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## Endocrinology Proficiency Test – January 2012

Enclosed is a statistical summary of participant data for the five endocrinology proficiency survey specimens (E71, E72, E73, E74, E75) shipped 23 January 2012. Test specimens were prepared by the quantitative transfer of constituents to a pooled human serum base. This material was subsequently sterile-filtered, dispensed into aliquots, stored at -80°C and distributed to each participant for analysis. Results for individual instrument and reagent systems where the number of laboratories using those systems is three or greater are provided. Mean and Standard Deviation ( $\pm 1$  SD) values shown on the attached sheets are calculated by a robust statistical technique that does not assume a Gaussian distribution. These statistical reports are also available on the internet at: <http://www.wadsworth.org/chemheme>

### Disclaimer

The use of brand and/or trade names in this report does not constitute an endorsement of the products on the part of the Wadsworth Center or the New York State Department of Health.

Outlined below is a description of the process utilized in the evaluation of your laboratory's proficiency test results. A summary of your laboratory's performance for the three most recent surveys is also included with your report.

### Target value

In general, targets utilized are derived from all-participant mean values calculated by robust statistical technique. In some cases, however, it is recognized that method, reagent, and/or instrument specific targets may be required and "peer group" specific targets are used where appropriate. Should an alternate target be required to evaluate your laboratory's data, an asterisk will be placed adjacent to the method, reagent, and/or instrument listing(s) corresponding to the peer group utilized.

### Acceptable ranges

Limits of acceptable performance were established using criteria specified by CLIA'88 regulations, allowing for rounding to appropriate significant digits. Results falling within this range are scored as 100%. Any result exceeding these limits is considered unsatisfactory and receives a score of 0%. Laboratories must achieve an overall analyte score  $\geq 80\%$  in order to meet performance criteria for that analyte.

### Range plots

Plots show relative distance of your laboratory's results (represented by an "x") from the target for each sample analyzed. Any result exceeding the high or low limit by  $> 20\%$  of the acceptable range is also indicated by a "x" symbol.

Should you have any questions regarding this report, please contact the Endocrinology Section at (518) 474-6930.

## Statistical Summary (Mean and Standard Deviation)

## Thyroxin (T4, µg/dL)

Specimen: E71		Specimen: E72		Specimen: E73		Specimen: E74		Specimen: E75		Number	Instrument or Reagent System
5.68 ± 0.68		10.00 ± 1.19		8.16 ± 1.01		16.61 ± 1.50		12.12 ± 1.11		n = 243	All Methods & Instruments
5.70		10.00		8.10		16.50		12.00		n = 243	Median value, All Methods & Instruments
<Instruments>											
5.52 ± 0.29		8.64 ± 0.62		6.98 ± 0.43		16.45 ± 1.37		11.87 ± 0.71		n = 15	Abbott Architect i System
5.45 ± 0.06		8.86 ± 0.39		6.84 ± 0.38		16.33 ± 0.49		11.22 ± 0.17		n = 5	Abbott AxSym
5.06 ± 0.33		11.57 ± 0.69		9.16 ± 0.60		16.90 ± 0.66		12.82 ± 0.69		n = 19	Beckman Coulter ACCESS
5.75 ± 0.16		9.41 ± 0.29		7.75 ± 0.18		18.05 ± 0.61		12.00 ± 0.44		n = 10	Beckman Coulter AU Chemistry System
5.16 ± 0.10		12.20 ± 0.82		9.93 ± 0.32		17.54 ± 1.35		12.72 ± 0.41		n = 3	Beckman Coulter UniCel DxI 600
5.01 ± 0.43		11.30 ± 0.42		9.11 ± 0.46		16.68 ± 0.74		12.70 ± 0.49		n = 18	Beckman Coulter UniCel DxI 800
5.02 ± 0.34		9.89 ± 0.81		8.03 ± 0.70		17.40 ± 1.11		12.49 ± 0.84		n = 10	Ortho Vitros 5600
4.94 ± 0.13		9.52 ± 0.28		7.73 ± 0.18		16.63 ± 0.59		11.91 ± 0.56		n = 11	Ortho Vitros ECi/ECiQ
5.85 ± 0.25		8.52 ± 0.18		7.05 ± 0.18		14.87 ± 0.60		11.00 ± 0.47		n = 7	Roche cobas e601
6.11 ± 0.20		8.35 ± 0.45		7.17 ± 0.14		16.27 ± 1.39		11.53 ± 0.86		n = 3	Roche Elecsys
6.41 ± 0.27		9.28 ± 0.38		7.55 ± 0.46		16.24 ± 0.72		11.80 ± 0.57		n = 4	Roche MODULAR D/P
5.95 ± 0.29		8.59 ± 0.46		7.09 ± 0.36		15.25 ± 0.84		11.19 ± 0.64		n = 16	Roche MODULAR E
6.02 ± 0.36		10.16 ± 0.48		8.27 ± 0.43		15.66 ± 0.90		11.44 ± 0.47		n = 50	Siemens ADVIA Centaur
5.95 ± 0.64		10.10 ± 0.61		8.44 ± 0.53		17.60 ± 0.79		13.54 ± 0.26		n = 10	Siemens Dimension RxL
7.10 ± 0.60		11.40 ± 0.93		9.90 ± 0.67		19.86 ± 1.03		14.69 ± 0.69		n = 23	Siemens Dimension Vista
5.18 ± 0.22		9.92 ± 0.67		8.33 ± 0.68		18.17 ± 1.18		12.72 ± 0.60		n = 6	Siemens Immulite 1000
5.52 ± 0.41		9.74 ± 0.43		7.89 ± 0.44		16.44 ± 1.02		11.82 ± 0.57		n = 16	Siemens Immulite 2000
5.17 ± 0.18		10.08 ± 0.43		8.17 ± 0.43		16.90 ± 0.67		12.54 ± 0.45		n = 7	Tosoh Bioscience
5.56 ± 0.54		9.77 ± 1.14		8.00 ± 0.94		16.75 ± 1.02		12.10 ± 0.80		n = 18	Mean of Above Means
<Reagents>											
5.53 ± 0.26		8.71 ± 0.58		6.94 ± 0.42		16.43 ± 1.17		11.66 ± 0.69		n = 20	Abbott
5.05 ± 0.37		11.46 ± 0.61		9.19 ± 0.57		16.81 ± 0.73		12.75 ± 0.58		n = 40	Beckman Coulter
6.37 ± 0.31		9.20 ± 0.46		7.61 ± 0.52		15.96 ± 0.65		11.59 ± 0.52		n = 3	Microgenics CEDIA
5.75 ± 0.16		9.41 ± 0.29		7.75 ± 0.18		18.05 ± 0.61		12.00 ± 0.44		n = 10	Microgenics DRI
4.98 ± 0.23		9.71 ± 0.60		7.91 ± 0.50		17.01 ± 0.99		12.15 ± 0.77		n = 21	Ortho Clinical Diagnostics
5.96 ± 0.27		8.56 ± 0.40		7.11 ± 0.31		15.27 ± 0.84		11.21 ± 0.63		n = 29	Roche Elecsys/Modular E/e601/e411
6.02 ± 0.36		10.16 ± 0.48		8.27 ± 0.43		15.66 ± 0.90		11.44 ± 0.47		n = 50	Siemens ADVIA/ADVIS Centaur
6.62 ± 0.85		10.87 ± 1.10		9.30 ± 1.02		18.92 ± 1.65		14.23 ± 0.89		n = 31	Siemens Dimension
7.16 ± 0.18		11.37 ± 0.40		9.88 ± 0.47		19.61 ± 0.65		14.78 ± 0.40		n = 4	Siemens Dimension LOCI
5.45 ± 0.42		9.83 ± 0.49		8.01 ± 0.53		16.86 ± 1.24		12.07 ± 0.67		n = 24	Siemens Immulite
5.21 ± 0.18		10.19 ± 0.37		8.25 ± 0.43		17.07 ± 0.57		12.61 ± 0.32		n = 6	Tosoh ST AIA
5.87 ± 0.71		10.02 ± 1.00		8.26 ± 0.96		17.14 ± 1.41		12.42 ± 1.20		n = 12	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Free T4 (ng/dL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
0.91 ± 0.12	3.18 ± 0.57	2.39 ± 0.49	4.35 ± 0.63	3.02 ± 0.42	n = 265	All Methods & Instruments
0.90	3.10	2.40	4.30	3.00	n = 265	Median value, All Methods & Instruments
<Instruments>						
0.90 ± 0.00	2.13 ± 0.13	1.73 ± 0.10	3.27 ± 0.24	2.45 ± 0.15	n = 16	Abbott Architect i System
0.75 ± 0.06	2.08 ± 0.04	1.55 ± 0.06	2.97 ± 0.20	2.02 ± 0.04	n = 4	Abbott AxSym
0.86 ± 0.06	3.42 ± 0.17	2.64 ± 0.13	3.98 ± 0.27	2.93 ± 0.17	n = 20	Beckman Coulter ACCESS
0.80 ± 0.09	3.47 ± 0.23	2.57 ± 0.05	4.15 ± 0.27	2.87 ± 0.23	n = 3	Beckman Coulter UniCel DxI 600
0.84 ± 0.08	3.66 ± 0.18	2.66 ± 0.09	4.30 ± 0.18	2.96 ± 0.14	n = 17	Beckman Coulter UniCel DxI 800
0.90 ± 0.00	5.17 ± 0.18	4.03 ± 0.14	6.24 ± 0.11	5.34 ± 0.14	n = 12	Ortho Vitros 5600
0.91 ± 0.08	5.35 ± 0.20	4.20 ± 0.20	6.34 ± 0.20	5.36 ± 0.21	n = 9	Ortho Vitros ECi/ECiQ
1.03 ± 0.05	2.93 ± 0.05	2.30 ± 0.09	4.84 ± 0.10	3.37 ± 0.05	n = 3	Roche cobas e411
1.10 ± 0.00	3.14 ± 0.13	2.45 ± 0.08	4.95 ± 0.19	3.48 ± 0.14	n = 10	Roche cobas e601
1.10 ± 0.00	3.17 ± 0.09	2.45 ± 0.06	4.88 ± 0.43	3.35 ± 0.25	n = 5	Roche Elecsys
1.07 ± 0.05	3.13 ± 0.11	2.42 ± 0.12	4.91 ± 0.28	3.46 ± 0.15	n = 21	Roche MODULAR E
0.85 ± 0.07	2.88 ± 0.14	2.12 ± 0.11	4.04 ± 0.20	2.85 ± 0.15	n = 60	Siemens ADVIA Centaur
0.92 ± 0.07	3.08 ± 0.13	2.16 ± 0.13	4.37 ± 0.19	2.84 ± 0.17	n = 7	Siemens Dimension EXL
0.65 ± 0.10	3.70 ± 0.28	3.02 ± 0.28	4.28 ± 0.19	3.52 ± 0.25	n = 9	Siemens Dimension RxL
0.91 ± 0.04	2.98 ± 0.14	2.07 ± 0.09	4.24 ± 0.21	2.69 ± 0.13	n = 28	Siemens Dimension Vista
0.57 ± 0.10	3.66 ± 0.25	3.06 ± 0.25	4.25 ± 0.23	3.48 ± 0.26	n = 6	Siemens Dimension Xpand
1.03 ± 0.05	3.63 ± 0.34	2.90 ± 0.09	4.55 ± 0.27	3.35 ± 0.19	n = 3	Siemens Immulite 1000
1.03 ± 0.07	3.80 ± 0.23	2.97 ± 0.17	4.86 ± 0.25	3.39 ± 0.18	n = 19	Siemens Immulite 2000
1.04 ± 0.08	3.96 ± 0.19	2.94 ± 0.18	5.43 ± 0.38	3.85 ± 0.20	n = 6	Tosoh Bioscience
0.92 ± 0.14	3.35 ± 0.67	2.57 ± 0.59	4.52 ± 0.76	3.16 ± 0.50	n = 19	Mean of Above Means
<Reagents>						
0.89 ± 0.07	2.12 ± 0.12	1.69 ± 0.12	3.21 ± 0.26	2.38 ± 0.22	n = 20	Abbott
0.85 ± 0.07	3.53 ± 0.22	2.64 ± 0.11	4.14 ± 0.28	2.94 ± 0.16	n = 40	Beckman Coulter
0.91 ± 0.06	5.24 ± 0.23	4.09 ± 0.18	6.27 ± 0.16	5.36 ± 0.17	n = 21	Ortho Clinical Diagnostics
1.09 ± 0.04	3.11 ± 0.13	2.42 ± 0.11	4.91 ± 0.22	3.44 ± 0.14	n = 39	Roche Elecsys/Modular E/e601/e411
0.85 ± 0.07	2.88 ± 0.15	2.12 ± 0.11	4.04 ± 0.21	2.86 ± 0.15	n = 61	Siemens ADVIA/ADVIa Centaur
0.62 ± 0.10	3.68 ± 0.27	3.03 ± 0.27	4.27 ± 0.21	3.50 ± 0.25	n = 15	Siemens Dimension
0.91 ± 0.05	3.00 ± 0.15	2.09 ± 0.10	4.27 ± 0.22	2.72 ± 0.15	n = 35	Siemens Dimension LOCI
1.03 ± 0.06	3.77 ± 0.25	2.95 ± 0.16	4.78 ± 0.30	3.39 ± 0.19	n = 24	Siemens Immulite
1.06 ± 0.06	4.01 ± 0.19	2.98 ± 0.18	5.52 ± 0.37	3.89 ± 0.21	n = 5	Tosoh ST AIA
0.90 ± 0.16	3.45 ± 0.71	2.67 ± 0.63	4.49 ± 0.78	3.23 ± 0.57	n = 10	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## T3-Uptake (%)

