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### **Endocrinology Proficiency Test Program**

#### **Statistical Summary – August 2015 (Event 15-3)**

This statistical report summarizes participant data for the five Endocrinology proficiency survey specimens shipped 31 August 2015. Test specimens E31-E35 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 participants 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 are calculated by a robust statistical technique that does not assume a Gaussian distribution.

#### 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.

Should you have any questions regarding this report, please contact the Endocrinology Section at (518) 474-6706 or email: [roy.ketring@health.ny.gov](mailto:roy.ketring@health.ny.gov)

Please note that 17-hydroxyprogesterone and dehydroepiandrosterone (DHEA), included in this proficiency test event as an educational challenge, will be graded beginning with the January 2016 event.

## Statistical Summary (Mean and Standard Deviation)

## Thyroxin (T4, µg/dL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
1.74 ± 0.81	8.50 ± 0.99	8.08 ± 0.91	15.03 ± 1.87	12.30 ± 1.43	n = 228	All Methods & Instruments
1.80	8.50	8.07	15.00	12.20	n = 228	Median value, All Methods & Instruments
<Instruments>						
2.39 ± 0.32	6.85 ± 0.40	6.58 ± 0.39	12.44 ± 0.59	10.10 ± 0.48	n = 20	Abbott Architect i System
1.72 ± 0.23	8.55 ± 0.81	8.37 ± 0.61	15.20 ± 0.97	12.65 ± 0.78	n = 19	Beckman Coulter ACCESS
2.09 ± 0.11	8.46 ± 0.30	7.79 ± 0.35	16.61 ± 0.63	11.86 ± 0.14	n = 6	Beckman Coulter AU Chemistry System
1.42 ± 0.31	7.92 ± 0.44	7.65 ± 0.65	14.73 ± 0.45	11.94 ± 0.60	n = 4	Beckman Coulter UniCel DxI 600
1.41 ± 0.21	7.84 ± 0.56	7.63 ± 0.61	14.72 ± 0.87	12.20 ± 0.79	n = 16	Beckman Coulter UniCel DxI 800
1.86 ± 0.15	8.34 ± 0.43	8.43 ± 0.49	15.48 ± 0.81	13.08 ± 0.80	n = 17	Ortho Vitros 5600
1.81 ± 0.11	8.10 ± 0.53	8.16 ± 0.19	15.32 ± 1.05	13.06 ± 0.62	n = 3	Ortho Vitros ECi/ECiQ
2.38 ± 0.14	8.57 ± 0.35	7.87 ± 0.34	15.84 ± 0.62	12.59 ± 0.51	n = 19	Roche cobas e601
2.42 ± 0.07	8.59 ± 0.24	8.10 ± 0.21	15.84 ± 0.44	12.51 ± 0.36	n = 6	Roche cobas e602
2.30 ± 0.22	8.63 ± 0.67	7.79 ± 0.53	16.17 ± 1.09	12.73 ± 0.90	n = 7	Roche MODULAR E
0.46 ± 0.22	8.49 ± 0.36	8.06 ± 0.42	13.55 ± 0.54	11.48 ± 0.43	n = 45	Siemens ADVIA Centaur
1.58 ± 0.48	9.41 ± 0.52	8.77 ± 0.39	16.64 ± 0.58	13.32 ± 0.69	n = 7	Siemens Dimension EXL
2.34 ± 0.82	10.66 ± 0.76	9.86 ± 0.68	18.25 ± 0.56	14.92 ± 0.54	n = 31	Siemens Dimension Vista
1.44 ± 0.05	8.27 ± 0.52	7.34 ± 0.71	13.79 ± 0.93	11.05 ± 0.54	n = 4	Siemens Immulite 1000
1.33 ± 0.23	8.01 ± 0.42	7.46 ± 0.49	13.94 ± 0.51	11.34 ± 0.48	n = 10	Siemens Immulite 2000
2.12 ± 0.66	8.71 ± 0.83	8.24 ± 0.41	14.63 ± 0.93	12.71 ± 0.63	n = 5	Tosoh Bioscience
1.87 ± 0.50	8.38 ± 0.42	7.95 ± 0.54	15.18 ± 1.35	12.33 ± 0.97	n = 16	Mean of Above Means
<Reagents>						
2.39 ± 0.32	6.85 ± 0.40	6.58 ± 0.39	12.44 ± 0.59	10.10 ± 0.48	n = 20	Abbott
1.57 ± 0.28	8.16 ± 0.75	8.00 ± 0.71	14.94 ± 0.91	12.38 ± 0.82	n = 39	Beckman Coulter
2.09 ± 0.11	8.46 ± 0.30	7.79 ± 0.35	16.61 ± 0.63	11.86 ± 0.14	n = 6	Microgenics DRI
1.85 ± 0.14	8.31 ± 0.46	8.37 ± 0.46	15.45 ± 0.85	13.07 ± 0.78	n = 20	Ortho Clinical Diagnostics
2.36 ± 0.15	8.58 ± 0.39	7.89 ± 0.33	15.91 ± 0.58	12.58 ± 0.49	n = 36	Roche Elecsys/Modular E/e601/e411
0.46 ± 0.22	8.49 ± 0.36	8.06 ± 0.42	13.55 ± 0.54	11.48 ± 0.43	n = 45	Siemens ADVIA/ADVIS Centaur
2.19 ± 0.82	10.40 ± 0.93	9.58 ± 0.74	17.91 ± 0.95	14.59 ± 0.90	n = 37	Siemens Dimension
1.96 ± 0.71	10.09 ± 0.44	9.66 ± 1.54	17.75 ± 0.36	15.30 ± 0.36	n = 3	Siemens Dimension LOCI
1.37 ± 0.19	8.09 ± 0.48	7.42 ± 0.56	13.92 ± 0.63	11.27 ± 0.51	n = 14	Siemens Immulite
1.97 ± 1.05	9.08 ± 1.04	8.48 ± 0.41	14.45 ± 1.17	12.92 ± 0.78	n = 3	Tosoh AIA
1.96 ± 0.41	8.60 ± 0.95	8.15 ± 0.88	15.27 ± 1.81	12.47 ± 1.49	n = 10	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Free T4 (ng/dL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
0.39 ± 0.07	1.32 ± 0.19	1.23 ± 0.14	2.77 ± 0.67	1.99 ± 0.35	n = 256	All Methods & Instruments
0.40	1.30	1.21	2.67	1.99	n = 256	Median value, All Methods & Instruments
<Instruments>						
0.44 ± 0.04	1.18 ± 0.06	1.08 ± 0.04	2.05 ± 0.09	1.64 ± 0.05	n = 22	Abbott Architect i System
0.37 ± 0.05	1.15 ± 0.06	1.11 ± 0.07	2.15 ± 0.09	1.66 ± 0.07	n = 19	Beckman Coulter ACCESS
0.33 ± 0.10	1.11 ± 0.04	1.06 ± 0.05	2.18 ± 0.07	1.60 ± 0.06	n = 6	Beckman Coulter UniCel DxI 600
0.34 ± 0.05	1.09 ± 0.06	1.05 ± 0.07	2.25 ± 0.10	1.68 ± 0.07	n = 16	Beckman Coulter UniCel DxI 800
0.30 ± 0.00	1.57 ± 0.11	1.39 ± 0.09	4.75 ± 0.18	3.41 ± 0.20	n = 18	Ortho Vitros 5600
0.30 ± 0.00	1.50 ± 0.09	1.38 ± 0.06	4.72 ± 0.21	3.33 ± 0.23	n = 3	Ortho Vitros ECi/ECiQ
0.40 ± 0.00	1.50 ± 0.01	1.37 ± 0.04	3.45 ± 0.12	2.29 ± 0.05	n = 4	Roche cobas e411
0.39 ± 0.01	1.54 ± 0.05	1.34 ± 0.05	3.45 ± 0.12	2.33 ± 0.07	n = 20	Roche cobas e601
0.39 ± 0.01	1.51 ± 0.02	1.35 ± 0.05	3.40 ± 0.13	2.30 ± 0.00	n = 5	Roche cobas e602
0.40 ± 0.00	1.52 ± 0.05	1.30 ± 0.00	3.39 ± 0.08	2.28 ± 0.05	n = 10	Roche MODULAR E
0.37 ± 0.07	1.38 ± 0.07	1.27 ± 0.08	2.97 ± 0.17	2.16 ± 0.11	n = 53	Siemens ADVIA Centaur
0.45 ± 0.04	1.23 ± 0.06	1.17 ± 0.05	2.57 ± 0.09	1.86 ± 0.07	n = 13	Siemens Dimension EXL
0.47 ± 0.04	1.25 ± 0.05	1.19 ± 0.04	2.58 ± 0.06	1.89 ± 0.05	n = 38	Siemens Dimension Vista
0.29 ± 0.08	0.99 ± 0.02	0.92 ± 0.07	1.98 ± 0.09	1.63 ± 0.08	n = 4	Siemens Dimension Xpand
0.34 ± 0.05	1.32 ± 0.08	1.26 ± 0.06	2.53 ± 0.15	1.97 ± 0.09	n = 12	Siemens Immulite 2000
0.24 ± 0.08	1.57 ± 0.13	1.38 ± 0.10	3.98 ± 0.18	2.82 ± 0.16	n = 5	Tosoh Bioscience
0.36 ± 0.06	1.35 ± 0.21	1.24 ± 0.15	2.94 ± 0.90	2.08 ± 0.52	n = 16	Mean of Above Means
<Reagents>						
0.44 ± 0.04	1.18 ± 0.06	1.08 ± 0.04	2.05 ± 0.09	1.64 ± 0.05	n = 22	Abbott
0.35 ± 0.06	1.12 ± 0.06	1.08 ± 0.07	2.19 ± 0.11	1.66 ± 0.07	n = 41	Beckman Coulter
0.30 ± 0.00	1.56 ± 0.11	1.39 ± 0.08	4.75 ± 0.19	3.40 ± 0.21	n = 21	Ortho Clinical Diagnostics
0.39 ± 0.01	1.52 ± 0.04	1.34 ± 0.05	3.43 ± 0.11	2.30 ± 0.05	n = 40	Roche Elecsys/Modular E/e601/e411
0.37 ± 0.07	1.38 ± 0.07	1.27 ± 0.09	2.97 ± 0.17	2.16 ± 0.11	n = 54	Siemens ADVIA/ADVIS Centaur
0.37 ± 0.12	1.09 ± 0.17	1.02 ± 0.17	2.19 ± 0.38	1.71 ± 0.22	n = 10	Siemens Dimension
0.46 ± 0.04	1.25 ± 0.05	1.19 ± 0.04	2.57 ± 0.06	1.88 ± 0.06	n = 47	Siemens Dimension LOCI
0.35 ± 0.06	1.32 ± 0.08	1.27 ± 0.06	2.54 ± 0.17	1.99 ± 0.09	n = 14	Siemens Immulite
0.20 ± 0.09	1.62 ± 0.15	1.43 ± 0.14	4.02 ± 0.24	2.83 ± 0.23	n = 3	Tosoh AIA
0.37 ± 0.07	1.33 ± 0.20	1.23 ± 0.15	2.85 ± 0.88	2.07 ± 0.52	n = 9	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## T3-Uptake (%)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
31.55 ± 5.32	34.43 ± 4.35	34.06 ± 4.02	38.89 ± 4.88	35.81 ± 4.47	n = 131	All Methods & Instruments
31.00	34.60	34.00	40.00	36.00	n = 131	Median value, All Methods & Instruments
						<Instruments>
33.31 ± 3.02	31.95 ± 3.07	30.95 ± 2.91	33.37 ± 2.82	31.12 ± 2.68	n = 8	Abbott Architect i System
36.27 ± 1.64	39.23 ± 2.54	39.75 ± 2.01	42.41 ± 1.56	40.50 ± 1.85	n = 15	Beckman Coulter ACCESS
29.90 ± 1.67	32.77 ± 1.11	32.81 ± 1.05	36.99 ± 0.92	33.77 ± 0.43	n = 6	Beckman Coulter AU Chemistry System
37.19 ± 1.96	41.45 ± 3.29	40.32 ± 2.22	43.43 ± 2.01	41.62 ± 1.77	n = 12	Beckman Coulter UniCel DxI 800
