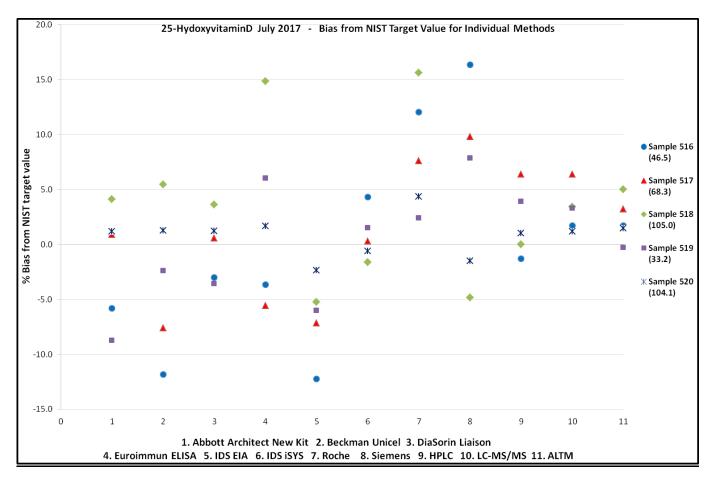
NOTES TO ACCOMPANY THE JULY 2017 25-HYDROXYVITAMIN D REPORT

Chart showing between-sample variability of % bias from the target value



Sample numbers with target values in nmol/L in parenthesis

Samples 518 and 520

Sample numbers 518 and 520 were prepared from the same pool of serum and should give similar results. The table below compares the trimmed method means and imprecision (CV%) for these two samples, for the major methods, where the number of returned results is >10.

Participants should compare their own results for these two samples.

Method	Sample 518 Method Mean (nmol/L)	Sample 520 Method Mean (nmol/L)	% Difference (nmo/L)	Sample 518 Method Mean CV%	Sample 520 Method Mean CV%
Abbott Architect - New	109.3	108.8	-0.5	4.8	4.5
Beckman Unicel Dxi	110.7	109.2	-1.4	9.1	11.6
DiaSorin Liaison	108.9	109.0	0.1	7.1	7.3
Euroimmun ELISA	120.6	110.8	-8.1	19.4	22.8
IDS EIA	99.5	94.7	-4.8	10.2	16.1
IDS iSYS	103.3	101.6	-1.6	8.9	10.1
Roche Total 25OHD	121.4	121.7	0.2	8.7	9.0
Siemens ADVIA Centaur	99.9	98.0	-1.9	9.3	9.0
HPLC	105.0	108.1	3.0	22.8	14.1
LC-MS/MS	108.6	108.9	0.3	9.8	9.6
ALTM	110.3	110.0	-0.3	10.5	11.1
Target Value	105.0	104.1	-0.9		

24,25-dihydroxyvitamin D results for samples 516 - 520

Method	Sample 516 24,25OH-D3 nmol/L	Sample 517 24,25OH-D3 nmol/L	Sample 518 24,25OH-D3 nmol/L	Sample 519 24,25OH-D3 nmol/L	Sample 520 24,25OH-D3 nmol/L
LC-MS/MS	2.2	4.2	5.7	1.2	5.7
LC-MS/MS	3.9	6.7	9.2	2.1	9.8
LC-MS/MS	3.4	6.5	9.4	1.7	9.4
LC-MS/MS	4.7	7.6	11.5	2.6	10.7
LC-MS/MS	3.0	6.8	7.6	1.6	9.1
LC-MS/MS	4.5	6.8	7.6	1.6	9.1
LC-MS/MS	2.2	5.5	7.0	1.2	7.4
LC-MS/MS	4.0	6.9	9.3	2.3	9.4
LC-MS/MS	3.4	5.6	8.2	<2.5	7.8
LC-MS/MS	6.7	14.3	18.4	5.3	17.0
	3.7	6.7	9.3	1.9	9.4
	3.6	6.5	9.0	1.9	9.5
	0.8	0.7	1.4	0.6	1.5
	22.4	10.5	15.7	29.2	15.6
	8	8	8	8	8
	LC-MS/MS LC-MS/MS LC-MS/MS LC-MS/MS LC-MS/MS LC-MS/MS LC-MS/MS LC-MS/MS LC-MS/MS	Method 24,25OH-D3 nmol/L LC-MS/MS 2.2 LC-MS/MS 3.9 LC-MS/MS 3.4 LC-MS/MS 4.7 LC-MS/MS 4.5 LC-MS/MS 4.5 LC-MS/MS 4.0 LC-MS/MS 3.4 LC-MS/MS 6.7 3.7 3.6 0.8 22.4	Method 24,25OH-D3 nmol/L 24,25OH-D3 nmol/L LC-MS/MS 2.2 4.2 LC-MS/MS 3.9 6.7 LC-MS/MS 3.4 6.5 LC-MS/MS 4.7 7.6 LC-MS/MS 3.0 6.8 LC-MS/MS 4.5 6.8 LC-MS/MS 2.2 5.5 LC-MS/MS 4.0 6.9 LC-MS/MS 3.4 5.6 LC-MS/MS 6.7 14.3 3.7 6.7 3.6 6.5 0.8 0.7 22.4 10.5	Method 24,25OH-D3 nmol/L 24,25OH-D3 nmol/L 24,25OH-D3 nmol/L LC-MS/MS 2.2 4.2 5.7 LC-MS/MS 3.9 6.7 9.2 LC-MS/MS 3.4 6.5 9.4 LC-MS/MS 4.7 7.6 11.5 LC-MS/MS 3.0 6.8 7.6 LC-MS/MS 4.5 6.8 7.6 LC-MS/MS 2.2 5.5 7.0 LC-MS/MS 4.0 6.9 9.3 LC-MS/MS 3.4 5.6 8.2 LC-MS/MS 6.7 14.3 18.4 3.7 6.7 9.3 3.6 6.5 9.0 0.8 0.7 1.4 22.4 10.5 15.7	Method 24,25OH-D3 nmol/L 24,25OH-D3 nmol/L 24,25OH-D3 nmol/L 24,25OH-D3 nmol/L LC-MS/MS 2.2 4.2 5.7 1.2 LC-MS/MS 3.9 6.7 9.2 2.1 LC-MS/MS 3.4 6.5 9.4 1.7 LC-MS/MS 4.7 7.6 11.5 2.6 LC-MS/MS 3.0 6.8 7.6 1.6 LC-MS/MS 4.5 6.8 7.6 1.6 LC-MS/MS 4.5 6.8 7.6 1.2 LC-MS/MS 4.0 6.9 9.3 2.3 LC-MS/MS 3.4 5.6 8.2 <2.5

Comment:

The statistics were calculated on trimmed data. Clearly, with such a small number of results the summary statistics are very unreliable.

This data is for information purposes only.

Free 25-hydroxyvitamin D results for samples 516 - 520 in pmol/L

Data returned after the final report for 25-hydroxyvitamin D was issued.

DEQAS Lab No.	Method	Sample 516	Sample 517	Sample 518	Sample 519	Sample 520
2215	In-house ELISA	14.0	17.5	14.0	31.3	13.8

Comment:

This data is for information purposes only.