Specimen: E71		Specimen: E72		Specimen: E73		Specimen: E74		Specimen: E75		Number	Instrument or Reagent System
33.51 ± 4.39		48.16 ± 7.81		45.78 ± 8.09		44.81 ± 4.83		41.11 ± 5.25		n = 149	All Methods & Instruments
33.30		47.30		44.90		45.00		41.10		n = 149	Median value, All Methods & Instruments
											<Instruments>
28.72 ± 0.86		41.93 ± 1.12		39.04 ± 1.12		36.60 ± 1.13		33.15 ± 1.05		n = 7	Abbott Architect i System
40.57 ± 1.61		49.59 ± 3.21		47.79 ± 2.88		45.67 ± 1.94		42.61 ± 2.25		n = 14	Beckman Coulter ACCESS
29.18 ± 1.86		48.86 ± 2.36		46.94 ± 3.09		46.93 ± 1.11		43.74 ± 2.03		n = 10	Beckman Coulter AU Chemistry System
40.81 ± 2.68		49.76 ± 2.98		48.10 ± 3.02		46.25 ± 2.43		43.31 ± 2.34		n = 14	Beckman Coulter UniCel DxI 800
33.80 ± 1.16		64.52 ± 1.00		60.18 ± 2.28		53.39 ± 1.66		49.99 ± 1.31		n = 6	Ortho Vitros 5600
34.37 ± 1.12		64.90 ± 0.18		61.23 ± 2.50		53.22 ± 0.78		49.70 ± 0.38		n = 6	Ortho Vitros ECi/ECiQ
28.29 ± 1.55		49.06 ± 0.88		47.33 ± 1.62		46.07 ± 2.09		43.00 ± 1.46		n = 4	Roche MODULAR D/P
34.31 ± 2.26		40.93 ± 1.18		37.92 ± 1.32		44.09 ± 1.16		37.69 ± 1.85		n = 5	Roche MODULAR E
35.02 ± 1.91		57.77 ± 4.46		55.45 ± 3.94		47.25 ± 3.20		45.34 ± 2.83		n = 27	Siemens ADVIA Centaur
33.39 ± 1.34		42.56 ± 1.82		39.82 ± 1.48		42.62 ± 1.91		38.09 ± 1.54		n = 7	Siemens Dimension RxL
32.47 ± 3.10		43.02 ± 3.36		39.87 ± 2.88		43.70 ± 4.28		38.33 ± 2.93		n = 18	Siemens Dimension Vista
30.52 ± 1.69		43.55 ± 1.60		39.91 ± 2.04		42.33 ± 0.65		36.60 ± 2.05		n = 5	Siemens Immulite 1000
29.45 ± 1.24		41.16 ± 2.34		37.80 ± 1.57		38.14 ± 1.89		35.28 ± 1.50		n = 12	Siemens Immulite 2000
31.10 ± 0.58		46.23 ± 2.17		43.64 ± 1.40		45.44 ± 0.33		41.05 ± 1.94		n = 5	Tosoh Bioscience
32.53 ± 3.74		47.49 ± 7.46		45.14 ± 7.84		45.06 ± 4.38		41.11 ± 5.12		n = 14	Mean of Above Means
											<Reagents>
29.25 ± 1.80		42.47 ± 1.81		39.64 ± 1.76		36.66 ± 1.16		33.21 ± 1.16		n = 9	Abbott
40.37 ± 2.41		49.50 ± 3.18		47.76 ± 3.02		45.80 ± 2.12		42.88 ± 2.29		n = 29	Beckman Coulter
28.17 ± 1.28		50.00 ± 0.00		48.11 ± 1.16		47.08 ± 1.11		44.18 ± 1.28		n = 10	Microgenics CEDIA
31.51 ± 1.08		45.10 ± 0.09		42.28 ± 0.32		45.38 ± 0.41		40.75 ± 0.19		n = 3	Microgenics DRI
34.09 ± 1.11		65.00 ± 0.00		60.70 ± 2.48		53.21 ± 1.58		49.73 ± 1.15		n = 12	Ortho Clinical Diagnostics
34.67 ± 2.11		40.97 ± 1.04		38.37 ± 1.70		43.97 ± 1.06		37.88 ± 1.66		n = 6	Roche Elecsys/Modular E/e601/e411
35.02 ± 1.91		57.77 ± 4.46		55.45 ± 3.94		47.25 ± 3.20		45.34 ± 2.83		n = 27	Siemens ADVIA/ADVIa Centaur
32.82 ± 2.59		42.60 ± 2.76		39.78 ± 2.35		43.19 ± 3.44		38.12 ± 2.46		n = 25	Siemens Dimension
29.79 ± 1.48		41.70 ± 2.47		38.13 ± 2.19		38.77 ± 2.89		35.31 ± 1.95		n = 19	Siemens Immulite
31.10 ± 0.58		46.23 ± 2.17		43.64 ± 1.40		45.44 ± 0.33		41.05 ± 1.94		n = 5	Tosoh ST AIA
32.31 ± 2.99		45.81 ± 5.92		43.60 ± 6.70		44.59 ± 3.95		40.40 ± 4.66		n = 11	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## T Uptake (Unit)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
1.001 ± 0.073	0.721 ± 0.123	0.807 ± 0.137	0.706 ± 0.052	0.891 ± 0.020	n = 25	All Methods & Instruments
1.000	0.790	0.870	0.700	0.890	n = 25	Median value, All Methods & Instruments
						<Instruments>
1.032 ± 0.024	0.625 ± 0.027	0.700 ± 0.018	0.757 ± 0.042	0.861 ± 0.044	n = 3	Abbott Architect i System
0.890 ± 0.017	0.552 ± 0.015	0.614 ± 0.035	0.760 ± 0.032	0.882 ± 0.031	n = 4	Abbott AxSym
0.997 ± 0.005	0.797 ± 0.005	0.868 ± 0.049	0.694 ± 0.010	0.903 ± 0.014	n = 3	Roche cobas e601
1.004 ± 0.033	0.794 ± 0.029	0.894 ± 0.033	0.685 ± 0.039	0.890 ± 0.014	n = 9	Roche MODULAR E
1.117 ± 0.043	1.906 ± 0.049	1.830 ± 0.039	1.580 ± 0.023	1.482 ± 0.087	n = 4	Siemens ADVIA Centaur
1.010 ± 0.075	0.694 ± 0.120	0.772 ± 0.131	0.724 ± 0.039	0.885 ± 0.016	n = 5	Mean of Above Means
						<Reagents>
0.948 ± 0.079	0.581 ± 0.043	0.654 ± 0.054	0.759 ± 0.036	0.876 ± 0.036	n = 7	Abbott
1.005 ± 0.026	0.798 ± 0.024	0.894 ± 0.036	0.691 ± 0.030	0.895 ± 0.015	n = 13	Roche Elecsys/Modular E/e601/e411
1.117 ± 0.043	1.906 ± 0.049	1.830 ± 0.039	1.580 ± 0.023	1.482 ± 0.087	n = 4	Siemens ADVIA/ADVIS Centaur
1.019 ± 0.077	1.037 ± 0.633	1.079 ± 0.554	0.966 ± 0.439	1.053 ± 0.306	n = 3	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Triiodothyronine (T3, ng/dL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
45.4 ± 12.69	183.6 ± 27.61	112.2 ± 19.23	163.1 ± 19.19	141.8 ± 18.54	n = 199	All Methods & Instruments
44.0	186.0	114.0	165.0	141.0	n = 199	Median value, All Methods & Instruments
<Instruments>						
33.8 ± 5.32	147.2 ± 7.15	84.1 ± 4.82	144.2 ± 9.21	123.7 ± 6.67	n = 12	Abbott Architect i System
61.5 ± 12.92	174.9 ± 14.00	110.8 ± 8.74	152.4 ± 8.38	133.5 ± 8.78	n = 5	Abbott AxSym
40.0 ± 4.05	141.9 ± 6.02	87.1 ± 5.67	134.6 ± 5.92	119.3 ± 5.87	n = 13	Beckman Coulter ACCESS
45.0 ± 4.51	150.6 ± 1.02	91.4 ± 2.56	140.8 ± 1.54	125.5 ± 4.53	n = 3	Beckman Coulter UniCel DxI 600
40.2 ± 5.88	144.1 ± 10.17	84.8 ± 6.62	134.5 ± 8.42	117.6 ± 7.69	n = 17	Beckman Coulter UniCel DxI 800
49.7 ± 3.88	193.6 ± 10.81	121.3 ± 6.14	175.4 ± 7.26	155.3 ± 6.75	n = 9	Ortho Vitros 5600
47.7 ± 3.83	186.2 ± 10.49	119.6 ± 9.94	174.3 ± 11.87	149.2 ± 12.06	n = 5	Ortho Vitros ECi/ECiQ
70.0 ± 3.95	193.0 ± 7.06	127.1 ± 5.01	172.0 ± 8.09	151.1 ± 2.08	n = 8	Roche cobas e601
79.2 ± 10.38	198.4 ± 22.63	135.3 ± 14.12	179.6 ± 11.12	164.0 ± 7.27	n = 3	Roche Elecsys
72.9 ± 3.67	202.8 ± 8.81	132.7 ± 5.75	175.6 ± 8.96	158.4 ± 6.97	n = 17	Roche MODULAR E
44.6 ± 5.68	199.6 ± 13.88	115.9 ± 8.69	164.4 ± 9.44	140.0 ± 9.78	n = 55	Siemens ADVIA Centaur
37.2 ± 9.97	167.8 ± 10.62	99.5 ± 12.17	164.7 ± 9.00	132.5 ± 5.28	n = 5	Siemens Dimension RxL
41.7 ± 16.89	177.3 ± 14.88	122.4 ± 15.43	180.1 ± 11.00	159.4 ± 13.57	n = 15	Siemens Dimension Vista
40.0 ± 0.00	201.7 ± 10.45	124.7 ± 3.87	180.1 ± 10.81	156.4 ± 7.10	n = 5	Siemens Immulite 1000
40.0 ± 0.00	193.5 ± 21.95	116.8 ± 10.37	172.5 ± 17.62	156.8 ± 16.82	n = 14	Siemens Immulite 2000
38.2 ± 2.74	162.3 ± 5.01	92.2 ± 6.10	149.2 ± 5.75	123.1 ± 8.02	n = 6	Tosoh Bioscience
46.2 ± 12.85	178.4 ± 23.32	111.1 ± 18.80	163.4 ± 17.59	142.0 ± 17.59	n = 16	Mean of Above Means
<Reagents>						
40.4 ± 13.91	154.0 ± 15.62	89.6 ± 13.16	146.8 ± 9.53	126.1 ± 7.73	n = 17	Abbott
40.5 ± 5.23	144.0 ± 8.56	86.5 ± 6.30	135.3 ± 7.30	119.1 ± 7.18	n = 33	Beckman Coulter
49.0 ± 3.92	191.1 ± 11.32	120.6 ± 7.40	175.1 ± 8.85	153.6 ± 9.21	n = 14	Ortho Clinical Diagnostics
72.8 ± 4.73	200.1 ± 11.32	131.2 ± 7.37	176.3 ± 9.58	157.9 ± 8.08	n = 30	Roche Elecsys/Modular E/e601/e411
44.7 ± 5.63	199.7 ± 13.73	115.9 ± 8.59	164.4 ± 9.31	140.0 ± 9.67	n = 56	Siemens ADVIA/ADVIa Centaur
36.5 ± 12.59	172.2 ± 13.66	114.3 ± 17.31	175.6 ± 13.60	153.8 ± 18.04	n = 17	Siemens Dimension
58.8 ± 11.16	186.8 ± 9.43	129.7 ± 13.31	179.5 ± 3.63	160.1 ± 10.81	n = 3	Siemens Dimension LOCI
40.0 ± 0.00	198.1 ± 18.49	119.8 ± 9.53	176.2 ± 16.75	156.7 ± 13.26	n = 21	Siemens Immulite
38.3 ± 3.05	161.2 ± 5.21	91.1 ± 6.12	148.1 ± 5.74	119.0 ± 0.75	n = 5	Tosoh ST AIA
41.1 ± 5.56	178.9 ± 20.85	112.5 ± 16.74	167.4 ± 15.60	145.6 ± 16.94	n = 10	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Free T-3 (pg/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
1.58 ± 0.37	6.53 ± 1.34	3.82 ± 0.68	5.44 ± 0.88	4.49 ± 0.68	n = 130	All Methods & Instruments
1.60	6.80	4.00	5.40	4.50	n = 130	Median value, All Methods & Instruments
<Instruments>						
1.05 ± 0.07	5.26 ± 0.39	2.98 ± 0.26	5.15 ± 0.40	4.25 ± 0.31	n = 9	Abbott Architect i System
1.70 ± 0.09	5.85 ± 0.32	3.38 ± 0.13	5.14 ± 0.26	4.24 ± 0.14	n = 5	Beckman Coulter ACCESS
1.68 ± 0.27	5.45 ± 0.43	3.24 ± 0.40	4.95 ± 0.59	3.97 ± 0.46	n = 14	Beckman Coulter UniCel DxI 800
1.08 ± 0.15	13.12 ± 0.15	7.23 ± 0.31	9.02 ± 0.32	8.46 ± 0.10	n = 3	Ortho Vitros 5600
1.13 ± 0.14	13.51 ± 0.42	7.72 ± 0.21	9.13 ± 0.09	8.41 ± 0.11	n = 5	Ortho Vitros ECi/ECiQ
1.61 ± 0.11	7.33 ± 0.32	4.15 ± 0.23	6.52 ± 0.21	5.48 ± 0.26	n = 4	Roche cobas e601
1.57 ± 0.05	7.13 ± 0.14	4.10 ± 0.09	6.44 ± 0.10	5.47 ± 0.05	n = 3	Roche Elecsys
1.63 ± 0.19	7.39 ± 0.35	4.20 ± 0.21	6.60 ± 0.29	5.53 ± 0.26	n = 11	Roche MODULAR E
1.72 ± 0.15	6.84 ± 0.22	4.14 ± 0.15	5.32 ± 0.17	4.48 ± 0.13	n = 45	Siemens ADVIA Centaur
0.61 ± 0.08	8.32 ± 0.17	4.07 ± 0.12	6.24 ± 0.14	5.04 ± 0.13	n = 9	Siemens Dimension Vista
1.81 ± 0.21	4.09 ± 0.22	2.56 ± 0.27	4.29 ± 0.26	3.61 ± 0.27	n = 11	Siemens Immulite 2000
0.90 ± 0.00	9.81 ± 0.20	5.12 ± 0.41	6.97 ± 0.31	6.51 ± 0.20	n = 3	Tosoh Bioscience
1.41 ± 0.40	7.41 ± 2.73	4.07 ± 1.30	6.14 ± 1.44	5.22 ± 1.50	n = 12	Mean of Above Means
<Reagents>						
1.05 ± 0.07	5.26 ± 0.39	2.98 ± 0.26	5.15 ± 0.40	4.25 ± 0.31	n = 9	Abbott
1.69 ± 0.19	5.61 ± 0.48	3.30 ± 0.34	5.02 ± 0.51	4.06 ± 0.39	n = 20	Beckman Coulter
1.11 ± 0.15	13.32 ± 0.38	7.57 ± 0.33	9.15 ± 0.11	8.43 ± 0.11	n = 8	Ortho Clinical Diagnostics
1.61 ± 0.15	7.33 ± 0.32	4.15 ± 0.21	6.53 ± 0.26	5.49 ± 0.25	n = 18	Roche Elecsys/Modular E/e601/e411
1.72 ± 0.15	6.84 ± 0.21	4.14 ± 0.14	5.32 ± 0.17	4.48 ± 0.12	n = 45	Siemens ADVIA/ADVIa Centaur
0.61 ± 0.08	8.32 ± 0.17	4.07 ± 0.12	6.24 ± 0.14	5.04 ± 0.13	n = 9	Siemens Dimension LOCI
1.80 ± 0.20	4.08 ± 0.28	2.52 ± 0.32	4.20 ± 0.30	3.54 ± 0.37	n = 15	Siemens Immulite
0.90 ± 0.00	9.81 ± 0.20	5.12 ± 0.41	6.97 ± 0.31	6.51 ± 0.20	n = 3	Tosoh ST AIA
1.33 ± 0.46	7.21 ± 2.66	3.91 ± 1.19	5.87 ± 1.36	4.96 ± 1.38	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Thyrotropin (TSH,  $\mu\text{U/mL}$ )

