

LIFESPAN REFERENCE DATA FOR TEN MEASURES OF ARTICULATION  
COMPETENCE USING THE SPEECH DISORDERS CLASSIFICATION SYSTEM (SDCS)

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This report provides reference data from the Phonology Project database for speakers from ages 3 - 40+ years. Speakers are divided by their classification on the Speech Disorders Classification System (SDCS; Shriberg, 1993; Shriberg, Austin, Lewis, McSweeny, & Wilson, 1997b). Data are presented for 10 measures of articulation competence, including the Percentage of Consonants Correct (PCC) and extensions described in Shriberg, Austin, Lewis, McSweeny, & Wilson (1997a).

### Reference Data

The Phonology Project database includes conversational speech samples from cross-sectional and longitudinal studies conducted in Madison and other cities in Wisconsin as well as samples from children and adults that have been collected in collaborative research in several states. Essentially similar conversational speech protocols and data reduction procedures have been used to obtain, transcribe, and format these speech samples for computerized analysis (Shriberg, 1986, 1993; see Shriberg et al., 1997b, for additional references). With few exceptions, the demographic characteristics of speakers from these studies are middle class, monolingual children and adults speaking General American dialect.

The reference data were assembled from an initial database of 1,386 conversational speech samples. The database was first searched to eliminate conversational samples from children and adults with known developmental disability, cognitive disability, craniofacial anomaly, and/or sensory-motor problems. Additionally, if more than one conversational speech sample was available from a speaker (e.g., from a treatment or longitudinal study), the sample selected for inclusion was either the earliest, the most linguistically representative, or the sample that best met cell size needs for each subgroup in the reference data.

Conversational samples were divided into groups based on the speaker's classification on the Speech Disorders Classification System (SDCS). Rationale and procedures for the SDCS are described in detail in Shriberg (1993) and Shriberg et al. (1997b; see Appendix A). Briefly, the SDCS derives a classification category by comparing a speaker's inventory of sounds and word shapes as well as types of speech errors to tables that list expected performance for each age from two years to nine years; phonemic expectations do not change after the age of nine. Normal or Normalized Speech Acquisition (NSA) is the classification category for all speakers who meet criteria for normal speech at their current age. Speech Delay (SD) is the classification for 2- to 8-year-old children who have age-inappropriate omission and/or substitution errors on four or more sounds or whose Intelligibility Index (II) scores are 75% or lower. If 2- to 5-year-old children meet criteria for SD at their current age but would not meet SD criteria if they were one year younger, they are classified as Questionable Speech Delay (QSD). An intermediate classification, NSA/SD, is used for children who have age-inappropriate omission and/or substitution errors on only two or three sounds, or whose II scores are between 76% and 80% (inclusive). Whereas Residual Errors (RE) is the classification for children and adults who retain speech errors past the age of nine (see below), 6- to 8-year-old children whose error patterns are similar to RE error patterns (i.e., errors are limited to common clinical distortions and substitutions that are perceptually and productively similar to common clinical distortions) are classified as Questionable Residual Errors (QRE).

As described above, Residual Errors (RE) is the classificatory category for speakers who are nine years of age and older and still have speech errors. Three numbered subtypes classify the error patterns: RE-1 is for residual common distortion errors only (as listed in Shriberg, 1993, Appendix),

RE-2 is for residual common distortions and imprecise speech (omissions and substitutions; cf. Shriberg, 1993), and RE-3 is for imprecise speech.

The above classification categories can be modified by square or curly brackets to indicate a marginal classification, by a “-” suffix to indicate age-appropriate errors, by a “+” or “[+]” suffix to indicate uncommon clinical distortion errors, and by an A or B affix to an RE classification to indicate history of previous speech disorder. (See Shriberg et al., 1997b, for discussion of these classification details.) For the reference data in this report, classifications were combined across all of these possible modifications. QSD and SD classifications were also combined.

Four SDCS classification groups were assembled for 3- to 8-year-old children: NSA, NSA/SD, SD, and QRE. Although QSD and SD classifications were combined, QRE was retained as a separate classification group for children ages 6 through 8 years because RE is not used as a classification until 9 years of age. Four classification groups of older children and adults were also assembled: NSA, RE-1, RE-2, and RE-3.

To maximize the validity of the NSA and NSA/SD subgroup data, conversational samples for children with these SDCS classifications were excluded if there were fewer than 100 usable words. Because the SDCS program uses conservative criteria in making classification assignments (i.e., the default is NSA), a sample that was too brief might not have contained a sufficient number of tokens to be classified reliably as one of the SDCS disorder categories.

Finally, each classification group was divided by age and gender. The 3- to 8-year-old children were divided into six single-year age groups and two larger groups, 3;0-5;11 and 6;0-8;11. Adults and older children were divided into four age groups: 9;0-11;11, 12;0-17;11, 18;0-39;11, and 40+.

Each age group was further divided by gender. Table 1 lists cell sizes and ages for each SDCS x Age Group x Gender subgroup.

### Articulation Competence Measures

Reference data are presented for the following 10 measures of articulation competence that can be calculated from a conversational speech sample: Percentage of Consonants Correct (PCC), Percentage of Consonants Correct-Adjusted (PCC-A), Percentage of Consonants Correct-Revised (PCC-R), Percentage of Consonants in the Inventory (PCI), Articulation Competence Index (ACI), Percentage of Vowels/Diphthongs Correct (PVC), Percentage of Vowels/Diphthongs Correct-Revised (PVC-R), Percentage of Phonemes Correct (PPC), Percentage of Phonemes Correct-Revised (PPC-R), and the Intelligibility Index (II). For each of the consonant measures (PCC, PCC-A, PCC-R, ACI, PCI), subscale data are also provided by developmental sound class (Early-8, Middle-8, Late-8). Shriberg et al. (1997a) provides complete descriptions and rationale for each of the measures and subscales.

A brief review of the characteristics of some of these measures may be helpful in interpreting the reference data to follow. For three “original” measures of consonants (PCC), vowels (PVC), or phonemes (PPC) “revised” measures have been derived (i.e., PCC-R, PVC-R, PPC-R). For consonants, there is also an “adjusted” measure (PCC-A). The original, revised, and adjusted measures differ in the way they score speech-sound distortions. The original measures score all omissions, substitutions, and distortions as errors, whereas the revised measures score only omissions and substitutions as errors. The PCC-A makes a further distinction, dividing distortion errors into common clinical distortions and uncommon clinical distortions, and scoring only

omissions, substitutions, and uncommon clinical distortions as errors (see Shriberg, 1993; Shriberg et al., 1997a).

The complete set of reference data includes descriptive statistics for children in single-year age groups from 3 to 8 years and for children/adults grouped into the age ranges of 3-5, 6-8, 9-11, 12-17, 18-39, and 40+. For 3- to 8-year-old children, statistical analysis supported the use of group-wise standard deviations for the NSA children, termed derived standard deviations, to calculate z scores and standard scores for the speech-disordered children (see Shriberg et al., 1997b, Appendix B). As most older speakers approach 100% on the 10 speech measures, z scores and standard scores are meaningless. Therefore, for comparison with persons with nondevelopmental speech problems, the reference data for older speakers include the minimum score for each measure in each subgroup.

