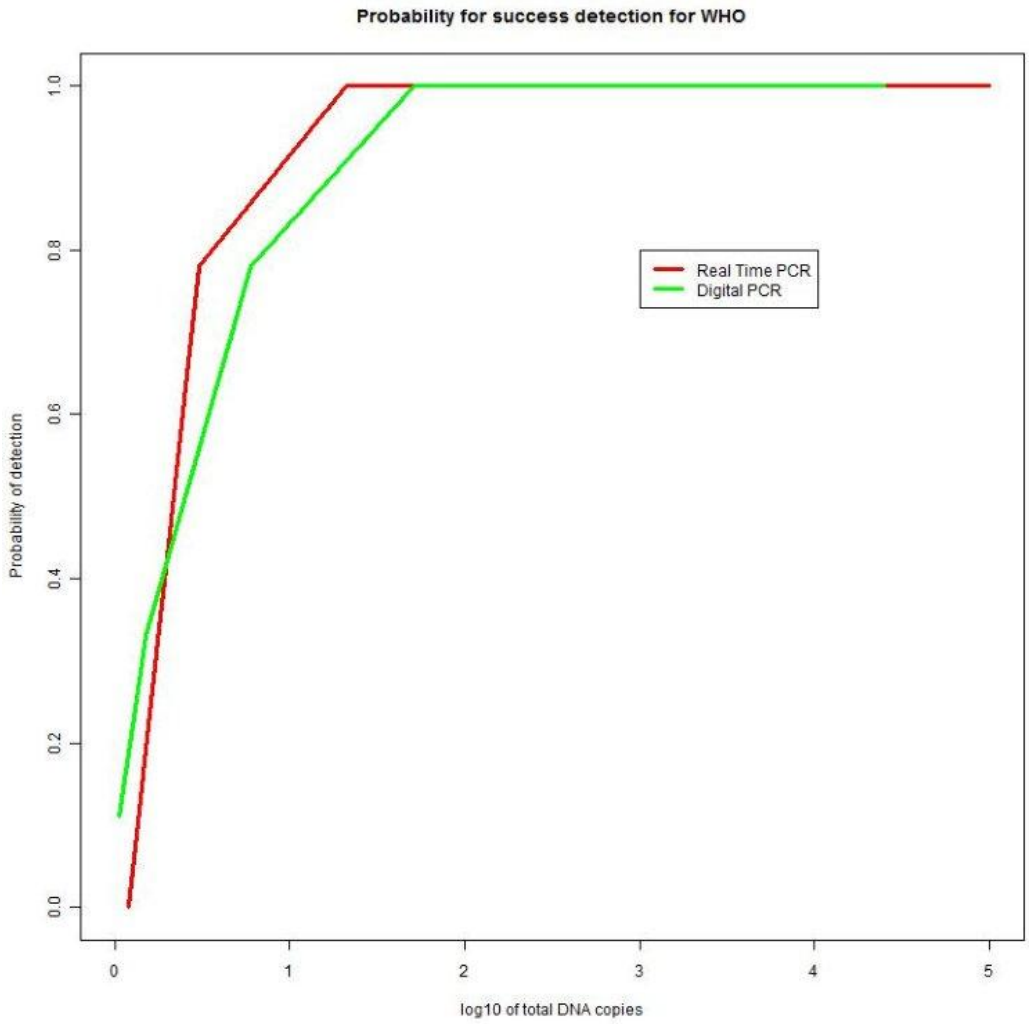
**Supplemental Table S1**. Regression Model Equations for Fitted Lines Shown in Figure 1.

| **Figure** | **Assay & Standard** | **Fitted Model Equation** | **Adjusted R-square** |
|---|---|---|---|
| 1A | ddPCR & Acrometrix | Y=0.985*X+0.377 | 0.986 |
| 1A | ddPCR & NIST | Y=1.045*X+0.172 | 0.994 |
| 1A | ddPCR & WHO | Y=0.996*X+0.283 | 0.997 |
| 1B | RTPCR & Acrometrix | Y=0.931*X+0.553 | 0.976 |
| 1B | RTPCR & NIST | Y=0.959*X+0.846 | 0.995 |
| 1B | RTPCR & WHO | Y=1.044*X-0.311 | 0.992 |

**Supplemental Table S2**. Regression Model Equations for Fitted Lines Shown in Figure 2.

| Group | Equation | Adjusted R-square |
|---|---|---|
| Acrometrix | Y=0.952*X+0.159 | 0.995 |
| NIST | Y=1.037*X | 0.986 |
| WHO | Y=1.033*X | 0.959 |