44.51 ± 1.39	33.93 ± 1.40	33.66 ± 0.95	38.17 ± 1.36	35.04 ± 1.38	n = 8	Ortho Vitros 5600
44.37 ± 0.42	33.67 ± 0.32	33.51 ± 0.37	38.60 ± 0.36	34.49 ± 0.98	n = 3	Ortho Vitros ECi/ECiQ
30.75 ± 1.55	35.79 ± 0.27	34.81 ± 0.71	40.49 ± 0.38	37.65 ± 0.62	n = 5	Roche cobas e601
30.79 ± 0.50	35.41 ± 0.45	34.95 ± 0.11	40.85 ± 0.27	37.93 ± 0.25	n = 3	Roche cobas e602
25.98 ± 1.04	30.08 ± 1.37	31.09 ± 1.24	33.19 ± 1.35	31.35 ± 1.75	n = 21	Siemens ADVIA Centaur
31.60 ± 1.30	35.67 ± 1.24	35.04 ± 1.61	41.19 ± 1.83	36.93 ± 1.53	n = 7	Siemens Dimension EXL
30.98 ± 1.67	36.13 ± 1.73	34.64 ± 1.42	42.38 ± 1.70	37.87 ± 1.79	n = 21	Siemens Dimension Vista
26.64 ± 1.08	29.35 ± 1.18	29.28 ± 1.12	29.92 ± 0.77	30.27 ± 1.94	n = 3	Siemens Immulite 1000
26.20 ± 1.29	28.80 ± 1.28	27.36 ± 1.30	30.66 ± 1.46	29.05 ± 1.10	n = 8	Siemens Immulite 2000
32.18 ± 5.80	34.03 ± 3.66	33.58 ± 3.52	38.17 ± 4.76	35.21 ± 4.10	n = 13	Mean of Above Means
						<Reagents>
33.31 ± 3.02	31.95 ± 3.07	30.95 ± 2.91	33.37 ± 2.82	31.12 ± 2.68	n = 8	Abbott
36.55 ± 1.72	40.21 ± 3.02	40.01 ± 2.00	42.78 ± 1.73	41.00 ± 1.89	n = 29	Beckman Coulter
30.06 ± 0.98	32.62 ± 0.93	32.70 ± 0.70	37.33 ± 0.76	33.88 ± 0.59	n = 7	Microgenics CEDIA
44.40 ± 1.12	33.86 ± 1.15	33.59 ± 0.76	38.33 ± 1.12	34.87 ± 1.29	n = 11	Ortho Clinical Diagnostics
30.59 ± 1.29	35.42 ± 0.92	34.77 ± 0.91	40.60 ± 0.56	37.67 ± 0.74	n = 12	Roche Elecsys/Modular E/e601/e411
25.98 ± 1.04	30.08 ± 1.37	31.09 ± 1.24	33.19 ± 1.35	31.35 ± 1.75	n = 21	Siemens ADVIA/ADVIS Centaur
31.19 ± 1.58	35.93 ± 1.60	34.82 ± 1.40	41.96 ± 1.84	37.51 ± 1.85	n = 28	Siemens Dimension
26.35 ± 1.25	28.95 ± 1.28	27.86 ± 1.51	30.41 ± 1.34	29.28 ± 1.43	n = 11	Siemens Immulite
31.40 ± 5.14	33.39 ± 3.42	32.99 ± 3.25	37.37 ± 4.63	34.47 ± 3.99	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## T Uptake (Unit)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
1.099 ± 0.143	0.998 ± 0.015	1.034 ± 0.037	0.861 ± 0.110	0.964 ± 0.088	n = 19	All Methods & Instruments
1.170	1.000	1.030	0.800	0.910	n = 19	Median value, All Methods & Instruments
						<Instruments>
0.952 ± 0.045	0.978 ± 0.069	1.043 ± 0.047	0.953 ± 0.047	1.053 ± 0.047	n = 6	Abbott Architect i System
1.200 ± 0.014	1.000 ± 0.010	1.026 ± 0.011	0.795 ± 0.027	0.907 ± 0.005	n = 6	Roche cobas e601
1.192 ± 0.015	1.003 ± 0.005	1.025 ± 0.019	0.794 ± 0.010	0.913 ± 0.014	n = 3	Roche MODULAR E
1.128 ± 0.125	0.995 ± 0.012	1.030 ± 0.009	0.839 ± 0.081	0.950 ± 0.073	n = 3	Mean of Above Means
						<Reagents>
0.952 ± 0.045	0.978 ± 0.069	1.043 ± 0.047	0.953 ± 0.047	1.053 ± 0.047	n = 6	Abbott
1.198 ± 0.012	1.001 ± 0.007	1.021 ± 0.019	0.796 ± 0.020	0.905 ± 0.006	n = 11	Roche Elecsys/Modular E/e601/e411
1.075 ± 0.140	0.990 ± 0.013	1.032 ± 0.013	0.875 ± 0.090	0.979 ± 0.084	n = 2	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Triiodothyronine (T3, ng/dL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
35.8 ± 7.55	111.6 ± 9.71	105.4 ± 11.31	241.5 ± 21.38	194.9 ± 18.68	n = 183	All Methods & Instruments
37.0	111.0	106.0	242.0	196.3	n = 183	Median value, All Methods & Instruments
						<Instruments>
46.2 ± 5.97	111.7 ± 4.26	100.7 ± 4.53	231.3 ± 16.10	186.0 ± 12.77	n = 18	Abbott Architect i System
36.7 ± 4.76	105.0 ± 4.64	90.9 ± 5.64	211.5 ± 9.22	166.7 ± 8.54	n = 13	Beckman Coulter ACCESS
41.9 ± 4.75	111.2 ± 7.89	93.8 ± 7.97	223.9 ± 12.43	171.5 ± 9.32	n = 6	Beckman Coulter UniCel DxI 600
38.8 ± 7.10	106.7 ± 9.57	87.5 ± 5.69	216.7 ± 12.50	169.3 ± 12.63	n = 15	Beckman Coulter UniCel DxI 800
109.1 ± 6.18	128.6 ± 4.57	117.0 ± 3.55	253.8 ± 4.41	203.2 ± 7.13	n = 14	Ortho Vitros 5600
37.0 ± 3.80	117.2 ± 5.54	112.3 ± 4.05	242.5 ± 8.83	202.4 ± 7.57	n = 15	Roche cobas e601
38.8 ± 3.17	118.4 ± 4.85	115.1 ± 5.99	248.2 ± 11.65	205.2 ± 7.44	n = 6	Roche cobas e602
35.7 ± 3.59	115.2 ± 4.67	111.3 ± 4.37	240.8 ± 6.66	200.9 ± 4.98	n = 10	Roche MODULAR E
30.8 ± 4.80	110.3 ± 7.72	107.1 ± 8.34	256.0 ± 15.91	204.5 ± 14.87	n = 64	Siemens ADVIA Centaur
39.1 ± 6.43	97.3 ± 6.66	99.6 ± 11.27	234.9 ± 18.16	188.4 ± 14.57	n = 9	Siemens Immulite 2000
60.5 ± 7.53	106.0 ± 9.63	102.5 ± 9.64	220.9 ± 11.40	180.3 ± 12.55	n = 4	Tosoh Bioscience
38.3 ± 3.95	111.2 ± 7.64	103.7 ± 10.33	234.7 ± 15.63	189.5 ± 15.98	n = 11	Mean of Above Means
						<Reagents>
46.2 ± 5.97	111.7 ± 4.26	100.7 ± 4.53	231.3 ± 16.10	186.0 ± 12.77	n = 18	Abbott
38.5 ± 6.12	106.6 ± 7.50	89.9 ± 6.78	215.7 ± 11.97	168.6 ± 10.53	n = 34	Beckman Coulter
109.8 ± 5.86	128.6 ± 4.87	117.1 ± 4.47	253.5 ± 3.95	203.3 ± 8.79	n = 16	Ortho Clinical Diagnostics
37.0 ± 3.74	116.5 ± 5.51	112.4 ± 4.96	242.6 ± 8.79	202.5 ± 7.16	n = 33	Roche Elecsys/Modular E/e601/e411
30.8 ± 4.67	110.5 ± 7.62	107.4 ± 8.34	256.2 ± 15.60	204.5 ± 14.59	n = 66	Siemens ADVIA/ADVIS Centaur
40.0 ± 0.00	95.7 ± 9.82	101.7 ± 11.69	230.7 ± 16.84	189.8 ± 13.07	n = 10	Siemens Immulite
63.5 ± 5.43	110.0 ± 6.31	106.3 ± 3.16	225.2 ± 11.16	186.0 ± 6.42	n = 3	Tosoh AIA
40.6 ± 9.26	111.0 ± 8.89	105.5 ± 8.30	236.2 ± 15.01	192.5 ± 12.50	n = 7	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Free T3 (pg/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
1.16 ± 0.22	3.25 ± 0.29	2.88 ± 0.26	7.25 ± 0.98	5.19 ± 0.62	n = 149	All Methods & Instruments
1.11	3.20	2.90	7.20	5.10	n = 149	Median value, All Methods & Instruments
						<Instruments>
1.30 ± 0.16	3.01 ± 0.16	2.74 ± 0.22	6.67 ± 0.41	5.01 ± 0.33	n = 14	Abbott Architect i System
1.43 ± 0.14	3.08 ± 0.18	2.75 ± 0.19	6.50 ± 0.33	4.68 ± 0.21	n = 9	Beckman Coulter ACCESS
1.22 ± 0.17	2.92 ± 0.16	2.64 ± 0.26	6.18 ± 0.33	4.39 ± 0.34	n = 5	Beckman Coulter UniCel DxI 600
1.24 ± 0.27	2.87 ± 0.33	2.59 ± 0.39	5.97 ± 0.53	4.37 ± 0.44	n = 14	Beckman Coulter UniCel DxI 800
1.01 ± 0.38	3.69 ± 0.41	3.41 ± 0.44	8.99 ± 0.59	6.32 ± 0.58	n = 6	Ortho Vitros 5600
1.31 ± 0.07	3.54 ± 0.12	3.15 ± 0.11	8.82 ± 0.14	6.20 ± 0.13	n = 7	Roche cobas e601
1.33 ± 0.12	3.61 ± 0.12	3.21 ± 0.12	8.87 ± 0.29	6.09 ± 0.16	n = 4	Roche cobas e602
1.27 ± 0.07	3.59 ± 0.08	3.13 ± 0.05	8.89 ± 0.18	6.09 ± 0.17	n = 7	Roche MODULAR E
1.05 ± 0.11	3.20 ± 0.10	2.90 ± 0.10	7.13 ± 0.18	5.07 ± 0.16	n = 42	Siemens ADVIA Centaur
0.99 ± 0.14	3.23 ± 0.15	2.81 ± 0.16	7.75 ± 0.17	5.48 ± 0.19	n = 19	Siemens Dimension Vista
1.23 ± 0.26	3.62 ± 0.31	2.65 ± 0.45	6.84 ± 0.67	5.00 ± 0.49	n = 12	Siemens Immulite 2000
1.23 ± 0.14	3.31 ± 0.33	2.89 ± 0.28	7.48 ± 1.26	5.33 ± 0.78	n = 11	Mean of Above Means
						<Reagents>
1.30 ± 0.16	3.01 ± 0.16	2.74 ± 0.22	6.67 ± 0.41	5.01 ± 0.33	n = 14	Abbott
1.29 ± 0.24	2.96 ± 0.27	2.67 ± 0.30	6.20 ± 0.49	4.49 ± 0.37	n = 28	Beckman Coulter
1.04 ± 0.35	3.69 ± 0.38	3.40 ± 0.41	8.93 ± 0.53	6.28 ± 0.54	n = 7	Ortho Clinical Diagnostics
1.30 ± 0.09	3.57 ± 0.11	3.16 ± 0.10	8.90 ± 0.22	6.14 ± 0.16	n = 21	Roche Elecsys/Modular E/e601/e411
1.05 ± 0.12	3.20 ± 0.10	2.90 ± 0.10	7.13 ± 0.19	5.07 ± 0.15	n = 43	Siemens ADVIA/ADVIS Centaur
0.93 ± 0.09	3.18 ± 0.14	2.68 ± 0.08	7.63 ± 0.10	5.41 ± 0.16	n = 4	Siemens Dimension
1.02 ± 0.14	3.27 ± 0.17	2.85 ± 0.15	7.80 ± 0.16	5.48 ± 0.19	n = 17	Siemens Dimension LOCI
1.27 ± 0.28	3.64 ± 0.31	2.70 ± 0.46	6.84 ± 0.63	4.98 ± 0.47	n = 13	Siemens Immulite
1.15 ± 0.16	3.31 ± 0.29	2.84 ± 0.24	7.46 ± 1.01	5.33 ± 0.60	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

