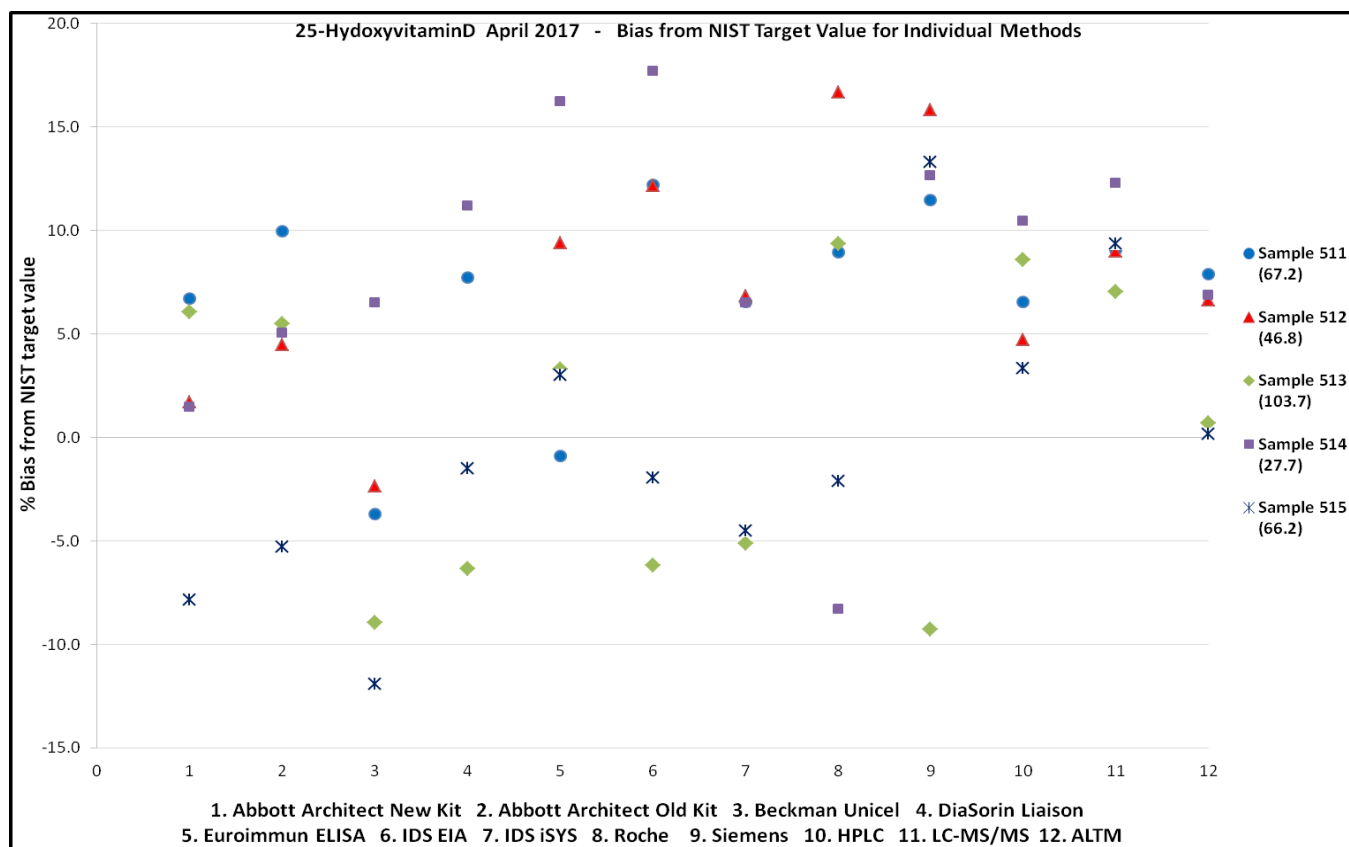


NOTES TO ACCOMPANY THE APRIL 2017 25-HYDROXYVITAMIN D REPORT

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



Sample numbers with target values in nmol/L in parenthesis

Sample 515

Sample 515 contained endogenous 25OHD₂, 27.9% of the total 25OHD (NIST Target value 66.2 nmol/L). The respective levels of 25OHD₂ and 25OHD₃ in this sample, for participants using HPLC or LC-MS/MS assays, are given below.

These results have been calculated using only the data from participants who have returned numeric results for both metabolites; 25OHD₂ and 25OHD₃. Not all HPLC and LC-MS/MS users returned results for the individual metabolites. A few participants only measure 25OHD₃ and these values have been entered as total 25OHD in the main table of results. As a result, the total 25OHD values recorded below may differ from those in the method mean data for this sample in the final report, particularly for the HPLC method group where a higher proportion of labs have only reported a result for 25OHD₃.

The results have been subjected to the usual trimming process. The results were ranked in order of concentration and 5% of results removed from the top and bottom before calculating the mean, SD and CV%.

	HPLC (n=10*)			LC-MS/MS (n=123*)		
	25OHD ₂	25OHD ₃	Total 25OHD	25OHD ₂	25OHD ₃	Total 25OHD
Mean	20.2	53.4	72.8	19.7	53.6	73.3
SD	3.88	2.43	5.93	2.08	4.00	5.07
CV	19.2%	4.6%	8.1%	10.6%	7.5%	6.9%
Target Value	18.5	47.7	66.2	18.5	47.7	66.2
Bias from TV	9.2%	11.9%	10.0%	6.5%	12.4%	10.7%

* Number of results remaining after trimming

24,25-dihydroxyvitamin D results for samples 511 - 515

DEQAS Lab No.	Method	Sample 511 24,25OH-D3 nmol/L	Sample 512 24,25OH-D3 nmol/L	Sample 513 24,25OH-D3 nmol/L	Sample 514 24,25OH-D3 nmol/L	Sample 515 24,25OH-D3 nmol/L	Sample 515 24,25OH-D2 nmol/L
52	LC-MS/MS	5.8	3.2	7.8	1.4	3.3	
112	LC-MS/MS	3.7	2.7	7.2	1.0	3.0	
528	LC-MS/MS	6.7	4.8	10.3	1.7	4.6	
1455	LC-MS/MS	6.5	5.1	10.3	2.1	4.6	2.5
1479	LC-MS/MS	6.1	3.7	11.8	2.3	5.2	
1751	LC-MS/MS	7.7	5.0	12.0	2.5	5.0	
1864	LC-MS/MS	4.1	2.4	5.3	<1.2	1.5	
2004	LC-MS/MS	5.0	2.9	6.5	1.2	2.7	
2123	LC-MS/MS	6.4	4.5	9.9	1.8	4.3	
2211	LC-MS/MS	6.0	3.7	9.1	-	4.2	
Median		6.1	3.7	9.5	1.8	4.3	
Mean		5.8	3.8	9.1	1.8	4.0	
SD		0.87	0.87	1.81	0.53	0.85	
CV%		15.0	22.9	19.8	30.4	21.4	
n		8	8	8	8	8	

Comment:

The statistics were calculated on trimmed data for samples 511, 512, 513 and 515 and untrimmed data for sample 514 . 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 511 - 515 in pmol/L

DEQAS Lab No.	Method	Sample 511	Sample 512	Sample 513	Sample 514	Sample 515
2215	In-house ELISA	15.8	11.3	21.8	8.5	15.5

Comment:

This data is for information purposes only.