

**Newborn Screening Quality Assurance Program
Overall Statistics**
(Calculations based on All Labs, All Methods)

Year: 2020 Quarter: 1

Acylcarnitines

| Specimen 2010601 | C0(L) | C2(L) | C3 | C3DC | C3DC+ C4OH | C4 | C4OH | C5 | C5:1 | C5DC | C5OH |
|------------------|-------|-------|------|------|---------------|------|------|------|------|------|------|
| N* | 270 | 166 | 269 | 97 | 102 | 251 | 89 | 283 | 244 | 269 | 249 |
| Outliers | 11 | 11 | 15 | 8 | 7 | 7 | 6 | 7 | 10 | 10 | 3 |
| Mean | 5.63 | 6.70 | 0.37 | 0.03 | 0.05 | 0.06 | 0.07 | 0.05 | 0.02 | 0.03 | 0.40 |
| UL (95%) | 8.35 | 9.89 | 0.54 | 0.06 | 0.09 | 0.14 | 0.13 | 0.11 | 0.06 | 0.09 | 0.67 |
| LL (95%) | 2.92 | 3.52 | 0.19 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 |

| Specimen 2010602 | C0(L) | C2(L) | C3 | C3DC | C3DC+ C4OH | C4 | C4OH | C5 | C5:1 | C5DC | C5OH |
|------------------|-------|-------|------|------|---------------|------|------|------|------|------|------|
| N* | 270 | 166 | 271 | 100 | 103 | 247 | 92 | 277 | 244 | 271 | 248 |
| Outliers | 11 | 11 | 13 | 5 | 6 | 11 | 3 | 13 | 9 | 9 | 4 |
| Mean | 37.12 | 16.40 | 1.24 | 0.08 | 0.09 | 0.16 | 0.11 | 0.11 | 0.02 | 0.12 | 0.43 |
| UL (95%) | 48.86 | 22.21 | 1.68 | 0.15 | 0.14 | 0.29 | 0.20 | 0.16 | 0.06 | 0.24 | 0.73 |
| LL (95%) | 25.37 | 10.59 | 0.80 | 0.00 | 0.04 | 0.04 | 0.02 | 0.06 | 0.00 | 0.00 | 0.14 |

| Specimen 2010603 | C0(L) | C2(L) | C3 | C3DC | C3DC+ C4OH | C4 | C4OH | C5 | C5:1 | C5DC | C5OH |
|------------------|-------|-------|-------|------|---------------|------|------|------|------|------|------|
| N* | 268 | 166 | 273 | 100 | 102 | 248 | 91 | 284 | 241 | 272 | 246 |
| Outliers | 13 | 11 | 11 | 5 | 7 | 10 | 4 | 6 | 13 | 7 | 6 |
| Mean | 31.11 | 27.85 | 10.81 | 0.03 | 0.10 | 0.08 | 0.11 | 0.06 | 0.02 | 0.04 | 0.32 |
| UL (95%) | 42.43 | 37.77 | 14.32 | 0.10 | 0.16 | 0.15 | 0.20 | 0.12 | 0.06 | 0.10 | 0.48 |
| LL (95%) | 19.78 | 17.93 | 7.30 | 0.00 | 0.04 | 0.02 | 0.03 | 0.01 | 0.00 | 0.00 | 0.16 |

| Specimen 2010604 | C0(L) | C2(L) | C3 | C3DC | C3DC+ C4OH | C4 | C4OH | C5 | C5:1 | C5DC | C5OH |
|------------------|-------|-------|------|-------|---------------|------|------|------|------|------|------|
| N* | 271 | 163 | 270 | 101 | 104 | 251 | 88 | 282 | 232 | 274 | 247 |
| Outliers | 10 | 14 | 14 | 4 | 5 | 7 | 7 | 8 | 22 | 6 | 5 |
| Mean | 24.54 | 19.43 | 0.67 | 5.62 | 1.74 | 0.07 | 0.15 | 0.05 | 0.02 | 0.07 | 0.41 |
| UL (95%) | 32.61 | 25.96 | 0.95 | 11.90 | 3.10 | 0.16 | 0.36 | 0.12 | 0.04 | 0.18 | 0.66 |
| LL (95%) | 16.47 | 12.90 | 0.38 | 0.00 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 |

| Specimen 2010605 | C0(L) | C2(L) | C3 | C3DC | C3DC+ C4OH | C4 | C4OH | C5 | C5:1 | C5DC | C5OH |
|------------------|-------|-------|------|------|---------------|------|------|------|------|------|------|
| N* | 267 | 166 | 271 | 100 | 103 | 245 | 92 | 275 | 244 | 268 | 243 |
| Outliers | 14 | 11 | 13 | 5 | 6 | 13 | 3 | 15 | 9 | 12 | 9 |
| Mean | 60.02 | 30.80 | 3.27 | 0.08 | 0.13 | 0.21 | 0.16 | 0.20 | 0.03 | 0.10 | 2.02 |
| UL (95%) | 78.71 | 41.40 | 4.39 | 0.17 | 0.20 | 0.32 | 0.29 | 0.27 | 0.08 | 0.22 | 2.96 |
| LL (95%) | 41.33 | 20.19 | 2.16 | 0.00 | 0.06 | 0.11 | 0.02 | 0.12 | 0.00 | 0.00 | 1.09 |