## REFERENCES

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Table 1  
Cell Sizes and Ages for the Reference Data by SDCS Classification, Age Group, and Gender

Ages 3;0 - 8;11																
Age Group		NSA			NSA/SD			SD			QRE			All		
		M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
3	n <sup>a</sup>	22	30	52	11	4	15	34	12	46	-	-	-	67	46	113
	M	3;7	3;7	3;7	3;7	3;8	3;8	3;7	3;6	3;6				3;7	3;6	3;7
	SD	0;3	0;3	0;3	0;4	0;2	0;3	0;4	0;3	0;3				0;4	0;3	0;3
4	n	28	19	47	22	13	35	51	24	75	-	-	-	101	56	157
	M	4;4	4;5	4;5	4;6	4;5	4;5	4;5	4;4	4;5				4;5	4;5	4;5
	SD	0;3	0;3	0;3	0;3	0;4	0;3	0;3	0;3	0;3				0;3	0;3	0;3
5	n	59	50	109	20	11	31	39	17	56	-	-	-	118	78	196
	M	5;8	5;7	5;7	5;6	5;6	5;6	5;5	5;5	5;5				5;7	5;6	5;6
	SD	0;3	0;3	0;3	0;4	0;3	0;3	0;3	0;3	0;3				0;3	0;3	0;3
6	n	45	31	76	15	7	22	15	3	18	11	3	14	86	44	130
	M	6;4	6;4	6;4	6;3	6;5	6;4	6;2	6;2	6;2	6;2	6;2	6;2	6;3	6;4	6;4
	SD	0;3	0;3	0;3	0;3	0;3	0;3	0;3	0;2	0;2	0;3	0;2	0;3	0;3	0;3	0;3
7	n	9	14	23	3	1	4	5	1	6	3	0	3	20	16	36
	M	7;4	7;5	7;4	7;7	7;5	7;7	7;8	7;3	7;7	7;7	*	7;7	7;6	7;5	7;5
	SD	0;3	0;3	0;3	0;5	*	0;4	0;2	*	0;3	0;3	*	0;3	0;4	0;3	0;3
8	n	7	7	14	2	1	3	1	0	1	6	1	7	16	9	25
	M	8;5	8;3	8;4	8;4	8;6	8;4	8;5	*	8;5	8;6	8;1	8;5	8;5	8;3	8;4
	SD	0;4	0;2	0;3	0;2	*	0;2	*	*	*	0;4	*	0;4	0;4	0;2	0;3
3-5;11	n	109	99	208	53	28	81	124	53	177	-	-	-	286	180	466
	M	4;11	4;9	4;10	4;8	4;9	4;8	4;6	4;6	4;6				4;8	4;8	4;8
	SD	0;11	0;11	0;11	0;9	0;9	0;9	0;9	0;9	0;9				0;10	0;10	0;10
6-8;11	n	61	52	113	20	9	29	21	4	25	20	4	24	122	69	191
	M	6;9	6;11	6;10	6;8	6;9	6;8	6;8	6;6	6;7	7;1	6;8	7;0	6;9	6;10	6;9
	SD	0;9	0;9	0;9	0;9	0;9	0;9	0;9	0;7	0;9	1;1	1;0	1;1	0;10	0;9	0;10
Total		170	151	321	73	37	110	145	57	202	20	4	24	408	249	657

  

Ages 9;0 - 40+																
Age Group		NSA			RE-1			RE-2			RE-3			All		
		M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
9-11;11	n	9	5	14	8	11	19	3	5	8	1	0	1	21	21	42
	M	10;3	10;9	10;5	10;3	11;0	10;8	10;5	10;5	10;5	10;2	*	10;2	10;3	10;10	10;6
	SD	0;11	0;7	0;10	0;10	0;10	0;11	0;6	1;0	0;10	*	*	*	0;9	0;10	0;10
12-17;11	n	15	10	25	8	4	12	4	1	5	0	0	0	27	15	42
	M	14;1	14;9	14;4	12;9	13;3	12;11	13;11	14;4	13;12	*	*	*	13;8	14;4	13;11
	SD	1;7	1;8	1;7	0;8	0;10	0;9	0;10	*	0;9	*	*	*	1;5	1;6	1;6
18-39;11	n	25	42	67	3	2	5	0	1	1	0	0	0	28	45	73
	M	34;1	32;4	33;0	36;8	34;5	35;9	*	35;0	35;0	*	*	*	34;5	32;6	33;3
	SD	4;9	5;1	5;0	2;2	2;9	2;5	*	*	*	*	*	*	4;7	5;0	4;11
40+	n	9	9	18	1	2	3	1	0	1	0	0	0	11	11	22
	M	44;1	43;7	43;10	49;6	42;6	44;10	50;0	*	50;0	*	*	*	45;1	43;4	44;3
	SD	5;11	3;1	4;7	*	2;1	4;4	*	*	*	*	*	*	5;9	2;10	4;6
Total		58	66	124	20	19	39	8	7	15	1	0	1	87	92	179

<sup>a</sup> n: cell size

M: mean age in years; months

SD: standard deviation of age in years; months



## ABBREVIATIONS

The following abbreviations are used in the reference data tables which follow.

### SDCS Classifications:

NSA: Normal Speech Acquisition; QRE: Questionable Residual Errors; NSA/SD: between NSA and Speech Delay; SD: Speech Delay; RE-1: Residual Errors type 1; RE-2: Residual Errors type 2; RE-3: Residual Errors type 3. See text and Shriberg et al. (1997b) for descriptions of the SDCS and its classification categories

### Metrics:

PCC: Percentage of Consonants Correct; PCC-A: Percentage of Consonants Correct-Adjusted; PCC-R: Percentage of Consonants Correct-Revised; ACI: Articulation Competence Index; PCI: Percentage of Consonants in the Inventory; PVC: Percentage of Vowels Correct; PVC-R: Percentage of Vowels Correct-Revised; PPC: Percentage of Phonemes Correct; PPC-R: Percentage of Phonemes Correct-Revised; II: Intelligibility Index. See text and Shriberg et al. (1997a) for descriptions of all measures.

### Developmental Sound Class:

DC: Developmental Sound Class; E: Early-8; M: Middle-8; L: Late-8; T: Total for all consonants. See Shriberg (1993) and Shriberg et al. (1997a) for discussion.

### Statistics:

M: mean; SD1: sample standard deviation; SD2: derived standard deviation; Z: z score; S: standard score; Min: minimum score. See Shriberg et al. (1997b) for discussion of statistical analysis.

Reference Data: Ages 3;0 - 3;11.