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
0.66 ± 0.07	4.21 ± 0.44	1.66 ± 0.17	3.43 ± 0.36	1.77 ± 0.19	n = 299	All Methods & Instruments
0.70	4.20	1.70	3.50	1.80	n = 299	Median value, All Methods & Instruments
<Instruments>						
0.58 ± 0.06	3.68 ± 0.18	1.44 ± 0.09	2.95 ± 0.17	1.56 ± 0.11	n = 16	Abbott Architect i System
0.60 ± 0.00	3.80 ± 0.21	1.45 ± 0.08	3.08 ± 0.04	1.62 ± 0.08	n = 5	Abbott AxSym
0.61 ± 0.04	3.92 ± 0.27	1.60 ± 0.11	3.20 ± 0.21	1.72 ± 0.14	n = 25	Beckman Coulter ACCESS
0.60 ± 0.00	3.88 ± 0.24	1.60 ± 0.09	3.15 ± 0.19	1.73 ± 0.05	n = 3	Beckman Coulter UniCel DxI 600
0.60 ± 0.00	3.88 ± 0.32	1.57 ± 0.15	3.19 ± 0.27	1.73 ± 0.12	n = 18	Beckman Coulter UniCel DxI 800
0.70 ± 0.00	5.17 ± 0.17	1.75 ± 0.06	3.93 ± 0.12	1.77 ± 0.06	n = 12	Ortho Vitros 5600
0.70 ± 0.00	5.32 ± 0.26	1.81 ± 0.09	4.04 ± 0.18	1.81 ± 0.10	n = 13	Ortho Vitros ECi/ECiQ
0.73 ± 0.05	4.60 ± 0.09	1.87 ± 0.05	3.68 ± 0.15	2.00 ± 0.09	n = 3	Roche cobas e411
0.70 ± 0.00	4.42 ± 0.16	1.79 ± 0.05	3.63 ± 0.11	1.94 ± 0.07	n = 13	Roche cobas e601
0.70 ± 0.00	4.44 ± 0.08	1.80 ± 0.00	3.67 ± 0.12	1.93 ± 0.06	n = 7	Roche Elecsys
0.70 ± 0.00	4.43 ± 0.12	1.80 ± 0.06	3.63 ± 0.11	1.94 ± 0.05	n = 23	Roche MODULAR E
0.67 ± 0.05	4.33 ± 0.15	1.65 ± 0.08	3.49 ± 0.14	1.74 ± 0.11	n = 61	Siemens ADVIA Centaur
0.71 ± 0.05	4.47 ± 0.34	1.89 ± 0.17	3.66 ± 0.42	2.06 ± 0.23	n = 10	Siemens Dimension EXL
0.55 ± 0.07	3.47 ± 0.26	1.38 ± 0.08	2.79 ± 0.24	1.45 ± 0.10	n = 12	Siemens Dimension RxL
0.63 ± 0.05	4.22 ± 0.23	1.75 ± 0.13	3.57 ± 0.23	1.94 ± 0.12	n = 31	Siemens Dimension Vista
0.60 ± 0.00	3.56 ± 0.28	1.42 ± 0.07	2.90 ± 0.22	1.42 ± 0.12	n = 6	Siemens Dimension Xpand
0.70 ± 0.00	4.09 ± 0.27	1.54 ± 0.06	3.21 ± 0.21	1.65 ± 0.07	n = 7	Siemens Immulite 1000
0.66 ± 0.06	4.06 ± 0.25	1.55 ± 0.11	3.22 ± 0.22	1.64 ± 0.10	n = 21	Siemens Immulite 2000
0.77 ± 0.05	4.61 ± 0.15	1.77 ± 0.05	3.65 ± 0.15	1.85 ± 0.06	n = 6	Tosoh Bioscience
0.66 ± 0.06	4.19 ± 0.48	1.66 ± 0.17	3.40 ± 0.37	1.77 ± 0.18	n = 19	Mean of Above Means
<Reagents>						
0.59 ± 0.05	3.71 ± 0.19	1.44 ± 0.09	2.99 ± 0.18	1.58 ± 0.11	n = 21	Abbott
0.60 ± 0.00	3.90 ± 0.29	1.59 ± 0.12	3.19 ± 0.24	1.72 ± 0.12	n = 46	Beckman Coulter
0.70 ± 0.00	5.24 ± 0.24	1.77 ± 0.07	3.98 ± 0.17	1.79 ± 0.09	n = 25	Ortho Clinical Diagnostics
0.70 ± 0.00	4.44 ± 0.14	1.80 ± 0.05	3.63 ± 0.10	1.94 ± 0.06	n = 46	Roche Elecsys/Modular E/e601/e411
0.68 ± 0.04	4.32 ± 0.18	1.69 ± 0.09	3.54 ± 0.16	1.81 ± 0.11	n = 34	Siemens ADVIA/ADVIS Centaur
0.57 ± 0.06	3.50 ± 0.27	1.39 ± 0.08	2.83 ± 0.24	1.44 ± 0.11	n = 18	Siemens Dimension
0.65 ± 0.06	4.27 ± 0.27	1.77 ± 0.14	3.57 ± 0.26	1.95 ± 0.15	n = 41	Siemens Dimension LOCI
0.67 ± 0.05	4.04 ± 0.27	1.54 ± 0.11	3.20 ± 0.23	1.63 ± 0.11	n = 30	Siemens Immulite
0.65 ± 0.06	4.35 ± 0.13	1.63 ± 0.06	3.44 ± 0.10	1.67 ± 0.05	n = 28	Siemens TSH-3
0.78 ± 0.04	4.58 ± 0.13	1.78 ± 0.04	3.69 ± 0.11	1.85 ± 0.06	n = 4	Tosoh AIA
0.65 ± 0.07	4.14 ± 0.49	1.62 ± 0.17	3.36 ± 0.38	1.72 ± 0.18	n = 11	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Vitamin B12 (pg/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
373.7 ± 41.54	279.9 ± 39.78	281.4 ± 39.65	463.0 ± 66.62	422.1 ± 55.42	n = 239	All Methods & Instruments
374.0	280.0	279.0	462.0	421.0	n = 239	Median value, All Methods & Instruments
<Instruments>						
420.8 ± 49.08	314.1 ± 8.71	307.8 ± 21.22	492.1 ± 20.20	438.6 ± 9.05	n = 4	Abbott Architect i System
374.5 ± 21.38	282.8 ± 7.76	294.9 ± 16.31	492.1 ± 24.10	442.4 ± 30.21	n = 10	Abbott AxSym
334.0 ± 22.40	272.6 ± 14.52	273.4 ± 17.89	421.2 ± 24.26	386.9 ± 22.93	n = 20	Beckman Coulter ACCESS
321.7 ± 19.09	248.9 ± 12.42	257.6 ± 1.80	381.2 ± 43.88	367.3 ± 15.44	n = 4	Beckman Coulter UniCel DxI 600
304.7 ± 24.22	240.5 ± 18.98	241.5 ± 16.45	358.7 ± 27.15	332.0 ± 34.07	n = 20	Beckman Coulter UniCel DxI 800
369.7 ± 15.77	321.3 ± 8.91	322.0 ± 3.79	492.8 ± 24.45	448.0 ± 13.27	n = 9	Ortho Vitros 5600
383.4 ± 20.50	322.3 ± 17.13	319.3 ± 17.32	502.5 ± 33.70	450.6 ± 29.32	n = 16	Ortho Vitros ECi/ECiQ
428.6 ± 19.91	278.5 ± 21.14	268.2 ± 33.21	525.1 ± 22.48	459.7 ± 23.65	n = 4	Roche cobas e411
413.0 ± 9.98	317.0 ± 8.83	319.9 ± 14.46	514.3 ± 19.32	467.4 ± 17.93	n = 11	Roche cobas e601
414.0 ± 10.97	318.7 ± 9.60	323.4 ± 11.11	514.4 ± 14.46	469.2 ± 12.38	n = 20	Roche MODULAR E
366.1 ± 28.04	260.5 ± 26.49	267.0 ± 23.31	426.8 ± 36.80	394.1 ± 29.14	n = 64	Siemens ADVIA Centaur
397.7 ± 28.62	240.1 ± 38.04	230.3 ± 41.81	444.1 ± 45.01	400.4 ± 46.90	n = 24	Siemens Dimension Vista
375.0 ± 35.06	292.9 ± 34.56	300.4 ± 26.17	526.4 ± 36.43	482.5 ± 33.40	n = 4	Siemens Immulite 1000
361.0 ± 22.93	286.1 ± 14.19	282.6 ± 18.44	538.7 ± 42.63	479.1 ± 33.35	n = 18	Siemens Immulite 2000
408.1 ± 29.53	406.4 ± 40.10	389.1 ± 49.90	592.2 ± 12.15	495.6 ± 35.75	n = 5	Tosoh Bioscience
380.7 ± 37.09	288.3 ± 35.99	290.5 ± 36.92	485.9 ± 61.76	439.2 ± 46.70	n = 15	Mean of Above Means
<Reagents>						
381.1 ± 31.18	289.8 ± 16.84	297.8 ± 17.73	492.4 ± 22.42	440.3 ± 24.59	n = 14	Abbott
320.0 ± 27.46	256.4 ± 24.01	258.0 ± 22.72	390.3 ± 42.75	362.9 ± 39.72	n = 44	Beckman Coulter
377.5 ± 19.03	321.0 ± 12.87	320.1 ± 15.50	498.4 ± 30.67	449.7 ± 23.76	n = 25	Ortho Clinical Diagnostics
414.0 ± 13.48	316.3 ± 13.17	321.5 ± 14.85	516.8 ± 19.04	468.7 ± 15.33	n = 38	Roche Elecsys/Modular E/e601/e411
366.8 ± 28.74	261.2 ± 27.32	267.6 ± 24.11	427.8 ± 37.65	394.9 ± 29.88	n = 65	Siemens ADVIA/ADVIS Centaur
397.7 ± 28.62	240.1 ± 38.04	230.3 ± 41.81	444.1 ± 45.01	400.4 ± 46.90	n = 24	Siemens Dimension LOCI
364.9 ± 27.37	288.4 ± 18.08	287.5 ± 23.79	537.5 ± 39.94	482.5 ± 33.72	n = 24	Siemens Immulite
408.1 ± 29.53	406.4 ± 40.10	389.1 ± 49.90	592.2 ± 12.15	495.6 ± 35.75	n = 5	Tosoh AIA
381.9 ± 27.05	288.6 ± 43.10	292.5 ± 44.77	487.2 ± 63.88	438.6 ± 47.32	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Folic Acid (ng/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
1.01 ± 0.38	0.95 ± 0.42	1.80 ± 0.61	10.20 ± 1.95	4.87 ± 1.04	n = 236	All Methods & Instruments
1.00	1.00	1.70	10.00	4.90	n = 236	Median value, All Methods & Instruments
<Instruments>						
1.25 ± 0.31	0.95 ± 0.32	1.90 ± 0.06	12.60 ± 0.71	5.75 ± 0.18	n = 5	Abbott Architect i System
1.16 ± 0.28	1.44 ± 0.13	2.48 ± 0.29	12.23 ± 0.86	5.68 ± 0.44	n = 9	Abbott AxSym
0.79 ± 0.25	0.74 ± 0.18	1.81 ± 0.31	10.98 ± 1.55	5.31 ± 0.82	n = 20	Beckman Coulter ACCESS
0.74 ± 0.19	0.78 ± 0.20	1.67 ± 0.25	10.53 ± 1.42	4.97 ± 0.59	n = 4	Beckman Coulter UniCel DxI 600
0.84 ± 0.24	0.87 ± 0.27	1.82 ± 0.29	10.62 ± 1.33	5.15 ± 0.62	n = 20	Beckman Coulter UniCel DxI 800
0.92 ± 0.19	1.20 ± 0.18	1.84 ± 0.25	9.70 ± 1.50	4.58 ± 0.54	n = 9	Ortho Vitros 5600
0.77 ± 0.16	1.06 ± 0.21	1.76 ± 0.24	11.26 ± 1.43	4.71 ± 0.50	n = 16	Ortho Vitros ECi/ECiQ
2.30 ± 0.55	2.25 ± 0.63	2.58 ± 0.32	9.39 ± 0.29	5.59 ± 0.29	n = 3	Roche cobas e411
2.23 ± 0.30	2.35 ± 0.35	3.23 ± 0.33	9.13 ± 0.43	5.67 ± 0.27	n = 11	Roche cobas e601
2.11 ± 0.28	2.47 ± 0.35	3.31 ± 0.41	9.39 ± 0.79	5.86 ± 0.44	n = 18	Roche MODULAR E
1.10 ± 0.17	0.70 ± 0.17	1.45 ± 0.22	10.09 ± 1.12	4.27 ± 0.46	n = 64	Siemens ADVIA Centaur
0.66 ± 0.17	0.84 ± 0.21	1.28 ± 0.24	4.99 ± 0.32	2.63 ± 0.22	n = 24	Siemens Dimension Vista
1.02 ± 0.04	1.23 ± 0.09	2.50 ± 0.17	14.61 ± 1.30	7.34 ± 1.16	n = 4	Siemens Immulite 1000
1.00 ± 0.00	1.00 ± 0.00	1.81 ± 0.23	10.80 ± 0.72	5.15 ± 0.33	n = 18	Siemens Immulite 2000
0.73 ± 0.24	1.82 ± 0.29	2.61 ± 0.21	9.68 ± 0.71	5.80 ± 0.23	n = 5	Tosoh Bioscience
1.03 ± 0.46	1.23 ± 0.60	2.08 ± 0.61	10.50 ± 1.47	5.32 ± 0.70	n = 15	Mean of Above Means
<Reagents>						
1.19 ± 0.30	1.32 ± 0.31	2.26 ± 0.38	12.38 ± 0.81	5.73 ± 0.37	n = 14	Abbott
0.81 ± 0.24	0.80 ± 0.24	1.80 ± 0.30	10.77 ± 1.44	5.20 ± 0.71	n = 44	Beckman Coulter
0.82 ± 0.18	1.12 ± 0.21	1.79 ± 0.25	10.68 ± 1.69	4.66 ± 0.52	n = 25	Ortho Clinical Diagnostics
2.18 ± 0.34	2.39 ± 0.40	3.20 ± 0.42	9.27 ± 0.64	5.74 ± 0.37	n = 35	Roche Elecsys/Modular E/e601/e411
1.11 ± 0.17	0.70 ± 0.17	1.45 ± 0.22	10.12 ± 1.16	4.28 ± 0.47	n = 65	Siemens ADVIA/ADVIS Centaur
0.66 ± 0.17	0.84 ± 0.21	1.28 ± 0.24	4.99 ± 0.32	2.63 ± 0.22	n = 24	Siemens Dimension LOCI
1.00 ± 0.00	1.00 ± 0.00	1.90 ± 0.34	11.19 ± 1.33	5.35 ± 0.65	n = 24	Siemens Immulite
0.73 ± 0.24	1.82 ± 0.29	2.61 ± 0.21	9.68 ± 0.71	5.80 ± 0.23	n = 5	Tosoh AIA
0.90 ± 0.20	1.15 ± 0.52	1.98 ± 0.60	10.51 ± 1.03	5.18 ± 0.79	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Cortisol ( $\mu\text{g/dL}$ )