Overall Statistics
(Calculations based on All Labs, All Methods)
Year: 2020 Quarter: 1

Acylcarnitines

| Specimen 2010601 | C6 | C8 | C10 | C10:1 | C10:2 | C14 | C14:1 | C16 | C16OH | C18 | C18:1 | C18OH |
|------------------|------|------|------|-------|-------|------|-------|------|-------|------|-------|-------|
| N* | 259 | 286 | 273 | 238 | 158 | 258 | 267 | 265 | 261 | 239 | 231 | 206 |
| Outliers | 7 | 7 | 9 | 10 | 6 | 8 | 8 | 8 | 10 | 15 | 17 | 9 |
| Mean | 0.02 | 0.04 | 0.03 | 0.02 | 0.01 | 0.06 | 0.03 | 0.65 | 0.01 | 0.43 | 0.63 | 0.01 |
| UL (95%) | 0.07 | 0.08 | 0.07 | 0.06 | 0.04 | 0.11 | 0.06 | 0.88 | 0.03 | 0.57 | 0.85 | 0.02 |
| LL (95%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.42 | 0.00 | 0.30 | 0.41 | 0.00 |

| Specimen 2010602 | C6 | C8 | C10 | C10:1 | C10:2 | C14 | C14:1 | C16 | C16OH | C18 | C18:1 | C18OH |
|------------------|------|------|------|-------|-------|------|-------|------|-------|------|-------|-------|
| N* | 255 | 276 | 273 | 237 | 157 | 255 | 257 | 267 | 265 | 243 | 239 | 209 |
| Outliers | 13 | 17 | 10 | 13 | 7 | 11 | 18 | 6 | 6 | 11 | 9 | 7 |
| Mean | 1.32 | 1.97 | 1.21 | 0.87 | 0.03 | 0.12 | 0.10 | 1.27 | 0.02 | 0.72 | 1.54 | 0.01 |
| UL (95%) | 1.69 | 2.56 | 1.80 | 1.46 | 0.06 | 0.18 | 0.16 | 1.70 | 0.06 | 0.94 | 2.13 | 0.03 |
| LL (95%) | 0.95 | 1.38 | 0.63 | 0.28 | 0.00 | 0.07 | 0.04 | 0.84 | 0.00 | 0.50 | 0.95 | 0.00 |

| Specimen 2010603 | C6 | C8 | C10 | C10:1 | C10:2 | C14 | C14:1 | C16 | C16OH | C18 | C18:1 | C18OH |
|------------------|------|------|------|-------|-------|------|-------|------|-------|------|-------|-------|
| N* | 261 | 286 | 269 | 237 | 158 | 257 | 267 | 266 | 260 | 245 | 240 | 207 |
| Outliers | 5 | 7 | 13 | 11 | 6 | 9 | 8 | 7 | 11 | 9 | 8 | 8 |
| Mean | 0.04 | 0.05 | 0.04 | 0.03 | 0.01 | 0.06 | 0.04 | 0.66 | 0.01 | 0.37 | 0.70 | 0.01 |
| UL (95%) | 0.10 | 0.10 | 0.08 | 0.07 | 0.04 | 0.10 | 0.08 | 0.88 | 0.03 | 0.49 | 1.00 | 0.02 |
| LL (95%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.44 | 0.00 | 0.24 | 0.41 | 0.00 |

| Specimen 2010604 | C6 | C8 | C10 | C10:1 | C10:2 | C14 | C14:1 | C16 | C16OH | C18 | C18:1 | C18OH |
|------------------|------|------|------|-------|-------|------|-------|------|-------|------|-------|-------|
| N* | 256 | 289 | 264 | 241 | 157 | 259 | 265 | 262 | 260 | 241 | 236 | 209 |
| Outliers | 10 | 4 | 18 | 7 | 7 | 7 | 10 | 11 | 11 | 13 | 12 | 6 |
| Mean | 0.02 | 0.04 | 0.03 | 0.02 | 0.01 | 0.05 | 0.03 | 0.73 | 0.01 | 0.39 | 0.72 | 0.01 |
| UL (95%) | 0.07 | 0.10 | 0.06 | 0.06 | 0.03 | 0.10 | 0.07 | 0.98 | 0.03 | 0.51 | 1.00 | 0.03 |
| LL (95%) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.49 | 0.00 | 0.26 | 0.43 | 0.00 |