Metric	DC	Male												Female								Both									
		NSA			NSA/SD				SD					NSA			NSA/SD					SD				NSA		NSA/SD		SD	
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	M	SD1	M	SD1		
PCC	E	97.5	2.4	2.3	93.0	3.2	-1.9	90.3	85.1	11.6	-5.4	73.1	97.9	1.9	1.5	95.2	5.1	-1.8	90.8	86.9	11.4	-7.4	63.2	97.7	2.1	93.6	3.7	85.6	11.5		
	M	93.6	6.2	5.1	80.8	7.4	-2.5	87.5	63.4	14.7	-5.9	70.4	94.6	4.7	4.2	76.6	15.8	-4.3	78.4	62.2	14.3	-7.7	61.3	94.2	5.3	79.7	9.8	63.1	14.4		
	L	41.6	13.5	20.7	24.2	15.9	-0.8	95.8	19.6	14.4	-1.1	94.7	49.0	17.4	20.5	34.5	14.1	-0.7	96.4	12.8	13.7	-1.8	91.2	45.9	16.1	26.9	15.6	17.9	14.4		
	T	79.4	6.8	7.9	70.3	7.1	-1.2	94.2	61.9	11.6	-2.2	88.9	80.9	7.1	7.7	73.7	4.9	-1.0	95.2	60.7	9.6	-2.6	86.8	80.3	6.9	71.2	6.6	61.6	11.0		
PCC-A	E	97.5	2.4	2.3	93.0	3.2	-1.9	90.3	85.1	11.6	-5.4	73.1	97.9	1.9	1.5	95.2	5.1	-1.8	90.8	86.9	11.4	-7.4	63.2	97.7	2.1	93.6	3.7	85.6	11.5		
	M	94.3	5.2	4.9	81.3	7.4	-2.7	86.7	63.6	14.7	-6.3	68.6	95.4	4.3	4.1	76.6	15.8	-4.6	76.9	62.2	14.3	-8.1	59.5	94.9	4.7	80.0	9.9	63.2	14.4		
	L	78.2	8.7	11.2	54.5	18.5	-2.1	89.4	33.4	17.8	-4.0	80.0	83.8	11.1	11.1	45.2	6.0	-3.5	82.6	30.6	17.8	-4.8	76.1	81.4	10.4	52.0	16.4	32.7	17.6		
	T	91.0	3.9	4.4	79.4	5.2	-2.6	86.8	65.9	11.5	-5.7	71.5	92.6	4.7	4.3	76.5	4.9	-3.7	81.4	65.5	11.6	-6.3	68.6	91.9	4.4	78.6	5.1	65.8	11.4		
PCC-R	E	98.3	1.5	1.8	94.3	3.1	-2.2	88.8	87.4	9.9	-6.0	69.9	98.3	1.6	1.3	95.6	4.7	-2.1	89.6	89.1	10.7	-7.1	64.6	98.3	1.5	94.6	3.5	87.9	10.0		
	M	96.3	3.2	4.4	85.8	7.0	-2.4	88.1	67.2	13.6	-6.6	66.9	96.8	4.0	4.1	76.9	16.3	-4.8	75.8	66.7	15.4	-7.3	63.3	96.6	3.6	83.5	10.4	67.0	13.9		
	L	81.6	9.0	11.4	57.9	18.7	-2.1	89.6	35.4	18.4	-4.0	79.8	86.9	11.4	11.5	45.4	6.5	-3.6	82.1	32.8	19.5	-4.7	76.6	84.6	10.7	54.6	17.0	34.7	18.5		
	T	92.8	3.1	4.2	82.2	4.4	-2.5	87.3	68.5	10.4	-5.8	71.1	94.3	4.6	4.3	76.9	5.1	-4.0	79.8	68.4	11.8	-6.0	69.9	93.7	4.1	80.8	5.0	68.5	10.7		
ACI	E	95.1	10.2	12.8	62.5	19.3	-2.5	87.3	56.2	18.5	-3.0	84.8	94.9	12.6	6.7	85.2	24.8	-1.4	92.9	66.6	24.4	-4.2	79.0	95.0	11.5	68.6	22.5	58.9	20.5		
	M	80.2	20.0	22.3	52.8	9.1	-1.2	93.9	36.8	8.0	-1.9	90.3	85.5	19.1	21.5	41.0	12.6	-2.1	89.6	38.1	13.7	-2.2	88.9	83.3	19.5	49.7	11.1	37.1	9.6		
	L	54.2	8.3	13.4	33.9	12.7	-1.5	92.5	19.7	10.8	-2.6	87.2	61.0	12.4	13.8	24.8	3.7	-2.6	87.0	18.1	11.4	-3.1	84.5	58.1	11.3	31.4	11.6	19.3	10.9		
	T	70.9	8.1	12.8	53.9	7.5	-1.3	93.4	39.5	7.4	-2.4	87.8	74.5	10.4	13.3	43.0	5.8	-2.4	88.1	40.9	9.9	-2.5	87.4	73.0	9.6	51.0	8.5	39.9	8.0		
PCI	E	100.0	0.0	0.4	100.0	0.0	0.0	100.0	97.1	6.2	-7.3	63.6	100.0	0.0	0.0	98.4	3.1	0.0	*	99.4	1.9	0.0	*	100.0	0.0	99.6	1.6	97.7	5.5		
	M	96.5	5.1	6.0	86.1	11.7	-1.7	91.3	74.8	17.3	-3.6	81.9	97.0	5.6	4.2	86.3	11.2	-2.6	87.1	66.1	16.2	-7.4	63.2	96.8	5.4	86.2	11.1	72.6	17.3		
	L	91.9	11.2	9.2	78.3	17.1	-1.5	92.6	58.2	24.0	-3.7	81.6	94.3	7.8	8.9	69.6	28.8	-2.8	86.0	55.5	30.3	-4.4	78.1	93.3	9.4	76.0	20.1	57.5	25.5		
	T	96.4	3.4	3.9	88.8	6.7	-2.0	90.2	78.2	11.1	-4.7	76.7	97.2	3.6	3.4	85.4	13.5	-3.5	82.5	75.1	12.9	-6.5	67.5	96.9	3.5	87.9	8.6	77.4	11.5		
PVC		94.4	2.7	2.4	91.0	5.4	-1.4	93.0	88.7	8.8	-2.3	88.3	94.3	4.0	3.1	95.5	2.9	0.4	102.0	87.8	6.2	-2.1	89.6	94.3	3.5	92.2	5.2	88.5	8.2		
PVC-R		97.9	1.7	1.8	95.3	4.5	-1.4	93.0	92.1	6.0	-3.2	84.0	98.0	2.7	1.8	97.0	2.0	-0.6	97.1	91.6	5.9	-3.6	82.1	98.0	2.3	95.8	4.0	92.0	5.9		
PPC		85.4	4.6	5.3	78.6	4.7	-1.3	93.5	72.8	10.0	-2.4	88.1	86.3	4.8	5.2	82.6	2.8	-0.7	96.5	72.0	7.4	-2.8	86.2	85.9	4.7	79.6	4.6	72.6	9.3		
PPC-R		94.9	2.2	2.9	87.5	3.6	-2.6	87.2	78.1	8.3	-5.8	71.1	95.8	3.2	2.9	85.0	2.9	-3.7	81.5	78.0	8.6	-6.1	69.3	95.4	2.8	86.9	3.5	78.1	8.3		
II		94.8	3.1	3.0	92.3	5.8	-0.8	95.8	79.5	12.1	-5.1	74.6	96.3	3.0	2.4	91.1	6.2	-2.2	89.0	85.9	10.8	-4.3	78.4	95.7	3.1	92.0	5.7	81.2	12.0		

Reference Data: Ages 4;0 - 4;11.