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

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
7.11 $\pm$ 0.53	5.47 $\pm$ 0.44	8.42 $\pm$ 0.66	2.00 $\pm$ 0.18	3.01 $\pm$ 0.22	n = 295	All Methods & Instruments
7.18	5.50	8.45	2.00	3.00	n = 295	Median value, All Methods & Instruments
<Instruments>						
6.74 $\pm$ 0.30	5.02 $\pm$ 0.25	7.61 $\pm$ 0.26	1.71 $\pm$ 0.08	2.65 $\pm$ 0.08	n = 25	Abbott Architect i System
7.10 $\pm$ 0.48	5.54 $\pm$ 0.36	8.66 $\pm$ 0.49	1.97 $\pm$ 0.09	3.05 $\pm$ 0.18	n = 27	Beckman Coulter ACCESS
7.31 $\pm$ 0.44	5.50 $\pm$ 0.24	8.67 $\pm$ 0.72	2.06 $\pm$ 0.20	3.10 $\pm$ 0.18	n = 7	Beckman Coulter UniCel DxI 600
7.21 $\pm$ 0.44	5.43 $\pm$ 0.32	8.71 $\pm$ 0.47	1.98 $\pm$ 0.13	3.07 $\pm$ 0.21	n = 16	Beckman Coulter UniCel DxI 800
9.38 $\pm$ 0.25	6.89 $\pm$ 0.21	10.84 $\pm$ 0.36	2.10 $\pm$ 0.09	3.32 $\pm$ 0.11	n = 19	Ortho Vitros 5600
9.43 $\pm$ 0.31	6.93 $\pm$ 0.19	10.84 $\pm$ 0.19	2.04 $\pm$ 0.05	3.32 $\pm$ 0.11	n = 4	Ortho Vitros ECi/ECiQ
7.23 $\pm$ 0.08	5.53 $\pm$ 0.07	8.09 $\pm$ 0.06	2.18 $\pm$ 0.03	3.06 $\pm$ 0.09	n = 7	Roche cobas e411
7.19 $\pm$ 0.18	5.49 $\pm$ 0.10	8.03 $\pm$ 0.19	2.20 $\pm$ 0.00	3.07 $\pm$ 0.07	n = 20	Roche cobas e601
7.15 $\pm$ 0.35	5.55 $\pm$ 0.27	8.10 $\pm$ 0.36	2.19 $\pm$ 0.08	3.07 $\pm$ 0.14	n = 7	Roche cobas e602
7.18 $\pm$ 0.25	5.50 $\pm$ 0.16	8.19 $\pm$ 0.27	2.16 $\pm$ 0.04	3.07 $\pm$ 0.09	n = 3	Roche Elecsys
7.24 $\pm$ 0.16	5.57 $\pm$ 0.12	8.14 $\pm$ 0.14	2.20 $\pm$ 0.00	3.08 $\pm$ 0.06	n = 10	Roche MODULAR E
7.43 $\pm$ 0.41	5.71 $\pm$ 0.45	8.67 $\pm$ 0.57	2.04 $\pm$ 0.18	3.02 $\pm$ 0.22	n = 55	Siemens ADVIA Centaur
6.86 $\pm$ 0.35	5.40 $\pm$ 0.18	8.84 $\pm$ 0.42	1.96 $\pm$ 0.09	3.08 $\pm$ 0.10	n = 22	Siemens Dimension EXL
6.60 $\pm$ 0.17	5.21 $\pm$ 0.12	8.46 $\pm$ 0.22	1.87 $\pm$ 0.06	2.92 $\pm$ 0.08	n = 40	Siemens Dimension Vista
6.32 $\pm$ 0.30	4.53 $\pm$ 0.31	7.10 $\pm$ 0.55	1.67 $\pm$ 0.10	2.46 $\pm$ 0.07	n = 4	Siemens Dimension Xpand
7.07 $\pm$ 0.18	5.35 $\pm$ 0.30	7.86 $\pm$ 0.18	1.96 $\pm$ 0.07	2.87 $\pm$ 0.16	n = 5	Siemens Immulite 1000
7.44 $\pm$ 0.37	5.40 $\pm$ 0.26	8.11 $\pm$ 0.44	2.09 $\pm$ 0.13	2.96 $\pm$ 0.15	n = 15	Siemens Immulite 2000
7.66 $\pm$ 0.15	5.88 $\pm$ 0.10	8.69 $\pm$ 0.25	2.10 $\pm$ 0.00	3.53 $\pm$ 0.29	n = 5	Tosoh Bioscience
7.15 $\pm$ 0.30	5.48 $\pm$ 0.17	8.29 $\pm$ 0.46	2.05 $\pm$ 0.14	3.05 $\pm$ 0.19	n = 18	Mean of Above Means
<Reagents>						
6.74 $\pm$ 0.30	5.02 $\pm$ 0.25	7.61 $\pm$ 0.26	1.71 $\pm$ 0.08	2.65 $\pm$ 0.08	n = 25	Abbott
7.16 $\pm$ 0.46	5.50 $\pm$ 0.34	8.67 $\pm$ 0.52	1.98 $\pm$ 0.11	3.06 $\pm$ 0.19	n = 50	Beckman Coulter
9.38 $\pm$ 0.26	6.90 $\pm$ 0.21	10.84 $\pm$ 0.32	2.09 $\pm$ 0.08	3.32 $\pm$ 0.11	n = 23	Ortho Clinical Diagnostics
7.20 $\pm$ 0.20	5.51 $\pm$ 0.13	8.07 $\pm$ 0.19	2.19 $\pm$ 0.05	3.07 $\pm$ 0.08	n = 47	Roche Elecsys/Modular E/e601/e411
7.57 $\pm$ 0.48	5.91 $\pm$ 0.56	8.88 $\pm$ 0.70	2.12 $\pm$ 0.21	3.10 $\pm$ 0.25	n = 34	Siemens ADVIA/ADVIa Centaur
6.53 $\pm$ 0.38	5.01 $\pm$ 0.49	7.61 $\pm$ 0.68	1.75 $\pm$ 0.12	2.67 $\pm$ 0.23	n = 10	Siemens Dimension
6.68 $\pm$ 0.27	5.27 $\pm$ 0.17	8.58 $\pm$ 0.33	1.90 $\pm$ 0.08	2.97 $\pm$ 0.12	n = 58	Siemens Dimension LOCI
7.32 $\pm$ 0.37	5.39 $\pm$ 0.27	8.03 $\pm$ 0.40	2.05 $\pm$ 0.13	2.93 $\pm$ 0.16	n = 20	Siemens Immulite
7.31 $\pm$ 0.23	5.55 $\pm$ 0.14	8.49 $\pm$ 0.26	1.97 $\pm$ 0.07	2.93 $\pm$ 0.10	n = 22	Siemens TSH-3
7.68 $\pm$ 0.09	6.16 $\pm$ 0.66	9.21 $\pm$ 1.02	2.20 $\pm$ 0.18	3.75 $\pm$ 0.36	n = 3	Tosoh AIA
7.15 $\pm$ 0.43	5.52 $\pm$ 0.48	8.40 $\pm$ 0.68	2.01 $\pm$ 0.17	3.00 $\pm$ 0.26	n = 10	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Vitamin B12 (pg/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
170.7 ± 73.96	649.1 ± 66.55	493.2 ± 49.98	642.1 ± 66.39	524.4 ± 54.12	n = 221	All Methods & Instruments
167.0	652.0	496.0	642.0	521.9	n = 221	Median value, All Methods & Instruments
351.7 ± 26.23	715.1 ± 56.89	544.5 ± 37.47	713.7 ± 52.30	591.0 ± 41.52	n = 15	<Instruments>
101.9 ± 10.31	605.8 ± 35.50	454.1 ± 18.40	599.3 ± 31.54	490.9 ± 19.27	n = 19	Abbott Architect i System
65.6 ± 17.04	538.7 ± 25.11	426.0 ± 19.98	544.5 ± 29.72	449.3 ± 20.24	n = 7	Beckman Coulter ACCESS
75.0 ± 12.17	562.0 ± 34.06	417.1 ± 27.19	553.8 ± 38.70	452.2 ± 34.28	n = 21	Beckman Coulter UniCel DxI 600
186.2 ± 10.55	640.9 ± 49.20	499.4 ± 28.47	648.4 ± 61.37	521.3 ± 29.78	n = 17	Beckman Coulter UniCel DxI 800
245.3 ± 21.45	721.9 ± 48.99	538.9 ± 8.08	723.2 ± 17.64	597.1 ± 43.45	n = 3	Ortho Vitros 5600
245.8 ± 12.36	686.6 ± 23.62	523.2 ± 16.91	671.8 ± 17.96	546.6 ± 22.52	n = 16	Roche cobas e411
243.7 ± 13.22	681.9 ± 6.93	514.7 ± 5.96	671.7 ± 17.79	543.8 ± 22.78	n = 4	Roche cobas e601
241.7 ± 12.77	696.5 ± 38.61	528.6 ± 29.49	682.2 ± 34.90	553.3 ± 9.72	n = 9	Roche cobas e602
152.8 ± 19.29	644.0 ± 47.15	490.2 ± 36.64	634.1 ± 46.27	524.3 ± 42.64	n = 63	Siemens MODULAR E
123.2 ± 22.98	643.5 ± 47.77	502.4 ± 31.70	642.0 ± 38.65	530.4 ± 33.75	n = 3	Siemens ADVIA Centaur
227.7 ± 21.82	643.0 ± 19.04	481.3 ± 19.70	632.2 ± 23.20	507.2 ± 23.20	n = 23	Siemens ADVIA Centaur CP
178.8 ± 19.13	797.0 ± 56.35	560.0 ± 55.35	766.8 ± 42.12	610.4 ± 51.64	n = 11	Siemens Dimension Vista
67.2 ± 14.94	699.6 ± 28.95	563.4 ± 27.15	678.0 ± 35.99	585.2 ± 21.56	n = 5	Siemens Immulite 2000
177.3 ± 86.80	663.7 ± 63.68	506.9 ± 45.62	656.2 ± 59.83	537.6 ± 50.89	n = 14	Tosoh Bioscience
351.7 ± 26.23	715.1 ± 56.89	544.5 ± 37.47	713.7 ± 52.30	591.0 ± 41.52	n = 15	Mean of Above Means
85.0 ± 19.75	575.8 ± 42.85	434.4 ± 30.70	571.6 ± 42.86	467.7 ± 33.44	n = 47	<Reagents>
186.8 ± 10.61	646.4 ± 49.47	502.4 ± 27.54	652.7 ± 59.41	525.7 ± 30.11	n = 19	Abbott
244.1 ± 13.34	689.5 ± 25.89	524.7 ± 19.51	681.2 ± 29.98	554.1 ± 28.06	n = 33	Beckman Coulter
151.9 ± 20.15	644.0 ± 47.18	490.8 ± 36.45	634.5 ± 45.82	524.6 ± 42.20	n = 66	Ortho Clinical Diagnostics
226.7 ± 13.89	638.7 ± 17.42	480.0 ± 18.98	645.0 ± 37.96	507.6 ± 20.97	n = 3	Siemens ADVIA/ADVIS Centaur
227.0 ± 22.57	644.9 ± 19.27	483.0 ± 20.51	631.9 ± 20.11	508.8 ± 24.08	n = 21	Siemens Dimension LOCI
178.8 ± 19.17	790.8 ± 56.38	557.9 ± 52.48	772.0 ± 44.03	609.7 ± 48.64	n = 12	Siemens Dimension Vista
67.2 ± 14.94	699.6 ± 28.95	563.4 ± 27.15	678.0 ± 35.99	585.2 ± 21.56	n = 5	Siemens Immulite
188.6 ± 82.05	667.4 ± 55.48	510.1 ± 42.23	661.5 ± 51.74	541.1 ± 47.24	n = 9	Tosoh AIA
						Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Folic Acid (ng/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
6.93 ± 1.88	9.44 ± 2.41	1.51 ± 0.41	20.26 ± 3.05	20.93 ± 4.00	n = 216	All Methods & Instruments
6.80	9.40	1.50	20.00	20.40	n = 216	Median value, All Methods & Instruments
<Instruments>						
6.83 ± 0.54	9.09 ± 0.70	1.65 ± 0.33	22.10 ± 2.18	24.53 ± 4.06	n = 15	Abbott Architect i System
6.46 ± 0.33	8.52 ± 0.50	1.51 ± 0.14	20.64 ± 1.26	22.72 ± 1.11	n = 19	Beckman Coulter ACCESS
6.74 ± 0.45	9.17 ± 0.82	1.53 ± 0.09	20.84 ± 1.63	22.51 ± 2.12	n = 6	Beckman Coulter UniCel DxI 600
6.65 ± 0.32	9.10 ± 0.38	1.63 ± 0.29	20.83 ± 1.04	21.33 ± 1.51	n = 21	Beckman Coulter UniCel DxI 800
5.10 ± 0.49	7.42 ± 0.50	1.54 ± 0.18	20.00 ± 0.00	20.00 ± 0.00	n = 17	Ortho Vitros 5600
7.43 ± 0.31	10.04 ± 0.39	3.02 ± 0.32	19.83 ± 0.58	19.80 ± 0.46	n = 16	Roche cobas e601
7.63 ± 0.43	10.37 ± 0.54	3.11 ± 0.27	19.92 ± 0.20	20.00 ± 0.00	n = 4	Roche cobas e602
7.38 ± 0.49	9.85 ± 0.55	3.14 ± 0.30	18.96 ± 0.98	19.66 ± 0.64	n = 8	Roche MODULAR E
9.26 ± 0.85	12.10 ± 1.22	1.51 ± 0.21	21.74 ± 2.08	23.53 ± 1.00	n = 55	Siemens ADVIA Centaur
10.74 ± 1.02	14.00 ± 1.72	1.57 ± 0.05	24.00 ± 0.00	24.00 ± 0.00	n = 3	Siemens ADVIA Centaur CP
4.35 ± 0.24	5.76 ± 0.20	1.11 ± 0.21	13.02 ± 0.49	12.15 ± 0.63	n = 30	Siemens Dimension Vista
6.41 ± 0.39	10.01 ± 0.71	1.18 ± 0.16	22.55 ± 1.48	21.94 ± 1.77	n = 11	Siemens Immulite 2000
5.83 ± 1.10	9.96 ± 1.86	2.59 ± 0.72	16.73 ± 2.04	14.48 ± 2.40	n = 5	Tosoh Bioscience
6.80 ± 1.43	9.56 ± 1.71	1.84 ± 0.75	20.64 ± 1.96	21.29 ± 2.86	n = 13	Mean of Above Means
<Reagents>						
6.83 ± 0.54	9.09 ± 0.70	1.65 ± 0.33	22.10 ± 2.18	24.53 ± 4.06	n = 15	Abbott
6.57 ± 0.35	8.88 ± 0.57	1.56 ± 0.22	20.76 ± 1.22	22.15 ± 1.65	n = 46	Beckman Coulter
5.11 ± 0.45	7.42 ± 0.44	1.54 ± 0.16	20.00 ± 0.00	20.00 ± 0.00	n = 19	Ortho Clinical Diagnostics
7.45 ± 0.38	10.01 ± 0.51	3.06 ± 0.30	19.72 ± 0.67	20.00 ± 0.00	n = 31	Roche Elecsys/Modular E/e601/e411
9.31 ± 0.90	12.19 ± 1.30	1.52 ± 0.20	21.89 ± 2.11	24.00 ± 0.00	n = 58	Siemens ADVIA/ADVIA Centaur
4.35 ± 0.25	5.77 ± 0.20	1.12 ± 0.22	13.00 ± 0.50	12.13 ± 0.63	n = 29	Siemens Dimension LOCI
6.41 ± 0.39	10.01 ± 0.71	1.18 ± 0.16	22.55 ± 1.48	21.94 ± 1.77	n = 11	Siemens Immulite
5.83 ± 1.10	9.96 ± 1.86	2.59 ± 0.72	16.73 ± 2.04	14.48 ± 2.40	n = 5	Tosoh AIA
6.38 ± 1.39	9.26 ± 1.79	1.66 ± 0.62	20.22 ± 2.71	20.42 ± 4.23	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