| Specimen 2010605 | C6 | C8 | C10 | C10:1 | C10:2 | C14 | C14:1 | C16 | C16OH | C18 | C18:1 | C18OH |
|------------------|------|------|------|-------|-------|------|-------|------|-------|------|-------|-------|
| N* | 258 | 288 | 268 | 242 | 158 | 258 | 265 | 258 | 264 | 243 | 240 | 206 |
| Outliers | 9 | 5 | 15 | 8 | 6 | 8 | 10 | 15 | 7 | 11 | 8 | 9 |
| Mean | 0.06 | 0.07 | 0.07 | 0.07 | 0.02 | 0.11 | 0.06 | 1.37 | 0.02 | 0.76 | 1.40 | 0.01 |
| UL (95%) | 0.11 | 0.13 | 0.12 | 0.14 | 0.06 | 0.18 | 0.12 | 1.78 | 0.06 | 1.00 | 1.96 | 0.04 |
| LL (95%) | 0.01 | 0.02 | 0.02 | 0.00 | 0.00 | 0.05 | 0.00 | 0.96 | 0.00 | 0.52 | 0.85 | 0.00 |

*Outliers are not included in N. UL = upper limit LL = lower limit

Overall Statistics
(Calculations based on All Labs, All Methods)
Year: 2020 Quarter: 1

Amino Acids

| Specimen 2010501 | Arg | Cit | Leu | Met | Phe | SUAC | Tyr | Val |
|------------------|------|-------|--------|-------|--------|------|-------|--------|
| N* | 224 | 256 | 283 | 263 | 347 | 140 | 278 | 257 |
| Outliers | 13 | 9 | 12 | 15 | 19 | 7 | 12 | 7 |
| Mean | 6.42 | 21.24 | 152.38 | 22.15 | 294.54 | 0.48 | 59.12 | 151.24 |
| UL (95%) | 12.0 | 28.7 | 205.5 | 29.3 | 376.4 | 1.2 | 77.8 | 202.1 |
| LL (95%) | 0.8 | 13.8 | 99.3 | 15.0 | 212.7 | 0.0 | 40.4 | 100.4 |

| Specimen 2010502 | Arg | Cit | Leu | Met | Phe | SUAC | Tyr | Val |
|------------------|------|-------|--------|-------|-------|------|-------|--------|
| N* | 222 | 258 | 284 | 263 | 352 | 139 | 276 | 254 |
| Outliers | 15 | 7 | 11 | 15 | 14 | 8 | 14 | 10 |
| Mean | 6.18 | 21.24 | 153.18 | 21.61 | 61.15 | 0.49 | 58.64 | 151.33 |
| UL (95%) | 10.8 | 29.0 | 206.4 | 29.2 | 87.2 | 1.1 | 76.6 | 202.0 |
| LL (95%) | 1.5 | 13.5 | 100.0 | 14.1 | 35.1 | 0.0 | 40.7 | 100.7 |

| Specimen 2010503 | Arg | Cit | Leu | Met | Phe | SUAC | Tyr | Val |
|------------------|------|-------|--------|-------|-------|------|-------|--------|
| N* | 226 | 255 | 280 | 267 | 333 | 141 | 277 | 252 |
| Outliers | 11 | 10 | 15 | 11 | 33 | 6 | 13 | 11 |
| Mean | 6.77 | 20.89 | 547.62 | 21.47 | 59.12 | 0.51 | 57.67 | 503.83 |
| UL (95%) | 12.0 | 28.4 | 697.3 | 29.0 | 84.7 | 1.2 | 75.8 | 677.2 |
| LL (95%) | 1.5 | 13.4 | 397.9 | 13.9 | 33.5 | 0.0 | 39.5 | 330.5 |

| Specimen 2010504 | Arg | Cit | Leu | Met | Phe | SUAC | Tyr | Val |
|------------------|-------|-------|--------|--------|-------|------|-------|--------|
| N* | 228 | 258 | 287 | 261 | 339 | 139 | 284 | 255 |
| Outliers | 9 | 7 | 8 | 17 | 27 | 8 | 7 | 9 |
| Mean | 10.67 | 21.46 | 181.48 | 137.30 | 58.28 | 0.43 | 89.65 | 159.55 |
| UL (95%) | 18.3 | 29.4 | 251.3 | 176.4 | 81.6 | 1.0 | 120.6 | 214.9 |
| LL (95%) | 3.0 | 13.5 | 111.7 | 98.2 | 35.0 | 0.0 | 58.7 | 104.2 |