Metric	DC	Male												Female								Both									
		NSA			NSA/SD				SD					NSA			NSA/SD					SD				NSA		NSA/SD		SD	
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	M	SD1	M	SD1		
PCC	E	97.5	2.1	2.3	95.4	3.9	-0.9	95.5	89.6	6.7	-3.4	82.9	98.2	1.2	1.5	94.9	5.7	-2.2	89.0	92.2	5.3	-4.0	79.9	97.8	1.8	95.2	4.5	90.5	6.4		
	M	92.5	5.2	5.1	81.6	9.2	-2.1	89.4	65.7	18.4	-5.2	73.8	93.0	3.7	4.2	81.6	11.7	-2.7	86.4	74.7	13.9	-4.3	78.3	92.7	4.6	81.6	10.0	68.6	17.5		
	L	48.5	23.3	20.7	28.4	16.1	-1.0	95.2	22.9	15.9	-1.2	93.8	45.8	17.1	20.5	38.2	22.5	-0.4	98.2	25.4	20.1	-1.0	95.1	47.4	20.8	32.0	19.0	23.7	17.2		
	T	80.2	8.8	7.9	72.2	6.1	-1.0	94.9	65.0	9.8	-1.9	90.5	80.3	6.1	7.7	75.7	8.3	-0.6	97.0	69.0	7.9	-1.5	92.6	80.2	7.7	73.5	7.1	66.3	9.4		
PCC-A	E	97.5	2.1	2.3	95.4	3.9	-0.9	95.5	89.6	6.7	-3.4	82.9	98.2	1.2	1.5	94.9	5.7	-2.2	89.0	92.2	5.3	-4.0	79.9	97.8	1.8	95.2	4.5	90.5	6.4		
	M	93.5	5.3	4.9	81.9	9.2	-2.4	88.2	66.0	18.4	-5.6	71.9	94.2	3.3	4.1	82.8	12.3	-2.8	86.0	74.9	13.9	-4.7	76.5	93.8	4.6	82.2	10.3	68.8	17.5		
	L	81.7	11.6	11.2	53.2	14.8	-2.5	87.3	37.9	18.7	-3.9	80.4	83.3	14.8	11.1	63.4	21.5	-1.8	91.0	39.2	21.2	-4.0	80.2	82.4	12.8	57.0	17.9	38.3	19.4		
	T	91.5	4.9	4.4	79.6	5.5	-2.7	86.5	69.3	10.6	-5.1	74.7	92.6	4.8	4.3	83.2	7.9	-2.2	89.1	72.8	8.7	-4.6	77.0	92.0	4.9	81.0	6.6	70.4	10.1		
PCC-R	E	98.1	1.5	1.8	96.3	2.9	-1.0	95.0	91.2	5.8	-3.8	80.9	98.6	1.1	1.3	96.3	4.1	-1.8	91.0	93.5	5.0	-3.9	80.3	98.3	1.4	96.3	3.4	92.0	5.6		
	M	95.1	5.1	4.4	83.4	9.0	-2.7	86.7	68.9	17.5	-5.9	70.3	96.5	3.3	4.1	86.6	8.9	-2.4	88.0	77.1	13.2	-4.7	76.4	95.7	4.5	84.6	9.0	71.6	16.6		
	L	84.1	11.8	11.4	55.3	14.5	-2.5	87.4	40.2	19.5	-3.9	80.7	85.2	15.5	11.5	65.0	20.2	-1.8	91.2	42.4	20.9	-3.7	81.3	84.6	13.2	58.9	17.2	40.9	19.9		
	T	93.0	4.7	4.2	81.1	4.9	-2.8	85.8	71.4	10.2	-5.1	74.4	94.1	5.3	4.3	85.3	6.5	-2.0	89.8	74.9	8.3	-4.5	77.6	93.4	4.9	82.6	5.8	72.5	9.7		
ACI	E	93.1	13.4	12.8	83.1	20.2	-0.8	96.0	59.5	18.8	-2.6	86.9	98.2	1.2	6.7	87.5	19.2	-1.6	92.1	71.2	23.4	-4.0	79.9	95.2	10.6	84.7	19.6	63.3	20.9		
	M	74.7	21.5	22.3	49.4	16.3	-1.1	94.4	38.1	11.4	-1.6	91.8	82.2	19.1	21.5	55.2	18.1	-1.3	93.7	41.9	9.0	-1.9	90.6	77.7	20.7	51.5	17.0	39.3	10.8		
	L	56.1	12.3	13.4	32.7	11.0	-1.8	91.3	23.0	13.0	-2.5	87.6	58.9	15.9	13.8	40.7	15.3	-1.3	93.5	24.2	13.0	-2.5	87.5	57.2	13.7	35.7	13.2	23.4	12.9		
	T	70.1	11.4	12.8	51.7	7.2	-1.4	92.8	42.2	9.2	-2.2	89.0	74.2	13.8	13.3	56.7	8.5	-1.3	93.5	44.2	7.8	-2.2	88.8	71.8	12.5	53.6	8.0	42.8	8.8		
PCI	E	100.0	0.0	0.4	100.0	0.0	0.0	100.0	98.4	5.1	-4.0	80.1	100.0	0.0	0.0	100.0	0.0	0.0	*	99.5	2.6	0.0	*	100.0	0.0	100.0	0.0	98.8	4.5		
	M	96.9	7.8	6.0	86.3	12.6	-1.8	91.1	78.3	18.4	-3.1	84.4	98.0	3.5	4.2	89.6	12.6	-2.0	90.0	81.5	17.1	-3.9	80.4	97.3	6.4	87.5	12.5	79.3	17.9		
	L	93.7	9.5	9.2	82.0	14.6	-1.3	93.6	66.5	24.3	-3.0	85.2	94.0	11.5	8.9	77.9	20.7	-1.8	91.0	68.4	25.5	-2.9	85.7	93.8	10.2	80.5	17.0	67.1	24.6		
	T	97.1	4.9	3.9	90.2	4.7	-1.8	91.2	82.1	12.4	-3.8	80.8	97.5	3.9	3.4	89.6	9.2	-2.3	88.3	83.7	12.6	-4.0	79.8	97.2	4.5	90.0	6.6	82.6	12.4		
PVC		95.5	2.4	2.4	94.8	2.0	-0.3	98.6	91.9	5.1	-1.5	92.4	95.4	2.3	3.1	93.8	4.5	-0.5	97.3	93.3	3.8	-0.7	96.5	95.5	2.3	94.4	3.1	92.3	4.8		
PVC-R		98.2	2.0	1.8	97.0	1.5	-0.7	96.6	94.4	4.4	-2.1	89.6	98.8	0.9	1.8	95.4	4.3	-1.9	90.7	95.4	3.2	-1.9	90.5	98.4	1.6	96.4	2.9	94.8	4.1		
PPC		86.3	5.7	5.3	81.4	3.8	-0.9	95.4	75.9	6.8	-2.0	90.2	86.4	4.3	5.2	83.1	6.3	-0.6	96.8	78.8	5.9	-1.5	92.7	86.3	5.2	82.0	4.9	76.8	6.7		
PPC-R		95.1	3.3	2.9	87.5	3.1	-2.6	86.9	80.8	6.7	-4.9	75.3	96.0	3.3	2.9	89.4	5.4	-2.3	88.7	83.2	5.8	-4.4	77.9	95.4	3.3	88.2	4.2	81.5	6.5		
II		96.7	3.5	3.0	93.0	3.9	-1.2	93.9	87.4	11.4	-3.1	84.5	97.0	2.3	2.4	93.8	5.4	-1.3	93.3	90.7	8.2	-2.6	86.8	96.8	3.0	93.3	4.5	88.5	10.5		

Reference Data: Ages 5;0 - 5;11.