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

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
3.49 ± 0.46	7.70 ± 0.93	9.83 ± 1.22	15.28 ± 1.93	27.15 ± 3.37	n = 155	All Methods & Instruments
3.50	7.72	9.90	15.40	27.60	n = 155	Median value, All Methods & Instruments
						<Instruments>
4.04 ± 0.30	7.30 ± 0.35	8.88 ± 0.45	13.65 ± 0.30	22.48 ± 0.78	n = 11	Abbott Architect i System
3.58 ± 0.25	7.39 ± 0.27	9.38 ± 0.53	14.77 ± 0.49	26.77 ± 1.07	n = 9	Beckman Coulter ACCESS
3.38 ± 0.31	6.78 ± 0.25	8.19 ± 0.54	13.16 ± 1.24	23.58 ± 1.18	n = 6	Beckman Coulter UniCel DxI 600
3.42 ± 0.30	6.66 ± 0.50	8.25 ± 0.62	13.26 ± 0.94	23.58 ± 1.65	n = 16	Beckman Coulter UniCel DxI 800
3.65 ± 0.19	8.87 ± 0.86	10.93 ± 0.59	16.24 ± 0.47	29.33 ± 0.69	n = 3	LC/MS/MS
2.44 ± 0.09	6.17 ± 0.17	8.48 ± 0.25	12.57 ± 0.42	22.80 ± 0.87	n = 11	Ortho Vitros 5600
3.09 ± 0.20	8.85 ± 0.23	11.23 ± 0.21	17.41 ± 1.06	30.79 ± 2.73	n = 3	Roche cobas e411
3.17 ± 0.17	8.62 ± 0.15	10.87 ± 0.57	16.73 ± 0.85	29.31 ± 1.34	n = 11	Roche cobas e601
3.13 ± 0.14	8.97 ± 0.34	10.83 ± 0.42	16.97 ± 0.77	29.34 ± 1.34	n = 3	Roche cobas e602
3.09 ± 0.10	8.51 ± 0.32	10.71 ± 0.38	16.85 ± 0.49	29.57 ± 0.45	n = 7	Roche MODULAR E
3.67 ± 0.34	8.01 ± 0.60	10.33 ± 0.96	16.43 ± 1.18	29.38 ± 1.91	n = 50	Siemens ADVIA Centaur
3.77 ± 0.14	8.31 ± 0.16	10.51 ± 0.26	16.78 ± 0.58	28.35 ± 1.28	n = 3	Siemens ADVIA Centaur CP
3.56 ± 0.30	7.58 ± 0.41	10.05 ± 0.67	14.29 ± 0.89	26.33 ± 1.89	n = 15	Siemens Immulite 2000
3.42 ± 0.37	7.89 ± 0.97	9.97 ± 1.16	15.39 ± 1.85	27.24 ± 3.12	n = 13	Mean of Above Means
						<Reagents>
4.04 ± 0.30	7.30 ± 0.35	8.88 ± 0.45	13.65 ± 0.30	22.48 ± 0.78	n = 11	Abbott
3.46 ± 0.30	6.88 ± 0.55	8.55 ± 0.79	13.70 ± 1.17	24.42 ± 2.11	n = 31	Beckman Coulter
3.12 ± 1.44	7.47 ± 3.62	9.28 ± 4.21	13.98 ± 5.97	25.37 ± 10.84	n = 4	In-House
2.43 ± 0.10	6.15 ± 0.17	8.47 ± 0.23	12.54 ± 0.41	22.83 ± 0.81	n = 12	Ortho Clinical Diagnostics
3.13 ± 0.14	8.66 ± 0.31	10.84 ± 0.48	16.87 ± 0.69	29.41 ± 1.14	n = 25	Roche Elecsys/Modular E/e601/e411
3.67 ± 0.33	8.03 ± 0.58	10.34 ± 0.92	16.45 ± 1.13	29.31 ± 1.89	n = 53	Siemens ADVIA/ADvia Centaur
3.54 ± 0.30	7.62 ± 0.39	10.04 ± 0.65	14.40 ± 0.88	26.61 ± 1.96	n = 17	Siemens Immulite
3.38 ± 0.47	7.46 ± 0.76	9.45 ± 0.95	14.39 ± 1.55	25.69 ± 2.86	n = 7	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

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

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
47.24 $\pm$ 7.85	102.18 $\pm$ 24.36	297.30 $\pm$ 53.48	93.03 $\pm$ 22.88	354.15 $\pm$ 71.22	n = 96	All Methods & Instruments
48.30	98.00	294.90	88.00	347.60	n = 96	Median value, All Methods & Instruments
39.64 $\pm$ 1.56	92.44 $\pm$ 2.45	269.58 $\pm$ 6.69	85.36 $\pm$ 2.11	336.88 $\pm$ 30.81	n = 8	<Instruments>
37.98 $\pm$ 2.17	92.83 $\pm$ 4.89	272.21 $\pm$ 14.56	82.47 $\pm$ 3.55	300.00 $\pm$ 0.00	n = 5	Abbott Architect i System
36.33 $\pm$ 0.42	95.67 $\pm$ 3.88	289.66 $\pm$ 8.26	84.99 $\pm$ 2.43	316.08 $\pm$ 17.83	n = 5	Beckman Coulter ACCESS
37.65 $\pm$ 1.81	92.77 $\pm$ 3.73	281.41 $\pm$ 10.51	83.65 $\pm$ 2.97	324.10 $\pm$ 23.91	n = 13	Beckman Coulter UniCel DxI 600
48.46 $\pm$ 1.25	113.57 $\pm$ 0.80	328.98 $\pm$ 4.91	102.28 $\pm$ 1.37	398.59 $\pm$ 10.05	n = 9	Beckman Coulter UniCel DxI 800
49.19 $\pm$ 1.44	112.19 $\pm$ 5.18	327.25 $\pm$ 6.46	102.20 $\pm$ 2.67	401.64 $\pm$ 7.24	n = 5	Roche cobas e601
48.63 $\pm$ 1.67	110.38 $\pm$ 2.90	319.63 $\pm$ 9.96	100.66 $\pm$ 3.29	389.27 $\pm$ 10.51	n = 6	Roche cobas e602
55.33 $\pm$ 3.49	161.08 $\pm$ 12.41	400.16 $\pm$ 42.29	145.75 $\pm$ 9.63	489.71 $\pm$ 32.81	n = 17	Roche MODULAR E
53.24 $\pm$ 4.85	80.35 $\pm$ 3.03	236.74 $\pm$ 14.39	71.17 $\pm$ 2.64	285.38 $\pm$ 9.54	n = 17	Siemens ADVIA Centaur
46.70 $\pm$ 1.08	110.75 $\pm$ 3.83	309.50 $\pm$ 7.49	99.20 $\pm$ 3.91	330.74 $\pm$ 11.60	n = 3	Siemens Immulite 2000
45.38 $\pm$ 7.18	100.75 $\pm$ 13.25	299.09 $\pm$ 39.60	90.98 $\pm$ 12.67	349.32 $\pm$ 56.86	n = 10	Tosoh Bioscience
39.64 $\pm$ 1.56	92.44 $\pm$ 2.45	269.58 $\pm$ 6.69	85.36 $\pm$ 2.11	336.88 $\pm$ 30.81	n = 8	<Reagents>
37.56 $\pm$ 1.82	93.72 $\pm$ 4.23	281.90 $\pm$ 11.60	84.00 $\pm$ 3.41	317.02 $\pm$ 23.48	n = 24	Abbott
48.88 $\pm$ 1.40	112.01 $\pm$ 4.24	326.09 $\pm$ 10.02	102.14 $\pm$ 2.77	397.96 $\pm$ 11.94	n = 22	Beckman Coulter
55.03 $\pm$ 3.60	160.12 $\pm$ 12.52	400.33 $\pm$ 40.05	144.85 $\pm$ 10.07	488.05 $\pm$ 32.00	n = 18	Roche Elecsys/Modular E/e601/e411
51.53 $\pm$ 5.04	80.48 $\pm$ 3.02	238.28 $\pm$ 13.83	72.15 $\pm$ 2.83	283.85 $\pm$ 10.17	n = 6	Siemens ADVIA/ADVIS Centaur
53.24 $\pm$ 4.29	81.04 $\pm$ 3.30	239.39 $\pm$ 16.59	71.41 $\pm$ 3.09	288.60 $\pm$ 9.76	n = 13	Siemens Immulite
46.70 $\pm$ 1.08	110.75 $\pm$ 3.83	309.50 $\pm$ 7.49	99.20 $\pm$ 3.91	330.74 $\pm$ 11.60	n = 3	Siemens Immulite-Insulin lot# > 400
47.96 $\pm$ 6.68	97.89 $\pm$ 20.22	288.35 $\pm$ 51.85	88.78 $\pm$ 19.38	335.98 $\pm$ 60.94	n = 7	Tosoh ST AIA
Mean of Above Means						