| Specimen 2010505 | Arg | Cit | Leu | Met | Phe | SUAC | Tyr | Val |
|------------------|-------|-------|--------|-------|-------|-------|--------|--------|
| N* | 227 | 256 | 287 | 267 | 336 | 139 | 282 | 256 |
| Outliers | 10 | 9 | 8 | 11 | 30 | 10 | 8 | 8 |
| Mean | 10.15 | 20.86 | 178.21 | 22.30 | 58.46 | 15.02 | 705.58 | 155.65 |
| UL (95%) | 17.3 | 28.2 | 245.2 | 30.3 | 83.9 | 24.1 | 931.8 | 205.9 |
| LL (95%) | 3.0 | 13.6 | 111.2 | 14.3 | 33.0 | 5.9 | 479.3 | 105.4 |

*Outliers are not included in N. UL = upper limit LL = lower limit

Overall Statistics
(Calculations based on All Labs, All Methods)
Year: 2020 Quarter: 1
Hormones and Galactose

| Specimen 2010101 | T4 | TSH | 17OHP | TGal |
|------------------|------|------|-------|------|
| N* | 69 | 294 | 235 | 175 |
| Outliers | 5 | 12 | 15 | 2 |
| Mean | 13.6 | 9.0 | 5.2 | 3.0 |
| UL (95%) | 18.0 | 12.9 | 7.8 | 6.4 |
| LL (95%) | 9.2 | 5.2 | 2.5 | 0.0 |

| Specimen 2010102 | T4 | TSH | 17OHP | TGal |
|------------------|------|------|-------|------|
| N* | 69 | 293 | 240 | 169 |
| Outliers | 5 | 13 | 12 | 7 |
| Mean | 13.7 | 6.8 | 5.9 | 24.9 |
| UL (95%) | 18.6 | 10.2 | 9.4 | 36.1 |
| LL (95%) | 8.7 | 3.4 | 2.4 | 13.6 |

| Specimen 2010103 | T4 | TSH | 17OHP | TGal |
|------------------|------|------|-------|------|
| N* | 69 | 293 | 236 | 174 |
| Outliers | 5 | 13 | 13 | 3 |
| Mean | 12.9 | 7.3 | 4.7 | 2.5 |
| UL (95%) | 17.2 | 10.9 | 7.5 | 5.7 |
| LL (95%) | 8.6 | 3.6 | 1.9 | 0.0 |

| Specimen 2010104 | T4 | TSH | 17OHP | TGal |
|------------------|------|------|-------|------|
| N* | 69 | 289 | 235 | 174 |
| Outliers | 5 | 17 | 17 | 3 |
| Mean | 13.4 | 7.1 | 79.6 | 2.4 |
| UL (95%) | 18.2 | 10.4 | 105.4 | 5.7 |
| LL (95%) | 8.5 | 3.8 | 53.7 | 0.0 |

| Specimen 2010105 | T4 | TSH | 17OHP | TGal |
|------------------|-----|-------|-------|------|
| N* | 67 | 292 | 241 | 175 |
| Outliers | 3 | 15 | 11 | 2 |
| Mean | 1.7 | 74.2 | 4.9 | 2.8 |
| UL (95%) | 2.8 | 103.6 | 7.3 | 5.9 |
| LL (95%) | 0.7 | 44.7 | 2.4 | 0.0 |

*Outliers are not included in N. UL = upper limit LL = lower limit

Overall Statistics
(Calculations based on All Labs, All Methods)

Year: 2020 Quarter: 1

Immunoreactive Trypsinogen

| Specimen 2010801 | IRT |
|------------------|------|
| N* | 214 |
| Outliers | 13 |
| Mean | 12.4 |
| UL (95%) | 22.8 |
| LL (95%) | 2.1 |

| Specimen 2010802 | IRT |
|------------------|-------|
| N* | 216 |
| Outliers | 16 |
| Mean | 102.9 |
| UL (95%) | 160.9 |
| LL (95%) | 44.9 |

| Specimen 2010803 | IRT |
|------------------|-------|
| N* | 215 |
| Outliers | 17 |
| Mean | 149.0 |
| UL (95%) | 210.3 |
| LL (95%) | 87.6 |

| Specimen 2010804 | IRT |
|------------------|------|
| N* | 216 |
| Outliers | 9 |
| Mean | 10.8 |
| UL (95%) | 19.0 |
| LL (95%) | 2.6 |

| Specimen 2010805 | IRT |
|------------------|------|
| N* | 213 |
| Outliers | 14 |
| Mean | 14.4 |
| UL (95%) | 26.5 |
| LL (95%) | 2.4 |

*Outliers are not included in N. UL = upper limit LL = lower limit