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
3.84 ± 0.39	10.80 ± 1.30	9.16 ± 1.04	13.22 ± 1.59	19.20 ± 2.27	n = 161	All Methods & Instruments
3.90	10.80	9.10	13.10	19.20	n = 161	Median value, All Methods & Instruments
<Instruments>						
3.78 ± 0.32	8.88 ± 0.60	7.76 ± 0.57	11.10 ± 0.64	15.61 ± 0.99	n = 8	Abbott Architect i System
3.71 ± 0.32	10.42 ± 0.44	8.74 ± 0.29	12.51 ± 0.44	18.28 ± 0.69	n = 7	Beckman Coulter ACCESS
3.77 ± 0.05	10.94 ± 0.62	8.94 ± 0.10	12.68 ± 0.24	18.39 ± 0.61	n = 3	Beckman Coulter UniCel DxI 600
3.73 ± 0.38	10.44 ± 0.77	8.59 ± 0.82	11.87 ± 1.02	17.13 ± 1.30	n = 17	Beckman Coulter UniCel DxI 800
4.59 ± 0.61	10.45 ± 1.26	9.26 ± 0.88	13.59 ± 1.20	20.65 ± 2.43	n = 3	LC/MS/MS
2.94 ± 0.36	9.20 ± 0.99	8.06 ± 0.71	10.96 ± 0.90	16.44 ± 1.39	n = 7	Ortho Vitros 5600
3.32 ± 0.28	9.84 ± 0.63	8.28 ± 0.53	11.35 ± 0.71	16.51 ± 0.39	n = 7	Ortho Vitros ECi/ECiQ
3.65 ± 0.18	9.57 ± 0.55	8.33 ± 0.41	12.37 ± 0.20	18.73 ± 0.15	n = 5	Roche cobas e601
3.79 ± 0.20	9.79 ± 0.20	8.46 ± 0.35	12.89 ± 0.19	19.44 ± 0.35	n = 4	Roche Elecsys
3.71 ± 0.20	9.73 ± 0.36	8.42 ± 0.45	12.58 ± 0.42	18.81 ± 0.61	n = 12	Roche MODULAR E
3.98 ± 0.32	11.54 ± 1.02	9.64 ± 0.64	14.03 ± 0.88	20.15 ± 1.28	n = 52	Siemens ADVIA Centaur
4.17 ± 0.15	12.40 ± 0.30	11.17 ± 0.91	15.55 ± 1.14	22.56 ± 0.79	n = 4	Siemens Immulite 1000
4.05 ± 0.38	11.82 ± 0.73	10.08 ± 0.58	14.89 ± 0.75	21.30 ± 1.41	n = 20	Siemens Immulite 2000
3.90 ± 0.18	11.36 ± 0.56	10.46 ± 0.56	13.93 ± 0.77	19.97 ± 1.22	n = 3	Siemens Immulite 2500
3.34 ± 0.18	9.06 ± 0.58	7.78 ± 0.20	10.85 ± 0.55	15.45 ± 0.88	n = 4	Tosoh Bioscience
3.77 ± 0.34	10.31 ± 1.09	8.80 ± 0.95	12.66 ± 1.44	18.61 ± 2.16	n = 15	Mean of Above Means
<Reagents>						
3.78 ± 0.32	8.88 ± 0.60	7.76 ± 0.57	11.10 ± 0.64	15.61 ± 0.99	n = 8	Abbott
3.73 ± 0.34	10.50 ± 0.68	8.71 ± 0.65	12.20 ± 0.87	17.66 ± 1.23	n = 27	Beckman Coulter
4.59 ± 0.61	10.45 ± 1.26	9.26 ± 0.88	13.59 ± 1.20	20.65 ± 2.43	n = 3	In-House
3.15 ± 0.38	9.59 ± 0.90	8.20 ± 0.68	11.17 ± 0.83	16.34 ± 1.07	n = 14	Ortho Clinical Diagnostics
3.73 ± 0.22	9.72 ± 0.44	8.44 ± 0.47	12.64 ± 0.47	19.01 ± 0.70	n = 22	Roche Elecsys/Modular E/e601/e411
3.98 ± 0.31	11.52 ± 1.00	9.63 ± 0.63	14.01 ± 0.86	20.15 ± 1.27	n = 54	Siemens ADVIA/ADVIS Centaur
4.05 ± 0.33	11.87 ± 0.72	10.23 ± 0.69	14.86 ± 0.89	21.40 ± 1.51	n = 27	Siemens Immulite
3.34 ± 0.18	9.06 ± 0.58	7.78 ± 0.20	10.85 ± 0.55	15.45 ± 0.88	n = 4	Tosoh ST AIA
3.78 ± 0.41	10.15 ± 1.10	8.70 ± 0.89	12.50 ± 1.52	18.28 ± 2.44	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Insulin ( $\mu\text{U/mL}$ )