Metric	DC	Male												Female								Both									
		NSA			NSA/SD				SD					NSA			NSA/SD					SD				NSA		NSA/SD		SD	
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	M	SD1	M	SD1		
PCC	E	97.4	2.4	2.3	94.8	2.5	-1.2	94.2	87.1	8.1	-4.5	77.6	98.5	1.3	1.5	94.5	4.4	-2.7	86.7	86.3	9.5	-8.1	59.4	97.9	2.0	94.7	3.2	86.8	8.5		
	M	92.7	4.3	5.0	85.1	10.0	-1.5	92.4	65.6	15.4	-5.4	72.9	94.4	4.2	4.2	87.4	7.3	-1.7	91.7	61.8	18.4	-7.8	61.2	93.4	4.3	85.9	9.1	64.5	16.3		
	L	67.5	19.9	20.6	52.6	22.6	-0.7	96.4	25.9	16.7	-2.0	89.9	68.0	22.0	20.6	55.6	13.3	-0.6	97.0	28.8	19.7	-1.9	90.5	67.7	20.8	53.7	19.6	26.8	17.5		
	T	86.9	7.2	7.9	81.1	7.2	-0.7	96.3	64.0	9.4	-2.9	85.5	87.3	8.2	7.6	81.3	5.7	-0.8	96.1	63.0	13.1	-3.2	84.1	87.1	7.7	81.2	6.6	63.7	10.6		
PCC-A	E	97.4	2.4	2.3	94.8	2.5	-1.2	94.2	87.1	8.1	-4.5	77.6	98.5	1.3	1.5	94.5	4.4	-2.7	86.7	86.3	9.5	-8.1	59.4	97.9	2.0	94.7	3.2	86.8	8.5		
	M	93.0	4.4	4.9	85.1	10.0	-1.6	91.8	65.9	15.6	-5.5	72.3	95.0	4.6	4.1	87.4	7.3	-1.9	90.7	61.9	18.4	-8.1	59.6	93.9	4.6	85.9	9.1	64.7	16.5		
	L	83.2	12.4	11.7	63.3	20.3	-1.7	91.5	44.5	19.6	-3.3	83.5	88.8	8.3	11.2	69.6	9.8	-1.7	91.5	40.6	18.6	-4.3	78.4	85.8	11.0	65.6	17.4	43.3	19.2		
	T	92.1	4.4	4.6	84.0	6.3	-1.8	91.2	69.4	10.6	-4.9	75.3	94.6	3.4	4.2	85.3	4.8	-2.2	89.0	66.2	13.1	-6.8	66.2	93.2	4.2	84.5	5.8	68.4	11.4		
PCC-R	E	97.9	2.2	1.8	95.3	2.4	-1.4	92.8	89.0	7.7	-4.9	75.3	98.8	1.2	1.3	95.5	2.7	-2.5	87.4	88.1	7.9	-8.2	58.9	98.3	1.9	95.4	2.5	88.7	7.7		
	M	93.8	4.6	4.5	86.1	9.5	-1.7	91.5	69.2	14.8	-5.5	72.6	95.4	4.5	4.0	87.9	7.4	-1.9	90.6	64.3	17.3	-7.8	61.0	94.5	4.6	86.8	8.7	67.7	15.6		
	L	84.5	12.5	11.9	64.5	20.3	-1.7	91.6	46.4	19.6	-3.2	84.0	90.2	8.7	11.6	70.2	9.6	-1.7	91.4	42.3	18.4	-4.1	79.4	87.1	11.2	66.5	17.3	45.2	19.2		
	T	92.9	4.5	4.4	84.9	6.0	-1.8	90.9	71.8	9.6	-4.8	76.0	95.3	3.5	4.4	86.1	4.4	-2.1	89.5	68.2	12.2	-6.1	69.2	94.0	4.2	85.3	5.4	70.7	10.5		
ACI	E	93.3	13.8	13.3	73.6	24.0	-1.5	92.6	57.2	18.6	-2.7	86.4	98.0	3.9	6.7	85.3	20.6	-1.9	90.5	57.6	20.3	-6.0	69.9	95.5	10.7	77.7	23.2	57.3	19.0		
	M	68.7	23.9	22.6	52.2	19.3	-0.7	96.3	38.4	10.3	-1.3	93.3	77.7	24.5	21.4	51.1	17.4	-1.2	93.8	34.3	10.0	-2.0	89.9	72.8	24.5	51.8	18.4	37.2	10.3		
	L	58.6	16.7	13.7	38.8	14.2	-1.4	92.8	26.8	12.6	-2.3	88.4	64.6	13.5	13.9	43.9	8.7	-1.5	92.5	23.9	11.3	-2.9	85.4	61.3	15.5	40.6	12.6	25.9	12.2		
	T	66.1	16.0	13.0	50.0	6.9	-1.2	93.8	43.1	8.5	-1.8	91.2	74.4	15.0	13.2	53.0	5.8	-1.6	91.9	38.9	8.7	-2.7	86.5	69.9	16.1	51.0	6.6	41.8	8.7		
PCI	E	99.9	0.8	0.4	100.0	0.0	0.2	101.0	97.6	6.2	-5.8	71.0	100.0	0.0	0.0	100.0	0.0	0.0	*	96.6	7.9	0.0	*	99.9	0.6	100.0	0.0	97.3	6.7		
	M	97.4	5.2	6.4	88.9	12.6	-1.3	93.4	80.7	13.0	-2.6	86.9	98.5	3.5	4.3	95.3	6.0	-0.7	96.5	73.1	14.3	-5.9	70.6	97.9	4.5	91.2	11.0	78.4	13.7		
	L	95.1	7.6	9.3	85.6	14.9	-1.0	94.8	71.7	23.9	-2.5	87.4	96.1	7.9	8.8	93.0	10.0	-0.4	98.1	70.9	20.5	-2.9	85.6	95.6	7.7	88.2	13.7	71.4	22.8		
	T	97.6	3.4	4.0	92.2	6.6	-1.3	93.3	84.3	11.2	-3.3	83.3	98.3	2.9	3.4	96.3	3.8	-0.6	97.1	81.1	9.8	-5.1	74.6	97.9	3.2	93.7	6.0	83.3	10.8		
PVC		97.2	2.0	2.5	95.8	2.2	-0.6	97.1	91.7	5.0	-2.2	88.9	97.2	2.4	3.0	95.7	2.4	-0.5	97.5	91.6	4.9	-1.9	90.7	97.2	2.2	95.7	2.2	91.6	4.9		
PVC-R		98.6	1.6	1.8	97.4	2.0	-0.7	96.7	94.3	4.3	-2.4	88.0	98.9	1.5	1.8	97.5	2.3	-0.8	96.0	94.1	4.2	-2.7	86.6	98.7	1.6	97.4	2.1	94.2	4.2		
PPC		91.0	4.8	5.3	87.0	5.0	-0.7	96.3	75.2	7.1	-3.0	85.1	91.2	5.5	5.3	87.0	3.7	-0.8	96.0	74.7	8.9	-3.1	84.4	91.1	5.1	87.0	4.5	75.1	7.6		
PPC-R		95.2	3.2	3.1	90.0	4.0	-1.7	91.6	80.9	6.9	-4.6	76.9	96.8	2.4	2.9	90.6	3.2	-2.2	89.2	78.8	8.1	-6.2	68.9	95.9	2.9	90.2	3.7	80.3	7.3		
II		97.7	2.3	4.4	94.5	4.4	-0.7	96.3	88.8	12.6	-2.0	89.9	98.5	1.6	3.0	97.3	2.4	-0.4	97.9	91.1	9.2	-2.5	87.5	98.1	2.0	95.5	4.0	89.5	11.7		

Reference Data: Ages 3;0 - 5;11

Metric	DC	Male						Female						Both					
		NSA		NSA/SD		SD		NSA		NSA/SD		SD		NSA		NSA/SD		SD	
		M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1
PCC	E	97.5	2.3	94.7	3.3	87.6	8.9	98.2	1.5	94.8	4.9	89.1	8.7	97.8	2.0	94.7	3.9	88.0	8.8
	M	92.8	5.0	82.8	9.2	65.1	16.4	94.2	4.3	83.2	11.1	67.8	16.5	93.5	4.7	82.9	9.8	65.9	16.4
	L	57.4	22.6	36.6	22.3	22.9	15.8	58.0	22.2	44.5	19.9	23.6	19.3	57.7	22.3	39.4	21.7	23.1	16.9
	T	83.7	8.3	75.2	8.1	63.9	10.2	84.0	8.2	77.6	7.4	65.2	10.6	83.8	8.2	76.0	7.9	64.3	10.3
PCC-A	E	97.5	2.3	94.7	3.3	87.6	8.9	98.2	1.5	94.8	4.9	89.1	8.7	97.8	2.0	94.7	3.9	88.0	8.8
	M	93.4	4.8	83.0	9.2	65.3	16.5	94.9	4.2	83.7	11.3	67.8	16.6	94.1	4.6	83.2	9.9	66.1	16.5
	L	81.8	11.6	57.3	18.1	38.7	19.1	86.2	10.9	63.2	17.6	37.7	19.7	83.9	11.4	59.3	18.0	38.4	19.2
	T	91.7	4.4	81.2	6.1	68.4	10.9	93.6	4.2	83.1	6.9	69.1	11.3	92.6	4.4	81.9	6.4	68.6	11.0
PCC-R	E	98.1	1.9	95.5	2.8	89.5	7.8	98.6	1.3	95.9	3.6	90.8	7.8	98.3	1.7	95.6	3.1	89.9	7.8
	M	94.6	4.6	84.9	8.8	68.5	15.6	96.0	4.2	85.7	9.9	70.7	16.0	95.3	4.4	85.2	9.1	69.2	15.7
	L	83.8	11.6	59.3	17.9	40.8	19.6	88.3	11.2	64.3	17.0	40.2	19.8	85.9	11.6	61.0	17.6	40.6	19.6
	T	92.9	4.3	82.7	5.4	70.8	10.1	94.8	4.2	84.4	6.2	71.3	10.8	93.8	4.3	83.3	5.7	70.9	10.3
ACI	E	93.6	13.0	75.2	22.5	57.9	18.6	97.1	7.5	86.3	19.8	65.8	23.0	95.3	10.9	79.1	22.1	60.3	20.3
	M	72.6	22.8	51.1	16.2	37.8	10.2	80.9	22.1	51.5	17.2	38.6	10.9	76.6	22.8	51.3	16.5	38.1	10.4
	L	57.1	14.3	35.2	12.7	23.3	12.5	62.4	13.7	39.7	13.2	22.7	12.2	59.6	14.2	36.8	13.0	23.1	12.4
	T	68.1	13.7	51.5	7.2	41.7	8.6	74.4	13.4	53.3	8.4	41.8	8.8	71.1	13.9	52.1	7.6	41.7	8.6
PCI	E	99.9	0.6	100.0	0.0	97.8	5.7	100.0	0.0	99.8	1.2	98.6	4.9	100.0	0.4	99.9	0.7	98.0	5.5
	M	97.0	5.9	87.2	12.3	78.1	16.6	97.9	4.3	91.4	10.5	75.3	16.9	97.5	5.2	88.7	11.8	77.3	16.7
	L	94.1	8.9	82.6	15.2	65.9	24.5	95.2	8.6	82.7	20.0	66.3	25.4	94.6	8.8	82.6	16.9	66.0	24.7
	T	97.2	3.8	90.7	5.9	81.7	11.8	97.8	3.3	91.6	8.9	80.9	12.1	97.5	3.6	91.0	7.1	81.5	11.9
PVC		96.2	2.5	94.4	3.5	90.9	6.4	96.0	3.2	94.8	3.6	91.5	5.1	96.1	2.9	94.5	3.5	91.1	6.1
PVC-R		98.3	1.7	96.8	2.6	93.8	4.9	98.6	1.9	96.5	3.4	94.1	4.4	98.5	1.8	96.7	2.9	93.9	4.8
PPC		88.7	5.6	83.0	5.5	74.8	7.9	88.8	5.6	84.5	5.3	76.0	7.7	88.7	5.6	83.5	5.5	75.2	7.9
PPC-R		95.1	3.0	88.4	3.7	80.1	7.3	96.3	2.9	89.3	4.6	80.6	7.5	95.7	3.0	88.7	4.0	80.3	7.3
II		96.9	3.0	93.4	4.5	85.7	12.5	97.5	2.4	94.8	4.9	89.7	9.2	97.2	2.7	93.9	4.7	86.9	11.7