## Statistical Summary (Mean and Standard Deviation)

## Free Estriol (ng/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
0.56 ± 0.11	0.07 ± 0.04	0.07 ± 0.04	0.99 ± 0.16	1.88 ± 0.11	n = 13	All Methods & Instruments
0.58	0.07	0.07	1.00	1.87	n = 13	Median value, All Methods & Instruments
						<Instruments>
0.54 ± 0.05	0.08 ± 0.04	0.08 ± 0.04	1.04 ± 0.05	1.84 ± 0.10	n = 4	Beckman Coulter UniCel DxI 800
						<Reagents>
0.57 ± 0.04	0.07 ± 0.05	0.07 ± 0.05	1.07 ± 0.06	1.91 ± 0.14	n = 7	Beckman Coulter
1.57 ± 0.63	0.07 ± 0.05	0.13 ± 0.14	2.22 ± 1.08	4.10 ± 2.36	n = 3	In-House
0.44 ± 0.14	0.08 ± 0.02	0.08 ± 0.02	0.80 ± 0.15	1.85 ± 0.03	n = 3	Siemens Immulite
0.80 ± 0.55	0.07 ± 0.00	0.09 ± 0.03	1.31 ± 0.67	2.50 ± 1.14	n = 3	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Estradiol (pg/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
17.0 ± 6.25	23.9 ± 5.57	39.6 ± 6.95	149.1 ± 15.29	191.3 ± 21.49	n = 158	All Methods & Instruments
18.0	23.3	39.7	149.0	191.6	n = 158	Median value, All Methods & Instruments
						<Instruments>
23.9 ± 4.48	28.0 ± 3.59	46.1 ± 5.10	145.5 ± 7.08	173.1 ± 6.12	n = 10	Abbott Architect i System
15.9 ± 8.25	24.5 ± 7.71	39.0 ± 11.95	145.7 ± 19.11	193.8 ± 10.93	n = 8	Beckman Coulter ACCESS
22.8 ± 5.12	28.4 ± 15.36	38.5 ± 16.23	136.5 ± 11.02	189.8 ± 12.18	n = 3	Beckman Coulter UniCel DxI 600
20.0 ± 0.00	20.8 ± 4.83	28.8 ± 6.94	116.5 ± 13.82	164.1 ± 14.58	n = 10	Beckman Coulter UniCel DxI 800
4.7 ± 2.26	19.7 ± 0.51	37.7 ± 5.09	166.1 ± 15.43	196.1 ± 16.45	n = 3	LC/MS/MS
9.7 ± 2.25	15.4 ± 4.03	28.0 ± 5.49	99.7 ± 7.02	149.1 ± 10.12	n = 7	Ortho Vitros 5600
17.7 ± 1.85	20.5 ± 1.86	38.1 ± 1.33	142.8 ± 5.77	174.5 ± 7.29	n = 6	Roche cobas e411
18.7 ± 4.16	24.0 ± 4.47	39.8 ± 2.90	145.5 ± 3.97	176.1 ± 5.55	n = 14	Roche cobas e601
26.2 ± 4.26	28.6 ± 2.25	44.4 ± 4.80	159.6 ± 6.85	193.0 ± 9.24	n = 4	Roche cobas e602
18.9 ± 5.72	24.3 ± 4.19	40.3 ± 2.48	144.5 ± 5.61	177.1 ± 5.66	n = 6	Roche MODULAR E
11.9 ± 0.11	26.2 ± 4.48	41.4 ± 4.56	157.9 ± 8.28	201.2 ± 9.74	n = 42	Siemens ADVIA Centaur
15.1 ± 3.49	26.5 ± 3.13	42.0 ± 3.33	171.9 ± 8.30	219.6 ± 2.23	n = 4	Siemens ADVIA Centaur CP
12.1 ± 1.54	26.3 ± 5.79	40.9 ± 4.63	153.7 ± 4.22	197.0 ± 7.49	n = 8	Siemens Dimension Vista
21.2 ± 1.46	21.1 ± 1.29	37.8 ± 5.23	147.9 ± 14.32	217.8 ± 18.01	n = 4	Siemens Immulite 1000
22.2 ± 3.64	20.7 ± 1.44	39.7 ± 8.07	144.3 ± 11.33	210.7 ± 20.25	n = 21	Siemens Immulite 2000
84.9 ± 14.19	22.5 ± 8.66	35.1 ± 8.81	256.7 ± 21.41	364.5 ± 28.87	n = 3	Tosoh Bioscience
17.8 ± 5.77	23.8 ± 3.71	39.1 ± 3.58	148.2 ± 13.94	189.4 ± 19.89	n = 16	Mean of Above Means
						<Reagents>
23.9 ± 4.48	28.0 ± 3.59	46.1 ± 5.10	145.5 ± 7.08	173.1 ± 6.12	n = 10	Abbott
20.0 ± 0.00	22.1 ± 6.45	33.4 ± 11.47	129.8 ± 20.56	180.5 ± 20.24	n = 21	Beckman Coulter
3.7 ± 2.65	16.8 ± 7.67	31.0 ± 16.29	139.8 ± 70.06	166.1 ± 81.04	n = 4	In-House
10.7 ± 3.32	15.8 ± 3.84	28.9 ± 5.63	99.8 ± 5.96	150.5 ± 9.17	n = 8	Ortho Clinical Diagnostics
19.0 ± 4.24	23.6 ± 4.31	39.5 ± 2.73	145.4 ± 5.65	177.0 ± 7.04	n = 31	Roche Elecsys/Modular E/e601/e411
12.4 ± 1.33	27.1 ± 4.42	41.6 ± 4.81	160.1 ± 9.81	203.8 ± 10.76	n = 38	Siemens ADVIA Centaur Enhanced Estr
12.4 ± 1.28	23.2 ± 1.76	40.9 ± 2.69	154.7 ± 4.94	197.2 ± 8.75	n = 8	Siemens ADVIA/ADVIS Centaur
12.2 ± 1.76	26.5 ± 4.04	40.7 ± 3.99	153.8 ± 5.23	198.2 ± 10.17	n = 6	Siemens Dimension LOCI
21.8 ± 3.15	20.7 ± 1.44	39.4 ± 7.60	144.9 ± 12.04	212.0 ± 19.97	n = 25	Siemens Immulite
15.3 ± 6.46	22.9 ± 4.33	38.3 ± 5.61	146.8 ± 10.09	184.7 ± 20.08	n = 9	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Testosterone (ng/dL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
173.5 ± 41.80	591.3 ± 88.20	102.8 ± 21.72	832.7 ± 119.09	92.7 ± 19.18	n = 141	All Methods & Instruments
178.0	605.7	100.0	842.0	91.0	n = 141	Median value, All Methods & Instruments
243.5 ± 8.92	697.7 ± 33.46	112.0 ± 6.09	1001.4 ± 17.44	99.1 ± 3.44	n = 6	<Instruments>
159.9 ± 6.19	512.9 ± 18.08	95.9 ± 3.64	750.3 ± 22.35	87.8 ± 4.45	n = 13	Abbott Architect i System
153.9 ± 7.07	472.4 ± 17.44	92.1 ± 3.91	692.3 ± 24.04	84.5 ± 6.98	n = 7	Beckman Coulter ACCESS
152.0 ± 5.60	450.1 ± 25.52	87.1 ± 2.72	658.4 ± 23.67	82.3 ± 2.54	n = 13	Beckman Coulter UniCel DxI 600
206.8 ± 17.96	594.1 ± 46.30	114.2 ± 7.49	849.3 ± 94.55	103.4 ± 7.90	n = 7	Beckman Coulter UniCel DxI 800
115.2 ± 4.09	546.6 ± 12.41	81.4 ± 3.92	843.1 ± 24.88	70.0 ± 3.92	n = 4	LC/MS/MS
194.4 ± 9.95	630.2 ± 26.66	99.7 ± 4.01	897.7 ± 30.21	87.9 ± 3.22	n = 12	Ortho Vitros 5600
202.5 ± 11.58	629.3 ± 23.79	108.7 ± 11.41	911.6 ± 45.98	91.2 ± 5.98	n = 5	Roche cobas e601
196.9 ± 7.80	634.1 ± 33.33	100.2 ± 3.14	918.3 ± 48.33	88.4 ± 4.20	n = 3	Roche cobas e602
197.4 ± 16.87	665.6 ± 36.48	104.1 ± 8.15	918.4 ± 28.68	90.2 ± 7.13	n = 7	Roche Elecsys
188.7 ± 15.27	657.5 ± 45.41	126.7 ± 12.42	885.3 ± 87.22	115.9 ± 10.14	n = 37	Roche MODULAR E
92.6 ± 14.40	537.5 ± 47.41	77.2 ± 10.05	751.1 ± 58.93	72.0 ± 12.98	n = 15	Siemens ADVIA Centaur
113.9 ± 15.12	558.2 ± 17.25	58.0 ± 8.83	850.6 ± 63.65	58.4 ± 8.61	n = 5	Siemens Immulite 2000
172.8 ± 44.17	586.5 ± 79.36	97.9 ± 17.01	847.3 ± 99.68	87.1 ± 13.98	n = 13	Tosoh Bioscience
						Mean of Above Means
243.5 ± 8.92	697.7 ± 33.46	112.0 ± 6.09	1001.4 ± 17.44	99.1 ± 3.44	n = 6	<Reagents>
155.3 ± 7.04	481.3 ± 36.87	91.7 ± 5.38	701.3 ± 52.01	84.8 ± 5.18	n = 33	Abbott
206.8 ± 17.97	580.6 ± 65.55	114.2 ± 7.55	827.6 ± 132.41	103.4 ± 7.98	n = 8	Beckman Coulter
115.2 ± 4.09	546.6 ± 12.41	81.4 ± 3.92	843.1 ± 24.88	70.0 ± 3.92	n = 4	In-House
195.7 ± 12.30	635.7 ± 31.54	101.2 ± 5.75	907.1 ± 35.96	88.6 ± 5.09	n = 29	Ortho Clinical Diagnostics
188.5 ± 14.90	656.7 ± 44.84	126.7 ± 12.19	882.1 ± 88.12	115.6 ± 10.19	n = 38	Roche Elecsys/Modular E/e601/e411
92.3 ± 13.81	544.1 ± 52.49	77.7 ± 9.61	751.1 ± 59.06	72.0 ± 12.38	n = 16	Siemens ADVIA Centaur
106.5 ± 11.55	556.9 ± 18.71	54.3 ± 5.37	809.3 ± 23.33	54.9 ± 3.32	n = 3	Tosoh Immulite
163.0 ± 55.62	585.6 ± 70.52	96.0 ± 23.02	838.0 ± 89.20	86.2 ± 19.90	n = 8	Tosoh ST AIA
						Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Progesterone (ng/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
6.89 ± 1.61	0.33 ± 0.16	15.93 ± 2.00	10.49 ± 1.46	7.71 ± 0.83	n = 154	All Methods & Instruments
6.70	0.30	16.30	10.40	7.70	n = 154	Median value, All Methods & Instruments
14.51 ± 0.33	0.10 ± 0.00	16.91 ± 0.59	11.24 ± 0.28	8.52 ± 0.27	n = 6	<Instruments>
6.72 ± 0.50	0.27 ± 0.13	15.69 ± 1.23	11.55 ± 1.19	8.41 ± 0.79	n = 10	Abbott Architect i System
6.63 ± 0.67	0.25 ± 0.12	15.95 ± 1.15	11.90 ± 1.47	8.06 ± 0.97	n = 4	Beckman Coulter ACCESS
6.81 ± 0.69	0.30 ± 0.10	16.19 ± 0.71	11.55 ± 0.59	8.40 ± 0.53	n = 11	Beckman Coulter UniCel DxI 600
7.45 ± 0.72	0.09 ± 0.02	17.22 ± 2.75	12.29 ± 1.70	8.15 ± 0.64	n = 4	Beckman Coulter UniCel DxI 800
4.12 ± 0.26	1.08 ± 0.05	11.29 ± 0.58	8.72 ± 0.54	6.25 ± 0.40	n = 7	LC/MS/MS
9.34 ± 0.39	0.50 ± 0.00	17.07 ± 0.70	11.83 ± 0.19	8.13 ± 0.27	n = 6	Ortho Vitros 5600
9.02 ± 0.23	0.43 ± 0.05	17.05 ± 0.48	11.78 ± 0.32	7.92 ± 0.20	n = 12	Roche cobas e411
9.26 ± 0.41	0.47 ± 0.04	17.60 ± 0.60	12.11 ± 0.30	8.26 ± 0.35	n = 5	Roche cobas e601
9.20 ± 0.32	0.46 ± 0.06	17.29 ± 0.78	12.01 ± 0.54	8.05 ± 0.28	n = 7	Roche cobas e602
6.68 ± 0.45	0.33 ± 0.14	16.34 ± 1.15	9.59 ± 0.66	7.55 ± 0.56	n = 43	Roche MODULAR E
7.13 ± 0.32	0.42 ± 0.15	17.20 ± 0.36	9.67 ± 0.22	7.99 ± 0.27	n = 3	Siemens ADVIA Centaur
7.94 ± 0.18	0.69 ± 0.07	14.90 ± 0.45	11.17 ± 0.34	7.39 ± 0.17	n = 3	Siemens ADVIA Centaur CP
5.50 ± 0.17	0.25 ± 0.05	14.39 ± 0.52	9.68 ± 0.62	7.14 ± 0.41	n = 3	Siemens Dimension Vista
5.42 ± 0.27	0.27 ± 0.07	12.86 ± 0.69	9.30 ± 0.77	6.81 ± 0.49	n = 23	Siemens Immulite 1000
6.01 ± 1.44	0.46 ± 0.06	17.21 ± 0.26	11.24 ± 0.69	8.03 ± 0.92	n = 3	Siemens Immulite 2000
7.20 ± 1.71	0.35 ± 0.17	16.46 ± 1.23	11.10 ± 1.19	7.94 ± 0.53	n = 16	Tosoh Bioscience
14.51 ± 0.33	0.10 ± 0.00	16.91 ± 0.59	11.24 ± 0.28	8.52 ± 0.27	n = 6	Mean of Above Means
6.73 ± 0.60	0.28 ± 0.12	16.01 ± 1.09	11.62 ± 1.11	8.35 ± 0.73	n = 25	<Reagents>
7.45 ± 0.72	0.07 ± 0.04	16.70 ± 2.44	11.66 ± 2.00	8.30 ± 0.64	n = 5	Beckman Coulter
4.19 ± 0.30	1.09 ± 0.05	11.27 ± 0.54	8.66 ± 0.51	6.22 ± 0.37	n = 8	In-House
9.13 ± 0.35	0.46 ± 0.05	17.17 ± 0.66	11.89 ± 0.41	8.02 ± 0.29	n = 31	Ortho Clinical Diagnostics
6.72 ± 0.46	0.33 ± 0.15	16.41 ± 1.14	9.59 ± 0.63	7.59 ± 0.56	n = 46	Roche Elecsys/Modular E/e601/e411
7.94 ± 0.18	0.69 ± 0.07	14.90 ± 0.45	11.17 ± 0.34	7.39 ± 0.17	n = 3	Siemens ADVIA/ADVIS Centaur
5.44 ± 0.26	0.26 ± 0.07	13.05 ± 0.88	9.31 ± 0.75	6.89 ± 0.46	n = 25	Siemens Dimension LOCI
6.98 ± 1.95	0.35 ± 0.29	15.64 ± 1.93	10.74 ± 1.27	7.73 ± 0.78	n = 8	Siemens Immulite Progesterone (LKPW)
						Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## 17-hydroxyprogesterone (ng/dL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
35.04 ± 13.86	147.18 ± 23.93	99.44 ± 18.67	62.55 ± 23.62	56.69 ± 5.30	n = 10	All Methods & Instruments
33.00	145.00	97.00	57.00	59.00	n = 10	Median value, All Methods & Instruments
32.24 ± 4.06	149.37 ± 15.84	103.53 ± 13.26	50.39 ± 8.20	56.75 ± 4.92	n = 7	<Instruments> LC/MS/MS
32.10 ± 4.60	148.87 ± 17.82	98.30 ± 5.91	46.22 ± 1.54	55.86 ± 5.08	n = 6	<Reagents> In-House