A


Probability for success detection for WHO
Real Time PCR
Digital PCR
Probability of detection
log10 of total DNA copies
0.0
0.2
0.4
0.6
0.8
1.0
0
1
2
3
4
5

B

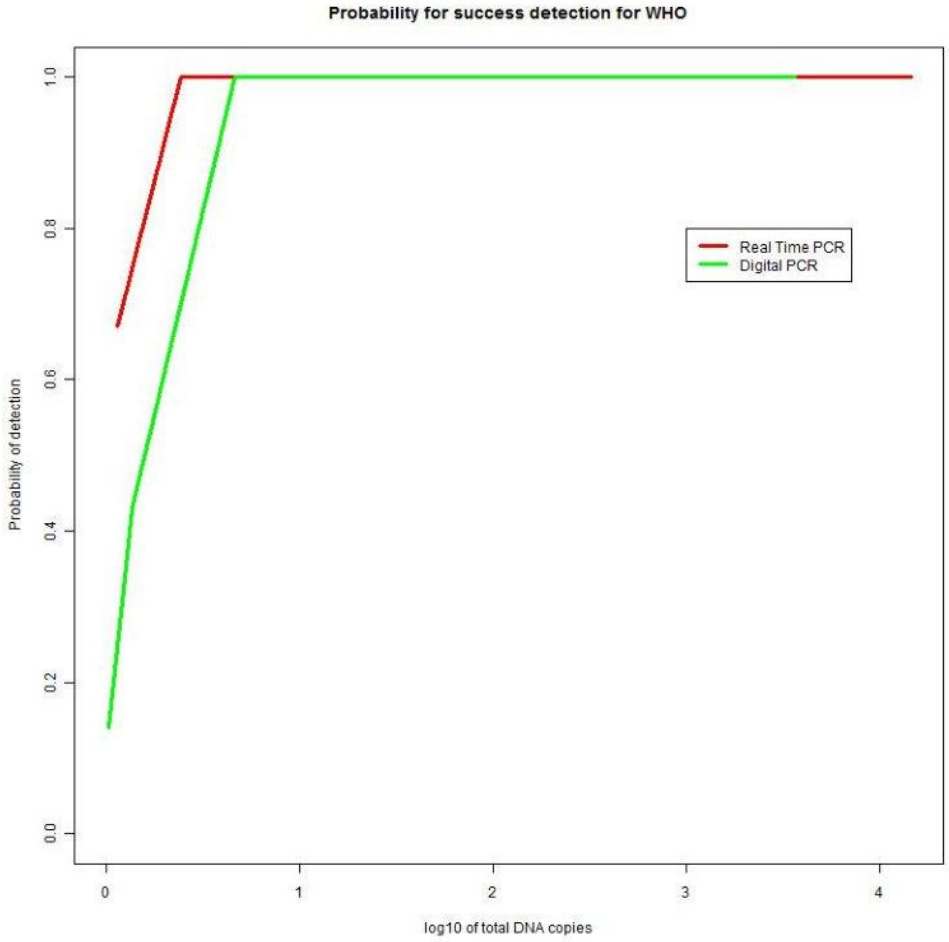



**Figure S1A**. Plot of the Observed Probability of Detection as a Function of the log(total input copies + 1) for the (A) NIST standard and (B) WHO standard. There was not enough data to perform a meaningful formal comparison with logistic regression analysis.