Reference Data: Ages 6;0 - 6;11.

		Male															
Metric	DC	NSA			QRE				NSA/SD				SD				
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	Z	S	
PCC	E	97.4	1.7	1.7	97.4	2.9	0.0	100.0	95.3	2.6	-1.3	93.7	87.7	9.2	-5.7	71.5	
	M	93.3	4.9	4.8	94.8	2.9	0.3	101.5	87.2	7.5	-1.3	93.6	67.1	21.6	-5.4	72.8	
	L	79.1	12.3	12.2	59.5	11.3	-1.6	92.0	58.9	21.5	-1.7	91.7	26.3	19.1	-4.3	78.3	
	T	90.9	4.2	4.3	85.3	4.3	-1.3	93.5	82.1	7.9	-2.0	89.8	66.2	12.6	-5.7	71.3	
PCC-A	E	97.4	1.7	1.7	97.4	2.9	0.0	100.0	95.3	2.6	-1.3	93.7	87.7	9.2	-5.7	71.5	
	M	93.4	4.8	4.7	95.1	3.1	0.4	101.8	87.6	6.7	-1.2	93.8	67.2	21.7	-5.6	72.2	
	L	87.3	6.3	6.3	75.5	10.6	-1.9	90.6	75.4	14.2	-1.9	90.5	39.7	21.2	-7.5	62.3	
	T	93.3	2.8	2.9	90.2	4.0	-1.1	94.7	87.3	5.5	-2.1	89.6	69.9	13.7	-8.1	59.6	
PCC-R	E	97.9	1.6	1.6	97.8	3.0	-0.1	99.7	95.8	2.7	-1.3	93.5	89.1	8.0	-5.5	72.4	
	M	94.1	4.4	4.4	96.0	3.2	0.4	102.1	88.4	6.7	-1.3	93.5	69.4	21.5	-5.6	71.9	
	L	88.7	6.4	6.3	75.8	10.5	-2.0	89.8	76.5	14.2	-1.9	90.4	44.0	21.4	-7.1	64.6	
	T	94.1	2.9	3.0	90.7	3.7	-1.1	94.4	88.1	5.5	-2.0	90.0	72.1	13.0	-7.3	63.4	
ACI	E	94.1	12.3	11.5	89.1	21.3	-0.4	97.8	78.0	24.3	-1.4	93.0	54.7	18.4	-3.4	82.9	
	M	72.9	24.0	23.8	74.8	23.6	0.1	100.4	54.5	18.3	-0.8	96.2	37.8	13.4	-1.5	92.6	
	L	61.6	15.3	15.1	50.4	10.6	-0.7	96.3	49.5	14.8	-0.8	96.0	25.9	14.3	-2.4	88.1	
	T	66.9	15.8	17.2	61.5	7.9	-0.3	98.4	56.6	10.8	-0.6	97.0	43.0	10.4	-1.4	93.1	
PCI	E	99.9	0.9	0.9	100.0	0.0	0.1	100.5	100.0	0.0	0.1	100.5	96.6	6.0	-3.7	81.6	
	M	97.1	4.0	3.8	99.4	2.1	0.6	103.1	95.0	6.8	-0.5	97.3	71.1	23.1	-6.8	65.8	
	L	97.3	5.0	4.9	93.7	8.2	-0.7	96.5	92.0	10.5	-1.1	94.7	65.9	30.1	-6.4	67.9	
	T	98.2	2.2	2.1	97.8	2.9	-0.1	99.3	95.9	4.5	-1.1	94.6	79.3	14.9	-9.0	55.1	
PVC		98.1	1.8	1.7	95.5	1.5	-1.5	92.3	96.6	2.0	-0.9	95.5	87.3	8.0	-6.3	68.3	
PVC-R		99.0	1.2	1.2	97.8	1.3	-1.0	94.8	98.1	1.1	-0.8	96.1	91.4	7.7	-6.4	68.2	
PPC		93.7	3.1	3.1	89.4	2.8	-1.4	93.0	87.9	5.1	-1.9	90.7	74.7	9.7	-6.1	69.4	
PPC-R		96.1	1.9	2.0	93.5	2.1	-1.3	93.7	92.1	3.5	-2.0	89.9	79.9	10.2	-8.1	59.6	
II		98.3	1.6	1.6	97.5	1.9	-0.5	97.5	96.6	2.9	-1.1	94.7	89.3	11.3	-5.7	71.7	

  

		Female															
Metric	DC	NSA			QRE				NSA/SD				SD				
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	Z	S	
PCC	E	97.7	1.9	1.8	97.4	1.9	-0.1	99.3	97.2	1.5	-0.3	98.6	91.6	8.0	-3.3	83.3	
	M	94.2	4.8	4.6	93.5	3.0	-0.2	99.2	93.8	3.9	-0.1	99.6	69.6	27.2	-5.4	73.2	
	L	80.7	12.9	12.4	59.5	27.9	-1.7	91.3	63.5	16.4	-1.4	92.9	42.7	20.5	-3.1	84.7	
	T	91.6	4.7	4.6	84.2	10.4	-1.6	91.8	86.3	3.2	-1.2	94.1	72.7	13.7	-4.1	79.5	
PCC-A	E	97.7	1.9	1.8	97.4	1.9	-0.1	99.3	97.2	1.5	-0.3	98.6	91.6	8.0	-3.3	83.3	
	M	94.3	4.9	4.6	93.5	3.0	-0.2	99.0	93.8	3.9	-0.1	99.5	69.6	27.2	-5.4	73.2	
	L	90.4	6.2	5.9	80.0	7.4	-1.7	91.3	75.4	14.9	-2.5	87.4	57.2	13.4	-5.6	72.0	
	T	94.6	3.2	3.1	90.9	3.6	-1.2	94.0	89.9	3.4	-1.5	92.4	76.4	13.6	-5.9	70.7	
PCC-R	E	98.2	1.7	1.6	97.8	1.5	-0.3	98.7	97.5	1.3	-0.5	97.6	93.3	5.4	-3.1	84.7	
	M	94.5	4.5	4.3	93.7	3.3	-0.2	99.0	94.5	3.8	0.0	100.0	70.2	27.4	-5.7	71.7	
	L	90.9	6.0	5.8	80.2	7.4	-1.8	90.8	76.0	15.0	-2.6	87.1	57.2	13.4	-5.8	71.0	
	T	95.0	3.1	3.0	91.1	3.6	-1.3	93.7	90.4	3.4	-1.5	92.4	77.4	12.3	-5.9	70.7	
ACI	E	95.4	10.7	9.6	97.4	1.9	0.2	101.0	97.2	1.5	0.2	100.9	67.1	27.8	-3.0	85.2	
	M	72.8	25.1	24.9	62.8	29.0	-0.4	98.0	76.9	24.6	0.2	100.9	36.1	14.3	-1.5	92.7	
	L	65.4	12.6	14.5	51.8	7.3	-0.9	95.3	50.9	14.5	-1.0	95.0	32.8	7.9	-2.2	88.8	
	T	72.9	16.1	16.8	60.9	2.6	-0.7	96.3	58.9	6.5	-0.8	95.9	45.3	10.4	-1.7	91.7	
PCI	E	99.8	1.1	1.0	100.0	0.0	0.2	101.0	100.0	0.0	0.2	101.0	100.0	0.0	0.2	101.0	
	M	98.4	3.9	4.0	97.9	3.6	-0.1	99.3	97.2	3.5	-0.3	98.4	95.4	4.1	-0.8	96.2	
	L	96.6	6.4	6.4	97.2	4.8	0.1	100.3	90.6	6.7	-0.9	95.3	90.0	11.3	-1.0	94.8	
	T	98.4	2.6	2.6	98.5	2.6	0.0	100.2	96.1	2.4	-0.9	95.6	95.9	4.0	-1.0	95.2	
PVC		98.1	1.6	1.5	93.9	1.0	-2.8	86.0	96.3	2.2	-1.2	93.9	90.5	6.5	-5.1	74.7	
PVC-R		99.1	1.0	0.9	96.5	2.0	-2.9	85.5	97.8	2.1	-1.4	92.9	93.6	3.2	-6.1	69.7	
PPC		94.2	3.2	3.1	88.0	5.9	-2.0	90.0	90.2	2.2	-1.3	93.5	79.9	10.5	-4.6	77.0	
PPC-R		96.6	2.1	2.0	93.2	1.9	-1.7	91.5	93.3	2.4	-1.6	91.9	83.9	8.0	-6.3	68.3	
II		98.5	1.9	1.8	99.3	0.7	0.4	102.0	97.9	1.6	-0.3	98.3	94.9	4.4	-2.0	90.0	