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
28.76 ± 14.04	272.76 ± 84.54	87.07 ± 37.76	58.37 ± 23.02	383.53 ± 113.11	n = 104	All Methods & Instruments
30.30	287.00	89.90	58.90	379.60	n = 104	Median value, All Methods & Instruments
<Instruments>						
30.11 ± 0.41	268.14 ± 7.09	89.01 ± 1.67	57.52 ± 1.24	401.91 ± 18.06	n = 7	Abbott Architect i System
29.63 ± 1.30	290.56 ± 14.61	92.42 ± 6.29	62.07 ± 1.30	394.72 ± 61.09	n = 3	Beckman Coulter UniCel DxI 600
28.81 ± 1.43	285.07 ± 13.72	87.10 ± 3.48	57.46 ± 2.55	356.82 ± 49.21	n = 8	Beckman Coulter UniCel DxI 800
35.90 ± 1.19	317.71 ± 15.49	106.55 ± 3.93	70.02 ± 3.53	453.14 ± 20.99	n = 4	Roche cobas e601
36.98 ± 1.45	323.73 ± 12.92	107.41 ± 5.38	73.09 ± 3.82	474.61 ± 20.74	n = 6	Roche Elecsys
37.37 ± 0.75	322.39 ± 9.68	107.64 ± 2.64	71.24 ± 2.57	460.16 ± 15.37	n = 9	Roche MODULAR E
43.97 ± 2.17	376.34 ± 44.59	134.40 ± 8.65	87.58 ± 5.34	555.41 ± 30.27	n = 19	Siemens ADVIA Centaur
11.61 ± 1.39	183.19 ± 12.33	43.20 ± 1.92	32.85 ± 1.68	299.51 ± 1.27	n = 6	Siemens Immulite 1000
12.03 ± 3.28	178.60 ± 20.99	45.24 ± 5.28	33.01 ± 3.22	294.83 ± 9.84	n = 29	Siemens Immulite 2000
39.14 ± 0.35	313.72 ± 18.14	112.67 ± 1.79	70.31 ± 1.89	440.41 ± 54.59	n = 5	Tosoh Bioscience
32.03 ± 10.24	292.94 ± 58.58	95.61 ± 27.28	63.08 ± 16.62	413.66 ± 80.12	n = 10	Mean of Above Means
<Reagents>						
30.11 ± 0.41	268.14 ± 7.09	89.01 ± 1.67	57.52 ± 1.24	401.91 ± 18.06	n = 7	Abbott
29.20 ± 1.45	289.01 ± 13.64	87.71 ± 4.21	58.47 ± 3.07	353.30 ± 57.54	n = 13	Beckman Coulter
37.01 ± 1.31	322.35 ± 12.13	107.40 ± 3.89	71.58 ± 3.33	463.70 ± 20.03	n = 20	Roche Elecsys/Modular E/e601/e411
43.86 ± 2.11	378.27 ± 43.45	135.12 ± 9.02	87.65 ± 5.17	556.74 ± 29.56	n = 20	Siemens ADVIA/ADVIS Centaur
11.70 ± 2.59	179.05 ± 19.31	45.00 ± 4.92	32.73 ± 2.80	293.63 ± 11.96	n = 37	Siemens Immulite
39.14 ± 0.35	313.72 ± 18.14	112.67 ± 1.79	70.31 ± 1.89	440.41 ± 54.59	n = 5	Tosoh ST AIA
33.38 ± 9.91	297.19 ± 60.17	98.47 ± 27.98	64.14 ± 17.03	416.50 ± 87.61	n = 6	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Free Estriol (ng/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
0.07 ± 0.05	1.76 ± 0.70	1.79 ± 0.72	1.38 ± 0.38	1.48 ± 0.60	n = 20	All Methods & Instruments
0.10	1.40	1.50	1.20	1.30	n = 20	Median value, All Methods & Instruments
						<Instruments>
0.04 ± 0.06	1.30 ± 0.00	1.30 ± 0.06	1.12 ± 0.08	1.20 ± 0.00	n = 5	Beckman Coulter UniCel DxI 800
0.10 ± 0.00	2.04 ± 0.20	2.15 ± 0.19	1.74 ± 0.14	1.78 ± 0.23	n = 6	Siemens Immulite 2000
0.07 ± 0.04	1.67 ± 0.42	1.73 ± 0.48	1.43 ± 0.35	1.49 ± 0.33	n = 2	Mean of Above Means
						<Reagents>
0.03 ± 0.05	1.32 ± 0.07	1.33 ± 0.08	1.15 ± 0.07	1.19 ± 0.06	n = 9	Beckman Coulter
0.10 ± 0.00	2.07 ± 0.21	2.14 ± 0.17	1.70 ± 0.16	1.74 ± 0.21	n = 7	Siemens Immulite
0.07 ± 0.04	1.70 ± 0.43	1.73 ± 0.46	1.43 ± 0.31	1.47 ± 0.31	n = 2	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Estradiol (pg/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
20.2 ± 7.02	62.0 ± 28.39	76.5 ± 31.00	75.6 ± 20.04	80.7 ± 17.37	n = 164	All Methods & Instruments
20.0	59.0	73.0	74.0	80.0	n = 164	Median value, All Methods & Instruments
<Instruments>						
29.3 ± 2.99	48.4 ± 1.91	62.3 ± 2.83	69.0 ± 2.81	76.1 ± 3.96	n = 9	Abbott Architect i System
15.2 ± 7.03	111.0 ± 56.72	126.7 ± 51.85	103.4 ± 42.13	125.1 ± 47.40	n = 9	Beckman Coulter ACCESS
20.5 ± 3.77	125.0 ± 46.74	137.9 ± 51.09	114.1 ± 45.87	132.1 ± 47.06	n = 4	Beckman Coulter UniCel DxI 600
20.0 ± 0.00	98.6 ± 58.87	116.9 ± 55.14	93.6 ± 57.07	107.3 ± 52.06	n = 10	Beckman Coulter UniCel DxI 800
17.3 ± 5.09	39.4 ± 7.44	47.0 ± 4.51	69.8 ± 13.16	77.2 ± 11.32	n = 3	LC/MS/MS
9.0 ± 3.24	69.1 ± 2.34	87.5 ± 11.50	63.8 ± 1.46	72.8 ± 2.80	n = 5	Ortho Vitros ECi/ECiQ
29.6 ± 3.55	56.2 ± 4.00	68.8 ± 4.13	71.0 ± 3.49	77.7 ± 4.42	n = 8	Roche cobas e601
27.6 ± 2.05	55.0 ± 3.56	66.5 ± 2.70	70.8 ± 4.69	76.9 ± 2.83	n = 5	Roche Elecsys
29.5 ± 3.36	55.9 ± 4.35	69.1 ± 4.59	72.2 ± 5.68	78.4 ± 4.38	n = 10	Roche MODULAR E
16.0 ± 6.06	38.6 ± 14.22	51.5 ± 12.17	65.0 ± 15.29	67.8 ± 11.44	n = 39	Siemens ADVIA Centaur
14.5 ± 0.57	31.6 ± 4.66	45.6 ± 2.31	57.6 ± 3.25	61.9 ± 1.88	n = 4	Siemens ADVIA Centaur CP
20.0 ± 0.00	87.9 ± 5.95	109.4 ± 8.43	93.9 ± 9.14	101.0 ± 6.52	n = 10	Siemens Immulite 1000
20.0 ± 0.00	85.9 ± 8.63	101.9 ± 11.65	91.7 ± 8.92	96.5 ± 9.25	n = 29	Siemens Immulite 2000
21.4 ± 2.56	101.0 ± 9.06	114.3 ± 2.26	105.4 ± 4.72	98.5 ± 8.26	n = 3	Siemens Immulite 2500
25.0 ± 0.00	196.9 ± 11.30	216.6 ± 13.15	185.8 ± 13.90	203.6 ± 10.07	n = 4	Tosoh Bioscience
21.0 ± 6.31	72.4 ± 34.70	87.5 ± 37.18	80.6 ± 19.33	87.2 ± 21.44	n = 15	Mean of Above Means
<Reagents>						
29.0 ± 3.08	48.3 ± 3.02	62.9 ± 2.82	68.8 ± 3.37	76.0 ± 3.96	n = 11	Abbott
18.6 ± 5.14	108.3 ± 57.03	124.5 ± 53.69	101.1 ± 50.16	118.9 ± 50.59	n = 23	Beckman Coulter
17.3 ± 5.09	39.4 ± 7.44	47.0 ± 4.51	69.8 ± 13.16	77.2 ± 11.32	n = 3	In-House
9.4 ± 2.93	69.2 ± 1.85	85.7 ± 9.44	63.2 ± 1.59	72.3 ± 2.54	n = 7	Ortho Clinical Diagnostics
29.3 ± 3.51	56.4 ± 4.05	69.0 ± 4.58	72.0 ± 4.86	78.5 ± 4.53	n = 24	Roche Elecsys/Modular E/e601/e411
13.6 ± 2.14	33.4 ± 5.40	46.9 ± 6.40	59.1 ± 5.44	63.7 ± 5.37	n = 26	Siemens ADVIA Centaur Enhanced E2
21.9 ± 8.85	62.7 ± 10.16	68.2 ± 12.02	90.6 ± 17.89	84.6 ± 12.33	n = 11	Siemens ADVIA Centaur Estradiol-6
14.6 ± 2.07	33.9 ± 3.80	47.6 ± 4.38	59.2 ± 1.59	63.6 ± 4.16	n = 6	Siemens ADVIA/ADVIS Centaur
20.0 ± 0.00	87.5 ± 9.03	105.0 ± 11.38	93.3 ± 9.60	97.9 ± 8.72	n = 42	Siemens Immulite
25.0 ± 0.00	196.9 ± 11.30	216.6 ± 13.15	185.8 ± 13.90	203.6 ± 10.07	n = 4	Tosoh ST AIA
19.8 ± 6.63	57.7 ± 25.10	70.5 ± 27.46	74.0 ± 15.99	78.2 ± 14.49	n = 10	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Testosterone (ng/dL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
57.49 ± 15.14	440.45 ± 79.77	244.64 ± 41.41	331.63 ± 30.92	180.12 ± 19.54	n = 149	All Methods & Instruments
55.00	432.80	241.90	334.00	180.00	n = 149	Median value, All Methods & Instruments
58.5, 59.3	357.0, 358.0	n/a	324.0, 324.0	179.0, 173.0	n = 2	[---] Results of LC_MS_MS measurement*
<Instruments>						
44.94 ± 18.75	284.63 ± 44.01	154.06 ± 4.46	220.98 ± 8.78	112.30 ± 8.78	n = 3	Abbott AxSym
50.50 ± 3.69	404.81 ± 19.47	217.13 ± 9.62	317.15 ± 15.01	170.45 ± 8.22	n = 7	Beckman Coulter ACCESS
53.49 ± 11.58	395.46 ± 28.85	213.89 ± 12.44	304.34 ± 13.21	165.00 ± 3.80	n = 3	Beckman Coulter UniCel DxI 600
47.54 ± 3.51	375.81 ± 26.86	207.15 ± 14.89	298.05 ± 12.94	159.07 ± 5.87	n = 13	Beckman Coulter UniCel DxI 800
54.94 ± 13.06	416.86 ± 44.26	218.70 ± 12.60	325.31 ± 19.10	170.47 ± 14.15	n = 6	Gamma Counter
58.45 ± 3.04	372.39 ± 49.95	221.74 ± 19.64	342.52 ± 28.83	183.96 ± 13.37	n = 5	LC/MS/MS
47.52 ± 9.15	534.19 ± 25.87	271.99 ± 21.13	335.74 ± 26.66	168.63 ± 11.63	n = 5	Ortho Vitros ECi/ECiQ
48.94 ± 3.98	435.01 ± 18.18	252.40 ± 10.65	337.81 ± 6.57	176.98 ± 5.14	n = 5	Roche cobas e601
56.39 ± 8.14	481.13 ± 29.49	259.63 ± 6.15	350.53 ± 13.10	185.51 ± 5.72	n = 9	Roche Elecsys
48.28 ± 2.96	456.01 ± 25.81	258.05 ± 19.45	338.59 ± 17.48	178.22 ± 9.98	n = 13	Roche MODULAR E
67.91 ± 13.03	402.08 ± 48.64	233.13 ± 20.69	339.80 ± 30.32	190.62 ± 15.19	n = 42	Siemens ADVIA Centaur
52.08 ± 8.20	609.61 ± 79.67	354.10 ± 21.39	375.29 ± 34.32	201.85 ± 18.71	n = 4	Siemens Immulite 1000
57.68 ± 15.44	535.04 ± 68.71	306.69 ± 36.34	326.82 ± 37.56	186.73 ± 26.48	n = 21	Siemens Immulite 2000
55.75 ± 9.49	517.99 ± 42.55	328.90 ± 53.70	342.86 ± 44.30	200.34 ± 17.42	n = 3	Siemens Immulite 2500
60.89 ± 28.54	513.46 ± 56.00	221.08 ± 10.45	320.81 ± 3.43	160.26 ± 6.84	n = 4	Tosoh Bioscience
53.19 ± 5.84	448.11 ± 82.36	243.76 ± 48.65	332.25 ± 18.23	177.61 ± 14.99	n = 15	Mean of Above Means
<Reagents>						
44.94 ± 18.75	284.63 ± 44.01	154.06 ± 4.46	220.98 ± 8.78	112.30 ± 8.78	n = 3	Abbott
48.42 ± 3.87	387.72 ± 28.30	211.54 ± 14.04	304.42 ± 16.00	162.74 ± 8.02	n = 23	Beckman Coulter
59.50 ± 3.66	360.62 ± 49.72	217.38 ± 20.06	337.03 ± 28.45	179.88 ± 15.27	n = 6	In-House
45.60 ± 7.51	543.91 ± 27.27	278.70 ± 20.33	341.42 ± 20.55	171.97 ± 10.08	n = 7	Ortho Clinical Diagnostics
50.03 ± 4.08	457.92 ± 28.00	257.57 ± 14.96	343.17 ± 15.18	180.30 ± 8.61	n = 28	Roche Elecsys/Modular E/e601/e411
67.91 ± 13.03	402.08 ± 48.64	233.13 ± 20.69	339.80 ± 30.32	190.62 ± 15.19	n = 42	Siemens ADVIA/ADvia Centaur
51.81 ± 7.43	404.74 ± 37.69	218.68 ± 12.40	330.67 ± 12.58	174.02 ± 11.48	n = 5	Siemens Coat-A-Count
56.33 ± 13.88	541.22 ± 69.02	315.03 ± 40.19	335.39 ± 41.45	190.91 ± 25.13	n = 28	Siemens Immulite
60.89 ± 28.54	513.46 ± 56.00	221.08 ± 10.45	320.81 ± 3.43	160.26 ± 6.84	n = 4	Tosoh ST AIA
53.44 ± 7.72	433.81 ± 88.89	233.01 ± 42.46	334.49 ± 10.36	176.27 ± 12.03	n = 9	Mean of Above Means

\*The analyses on these specimens were performed in duplicate measurement using the HPLC-tandem mass spectrometry reference method at Clinical Chemistry Branch (CCB), Division of Laboratory Sciences (DLS), Centers for Disease Control and Prevention, Atlanta, Georgia.