## Statistical Summary (Mean and Standard Deviation)

## Dehydroepiandrosterone (DHEA, ng/dL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
74.0 ± 7.98	190.5 ± 36.32	333.1 ± 149.05	1208.3 ± 177.49	1801.8 ± 275.11	n = 8	All Methods & Instruments
72.0	180.0	341.0	1060.0	1560.0	n = 8	Median value, All Methods & Instruments
51.6 ± 35.39	180.0 ± 121.91	267.7 ± 251.18	998.0 ± 645.85	1508.6 ±*****	n = 3	<Instruments>
75.9 ± 9.65	177.5 ± 11.59	360.1 ± 41.28	1139.1 ± 155.19	1681.1 ± 229.20	n = 5	Automated microplate processor
63.8 ± 13.83	178.8 ± 1.44	313.9 ± 52.70	1068.5 ± 80.42	1594.8 ± 98.35	n = 2	LC/MS/MS
75.9 ± 9.67	177.5 ± 11.60	359.9 ± 42.16	1139.1 ± 156.88	1680.8 ± 230.63	n = 6	Mean of Above Means
						<Reagents>
						In-House

## Statistical Summary (Mean and Standard Deviation)

## Dehydroepiandrosterone sulfate (DHEA-S, µg/dL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
53.64 ± 9.66	233.02 ± 25.99	122.83 ± 15.58	261.17 ± 29.53	174.36 ± 19.65	n = 81	All Methods & Instruments
52.20	227.00	121.00	258.00	172.00	n = 81	Median value, All Methods & Instruments
57.92 ± 2.31	255.12 ± 11.10	133.89 ± 5.52	282.63 ± 11.86	184.07 ± 3.96	n = 5	<Instruments>
58.12 ± 3.91	239.32 ± 17.35	124.24 ± 9.45	265.52 ± 16.35	175.17 ± 13.61	n = 8	Abbott Architect i System
56.07 ± 6.31	243.78 ± 20.15	120.66 ± 10.65	274.97 ± 3.53	174.69 ± 14.09	n = 3	Beckman Coulter ACCESS
57.00 ± 5.84	241.93 ± 23.77	123.41 ± 11.59	268.93 ± 21.05	171.10 ± 14.05	n = 10	Beckman Coulter UniCel DxI 600
66.06 ± 3.20	265.08 ± 7.40	140.65 ± 9.48	293.48 ± 10.22	194.89 ± 4.47	n = 5	Beckman Coulter UniCel DxI 800
69.26 ± 2.86	257.13 ± 19.97	145.67 ± 8.71	298.45 ± 16.03	202.04 ± 8.99	n = 3	Roche cobas e601
70.16 ± 2.17	265.73 ± 9.94	148.44 ± 2.26	306.95 ± 6.66	204.77 ± 4.74	n = 5	Roche cobas e602
44.49 ± 1.80	201.51 ± 2.97	96.83 ± 6.36	218.16 ± 12.26	140.88 ± 6.51	n = 3	Roche MODULAR E
50.67 ± 4.14	226.83 ± 23.71	120.70 ± 5.97	251.04 ± 26.41	174.09 ± 21.45	n = 3	Siemens ADVIA Centaur
46.56 ± 4.27	217.35 ± 13.85	115.68 ± 9.79	244.05 ± 16.39	166.48 ± 13.83	n = 31	Siemens Immulite 1000
57.58 ± 9.04	243.07 ± 20.63	127.56 ± 15.09	272.18 ± 26.50	179.66 ± 17.80	n = 10	Siemens Immulite 2000
57.92 ± 2.31	255.12 ± 11.10	133.89 ± 5.52	282.63 ± 11.86	184.07 ± 3.96	n = 5	Mean of Above Means
57.32 ± 5.16	241.11 ± 20.94	123.36 ± 10.64	268.99 ± 17.75	173.22 ± 14.10	n = 21	<Reagents>
68.21 ± 3.47	263.22 ± 11.86	145.07 ± 7.68	300.65 ± 12.10	199.14 ± 8.17	n = 14	Abbott
44.49 ± 1.80	201.51 ± 2.97	96.83 ± 6.36	218.16 ± 12.26	140.88 ± 6.51	n = 3	Beckman Coulter
46.89 ± 4.45	217.81 ± 15.08	116.21 ± 9.56	244.44 ± 17.75	167.13 ± 14.83	n = 34	Roche Elecsys/Modular E/e601/e411
54.72 ± 9.24	236.74 ± 25.30	123.78 ± 17.34	264.21 ± 31.27	173.98 ± 20.17	n = 5	Siemens ADVIA/ADVIS Centaur
						Siemens Immulite
						Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Lutropin (LH, mIU/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
5.79 ± 0.86	7.94 ± 0.77	126.89 ± 15.68	4.28 ± 0.50	212.15 ± 34.23	n = 182	All Methods & Instruments
5.60	7.90	126.00	4.20	200.00	n = 182	Median value, All Methods & Instruments
<Instruments>						
5.17 ± 0.32	6.75 ± 0.54	103.96 ± 4.35	3.72 ± 0.18	195.33 ± 9.51	n = 11	Abbott Architect i System
4.88 ± 0.28	7.46 ± 0.42	116.21 ± 6.12	4.20 ± 0.24	239.59 ± 10.13	n = 11	Beckman Coulter ACCESS
4.87 ± 0.20	7.23 ± 0.16	112.97 ± 2.48	4.08 ± 0.04	224.00 ± 12.96	n = 4	Beckman Coulter UniCel DxI 600
4.87 ± 0.30	7.18 ± 0.45	114.12 ± 4.11	4.20 ± 0.15	233.02 ± 8.31	n = 15	Beckman Coulter UniCel DxI 800
5.92 ± 0.39	8.20 ± 0.54	171.09 ± 6.69	3.79 ± 0.24	200.00 ± 0.00	n = 11	Ortho Vitros 5600
6.58 ± 0.19	8.99 ± 0.29	121.60 ± 4.38	5.28 ± 0.14	200.00 ± 0.00	n = 6	Roche cobas e411
6.55 ± 0.38	8.78 ± 0.48	120.16 ± 6.58	5.15 ± 0.31	200.00 ± 0.00	n = 16	Roche cobas e601
6.40 ± 0.04	8.64 ± 0.11	118.23 ± 1.23	4.98 ± 0.09	201.67 ± 30.82	n = 5	Roche cobas e602
6.70 ± 0.36	9.18 ± 0.49	121.56 ± 5.37	5.35 ± 0.27	200.00 ± 0.00	n = 3	Roche Elecsys
6.46 ± 0.21	8.68 ± 0.18	119.51 ± 3.30	5.20 ± 0.16	200.00 ± 0.01	n = 6	Roche MODULAR E
5.29 ± 0.28	7.64 ± 0.34	132.52 ± 7.94	4.16 ± 0.25	250.30 ± 39.56	n = 45	Siemens ADVIA Centaur
5.72 ± 0.40	8.34 ± 0.26	140.40 ± 8.56	4.67 ± 0.22	224.94 ± 45.58	n = 3	Siemens ADVIA Centaur CP
6.52 ± 0.18	8.48 ± 0.30	140.77 ± 3.76	4.25 ± 0.13	150.00 ± 0.00	n = 11	Siemens Dimension Vista
6.35 ± 0.32	7.85 ± 0.54	100.81 ± 64.20	4.03 ± 0.32	200.00 ± 0.00	n = 3	Siemens Immulite 1000
6.88 ± 0.41	8.24 ± 0.40	137.02 ± 10.42	4.33 ± 0.22	200.00 ± 0.00	n = 23	Siemens Immulite 2000
5.76 ± 0.55	7.86 ± 0.55	119.44 ± 3.22	4.07 ± 0.40	206.48 ± 17.30	n = 5	Tosoh Bioscience
5.97 ± 0.76	8.12 ± 0.72	121.52 ± 13.29	4.43 ± 0.58	208.18 ± 19.66	n = 16	Mean of Above Means
<Reagents>						
5.17 ± 0.32	6.75 ± 0.54	103.96 ± 4.35	3.72 ± 0.18	195.33 ± 9.51	n = 11	Abbott
4.87 ± 0.26	7.29 ± 0.42	114.43 ± 4.92	4.18 ± 0.18	234.53 ± 10.68	n = 30	Beckman Coulter
5.87 ± 0.40	8.12 ± 0.59	171.55 ± 6.46	3.80 ± 0.22	200.00 ± 0.00	n = 12	Ortho Clinical Diagnostics
6.51 ± 0.26	8.78 ± 0.35	119.60 ± 4.18	5.17 ± 0.24	200.00 ± 0.00	n = 36	Roche Elecsys/Modular E/e601/e411
5.31 ± 0.29	7.68 ± 0.38	132.97 ± 8.13	4.18 ± 0.27	248.68 ± 40.68	n = 48	Siemens ADVIA/ADVIS Centaur
6.50 ± 0.19	8.45 ± 0.30	141.18 ± 3.95	4.26 ± 0.14	150.00 ± 0.00	n = 10	Siemens Dimension LOCI
6.82 ± 0.44	8.21 ± 0.41	136.93 ± 10.29	4.30 ± 0.25	200.00 ± 0.00	n = 26	Siemens Immulite
5.90 ± 0.64	7.90 ± 0.73	117.29 ± 1.24	4.16 ± 0.56	306.44 ± 155.64	n = 3	Tosoh AIA
5.87 ± 0.73	7.94 ± 0.63	127.17 ± 18.78	4.13 ± 0.28	212.30 ± 41.61	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Follitropin (FSH, mIU/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
14.52 ± 1.24	8.00 ± 1.05	30.85 ± 2.98	5.55 ± 0.65	109.07 ± 21.08	n = 185	All Methods & Instruments
14.30	7.90	30.80	5.50	104.00	n = 185	Median value, All Methods & Instruments
						<Instruments>
13.73 ± 0.69	6.85 ± 0.38	28.66 ± 0.93	5.01 ± 0.21	94.05 ± 2.71	n = 11	Abbott Architect i System
15.33 ± 0.95	8.21 ± 0.45	32.68 ± 1.90	6.19 ± 0.25	95.98 ± 5.45	n = 11	Beckman Coulter ACCESS
14.91 ± 0.69	7.90 ± 0.34	32.63 ± 2.11	5.92 ± 0.34	96.43 ± 4.95	n = 4	Beckman Coulter UniCel DxI 600
15.54 ± 0.84	8.46 ± 0.60	34.29 ± 2.28	6.49 ± 0.41	96.60 ± 5.71	n = 16	Beckman Coulter UniCel DxI 800
13.95 ± 0.55	6.26 ± 0.29	24.82 ± 1.21	4.39 ± 0.31	91.37 ± 6.34	n = 11	Ortho Vitros 5600
14.00 ± 0.56	7.85 ± 0.27	31.61 ± 1.31	5.60 ± 0.24	107.49 ± 5.30	n = 6	Roche cobas e411
13.76 ± 0.18	7.65 ± 0.22	31.04 ± 0.68	5.42 ± 0.13	104.57 ± 2.22	n = 15	Roche cobas e601
14.04 ± 0.38	7.80 ± 0.24	31.48 ± 1.21	5.56 ± 0.23	105.62 ± 3.99	n = 5	Roche cobas e602
14.12 ± 0.77	7.89 ± 0.57	31.20 ± 2.07	5.53 ± 0.31	106.36 ± 7.89	n = 3	Roche Elecsys
13.75 ± 0.31	7.65 ± 0.23	30.96 ± 0.65	5.45 ± 0.15	102.88 ± 0.83	n = 6	Roche MODULAR E
15.57 ± 0.78	9.14 ± 0.45	31.89 ± 2.41	5.81 ± 0.42	143.19 ± 8.77	n = 48	Siemens ADVIA Centaur
14.83 ± 0.59	7.81 ± 0.38	30.25 ± 1.26	5.14 ± 0.10	133.39 ± 11.00	n = 3	Siemens ADVIA Centaur CP
12.95 ± 0.38	6.84 ± 0.15	28.74 ± 1.08	4.89 ± 0.17	93.34 ± 2.28	n = 11	Siemens Dimension Vista
13.89 ± 0.20	7.73 ± 0.31	28.51 ± 0.61	5.34 ± 0.12	99.94 ± 6.46	n = 3	Siemens Immulite 1000
13.63 ± 0.72	7.68 ± 0.33	29.13 ± 1.48	5.34 ± 0.24	107.20 ± 9.35	n = 23	Siemens Immulite 2000
17.24 ± 0.94	9.21 ± 0.39	37.88 ± 2.03	7.22 ± 0.29	100.98 ± 4.56	n = 5	Tosoh Bioscience
14.28 ± 0.90	7.81 ± 0.70	30.89 ± 2.40	5.51 ± 0.57	100.31 ± 6.04	n = 16	Mean of Above Means
						<Reagents>
13.73 ± 0.69	6.85 ± 0.38	28.66 ± 0.93	5.01 ± 0.21	94.05 ± 2.71	n = 11	Abbott
15.37 ± 0.89	8.28 ± 0.54	33.51 ± 2.32	6.31 ± 0.40	96.37 ± 5.55	n = 31	Beckman Coulter
13.97 ± 0.52	6.27 ± 0.27	24.94 ± 1.20	4.43 ± 0.32	91.53 ± 6.01	n = 12	Ortho Clinical Diagnostics
13.85 ± 0.39	7.73 ± 0.30	31.22 ± 1.07	5.48 ± 0.21	105.08 ± 4.08	n = 35	Roche Elecsys/Modular E/e601/e411
15.52 ± 0.80	9.10 ± 0.52	31.77 ± 2.40	5.76 ± 0.45	142.75 ± 9.00	n = 51	Siemens ADVIA/ADVIS Centaur
13.01 ± 0.33	6.87 ± 0.12	28.91 ± 0.61	4.92 ± 0.12	93.82 ± 1.71	n = 10	Siemens Dimension LOCI
13.68 ± 0.66	7.69 ± 0.33	29.04 ± 1.41	5.34 ± 0.22	106.26 ± 9.37	n = 26	Siemens Immulite
16.86 ± 1.02	9.27 ± 0.59	36.57 ± 0.76	7.18 ± 0.24	99.74 ± 5.65	n = 3	Tosoh AIA
14.36 ± 1.23	7.73 ± 1.10	30.49 ± 3.36	5.47 ± 0.81	97.80 ± 5.81	n = 8	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