Reference Data: Ages 6;0 - 6;11.

		Both							
		NSA		QRE		NSA/SD		SD	
Metric	DC	M	SD1	M	SD1	M	SD1	M	SD1
PCC	E	97.5	1.8	97.4	2.6	95.9	2.4	88.4	9.0
	M	93.7	4.9	94.5	2.9	89.3	7.2	67.6	21.7
	L	79.8	12.5	59.5	14.8	60.4	19.8	29.0	19.7
	T	91.2	4.4	85.1	5.6	83.4	6.9	67.3	12.6
PCC-A	E	97.5	1.8	97.4	2.6	95.9	2.4	88.4	9.0
	M	93.8	4.8	94.7	3.1	89.6	6.6	67.6	21.8
	L	88.6	6.4	76.5	9.9	75.4	14.0	42.6	20.9
	T	93.8	3.0	90.3	3.8	88.1	5.0	70.9	13.5
PCC-R	E	98.0	1.7	97.8	2.7	96.4	2.5	89.8	7.6
	M	94.3	4.4	95.5	3.2	90.3	6.5	69.5	21.7
	L	89.6	6.3	76.8	9.8	76.4	14.1	46.2	20.6
	T	94.5	3.0	90.8	3.6	88.8	5.0	73.0	12.7
ACI	E	94.7	11.6	90.9	19.1	84.1	21.8	56.8	19.8
	M	72.9	24.3	72.2	24.1	61.6	22.6	37.5	13.1
	L	63.2	14.3	50.7	9.8	49.9	14.4	27.1	13.5
	T	69.3	16.1	61.3	7.0	57.4	9.5	43.3	10.2
PCI	E	99.8	1.0	100.0	0.0	100.0	0.0	97.2	5.6
	M	97.7	4.0	99.1	2.4	95.7	5.9	75.1	23.0
	L	97.0	5.6	94.5	7.6	91.6	9.3	69.9	29.1
	T	98.3	2.4	98.0	2.8	96.0	3.9	82.1	15.0
PVC		98.1	1.7	95.1	1.6	96.5	2.0	87.9	7.7
PVC-R		99.1	1.1	97.5	1.5	98.0	1.4	91.8	7.1
PPC		93.9	3.1	89.1	3.4	88.6	4.5	75.6	9.7
PPC-R		96.3	2.0	93.5	2.0	92.4	3.2	80.6	9.8
II		98.4	1.7	97.9	1.9	97.0	2.6	90.2	10.6

Reference Data: Ages 7;0 - 7;11.

		Male															
Metric	DC	NSA			QRE				NSA/SD				SD				
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	Z	S	
PCC	E	98.1	0.9	1.7	99.7	0.4	0.9	104.5	95.6	1.1	-1.5	92.7	87.0	13.0	-6.6	67.2	
	M	96.6	3.8	4.8	93.5	5.4	-0.6	96.8	89.0	8.2	-1.6	92.2	70.5	15.1	-5.4	72.9	
	L	91.6	4.5	12.2	48.5	22.4	-3.5	82.3	74.7	18.5	-1.4	93.0	34.3	24.5	-4.7	76.5	
	T	95.7	2.3	4.3	82.1	8.5	-3.2	84.0	86.8	8.1	-2.1	89.7	68.1	14.5	-6.4	67.8	
PCC-A	E	98.1	0.9	1.7	99.7	0.4	0.9	104.5	95.6	1.1	-1.5	92.7	87.0	13.0	-6.6	67.2	
	M	96.6	3.8	4.7	94.1	4.3	-0.5	97.3	89.0	8.2	-1.6	92.0	70.7	14.9	-5.5	72.5	
	L	93.7	3.9	6.3	87.4	1.7	-1.0	95.0	82.2	12.5	-1.8	90.8	39.5	26.9	-8.6	57.1	
	T	96.4	2.1	2.9	94.3	1.1	-0.7	96.5	89.4	6.1	-2.4	88.0	69.6	15.0	-9.2	53.9	
PCC-R	E	98.6	0.8	1.6	99.7	0.4	0.7	103.3	95.6	1.1	-1.9	90.5	87.7	12.1	-6.8	65.9	
	M	97.1	3.4	4.4	94.5	3.8	-0.6	97.0	89.6	8.1	-1.7	91.5	74.6	11.6	-5.1	74.4	
	L	94.5	4.3	6.3	88.0	1.3	-1.1	94.7	82.2	12.5	-2.0	90.2	41.1	25.4	-8.5	57.6	
	T	96.9	2.1	3.0	94.6	0.9	-0.8	96.0	89.6	6.0	-2.4	87.8	71.5	13.5	-8.5	57.6	
ACI	E	98.1	0.9	11.5	99.7	0.4	0.1	100.7	79.8	28.3	-1.6	92.2	55.4	25.2	-3.7	81.4	
	M	87.5	21.5	23.8	82.8	23.9	-0.2	98.8	61.1	29.8	-1.1	94.5	40.9	7.3	-1.9	90.3	
	L	66.8	15.9	15.1	60.2	4.0	-0.4	97.8	50.0	12.0	-1.1	94.5	23.5	16.4	-2.9	85.6	
	T	87.8	17.4	17.2	73.5	3.9	-0.8	95.8	52.4	5.2	-2.1	89.7	40.1	10.1	-2.8	86.1	
PCI	E	100.0	0.0	0.9	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	
	M	99.3	2.1	3.8	100.0	0.0	0.2	101.0	92.5	7.7	-1.8	91.0	82.0	16.1	-4.5	77.3	
	L	97.6	5.1	4.9	97.4	4.4	-0.0	99.8	97.8	3.9	0.0	100.2	62.4	23.7	-7.2	64.0	
	T	99.0	1.7	2.1	99.2	1.3	0.1	100.7	96.9	1.5	-1.0	94.8	83.3	10.5	-7.5	62.5	
PVC		98.3	1.2	1.7	97.1	0.2	-0.7	96.5	96.4	3.5	-1.1	94.3	89.8	8.4	-5.0	75.0	
PVC-R		99.1	0.9	1.2	99.0	1.2	-0.1	99.5	97.0	3.5	-1.7	91.3	93.5	5.1	-4.7	76.5	
PPC		96.7	1.6	3.1	88.1	5.1	-2.8	86.2	90.7	6.3	-2.0	90.2	76.8	10.9	-6.4	67.9	
PPC-R		97.8	1.3	2.0	96.3	0.8	-0.7	96.3	92.5	5.0	-2.6	87.0	80.4	9.6	-8.7	56.4	
II		99.5	0.6	1.6	97.2	2.2	-1.4	92.8	98.4	1.5	-0.7	96.7	84.9	14.8	-9.1	54.5	