## Statistical Summary (Mean and Standard Deviation)

## Progesterone (ng/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
5.68 ± 0.81	20.13 ± 2.76	13.29 ± 1.49	16.57 ± 1.83	21.34 ± 2.59	n = 164	All Methods & Instruments
5.80	20.40	13.50	16.50	21.70	n = 164	Median value, All Methods & Instruments
<Instruments>						
6.50 ± 0.32	20.63 ± 0.44	13.15 ± 0.36	18.47 ± 1.03	22.27 ± 1.07	n = 6	Abbott Architect i System
6.48 ± 0.45	20.62 ± 1.40	13.92 ± 0.77	17.98 ± 1.55	22.00 ± 2.56	n = 10	Beckman Coulter ACCESS
6.55 ± 0.39	21.64 ± 1.74	14.21 ± 1.33	18.48 ± 1.46	23.44 ± 2.01	n = 4	Beckman Coulter UniCel DxI 600
6.28 ± 0.49	21.54 ± 1.62	13.18 ± 1.45	17.50 ± 2.03	21.48 ± 2.24	n = 12	Beckman Coulter UniCel DxI 800
5.79 ± 0.20	16.19 ± 0.56	10.44 ± 0.62	16.53 ± 0.95	20.30 ± 1.00	n = 3	LC/MS/MS
4.14 ± 0.10	14.09 ± 0.56	9.01 ± 0.44	13.02 ± 0.15	15.63 ± 0.41	n = 3	Ortho Vitros 5600
4.30 ± 0.40	14.73 ± 1.24	9.72 ± 1.11	13.79 ± 1.12	16.19 ± 1.27	n = 5	Ortho Vitros ECi/ECiQ
6.28 ± 0.30	22.86 ± 0.46	13.96 ± 0.28	18.24 ± 0.45	22.90 ± 0.71	n = 9	Roche cobas e601
6.17 ± 0.50	23.10 ± 1.28	13.66 ± 0.79	18.35 ± 1.08	22.80 ± 1.17	n = 3	Roche Elecsys
6.22 ± 0.34	22.74 ± 1.02	13.64 ± 0.60	18.22 ± 0.84	22.75 ± 0.98	n = 11	Roche MODULAR E
5.03 ± 0.36	20.73 ± 1.03	14.10 ± 0.84	15.73 ± 0.71	22.21 ± 1.17	n = 43	Siemens ADVIA Centaur
4.97 ± 0.05	20.05 ± 0.19	13.87 ± 0.34	15.01 ± 0.29	22.33 ± 0.23	n = 3	Siemens ADVIA Centaur CP
5.90 ± 0.42	17.10 ± 1.55	11.97 ± 0.86	16.01 ± 1.51	18.86 ± 3.04	n = 8	Siemens Immulite 1000
5.58 ± 0.57	17.47 ± 1.74	11.95 ± 1.22	15.68 ± 1.37	18.52 ± 1.85	n = 30	Siemens Immulite 2000
6.10 ± 0.18	19.06 ± 1.47	13.18 ± 1.03	17.76 ± 0.56	21.68 ± 1.79	n = 3	Siemens Immulite 2500
5.17 ± 0.05	22.70 ± 0.92	15.18 ± 0.41	17.42 ± 0.15	23.11 ± 0.72	n = 3	Tosoh Bioscience
5.81 ± 0.76	19.97 ± 2.99	13.11 ± 1.59	16.97 ± 1.69	21.54 ± 2.13	n = 16	Mean of Above Means
<Reagents>						
6.45 ± 0.33	20.23 ± 1.21	12.84 ± 0.73	17.87 ± 1.52	21.64 ± 1.71	n = 8	Abbott
6.41 ± 0.47	21.21 ± 1.67	13.68 ± 1.22	17.85 ± 1.80	21.98 ± 2.42	n = 26	Beckman Coulter
5.79 ± 0.20	16.19 ± 0.56	10.44 ± 0.62	16.53 ± 0.95	20.30 ± 1.00	n = 3	In-House
4.20 ± 0.30	14.37 ± 1.00	9.29 ± 0.81	13.31 ± 0.77	15.88 ± 0.97	n = 8	Ortho Clinical Diagnostics
6.26 ± 0.35	22.92 ± 0.99	13.77 ± 0.61	18.27 ± 0.75	22.85 ± 0.94	n = 26	Roche Elecsys/Modular E/e601/e411
5.02 ± 0.34	20.66 ± 1.00	14.07 ± 0.81	15.68 ± 0.72	22.21 ± 1.11	n = 46	Siemens ADVIA/ADVIS Centaur
5.69 ± 0.57	18.13 ± 2.03	11.79 ± 1.40	16.32 ± 1.61	18.63 ± 2.87	n = 6	Siemens Immulite Progesterone(LKPG)
5.71 ± 0.54	17.45 ± 1.70	12.11 ± 1.16	15.84 ± 1.50	18.71 ± 2.08	n = 34	Siemens Immulite Progesterone(LKpw)
5.17 ± 0.05	22.70 ± 0.92	15.18 ± 0.41	17.42 ± 0.15	23.11 ± 0.72	n = 3	Tosoh ST AIA
3.60 ± 2.46	16.11 ± 2.33	9.60 ± 5.55	17.74 ± 7.66	20.07 ± 4.01	n = 3	Other/Not listed
5.54 ± 0.91	19.03 ± 3.07	12.34 ± 2.05	16.92 ± 1.28	20.77 ± 2.18	n = 10	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Dehydroepiandrosterone sulfate (DHEA-S, µg/dL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
69.62 ± 12.22	232.88 ± 28.67	113.70 ± 16.43	346.07 ± 30.99	163.55 ± 18.79	n = 80	All Methods & Instruments
69.00	229.00	111.00	347.70	162.00	n = 80	Median value, All Methods & Instruments
						<Instruments>
77.54 ± 2.26	265.09 ± 6.55	130.91 ± 4.53	349.52 ± 12.23	171.78 ± 7.34	n = 3	Abbott Architect i System
74.28 ± 1.97	219.77 ± 10.48	110.98 ± 3.14	327.21 ± 1.77	157.50 ± 2.56	n = 3	Beckman Coulter ACCESS
70.98 ± 4.14	222.84 ± 4.62	109.27 ± 5.92	327.89 ± 20.86	153.37 ± 7.89	n = 4	Beckman Coulter UniCel DxI 800
92.73 ± 3.90	278.79 ± 9.62	145.03 ± 8.05	358.27 ± 9.92	181.18 ± 8.69	n = 3	Roche cobas e601
91.07 ± 6.17	267.20 ± 11.86	134.16 ± 9.04	361.07 ± 19.25	175.14 ± 9.21	n = 4	Roche Elecsys
91.17 ± 6.70	271.34 ± 23.28	139.09 ± 12.59	352.82 ± 29.55	177.41 ± 11.88	n = 6	Roche MODULAR E
68.21 ± 5.95	188.56 ± 21.16	91.95 ± 5.91	257.70 ± 13.79	113.78 ± 5.41	n = 3	Siemens ADVIA Centaur
71.86 ± 6.01	235.77 ± 16.09	116.24 ± 10.96	352.65 ± 25.61	167.05 ± 6.24	n = 5	Siemens Immulite 1000
63.12 ± 7.47	225.58 ± 18.30	108.67 ± 10.46	348.61 ± 28.38	161.13 ± 17.75	n = 43	Siemens Immulite 2000
77.38 ± 11.41	242.72 ± 30.83	120.86 ± 17.71	348.83 ± 12.36	168.07 ± 10.86	n = 9	Mean of Above Means
						<Reagents>
77.54 ± 2.26	265.09 ± 6.55	130.91 ± 4.53	349.52 ± 12.23	171.78 ± 7.34	n = 3	Abbott
72.75 ± 3.75	221.37 ± 7.65	110.18 ± 4.83	324.23 ± 5.48	155.76 ± 5.82	n = 7	Beckman Coulter
66.59 ± 4.15	174.98 ± 22.69	93.30 ± 11.14	268.79 ± 39.68	133.41 ± 18.40	n = 3	In-House
91.54 ± 5.96	271.83 ± 17.66	138.92 ± 11.33	357.03 ± 22.65	177.55 ± 10.49	n = 13	Roche Elecsys/Modular E/e601/e411
68.21 ± 5.95	188.56 ± 21.16	91.95 ± 5.91	257.70 ± 13.79	113.78 ± 5.41	n = 3	Siemens ADVIA/ADVIA Centaur
64.11 ± 7.75	226.63 ± 18.05	109.32 ± 10.43	348.59 ± 27.91	161.78 ± 16.59	n = 49	Siemens Immulite
71.85 ± 8.70	224.73 ± 39.18	111.68 ± 19.15	321.03 ± 43.63	154.41 ± 23.46	n = 6	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Lutropin (LH, mIU/mL)

Specimen: E71		Specimen: E72		Specimen: E73		Specimen: E74		Specimen: E75		Number	Instrument or Reagent System
6.16 ± 0.67		23.52 ± 2.89		78.32 ± 11.25		63.75 ± 8.44		126.91 ± 17.39		n = 197	All Methods & Instruments
6.10		23.50		78.50		63.60		125.00		n = 197	Median value, All Methods & Instruments
<Instruments>											
4.55 ± 0.36		18.04 ± 0.81		58.70 ± 3.44		49.74 ± 2.34		95.65 ± 5.11		n = 10	Abbott Architect i System
5.44 ± 0.47		22.17 ± 1.04		73.18 ± 2.83		62.43 ± 4.56		118.33 ± 2.32		n = 3	Abbott AxSym
6.32 ± 0.48		20.39 ± 0.73		67.34 ± 2.02		56.47 ± 2.81		111.28 ± 6.55		n = 11	Beckman Coulter ACCESS
5.52 ± 0.41		18.84 ± 0.67		67.76 ± 5.33		54.01 ± 4.16		111.96 ± 9.74		n = 3	Beckman Coulter UniCel DxI 600
5.92 ± 0.34		19.87 ± 1.03		67.72 ± 4.28		54.75 ± 3.21		111.85 ± 6.25		n = 18	Beckman Coulter UniCel DxI 800
7.09 ± 0.25		28.82 ± 1.48		100.91 ± 4.56		83.68 ± 3.14		165.40 ± 7.60		n = 6	Ortho Vitros 5600
7.14 ± 0.40		28.92 ± 1.46		102.01 ± 2.69		83.53 ± 1.56		165.40 ± 5.65		n = 7	Ortho Vitros ECi/ECiQ
6.41 ± 0.19		23.29 ± 0.61		73.11 ± 2.57		60.98 ± 1.81		119.21 ± 3.20		n = 11	Roche cobas e601
6.48 ± 0.19		23.50 ± 0.60		72.47 ± 2.47		61.10 ± 1.97		118.72 ± 4.22		n = 6	Roche Elecsys
6.21 ± 0.22		22.85 ± 0.65		70.97 ± 2.61		59.36 ± 1.80		116.58 ± 4.18		n = 12	Roche MODULAR E
5.81 ± 0.30		23.80 ± 1.25		81.54 ± 5.99		66.20 ± 4.37		134.79 ± 6.87		n = 51	Siemens ADVIA Centaur
5.62 ± 0.24		25.10 ± 1.64		82.27 ± 4.81		66.61 ± 4.51		133.94 ± 7.28		n = 3	Siemens ADVIA Centaur CP
7.28 ± 0.13		29.27 ± 0.44		97.17 ± 1.85		81.58 ± 2.17		50.00 ± 0.00		n = 4	Siemens Dimension Vista
6.97 ± 0.57		25.30 ± 1.78		87.20 ± 5.48		68.72 ± 5.25		150.96 ± 9.15		n = 9	Siemens Immulite 1000
6.58 ± 0.49		25.34 ± 1.16		84.73 ± 5.03		67.32 ± 3.40		131.37 ± 9.98		n = 29	Siemens Immulite 2000
6.44 ± 0.71		24.88 ± 0.68		84.29 ± 6.68		62.30 ± 6.83		127.52 ± 4.61		n = 3	Siemens Immulite 2500
5.68 ± 0.04		24.26 ± 0.52		79.97 ± 0.09		65.27 ± 0.09		129.14 ± 1.48		n = 5	Tosoh Bioscience
6.24 ± 0.71		23.79 ± 3.35		78.75 ± 12.44		63.83 ± 9.50		125.07 ± 20.49		n = 17	Mean of Above Means
<Reagents>											
4.69 ± 0.51		18.62 ± 1.79		61.19 ± 6.75		51.07 ± 5.90		99.38 ± 11.03		n = 13	Abbott
6.00 ± 0.45		19.99 ± 1.01		67.83 ± 3.91		55.32 ± 3.31		111.58 ± 6.76		n = 32	Beckman Coulter
7.12 ± 0.31		28.87 ± 1.47		101.71 ± 4.04		83.58 ± 2.35		165.43 ± 6.59		n = 13	Ortho Clinical Diagnostics
6.36 ± 0.23		23.25 ± 0.70		72.42 ± 2.83		60.56 ± 2.07		118.53 ± 3.89		n = 31	Roche Elecsys/Modular E/e601/e411
5.80 ± 0.30		23.86 ± 1.32		81.57 ± 5.92		66.22 ± 4.38		134.75 ± 6.90		n = 54	Siemens ADVIA/ADVIa Centaur
7.28 ± 0.13		29.27 ± 0.44		97.17 ± 1.85		81.58 ± 2.17		50.00 ± 0.00		n = 4	Siemens Dimension LOCI
6.66 ± 0.56		25.27 ± 1.32		85.22 ± 5.48		67.39 ± 4.35		135.40 ± 13.14		n = 41	Siemens Immulite
5.68 ± 0.04		24.13 ± 0.36		79.97 ± 0.09		65.27 ± 0.09		129.04 ± 1.66		n = 4	Tosoh ST AIA
6.24 ± 0.82		24.16 ± 3.73		80.56 ± 13.87		65.78 ± 11.35		122.24 ± 28.29		n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Follitropin (FSH, mIU/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
7.83 ± 0.87	5.54 ± 1.17	12.44 ± 2.16	7.56 ± 1.05	26.11 ± 3.41	n = 199	All Methods & Instruments
7.70	5.50	12.80	7.60	26.70	n = 199	Median value, All Methods & Instruments
<Instruments>						
6.80 ± 0.37	4.77 ± 0.23	11.44 ± 0.41	6.76 ± 0.40	23.36 ± 1.76	n = 10	Abbott Architect i System
7.57 ± 0.23	5.27 ± 0.05	12.17 ± 0.14	7.13 ± 0.05	24.52 ± 0.24	n = 3	Abbott AxSym
9.27 ± 0.74	5.92 ± 0.46	14.40 ± 1.12	8.50 ± 0.42	29.59 ± 2.04	n = 11	Beckman Coulter ACCESS
8.70 ± 0.55	5.75 ± 0.27	14.26 ± 0.88	8.12 ± 0.41	28.31 ± 0.89	n = 3	Beckman Coulter UniCel DxI 600
8.95 ± 0.52	5.92 ± 0.37	13.76 ± 0.90	8.28 ± 0.60	28.42 ± 0.97	n = 18	Beckman Coulter UniCel DxI 800
9.19 ± 0.18	4.36 ± 0.12	9.92 ± 0.28	6.13 ± 0.12	22.05 ± 0.32	n = 6	Ortho Vitros 5600
9.09 ± 0.16	4.28 ± 0.10	9.68 ± 0.27	6.33 ± 0.40	21.74 ± 0.94	n = 7	Ortho Vitros ECi/ECiQ
7.36 ± 0.24	5.44 ± 0.22	12.56 ± 0.94	7.37 ± 0.42	26.14 ± 1.25	n = 11	Roche cobas e601
7.70 ± 0.37	5.64 ± 0.38	13.48 ± 0.64	7.67 ± 0.38	27.52 ± 1.34	n = 6	Roche Elecsys
7.38 ± 0.18	5.46 ± 0.16	12.71 ± 0.39	7.41 ± 0.18	26.05 ± 0.63	n = 12	Roche MODULAR E
7.75 ± 0.32	6.85 ± 0.38	13.69 ± 0.72	8.44 ± 0.41	28.44 ± 1.15	n = 53	Siemens ADVIA Centaur
6.66 ± 0.10	6.48 ± 0.24	14.01 ± 0.20	8.26 ± 0.10	28.29 ± 0.44	n = 3	Siemens ADVIA Centaur CP
5.93 ± 0.08	5.03 ± 0.16	12.35 ± 0.27	6.80 ± 0.43	25.39 ± 0.57	n = 4	Siemens Dimension Vista
7.94 ± 0.51	4.27 ± 0.22	9.32 ± 0.42	6.47 ± 0.33	21.78 ± 1.00	n = 9	Siemens Immulite 1000
7.61 ± 0.31	4.11 ± 0.23	9.34 ± 0.36	6.43 ± 0.32	21.79 ± 0.86	n = 29	Siemens Immulite 2000
6.71 ± 0.20	3.83 ± 0.14	8.25 ± 0.27	5.75 ± 0.19	19.51 ± 0.81	n = 3	Siemens Immulite 2500
9.83 ± 0.09	6.40 ± 0.08	15.94 ± 0.17	8.83 ± 0.24	29.59 ± 1.84	n = 5	Tosoh Bioscience
7.89 ± 1.13	5.28 ± 0.94	12.29 ± 2.27	7.33 ± 1.01	25.57 ± 3.40	n = 17	Mean of Above Means
<Reagents>						
6.97 ± 0.48	4.89 ± 0.31	11.62 ± 0.50	6.87 ± 0.38	23.70 ± 1.61	n = 13	Abbott
9.02 ± 0.61	5.91 ± 0.39	14.00 ± 0.99	8.34 ± 0.54	28.61 ± 1.30	n = 32	Beckman Coulter
9.13 ± 0.18	4.32 ± 0.13	9.79 ± 0.31	6.19 ± 0.26	21.93 ± 0.65	n = 13	Ortho Clinical Diagnostics
7.44 ± 0.28	5.48 ± 0.25	12.93 ± 0.70	7.46 ± 0.32	26.45 ± 1.22	n = 31	Roche Elecsys/Modular E/e601/e411
7.72 ± 0.37	6.83 ± 0.39	13.71 ± 0.70	8.43 ± 0.40	28.43 ± 1.11	n = 56	Siemens ADVIA/ADVIa Centaur
5.93 ± 0.08	5.03 ± 0.16	12.35 ± 0.27	6.80 ± 0.43	25.39 ± 0.57	n = 4	Siemens Dimension LOCI
7.62 ± 0.40	4.12 ± 0.25	9.30 ± 0.44	6.40 ± 0.37	21.70 ± 1.04	n = 41	Siemens Immulite
9.58 ± 0.68	6.22 ± 0.40	15.32 ± 1.45	8.45 ± 0.75	29.48 ± 2.26	n = 4	Tosoh ST AIA
7.94 ± 1.24	5.33 ± 0.94	12.45 ± 2.07	7.35 ± 0.98	25.78 ± 3.14	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Prolactin ( $\mu\text{g/L}$ )