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

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
2.74 ± 0.57	7.83 ± 1.35	12.31 ± 2.09	12.37 ± 2.12	72.55 ± 12.64	n = 169	All Methods & Instruments
2.60	7.60	11.89	12.00	69.10	n = 169	Median value, All Methods & Instruments
<Instruments>						
3.13 ± 0.29	9.10 ± 0.79	14.36 ± 1.30	14.17 ± 1.14	78.10 ± 6.44	n = 9	Abbott Architect i System
2.68 ± 0.15	7.97 ± 0.29	11.88 ± 0.37	12.24 ± 0.31	66.02 ± 1.38	n = 11	Beckman Coulter ACCESS
2.50 ± 0.15	7.65 ± 0.70	11.54 ± 0.68	12.09 ± 0.80	65.39 ± 3.82	n = 4	Beckman Coulter UniCel DxI 600
2.59 ± 0.16	7.85 ± 0.20	11.62 ± 0.55	12.12 ± 0.50	67.08 ± 3.60	n = 13	Beckman Coulter UniCel DxI 800
3.27 ± 0.46	8.02 ± 0.38	13.56 ± 0.32	12.49 ± 0.37	74.93 ± 2.39	n = 11	Ortho Vitros 5600
3.89 ± 0.18	10.91 ± 0.35	16.38 ± 0.59	17.90 ± 0.82	102.12 ± 4.48	n = 5	Roche cobas e411
3.68 ± 0.12	10.54 ± 0.39	15.86 ± 0.64	17.08 ± 0.64	98.42 ± 3.09	n = 13	Roche cobas e601
3.63 ± 0.10	10.51 ± 0.33	15.67 ± 0.53	16.84 ± 0.76	97.47 ± 3.61	n = 4	Roche cobas e602
3.65 ± 0.19	10.52 ± 0.41	15.80 ± 0.63	16.93 ± 0.86	97.82 ± 4.44	n = 3	Roche Elecsys
3.61 ± 0.18	10.57 ± 0.43	15.69 ± 0.59	16.76 ± 0.83	96.99 ± 4.27	n = 6	Roche MODULAR E
2.54 ± 0.13	7.05 ± 0.26	11.09 ± 0.60	11.12 ± 0.57	64.42 ± 3.85	n = 46	Siemens ADVIA Centaur
2.70 ± 0.14	6.98 ± 0.12	11.01 ± 0.31	11.35 ± 0.46	65.29 ± 0.50	n = 3	Siemens ADVIA Centaur CP
2.35 ± 0.06	7.52 ± 0.29	12.61 ± 0.29	12.60 ± 0.37	80.18 ± 1.94	n = 14	Siemens Dimension Vista
2.15 ± 0.14	6.71 ± 0.30	10.18 ± 0.59	10.75 ± 0.48	67.37 ± 4.11	n = 19	Siemens Immulite 2000
3.02 ± 0.63	8.64 ± 1.69	13.35 ± 2.36	13.74 ± 2.79	79.37 ± 16.14	n = 14	Mean of Above Means
<Reagents>						
3.13 ± 0.29	9.10 ± 0.79	14.36 ± 1.30	14.17 ± 1.14	78.10 ± 6.44	n = 9	Abbott
2.62 ± 0.17	7.89 ± 0.31	11.73 ± 0.53	12.17 ± 0.50	66.52 ± 3.05	n = 28	Beckman Coulter
3.40 ± 0.55	8.07 ± 0.42	13.55 ± 0.31	12.45 ± 0.38	75.17 ± 3.11	n = 13	Ortho Clinical Diagnostics
3.68 ± 0.17	10.59 ± 0.41	15.88 ± 0.65	17.08 ± 0.84	98.41 ± 4.19	n = 31	Roche Elecsys/Modular E/e601/e411
2.55 ± 0.14	7.05 ± 0.25	11.08 ± 0.59	11.14 ± 0.56	64.49 ± 3.69	n = 49	Siemens ADVIA/ADVIS Centaur
2.37 ± 0.05	7.49 ± 0.33	12.61 ± 0.32	12.66 ± 0.33	80.32 ± 1.98	n = 12	Siemens Dimension LOCI
2.15 ± 0.13	6.75 ± 0.33	10.29 ± 0.69	10.82 ± 0.51	67.38 ± 3.85	n = 21	Siemens Immulite
2.82 ± 0.57	7.96 ± 1.20	12.71 ± 1.93	12.55 ± 1.78	73.97 ± 10.09	n = 7	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Intact Parathyrin (PTH, pg/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
3.28 ± 2.23	4.17 ± 2.32	3.21 ± 2.16	8.94 ± 4.09	114.94 ± 26.75	n = 182	All Methods & Instruments
3.20	4.10	3.00	8.70	112.00	n = 182	Median value, All Methods & Instruments
<Instruments>						
2.82 ± 2.14	3.52 ± 0.82	3.24 ± 1.42	13.67 ± 4.32	210.76 ± 8.95	n = 6	Abbott Architect i System
1.63 ± 2.52	2.24 ± 2.17	1.77 ± 2.39	5.42 ± 2.85	101.85 ± 11.74	n = 13	Beckman Coulter ACCESS
0.50 ± 0.57	1.76 ± 1.35	0.60 ± 0.49	7.00 ± 1.03	108.56 ± 6.08	n = 7	Beckman Coulter UniCel DxI 600
1.00 ± 0.00	1.38 ± 0.57	1.00 ± 0.00	6.38 ± 2.40	103.19 ± 6.43	n = 18	Beckman Coulter UniCel DxI 800
5.07 ± 2.86	5.07 ± 2.86	5.07 ± 2.86	10.32 ± 0.96	71.56 ± 10.32	n = 3	DiaSorin Liaison
3.40 ± 0.00	4.18 ± 1.12	3.40 ± 0.00	11.49 ± 3.43	161.36 ± 9.02	n = 10	Ortho Vitros 5600
4.12 ± 1.41	5.63 ± 1.35	3.62 ± 1.44	12.27 ± 4.05	95.40 ± 5.68	n = 21	Roche cobas e601
3.02 ± 0.62	5.05 ± 0.06	2.88 ± 0.66	12.00 ± 2.00	96.79 ± 2.10	n = 4	Roche cobas e602
3.70 ± 0.45	4.62 ± 1.13	3.23 ± 0.42	10.52 ± 4.78	100.94 ± 7.89	n = 3	Roche Elecsys
3.78 ± 1.16	5.50 ± 1.18	4.03 ± 1.65	11.35 ± 4.71	94.99 ± 9.74	n = 9	Roche MODULAR E
4.14 ± 2.57	4.46 ± 2.36	4.16 ± 2.60	8.19 ± 3.79	135.38 ± 8.07	n = 47	Siemens ADVIA Centaur
3.98 ± 2.80	4.01 ± 2.78	3.98 ± 2.80	10.81 ± 3.15	141.53 ± 12.57	n = 4	Siemens ADVIA Centaur CP
4.33 ± 0.99	5.17 ± 1.03	4.33 ± 0.99	7.62 ± 3.79	108.93 ± 19.14	n = 6	Siemens Immulite 1000
3.31 ± 0.60	4.56 ± 1.76	3.00 ± 0.00	9.80 ± 3.22	127.32 ± 9.69	n = 18	Siemens Immulite 2000
1.00 ± 0.00	3.52 ± 3.72	1.00 ± 0.00	6.82 ± 3.59	77.94 ± 8.76	n = 7	Tosoh Bioscience
3.19 ± 1.39	4.21 ± 1.28	3.14 ± 1.35	9.64 ± 2.61	108.34 ± 26.54	n = 15	Mean of Above Means
<Reagents>						
2.82 ± 2.14	3.52 ± 0.82	3.24 ± 1.42	13.67 ± 4.32	210.76 ± 8.95	n = 6	Abbott
0.75 ± 0.47	1.37 ± 0.68	0.84 ± 0.32	6.12 ± 2.56	103.82 ± 8.18	n = 38	Beckman Coulter
5.07 ± 2.86	5.07 ± 2.86	5.07 ± 2.86	10.32 ± 0.96	71.56 ± 10.32	n = 3	DiaSorin Liaison
3.40 ± 0.00	4.31 ± 1.14	3.40 ± 0.00	11.17 ± 3.37	159.93 ± 9.73	n = 11	Ortho Clinical Diagnostics
3.77 ± 1.21	5.39 ± 1.22	3.51 ± 1.29	11.92 ± 4.12	96.42 ± 5.76	n = 39	Roche Elecsys/Modular E/e601/e411
4.13 ± 2.59	4.43 ± 2.40	4.14 ± 2.62	8.41 ± 3.81	135.60 ± 8.67	n = 51	Siemens ADVIA/ADVIS Centaur
3.34 ± 0.64	4.66 ± 1.78	3.00 ± 0.00	9.77 ± 3.35	124.85 ± 11.44	n = 21	Siemens Immulite
5.00 ± 0.00	5.00 ± 0.00	5.00 ± 0.00	6.37 ± 2.50	109.53 ± 28.39	n = 3	Siemens Immulite Turbo
1.00 ± 0.00	4.88 ± 4.23	1.00 ± 0.00	8.02 ± 3.01	81.39 ± 5.80	n = 5	Tosoh AIA
3.38 ± 1.51	4.72 ± 0.53	3.36 ± 1.48	9.50 ± 2.56	115.57 ± 38.31	n = 9	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## 25-OH Vitamin D2 (ng/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
2.70 ± 1.60 2.00	2.72 ± 1.56 2.00	2.71 ± 1.58 2.00	2.74 ± 1.54 2.00	2.73 ± 1.55 2.00	n = 12 n = 12	All Methods & Instruments Median value, All Methods & Instruments
2.70 ± 1.60	2.72 ± 1.56	2.71 ± 1.58	2.74 ± 1.54	2.73 ± 1.55	n = 12	<Instruments> LC/MS/MS
2.70 ± 1.60	2.72 ± 1.56	2.71 ± 1.58	2.74 ± 1.54	2.73 ± 1.55	n = 12	<Reagents> In-House

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

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
41.76 ± 5.92 42.00	63.10 ± 4.02 63.00	62.94 ± 6.16 62.40	64.35 ± 6.57 61.20	71.04 ± 6.67 68.20	n = 12 n = 12	All Methods & Instruments Median value, All Methods & Instruments
41.76 ± 5.92	63.10 ± 4.02	62.94 ± 6.16	64.35 ± 6.57	71.04 ± 6.67	n = 12	<Instruments> LC/MS/MS
41.76 ± 5.92	63.10 ± 4.02	62.94 ± 6.16	64.35 ± 6.57	71.04 ± 6.67	n = 12	<Reagents> In-House