**Supplement Table S3**

| Specimen ID | Mean(digitalPCR) | Std(digitalPCR) | %CV(digitalPCR) | Mean(RealTime) | Std(RealTime) | %CV(RealTime) |
|---|---|---|---|---|---|---|
| 1 | 0.57 | 1.14 | 200.000 | 1.06 | 0.20 | 18.693 |
| 2 | 1.08 | 1.26 | 116.978 | 0.79 | 0.94 | 117.908 |
| 3 | 1.11 | 1.30 | 117.623 | 1.97 | 0.18 | 9.043 |
| 4 | 1.48 | 0.99 | 66.733 | 1.63 | 0.30 | 18.170 |
| 5 | 0.00 | 0.00 | n/a | 1.41 | 0.12 | 8.877 |
| 6 | 1.95 | 0.04 | 2.107 | 1.64 | 0.25 | 15.425 |
| 7 | 0.99 | 1.15 | 115.567 | 1.57 | 0.32 | 20.130 |
| 8 | 1.04 | 1.20 | 115.811 | 1.64 | 0.34 | 20.573 |
| 9 | 1.06 | 1.23 | 115.661 | 1.87 | 0.12 | 6.581 |
| 10 | 3.19 | 0.10 | 3.136 | 3.46 | 0.05 | 1.418 |
| 11 | 1.07 | 1.24 | 115.809 | 1.54 | 0.48 | 31.141 |
| 12 | 2.17 | 0.31 | 14.093 | 2.11 | 0.29 | 13.978 |
| 13 | 2.25 | 0.27 | 12.174 | 2.19 | 0.20 | 8.930 |
| 14 | 2.11 | 0.32 | 15.019 | 2.32 | 0.11 | 4.649 |
| 15 | 2.41 | 0.36 | 14.823 | 2.35 | 0.17 | 7.077 |
| 16 | 2.54 | 0.25 | 9.853 | 2.42 | 0.39 | 15.910 |
| 17 | 1.66 | 1.12 | 67.722 | 1.91 | 0.29 | 15.277 |
| 18 | 2.20 | 0.35 | 16.017 | 2.23 | 0.20 | 9.067 |
| 19 | 1.24 | 1.44 | 115.766 | 1.86 | 0.20 | 10.898 |
| 20 | 2.44 | 0.05 | 1.986 | 2.55 | 0.12 | 4.868 |
| 21 | 2.68 | 0.21 | 7.928 | 2.80 | 0.13 | 4.766 |
| 22 | 2.02 | 0.15 | 7.433 | 1.85 | 0.16 | 8.784 |
| 23 | 2.31 | 0.38 | 16.488 | 2.47 | 0.15 | 5.924 |
| 24 | 1.91 | 1.27 | 66.673 | 1.94 | 0.16 | 8.427 |
| 25 | 1.77 | 1.19 | 67.312 | 2.54 | 0.06 | 2.455 |
| 26 | 2.20 | 0.26 | 11.952 | 2.40 | 0.17 | 7.115 |

| Specimen ID | Mean(digitalPCR) | Std(digitalPCR) | %CV(digitalPCR) | Mean(RealTime) | Std(RealTime) | %CV(RealTime) |
|---|---|---|---|---|---|---|
| 27 | 2.70 | 0.11 | 4.117 | 2.75 | 0.12 | 4.505 |
| 28 | 2.03 | 1.36 | 67.240 | 2.71 | 0.07 | 2.600 |
| 29 | 2.63 | 0.21 | 7.939 | 2.73 | 0.12 | 4.475 |
| 30 | 1.26 | 1.46 | 116.373 | 2.18 | 0.20 | 9.393 |
| 31 | 3.11 | 0.11 | 3.429 | 3.18 | 0.15 | 4.848 |
| 32 | 3.09 | 0.03 | 0.829 | 3.20 | 0.06 | 2.011 |
| 33 | 2.93 | 0.18 | 6.169 | 3.14 | 0.13 | 4.253 |
| 34 | 2.83 | 0.12 | 4.130 | 3.22 | 0.11 | 3.361 |
| 35 | 3.07 | 0.26 | 8.613 | 3.43 | 0.12 | 3.624 |
| 36 | 3.35 | 0.12 | 3.711 | 3.70 | 0.07 | 1.811 |
| 37 | 3.47 | 0.08 | 2.231 | 3.61 | 0.07 | 1.909 |
| 38 | 3.73 | 0.05 | 1.319 | 3.80 | 0.10 | 2.605 |
| 39 | 3.47 | 0.07 | 1.955 | 3.56 | 0.09 | 2.588 |
| 40 | 3.52 | 0.13 | 3.753 | 3.72 | 0.14 | 3.813 |
| 41 | 3.58 | 0.15 | 4.081 | 3.80 | 0.13 | 3.449 |
| 42 | 4.24 | 0.02 | 0.437 | 4.29 | 0.03 | 0.699 |
| 43 | 4.26 | 0.02 | 0.467 | 4.18 | 0.07 | 1.646 |
| 44 | 4.04 | 0.10 | 2.556 | 4.32 | 0.04 | 0.958 |
| 45 | 3.95 | 0.26 | 6.691 | 4.61 | 0.04 | 0.926 |
| 46 | 4.68 | 0.02 | 0.497 | 4.54 | 0.09 | 1.888 |
| 47 | 4.36 | 0.07 | 1.662 | 4.53 | 0.04 | 0.943 |
| 48 | 4.47 | 0.02 | 0.359 | 4.65 | 0.08 | 1.662 |
| 49 | 5.18 | 0.05 | 1.016 | 5.34 | 0.13 | 2.462 |
| 50 | 5.45 | 0.06 | 1.169 | 5.43 | 0.05 | 0.860 |