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
2.36 ± 0.22	3.07 ± 0.37	10.84 ± 1.27	3.51 ± 0.42	12.84 ± 1.51	n = 177	All Methods & Instruments
2.40	3.10	10.80	3.60	12.70	n = 177	Median value, All Methods & Instruments
<Instruments>						
3.08 ± 0.22	4.24 ± 0.27	14.93 ± 0.72	4.92 ± 0.38	18.62 ± 0.88	n = 7	Abbott Architect i System
3.04 ± 0.39	3.84 ± 0.42	12.18 ± 1.15	4.37 ± 0.59	15.23 ± 0.95	n = 4	Abbott AxSym
2.39 ± 0.20	3.11 ± 0.18	10.99 ± 0.47	3.57 ± 0.24	12.53 ± 0.60	n = 10	Beckman Coulter ACCESS
2.38 ± 0.15	3.13 ± 0.14	11.19 ± 0.57	3.53 ± 0.23	12.77 ± 0.31	n = 3	Beckman Coulter UniCel DxI 600
2.29 ± 0.22	3.11 ± 0.15	10.66 ± 0.52	3.34 ± 0.22	12.12 ± 0.44	n = 18	Beckman Coulter UniCel DxI 800
4.07 ± 0.45	4.68 ± 0.51	12.13 ± 0.53	5.49 ± 0.60	14.23 ± 0.14	n = 6	Ortho Vitros 5600
4.34 ± 0.52	4.61 ± 0.52	12.41 ± 1.00	5.31 ± 0.51	14.27 ± 0.32	n = 6	Ortho Vitros ECi/ECiQ
2.50 ± 0.08	3.28 ± 0.11	12.05 ± 0.41	3.61 ± 0.17	14.42 ± 0.61	n = 7	Roche cobas e601
2.62 ± 0.07	3.41 ± 0.11	12.47 ± 0.29	3.85 ± 0.11	15.03 ± 0.49	n = 7	Roche Elecsys
2.51 ± 0.08	3.30 ± 0.10	12.21 ± 0.45	3.69 ± 0.10	14.62 ± 0.57	n = 9	Roche MODULAR E
2.38 ± 0.12	3.08 ± 0.17	10.55 ± 0.57	3.61 ± 0.22	12.59 ± 0.69	n = 53	Siemens ADVIA Centaur
2.08 ± 0.07	2.89 ± 0.14	10.95 ± 0.66	3.30 ± 0.28	13.36 ± 0.94	n = 6	Siemens Dimension Vista
2.28 ± 0.23	2.69 ± 0.18	9.81 ± 0.63	3.06 ± 0.20	12.12 ± 0.86	n = 5	Siemens Immulite 1000
2.19 ± 0.13	2.57 ± 0.16	9.25 ± 0.48	2.99 ± 0.23	11.12 ± 0.65	n = 23	Siemens Immulite 2000
2.10 ± 0.00	2.43 ± 0.05	8.15 ± 0.36	2.83 ± 0.05	10.43 ± 0.05	n = 3	Siemens Immulite 2500
2.30 ± 0.00	3.20 ± 0.00	10.75 ± 0.30	3.67 ± 0.09	13.30 ± 0.17	n = 4	Tosoh Bioscience
2.38 ± 0.26	3.26 ± 0.63	11.27 ± 1.40	3.69 ± 0.73	13.36 ± 1.65	n = 16	Mean of Above Means
<Reagents>						
3.08 ± 0.27	4.12 ± 0.33	14.04 ± 1.59	4.76 ± 0.50	17.42 ± 1.93	n = 11	Abbott
2.33 ± 0.21	3.11 ± 0.15	10.82 ± 0.55	3.42 ± 0.25	12.30 ± 0.53	n = 31	Beckman Coulter
4.20 ± 0.49	4.65 ± 0.51	12.21 ± 0.69	5.38 ± 0.54	14.21 ± 0.18	n = 12	Ortho Clinical Diagnostics
2.53 ± 0.09	3.31 ± 0.12	12.19 ± 0.45	3.69 ± 0.15	14.63 ± 0.56	n = 24	Roche Elecsys/Modular E/e601/e411
2.38 ± 0.12	3.08 ± 0.18	10.53 ± 0.56	3.61 ± 0.22	12.58 ± 0.67	n = 55	Siemens ADVIA/ADVIS Centaur
2.08 ± 0.07	2.89 ± 0.14	10.95 ± 0.66	3.30 ± 0.28	13.36 ± 0.94	n = 6	Siemens Dimension LOCI
2.18 ± 0.14	2.57 ± 0.17	9.24 ± 0.63	2.98 ± 0.22	11.14 ± 0.79	n = 31	Siemens Immulite
2.30 ± 0.00	3.20 ± 0.00	10.75 ± 0.30	3.67 ± 0.09	13.30 ± 0.17	n = 4	Tosoh ST AIA
2.32 ± 0.20	3.27 ± 0.62	11.23 ± 1.33	3.72 ± 0.72	13.38 ± 1.62	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Intact Parathyryin (PTH, pg/mL)

Specimen: E71		Specimen: E72		Specimen: E73		Specimen: E74		Specimen: E75		Number	Instrument or Reagent System
4.18 ± 4.00		8.50 ± 9.00		2.95 ± 3.00		189.70 ± 197.10		181.53 ± 186.40		n = 174	All Methods & Instruments
										n = 174	Median value, All Methods & Instruments
<Instruments>											
1.79 ± 0.29	1.48	21.92 ± 5.35	5.48	1.71 ± 0.29	1.54	430.11 ± 151.61	12.66	419.67 ± 147.88	24.06	n = 7	Abbott Architect i System
1.43 ± 0.43	2.03	5.11 ± 2.65	1.89	1.43 ± 1.43	2.03	145.87 ± 217.66	9.61	141.95 ± 27.49	15.41	n = 10	Beckman Coulter ACCESS
3.40 ± 0.00	0.00	9.85 ± 10.83	1.58	3.40 ± 3.40	0.00	255.59 ± 146.88	21.35	212.63 ± 6.31	19.45	n = 14	Beckman Coulter UniCel DxI 800
3.40 ± 0.00	0.00	10.00 ± 10.83	1.02	4.08 ± 4.90	1.08	160.08 ± 142.97	9.00	142.97 ± 6.31	6.63	n = 5	Ortho Vitros 5600
4.37 ± 0.95	0.95	10.00 ± 11.39	1.02	4.08 ± 4.90	0.94	160.08 ± 156.56	9.00	142.97 ± 10.46	6.63	n = 9	Ortho Vitros ECi/ECiQ
5.02 ± 0.65	0.65	11.39 ± 11.39	2.39	4.90 ± 4.90	0.94	160.08 ± 156.56	9.00	142.97 ± 10.46	6.63	n = 10	Roche cobas e601
4.55 ± 0.93	0.93	9.49 ± 9.49	2.05	3.80 ± 3.80	0.83	144.53 ± 144.53	6.38	139.07 ± 6.38	7.17	n = 14	Roche Elecsys
2.82 ± 1.47	1.47	5.92 ± 5.92	3.46	2.28 ± 2.28	0.91	216.58 ± 216.58	23.07	206.78 ± 23.07	24.56	n = 42	Roche MODULAR E
15.96 ± 9.07	9.07	11.23 ± 11.23	4.76	6.55 ± 6.55	3.36	190.83 ± 190.83	20.17	181.12 ± 20.17	23.54	n = 8	Siemens ADVIA Centaur
11.27 ± 4.01	4.01	10.64 ± 10.64	2.73	3.00 ± 3.00	0.00	229.66 ± 229.66	16.03	218.27 ± 16.03	16.56	n = 33	Siemens Immulite 1000
11.20 ± 5.64	5.64	15.81 ± 15.81	4.69	7.88 ± 7.88	3.74	225.00 ± 225.00	3.61	210.89 ± 3.61	7.44	n = 3	Siemens Immulite 2000
1.00 ± 0.00	0.00	7.01 ± 7.01	1.11	1.00 ± 1.00	0.00	128.82 ± 128.82	10.00	123.70 ± 10.00	11.59	n = 5	Siemens Immulite 2500
4.13 ± 4.03		9.53 ± 9.53	3.49	3.17 ± 3.17	2.07	183.62 ± 183.62	46.46	176.19 ± 46.46	42.44	n = 13	Tosoh Bioscience
<Reagents>											
1.79 ± 0.55	1.48	21.92 ± 5.39	5.48	1.71 ± 0.55	1.54	430.11 ± 149.12	12.66	419.67 ± 145.01	24.06	n = 7	Beckman Coulter
3.40 ± 0.00	0.00	10.36 ± 10.36	2.50	3.40 ± 3.40	0.00	234.17 ± 234.17	31.14	224.86 ± 234.17	24.88	n = 26	Ortho Clinical Diagnostics
4.68 ± 0.95	0.95	10.08 ± 10.08	2.07	4.26 ± 4.26	1.14	148.99 ± 148.99	10.05	143.78 ± 148.99	10.80	n = 37	Roche Elecsys/Modular E/e601/e411
2.90 ± 1.55	1.55	5.78 ± 5.78	3.34	2.34 ± 2.34	0.86	216.12 ± 216.12	23.06	206.32 ± 216.12	24.66	n = 45	Siemens ADVIA/ADVIS Centaur
10.70 ± 4.52	4.52	10.73 ± 10.73	3.03	3.00 ± 3.00	0.00	227.96 ± 227.96	16.05	215.94 ± 227.96	17.41	n = 38	Siemens Immulite
21.53 ± 2.50	2.50	13.78 ± 13.78	1.34	8.73 ± 8.73	1.76	179.45 ± 179.45	8.61	173.04 ± 179.45	22.40	n = 5	Siemens Immulite Turbo
1.00 ± 0.00	0.00	7.35 ± 7.35	1.00	1.00 ± 1.00	0.00	128.00 ± 128.00	11.76	123.14 ± 128.00	13.60	n = 4	Tosoh ST AIA
2.41 ± 1.71		9.63 ± 9.63	4.18	2.45 ± 2.45	1.66	184.08 ± 184.08	46.47	176.41 ± 184.08	42.54	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D2 (ng/ml)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
2.66 ± 1.64 2.50	12.64 ± 1.63 12.90	12.42 ± 1.71 12.20	6.90 ± 1.18 6.70	6.61 ± 1.31 6.00	n = 13 n = 13	All Methods & Instruments Median value, All Methods & Instruments
2.66 ± 1.64	12.64 ± 1.63	12.42 ± 1.71	6.90 ± 1.18	6.61 ± 1.31	n = 13	<Instruments> LC/MS/MS
2.66 ± 1.64	12.64 ± 1.63	12.42 ± 1.71	6.90 ± 1.18	6.61 ± 1.31	n = 13	<Reagents> In-House

## Statistical Summary (Mean and Standard Deviation)

## 25-OH Vitamin D3 (ng/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
15.58 ± 1.44 15.40	29.09 ± 1.80 28.50	32.11 ± 2.23 32.00	38.37 ± 2.45 38.00	65.08 ± 5.70 64.50	n = 13 n = 13	All Methods & Instruments Median value, All Methods & Instruments
15.58 ± 1.44	29.09 ± 1.80	32.11 ± 2.23	38.37 ± 2.45	65.08 ± 5.70	n = 13	<Instruments> LC/MS/MS
15.58 ± 1.44	29.09 ± 1.80	32.11 ± 2.23	38.37 ± 2.45	65.08 ± 5.70	n = 13	<Reagents> In-House