## Statistical Summary (Mean and Standard Deviation)

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

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
28.86 ± 4.61	49.63 ± 6.19	51.70 ± 6.66	51.98 ± 6.93	54.38 ± 6.61	n = 180	All Methods & Instruments
29.00	48.90	51.90	51.20	54.50	n = 180	Median value, All Methods & Instruments
						<Instruments>
26.69 ± 0.78	50.03 ± 2.14	53.35 ± 2.88	52.62 ± 2.85	56.49 ± 2.83	n = 23	Abbott Architect i System
44.64 ± 0.32	56.37 ± 2.20	51.74 ± 4.62	59.48 ± 2.30	55.29 ± 4.64	n = 7	Beckman Coulter ACCESS
29.40 ± 2.59	49.62 ± 4.50	48.71 ± 5.43	52.41 ± 5.83	51.86 ± 5.99	n = 45	DiaSorin Liaison
26.11 ± 8.68	44.73 ± 10.14	45.43 ± 9.72	46.44 ± 9.68	47.87 ± 9.59	n = 4	Immunodiagnostic Systems-iSYS Immun
41.89 ± 6.34	63.99 ± 3.25	63.88 ± 5.60	65.35 ± 6.50	71.71 ± 6.89	n = 11	LC/MS/MS
52.64 ± 4.12	58.33 ± 5.17	45.97 ± 5.44	62.13 ± 5.95	47.85 ± 4.86	n = 13	Ortho Vitros 5600
29.56 ± 1.35	48.16 ± 4.02	47.07 ± 3.53	48.88 ± 3.70	50.14 ± 4.75	n = 13	Roche cobas e601
26.36 ± 2.74	45.08 ± 2.33	55.39 ± 3.94	47.11 ± 3.06	57.06 ± 3.85	n = 43	Siemens ADVIA Centaur
35.38 ± 1.46	59.40 ± 3.29	61.81 ± 3.86	60.47 ± 2.79	64.21 ± 4.08	n = 4	Tosoh Bioscience
33.70 ± 9.38	52.60 ± 7.04	52.02 ± 6.69	54.86 ± 7.30	54.77 ± 7.23	n = 9	Mean of Above Means
						<Reagents>
26.69 ± 0.78	50.03 ± 2.14	53.35 ± 2.88	52.62 ± 2.85	56.49 ± 2.83	n = 23	Abbott
44.23 ± 2.82	55.53 ± 5.12	51.58 ± 5.75	59.16 ± 5.57	54.95 ± 4.90	n = 11	Beckman Coulter
29.40 ± 2.59	49.62 ± 4.50	48.71 ± 5.43	52.41 ± 5.83	51.86 ± 5.99	n = 45	DiaSorin Liaison
30.17 ± 2.62	46.90 ± 2.95	52.35 ± 5.00	50.31 ± 5.59	53.68 ± 4.96	n = 3	Immunodiagnostic Systems Enzyme Imm
26.11 ± 8.68	44.73 ± 10.14	45.43 ± 9.72	46.44 ± 9.68	47.87 ± 9.59	n = 4	Immunodiagnostic Systems-iSYS chemi
42.44 ± 5.80	63.35 ± 4.13	62.60 ± 7.29	64.40 ± 7.22	70.61 ± 8.34	n = 12	In-House
52.64 ± 4.12	58.33 ± 5.17	45.97 ± 5.44	62.13 ± 5.95	47.85 ± 4.86	n = 13	Ortho Clinical Diagnostics
29.52 ± 1.64	47.34 ± 4.12	46.61 ± 3.17	48.34 ± 3.60	49.44 ± 4.08	n = 19	Roche Elecsys/Modular E/e601/e411
26.41 ± 2.84	44.73 ± 2.46	55.21 ± 4.25	46.57 ± 3.03	57.28 ± 4.31	n = 33	Siemens ADVIA Centaur - Vitamin D T
26.35 ± 2.39	45.95 ± 1.48	55.90 ± 2.80	48.70 ± 2.51	56.85 ± 2.38	n = 10	Siemens ADVIA/ADVIS Centaur
36.00 ± 0.82	60.35 ± 3.39	62.90 ± 4.06	61.27 ± 3.19	64.67 ± 4.71	n = 3	Tosoh AIA
32.22 ± 8.41	50.95 ± 6.82	52.39 ± 6.10	53.46 ± 6.95	54.65 ± 6.30	n = 11	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Intact human Choriogonadotropin (intact hCG, mIU/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
67.1 ± 4.78	1.2 ± 0.82	37.1 ± 2.99	1.2 ± 0.82	54.3 ± 5.73	n = 46	All Methods & Instruments
67.0	1.0	37.0	1.0	55.0	n = 46	Median value, All Methods & Instruments
						<Instruments>
63.6 ± 2.53	0.8 ± 0.35	33.5 ± 1.35	0.8 ± 0.35	46.5 ± 2.59	n = 11	Roche cobas e601
67.8 ± 4.04	1.1 ± 0.84	38.4 ± 1.72	1.1 ± 0.84	56.6 ± 3.20	n = 16	Siemens Dimension EXL
69.4 ± 3.82	1.2 ± 0.73	39.6 ± 1.77	1.2 ± 0.73	58.7 ± 1.98	n = 6	Siemens Dimension RxL
67.5 ± 7.76	1.7 ± 0.72	37.7 ± 1.38	1.7 ± 0.72	56.5 ± 2.65	n = 6	Siemens Dimension Xpand
67.3 ± 2.21	1.2 ± 0.33	37.6 ± 2.31	1.2 ± 0.33	55.5 ± 4.67	n = 4	Mean of Above Means
						<Reagents>
63.6 ± 2.59	1.0 ± 0.65	33.6 ± 1.53	1.0 ± 0.65	46.7 ± 3.05	n = 13	Roche Elecsys/Modular E/e601/e411
68.1 ± 4.33	1.2 ± 0.83	38.5 ± 1.80	1.2 ± 0.83	57.0 ± 3.00	n = 29	Siemens Dimension
65.9 ± 2.59	1.1 ± 0.10	36.0 ± 2.77	1.1 ± 0.10	51.9 ± 5.87	n = 2	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

## Total Beta hCG (mIU/mL)

Specimen: E31	Specimen: E32	Specimen: E33	Specimen: E34	Specimen: E35	Number	Instrument or Reagent System
67.6 ± 7.46	1.2 ± 0.82	32.3 ± 6.20	1.2 ± 0.82	47.7 ± 9.59	n = 251	All Methods & Instruments
68.0	1.0	33.0	1.0	51.0	n = 251	Median value, All Methods & Instruments
<Instruments>						
54.1 ± 2.97	1.9 ± 1.75	25.0 ± 1.55	1.9 ± 1.75	39.7 ± 1.62	n = 22	Abbott Architect i System
64.7 ± 2.95	0.5 ± 0.36	27.3 ± 1.45	0.5 ± 0.36	42.5 ± 2.00	n = 29	Beckman Coulter ACCESS
65.4 ± 3.61	1.3 ± 1.82	28.5 ± 1.40	1.3 ± 1.83	44.3 ± 1.65	n = 8	Beckman Coulter UniCel DxI 600
64.9 ± 3.59	1.2 ± 1.50	27.7 ± 1.52	1.2 ± 1.50	43.4 ± 1.68	n = 15	Beckman Coulter UniCel DxI 800
72.9 ± 2.79	2.2 ± 0.34	40.3 ± 2.16	2.2 ± 0.34	55.7 ± 2.44	n = 20	Ortho Vitros 5600
72.0 ± 3.48	3.4 ± 1.79	39.0 ± 2.46	3.4 ± 1.79	54.7 ± 3.57	n = 5	Ortho Vitros ECi/ECiQ
73.2 ± 2.16	0.9 ± 0.62	34.4 ± 1.67	0.9 ± 0.62	54.4 ± 2.69	n = 8	Roche cobas e411
70.3 ± 3.02	0.4 ± 0.51	33.9 ± 1.28	0.4 ± 0.51	53.0 ± 1.99	n = 14	Roche cobas e601
71.2 ± 2.98	1.8 ± 2.32	33.9 ± 1.48	1.8 ± 2.32	53.3 ± 2.44	n = 3	Roche cobas e602
74.9 ± 3.71	2.9 ± 5.07	35.5 ± 1.87	2.9 ± 5.07	54.8 ± 3.72	n = 3	Roche Elecsys
70.7 ± 1.77	1.5 ± 1.60	34.5 ± 0.90	1.5 ± 1.60	53.1 ± 1.32	n = 9	Roche MODULAR E
62.0 ± 3.42	2.0 ± 0.00	27.7 ± 1.72	2.0 ± 0.00	36.4 ± 1.93	n = 44	Siemens ADVIA Centaur
64.3 ± 1.47	1.9 ± 0.15	30.3 ± 1.47	1.8 ± 0.31	35.6 ± 2.53	n = 3	Siemens ADVIA Centaur CP
71.8 ± 1.18	1.0 ± 0.00	36.3 ± 0.78	1.0 ± 0.00	53.2 ± 0.85	n = 45	Siemens Dimension Vista
92.8 ± 6.53	1.0 ± 0.00	44.8 ± 3.07	1.0 ± 0.00	73.2 ± 4.73	n = 12	Siemens Immulite 2000
76.6 ± 2.01	0.8 ± 0.53	38.3 ± 0.56	0.8 ± 0.53	57.9 ± 1.91	n = 5	Tosoh Bioscience
69.4 ± 6.05	1.5 ± 0.81	33.5 ± 5.59	1.5 ± 0.80	50.1 ± 8.97	n = 16	Mean of Above Means
<Reagents>						
54.1 ± 2.89	2.1 ± 1.88	25.0 ± 1.50	2.1 ± 1.88	39.8 ± 1.78	n = 23	Abbott
64.5 ± 3.19	0.6 ± 0.38	27.5 ± 1.47	0.6 ± 0.37	43.1 ± 1.97	n = 38	Beckman Coulter
65.6 ± 2.74	0.5 ± 0.30	27.8 ± 1.77	0.5 ± 0.30	43.0 ± 1.98	n = 14	Beckman Coulter IFCC Standardized
72.8 ± 2.97	2.2 ± 0.32	40.1 ± 2.27	2.2 ± 0.32	55.6 ± 2.71	n = 25	Ortho Clinical Diagnostics
71.2 ± 3.06	0.6 ± 0.58	34.3 ± 1.35	0.6 ± 0.58	53.4 ± 2.14	n = 37	Roche Elecsys/Modular E/e601/e411
62.3 ± 3.36	2.0 ± 0.00	27.9 ± 1.82	2.0 ± 0.00	36.4 ± 1.96	n = 47	Siemens ADVIA/ADVIS Centaur
70.3 ± 2.57	1.0 ± 0.00	37.5 ± 1.80	1.0 ± 0.00	54.4 ± 3.23	n = 5	Siemens Dimension
71.8 ± 1.20	1.0 ± 0.00	36.3 ± 0.80	1.0 ± 0.00	53.2 ± 0.86	n = 42	Siemens Dimension LOCI
92.7 ± 6.14	1.0 ± 0.00	44.3 ± 3.13	1.0 ± 0.00	72.0 ± 5.28	n = 14	Siemens Immulite
77.2 ± 2.32	0.6 ± 0.26	37.9 ± 0.15	0.6 ± 0.26	56.7 ± 1.83	n = 3	Tosoh AIA
69.2 ± 8.45	1.1 ± 0.69	33.8 ± 6.66	1.1 ± 0.69	50.1 ± 9.92	n = 10	Mean of Above Means

## Statistical Summary (Mean and Standard Deviation)

Qualitative hCG report:

[AB1] Abbott	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	8	0	8	0
Indeterminant	0	0	2	0	0
Positive	8	0	6	0	8
<hr/>					
[AR1] Alere hCG Combo Cassette	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	8	0	8	0
Indeterminant	0	0	0	0	0
Positive	8	0	8	0	8
<hr/>					
[BC1] Beckman Coulter	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	24	0	24	0
Indeterminant	0	0	1	0	0
Positive	24	0	23	0	24
<hr/>					
[CD1] Cardinal Health	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	23	0	23	0
Indeterminant	0	0	0	0	0
Positive	23	0	23	0	23
<hr/>					
[CM1] CEN-MED Elite Plus hCG One Step	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	7	0	7	0
Indeterminant	0	0	0	0	0
Positive	7	0	7	0	7
<hr/>					
[FI1] Fisher	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	42	0	42	0
Indeterminant	0	0	0	0	0
Positive	42	0	42	0	42
<hr/>					
[IH1] In-House	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	1	0	1	0
Indeterminant	0	0	0	0	0
Positive	1	0	1	0	1

## Statistical Summary (Mean and Standard Deviation)

[JJ1] Ortho Clinical Diagnostics	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	3	0	3	0
Indeterminant	0	0	0	0	0
Positive	4	1	4	1	4
[PM1] Polymedco	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
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:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	19	0	19	1
Indeterminant	0	0	0	0	0
Positive	19	0	19	0	18
[QQ1] Quidel QuickVue One-Step hCG Combo	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	16	0	16	0
Indeterminant	0	0	0	0	0
Positive	16	0	16	0	16
[RO3] Roche Elecsys/Modular E/e601/e411	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	9	0	9	0
Indeterminant	0	0	0	0	0
Positive	9	0	9	0	9
[GZ1] Sekisui Diagnostics (Genzyme)	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	5	0	5	0
Indeterminant	0	0	0	0	0
Positive	5	0	5	0	5
[BY1] Siemens ADVIA/ADVISIA Centaur	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	21	0	21	0
Indeterminant	0	0	0	0	0
Positive	21	0	21	0	21

## Statistical Summary (Mean and Standard Deviation)

[DA5] Siemens Dimension	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	1	0	1	0
Indeterminant	0	0	0	0	0
Positive	1	0	1	0	1
[DA6] Siemens Dimension LOCI	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	4	0	4	0
Indeterminant	0	0	0	0	0
Positive	4	0	4	0	4
[DP5] Siemens Immulite	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	2	0	2	0
Indeterminant	0	0	0	0	0
Positive	2	0	2	0	2
[SB1] Stanbio	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	7	0	7	0
Indeterminant	0	0	0	0	0
Positive	7	0	7	0	7
[TR1] TrueMedix	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	5	0	5	0
Indeterminant	0	0	0	0	0
Positive	5	0	5	0	5
[ZZZ] Other/Not listed	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	1	0	1	0
Indeterminant	0	0	0	0	0
Positive	1	0	1	0	1
[---] All Methods & Instruments	Specimen:E31	Specimen:E32	Specimen:E33	Specimen:E34	Specimen:E35
Negative	0	210	0	210	1
Indeterminant	0	0	3	0	0
Positive	211	1	208	1	210