## Statistical Summary (Mean and Standard Deviation)

25-OH Vitamin D, Total (ng/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
20.85 ± 3.98	38.00 ± 6.55	38.28 ± 6.64	36.27 ± 9.00	52.84 ± 15.68	n = 107	All Methods & Instruments
21.20	39.50	39.00	34.20	48.30	n = 107	Median value, All Methods & Instruments
						<Instruments>
15.84 ± 0.62	29.11 ± 1.49	30.52 ± 1.12	31.08 ± 1.40	44.32 ± 2.21	n = 3	Abbott Architect i System
20.48 ± 0.24	47.77 ± 3.22	44.78 ± 0.15	38.06 ± 1.72	57.11 ± 2.08	n = 3	Automated microplate processor
21.54 ± 2.22	47.43 ± 17.10	40.52 ± 4.44	34.92 ± 3.29	50.38 ± 4.73	n = 4	BioRad PhD System
22.10 ± 3.31	36.20 ± 3.93	36.14 ± 3.30	32.56 ± 2.93	45.31 ± 4.39	n = 54	DiaSorin Liaison
11.14 ± 0.10	32.34 ± 2.67	30.24 ± 3.04	26.90 ± 1.89	38.05 ± 4.36	n = 3	Immunodiagnostic Systems-iSYS Immun
15.68 ± 1.62	40.99 ± 1.05	44.86 ± 2.56	45.54 ± 2.93	71.80 ± 4.55	n = 11	LC/MS/MS
21.82 ± 3.50	79.46 ± 5.14	78.87 ± 5.97	57.68 ± 3.74	81.80 ± 5.32	n = 16	Siemens ADVIA Centaur
22.11 ± 1.58	47.02 ± 6.22	48.46 ± 5.60	39.40 ± 4.17	59.82 ± 3.63	n = 9	Other/Not listed
19.36 ± 3.93	40.82 ± 9.10	39.73 ± 7.96	36.85 ± 8.43	54.88 ± 14.46	n = 8	Mean of Above Means
						<Reagents>
15.84 ± 0.62	29.11 ± 1.49	30.52 ± 1.12	31.08 ± 1.40	44.32 ± 2.21	n = 3	Abbott
21.89 ± 3.28	35.87 ± 3.65	35.95 ± 3.18	32.33 ± 2.71	44.98 ± 3.92	n = 51	DiaSorin Liaison
18.12 ± 4.97	31.73 ± 7.53	30.45 ± 7.10	29.72 ± 6.51	44.90 ± 7.75	n = 3	DiaSorin Radioimmunoassay
21.56 ± 1.60	45.62 ± 7.62	45.15 ± 6.84	37.46 ± 4.76	55.99 ± 7.95	n = 21	Immunodiagnostic Systems Enzyme Imm
15.68 ± 1.62	40.99 ± 1.05	44.86 ± 2.56	45.54 ± 2.93	71.80 ± 4.55	n = 11	In-House
21.82 ± 3.50	79.46 ± 5.14	78.87 ± 5.97	57.68 ± 3.74	81.80 ± 5.32	n = 16	Siemens ADVIA/ADVIS Centaur
19.23 ± 3.06	36.50 ± 6.67	37.43 ± 7.85	37.50 ± 9.91	55.89 ± 15.74	n = 6	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Intact human Choriogonadotropin (intact hCG, mIU/mL)

Specimen: E71	Specimen: E72	Specimen: E73	Specimen: E74	Specimen: E75	Number	Instrument or Reagent System
36.4 ± 1.74	1.2 ± 0.71	33.7 ± 1.75	1.2 ± 0.65	36.8 ± 2.31	n = 54	All Methods & Instruments
37.0	1.0	34.0	1.0	37.0	n = 54	Median value, All Methods & Instruments
<Instruments>						
35.4 ± 1.09	0.8 ± 0.41	31.5 ± 0.57	0.8 ± 0.41	33.0 ± 0.93	n = 5	Roche cobas e601
38.5 ± 3.81	2.1 ± 3.89	33.1 ± 3.06	2.1 ± 3.89	35.6 ± 3.54	n = 4	Roche Elecsys
36.1 ± 1.68	1.9 ± 1.35	33.9 ± 2.14	2.0 ± 1.14	36.7 ± 1.69	n = 6	Siemens Dimension EXL
36.6 ± 1.53	1.2 ± 0.49	34.0 ± 1.55	1.2 ± 0.43	37.3 ± 1.69	n = 23	Siemens Dimension RxL
36.3 ± 1.12	1.3 ± 0.61	33.7 ± 1.22	1.3 ± 0.61	37.1 ± 1.76	n = 12	Siemens Dimension Xpand
36.4 ± 0.99	1.4 ± 0.52	33.4 ± 0.85	1.5 ± 0.55	36.2 ± 1.51	n = 5	Mean of Above Means
<Reagents>						
36.9 ± 3.14	0.7 ± 0.54	32.0 ± 2.77	0.7 ± 0.54	34.2 ± 2.58	n = 10	Roche Elecsys/Modular E/e601/e411
36.4 ± 1.42	1.2 ± 0.67	33.9 ± 1.52	1.3 ± 0.58	37.1 ± 1.71	n = 41	Siemens Dimension
36.5 ± 0.24	1.1 ± 0.30	33.4 ± 0.99	1.1 ± 0.30	36.3 ± 1.49	n = 3	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Total Beta hCG (mIU/mL)

Specimen: E71		Specimen: E72		Specimen: E73		Specimen: E74		Specimen: E75		Number	Instrument or Reagent System
35.2 ±	8.86	1.5 ±	1.16	43.3 ±	7.42	1.5 ±	1.18	43.8 ±	8.05	n = 253	All Methods & Instruments
35.0		1.0		45.0		1.0		45.0		n = 253	Median value, All Methods & Instruments
<Instruments>											
19.0 ±	1.35	1.0 ±	0.00	35.0 ±	1.58	1.0 ±	0.00	36.3 ±	1.49	n = 15	Abbott Architect i System
29.1 ±	1.51	2.2 ±	2.31	43.6 ±	2.35	2.3 ±	2.39	43.4 ±	2.35	n = 35	Beckman Coulter ACCESS
30.3 ±	0.90	1.4 ±	1.90	45.7 ±	2.47	1.4 ±	1.90	45.2 ±	2.11	n = 4	Beckman Coulter UniCel DxI 600
28.5 ±	1.15	1.2 ±	0.41	44.5 ±	1.92	1.2 ±	0.41	44.6 ±	2.05	n = 18	Beckman Coulter UniCel DxI 800
49.9 ±	1.96	2.5 ±	1.07	45.0 ±	2.38	2.5 ±	1.07	44.6 ±	1.87	n = 10	Ortho Vitros 5600
50.8 ±	2.90	2.0 ±	0.00	45.0 ±	2.73	2.0 ±	0.00	45.5 ±	2.60	n = 15	Ortho Vitros ECi/ECiQ
41.3 ±	0.51	1.3 ±	0.51	56.4 ±	1.02	1.3 ±	0.51	57.7 ±	1.37	n = 3	Roche cobas e411
37.1 ±	1.32	1.5 ±	2.05	50.8 ±	2.07	1.5 ±	2.05	51.6 ±	2.83	n = 11	Roche cobas e601
39.9 ±	2.15	0.6 ±	0.55	54.9 ±	3.11	0.6 ±	0.55	55.5 ±	2.69	n = 5	Roche Elecsys
37.6 ±	1.97	0.9 ±	0.63	50.8 ±	1.98	0.9 ±	0.63	52.5 ±	1.65	n = 18	Roche MODULAR E
32.9 ±	1.54	2.0 ±	0.00	35.3 ±	1.76	2.1 ±	1.24	35.1 ±	1.83	n = 52	Siemens ADVIA Centaur
29.4 ±	1.09	1.6 ±	0.55	35.2 ±	0.80	1.6 ±	0.55	34.9 ±	1.27	n = 5	Siemens ADVIA Centaur CP
37.0 ±	1.13	1.0 ±	0.00	45.6 ±	1.18	1.0 ±	0.00	46.4 ±	1.11	n = 34	Siemens Dimension Vista
55.1 ±	6.19	1.0 ±	0.00	65.1 ±	8.45	1.0 ±	0.00	63.1 ±	6.45	n = 5	Siemens Immulite 1000
58.2 ±	2.56	1.0 ±	0.00	74.2 ±	2.61	1.0 ±	0.00	74.9 ±	3.48	n = 15	Siemens Immulite 2000
41.7 ±	0.90	1.2 ±	0.41	50.3 ±	0.82	1.2 ±	0.41	51.7 ±	0.90	n = 4	Tosoh Bioscience
38.2 ±	10.73	1.3 ±	0.54	47.3 ±	9.34	1.4 ±	0.55	47.8 ±	9.57	n = 16	Mean of Above Means
<Reagents>											
19.0 ±	1.35	1.0 ±	0.41	35.0 ±	1.58	1.0 ±	0.41	36.3 ±	1.49	n = 16	Abbott
29.0 ±	1.44	1.8 ±	1.97	44.0 ±	2.32	1.9 ±	1.99	43.9 ±	2.35	n = 57	Beckman Coulter
50.4 ±	2.53	2.1 ±	0.37	45.0 ±	2.59	2.1 ±	0.37	45.1 ±	2.30	n = 25	Ortho Clinical Diagnostics
38.1 ±	2.17	0.8 ±	0.60	51.6 ±	2.82	0.8 ±	0.60	53.2 ±	2.81	n = 37	Roche Elecsys/Modular E/e601/e411
32.7 ±	1.79	2.0 ±	0.00	35.3 ±	1.68	2.0 ±	1.07	35.1 ±	1.78	n = 57	Siemens ADVIA/ADVIa Centaur
37.0 ±	1.13	1.0 ±	0.00	45.6 ±	1.18	1.0 ±	0.00	46.4 ±	1.11	n = 34	Siemens Dimension LOCI
57.6 ±	4.07	1.0 ±	0.00	73.7 ±	3.09	1.0 ±	0.00	73.2 ±	5.84	n = 20	Siemens Immulite
41.7 ±	0.90	1.2 ±	0.41	50.3 ±	0.82	1.2 ±	0.41	51.7 ±	0.90	n = 4	Tosoh ST AIA
38.0 ±	11.70	1.3 ±	0.55	45.0 ±	8.67	1.3 ±	0.55	46.1 ±	9.59	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Qualitative hCG report:

[AB1] Abbott	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	4	0	4	0
Indeterminant	2	0	0	0	0
Positive	2	0	4	0	4
[BC1] Beckman Coulter	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	35	0	35	1
Indeterminant	0	0	0	0	1
Positive	35	0	35	0	33
[CD1] Cardinal Health	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	8	0	8	0
Indeterminant	0	0	0	0	0
Positive	8	0	8	0	8
[CM1] CEN-MED Elite Plus hCG One Step	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	8	0	8	0
Indeterminant	0	0	0	0	0
Positive	8	0	8	0	8
[FI1] Fisher	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	53	0	53	0
Indeterminant	0	0	0	0	0
Positive	53	0	53	0	53
[IM1] Inverness Medical	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	5	0	5	0
Indeterminant	0	0	0	0	0
Positive	5	0	5	0	5
[JJ1] Ortho Clinical Diagnostics	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	2	0	2	0
Indeterminant	0	0	0	0	0
Positive	2	0	2	0	2
[PM1] Polymedco	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	4	0	4	0
Indeterminant	0	0	0	0	0
Positive	4	0	4	0	4
[QQ2] Quidel QuickVue One-Step hCG Combo	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	26	0	26	0
Indeterminant	4	0	3	0	0
Positive	22	0	23	0	26

## Statistical Summary (Mean and Standard Deviation)

[QQ1] Quidel QuickVue+ One-Step hCG Combo	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	21	0	21	0
Indeterminant	0	0	0	0	0
Positive	21	0	21	0	21

[RO3] Roche Elecsys/Modular E/e601/e411	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	6	0	6	0
Indeterminant	0	0	0	0	0
Positive	6	0	6	0	6

[RO2] Roche Hitachi and Modular D/P	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	1	0	1	0
Indeterminant	0	0	0	0	0
Positive	1	0	1	0	1

[GZ1] Sekisui Diagnostics (Genzyme)	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	9	0	9	0
Indeterminant	0	0	0	0	0
Positive	9	0	9	0	9

[BY1] Siemens ADVIA/ADVIA Centaur	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	24	0	24	0
Indeterminant	0	0	0	0	0
Positive	24	0	24	0	24

[DA5] Siemens Dimension	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	4	0	4	0
Indeterminant	0	0	0	0	0
Positive	4	0	4	0	4

[DA5] Siemens Dimension HDL-new reagent (	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	4	0	4	0
Indeterminant	0	0	0	0	0
Positive	4	0	4	0	4

## Statistical Summary (Mean and Standard Deviation)

[DA6] Siemens Dimension LOCI	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	4	0	4	0
Indeterminant	0	0	0	0	0
Positive	4	0	4	0	4
[DP5] Siemens Immulite	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	2	0	2	0
Indeterminant	0	0	0	0	0
Positive	2	0	2	0	2
[SB1] Stanbio	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	11	0	11	0
Indeterminant	0	0	0	0	0
Positive	11	0	11	0	11
[TO2] Tosoh ST AIA	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	1	0	1	0
Indeterminant	0	0	0	0	0
Positive	1	0	1	0	1
[TR1] TrueMedix	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	4	0	4	0
Indeterminant	0	0	0	0	0
Positive	4	0	4	0	4
[WP3] Wampole Clearview	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	4	0	4	0
Indeterminant	0	0	0	0	0
Positive	4	0	4	0	4
[ZZZ] Other/Not listed	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	7	0	7	0
Indeterminant	0	0	0	0	0
Positive	7	0	7	0	7
[---] All Methods & Instruments	Specimen:E71	Specimen:E72	Specimen:E73	Specimen:E74	Specimen:E75
Negative	0	247	0	247	1
Indeterminant	6	0	3	0	1
Positive	241	0	244	0	245