  

		Female															
Metric	DC	NSA			QRE				NSA/SD				SD				
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	Z	S	
PCC	E	99.0	0.7	1.8	*	*	*	*	100.0	*	0.6	103.0	87.9	*	-6.2	69.0	
	M	95.9	2.7	4.6	*	*	*	*	80.0	*	-3.5	82.5	76.7	*	-4.2	79.0	
	L	91.4	6.2	12.4	*	*	*	*	64.6	*	-2.2	89.0	42.6	*	-4.0	80.0	
	T	95.8	2.5	4.6	*	*	*	*	83.5	*	-2.7	86.5	74.5	*	-4.6	77.0	
PCC-A	E	99.0	0.7	1.8	*	*	*	*	100.0	*	0.6	103.0	87.9	*	-6.2	69.0	
	M	95.9	2.7	4.6	*	*	*	*	80.0	*	-3.5	82.5	76.7	*	-4.2	79.0	
	L	94.8	3.0	5.9	*	*	*	*	70.7	*	-4.1	79.5	54.3	*	-6.9	65.5	
	T	96.9	1.6	3.1	*	*	*	*	85.3	*	-3.7	81.5	77.2	*	-6.4	68.0	
PCC-R	E	99.3	0.7	1.6	*	*	*	*	100.0	*	0.4	102.0	90.8	*	-5.3	73.5	
	M	96.1	2.7	4.3	*	*	*	*	80.0	*	-3.7	81.5	78.6	*	-4.1	79.5	
	L	95.3	3.1	5.8	*	*	*	*	70.7	*	-4.2	79.0	54.3	*	-7.1	64.5	
	T	97.2	1.6	3.0	*	*	*	*	85.3	*	-4.0	80.0	79.2	*	-6.0	70.0	
ACI	E	99.0	0.7	9.6	*	*	*	*	100.0	*	0.1	100.5	56.0	*	-4.5	77.5	
	M	79.9	24.3	24.9	*	*	*	*	40.0	*	-1.6	92.0	42.5	*	-1.5	92.5	
	L	74.6	19.1	14.5	*	*	*	*	40.9	*	-2.3	88.5	31.5	*	-3.0	85.0	
	T	86.3	15.3	16.8	*	*	*	*	47.2	*	-2.3	88.5	46.5	*	-2.4	88.0	
PCI	E	100.0	0.0	1.0	*	*	*	*	100.0	*	0.0	100.0	100.0	*	0.0	100.0	
	M	96.6	5.2	4.0	*	*	*	*	85.7	*	-2.7	86.5	85.7	*	-2.7	86.5	
	L	99.5	1.9	6.4	*	*	*	*	100.0	*	0.1	100.5	85.7	*	-2.2	89.0	
	T	98.7	1.7	2.6	*	*	*	*	95.2	*	-1.3	93.5	90.9	*	-3.0	85.0	
PVC		99.0	1.0	1.5	*	*	*	*	99.5	*	0.3	101.5	92.0	*	-4.7	76.5	
PVC-R		99.6	0.4	0.9	*	*	*	*	99.5	*	-0.1	99.5	93.1	*	-7.2	64.0	
PPC		97.0	1.6	3.1	*	*	*	*	89.4	*	-2.5	87.5	81.4	*	-5.0	75.0	
PPC-R		98.1	1.0	2.0	*	*	*	*	90.5	*	-3.8	81.0	84.7	*	-6.7	66.5	
II		99.5	0.9	1.8	*	*	*	*	100.0	*	0.3	101.5	88.4	*	-6.2	69.0	



Reference Data: Ages 7;0 - 7;11.

		Both							
Metric	DC	NSA		QRE		NSA/SD		SD	
		M	SD1	M	SD1	M	SD1	M	SD1
PCC	E	98.7	0.9	99.7	0.4	96.7	2.4	87.1	11.7
	M	96.1	3.1	93.5	5.4	86.8	8.1	71.6	13.7
	L	91.5	5.5	48.5	22.4	72.2	15.9	35.7	22.2
	T	95.7	2.3	82.1	8.5	86.0	6.9	69.2	13.2
PCC-A	E	98.7	0.9	99.7	0.4	96.7	2.4	87.1	11.7
	M	96.1	3.1	94.1	4.3	86.8	8.1	71.7	13.6
	L	94.4	3.3	87.4	1.7	79.3	11.7	41.9	24.8
	T	96.7	1.8	94.3	1.1	88.4	5.3	70.8	13.8
PCC-R	E	99.0	0.8	99.7	0.4	96.7	2.4	88.2	10.9
	M	96.5	2.9	94.5	3.8	87.2	8.2	75.3	10.5
	L	95.0	3.6	88.0	1.3	79.3	11.7	43.3	23.4
	T	97.1	1.8	94.6	0.9	88.5	5.3	72.8	12.5
ACI	E	98.7	0.9	99.7	0.4	84.9	25.2	55.5	22.5
	M	82.9	23.1	82.8	23.9	55.9	26.5	41.2	6.5
	L	71.5	17.9	60.2	4.0	47.8	10.8	24.9	15.0
	T	86.9	15.8	73.5	3.9	51.1	5.0	41.2	9.4
PCI	E	100.0	0.0	100.0	0.0	100.0	0.0	100.0	0.0
	M	97.6	4.4	100.0	0.0	90.8	7.2	82.6	14.5
	L	98.8	3.5	97.4	4.4	98.3	3.4	66.3	23.2
	T	98.8	1.7	99.2	1.3	96.5	1.5	84.5	9.9
PVC		98.7	1.1	97.1	0.2	97.2	3.3	90.2	7.5
PVC-R		99.4	0.7	99.0	1.2	97.6	3.1	93.4	4.6
PPC		96.9	1.6	88.1	5.1	90.4	5.2	77.6	10.0
PPC-R		98.0	1.1	96.3	0.8	92.0	4.2	81.1	8.7
II		99.5	0.8	97.2	2.2	98.8	1.4	85.5	13.3

Reference Data: Ages 8;0 - 8;11.

		Male															
Metric	DC	NSA			QRE				NSA/SD				SD				
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	Z	S	
PCC	E	99.5	0.6	1.7	94.9	3.5	-2.7	86.7	95.9	3.0	-2.1	89.8	86.9	*	-7.4	63.0	
	M	97.9	1.7	4.8	92.9	5.2	-1.0	94.8	85.7	10.0	-2.6	87.3	55.4	*	-8.9	55.5	
	L	88.2	7.0	12.2	68.3	14.6	-1.6	91.8	53.0	7.2	-2.9	85.5	25.8	*	-5.1	74.5	
	T	95.6	1.6	4.3	86.5	4.6	-2.1	89.4	79.5	1.6	-3.8	81.3	64.0	*	-7.3	63.5	
PCC-A	E	99.5	0.6	1.7	94.9	3.5	-2.7	86.7	95.9	3.0	-2.1	89.8	86.9	*	-7.4	63.0	
	M	97.9	1.7	4.7	92.9	5.2	-1.1	94.8	85.7	10.0	-2.6	87.0	55.4	*	-9.0	55.0	
	L	93.8	2.0	6.3	86.7	6.4	-1.1	94.4	59.1	3.9	-5.6	72.3	30.3	*	-10.1	49.5	
	T	97.3	0.9	2.9	92.0	2.7	-1.8	90.8	81.4	2.7	-5.5	72.8	65.1	*	-11.1	44.5	
PCC-R	E	99.5	0.6	1.6	95.7	2.7	-2.3	88.3	97.0	1.4	-1.5	92.5	88.5	*	-6.8	66.0	
	M	98.4	1.6	4.4	93.6	5.0	-1.1	94.6	90.0	7.8	-2.0	90.3	67.4	*	-7.0	65.0	
	L	94.0	2.1	6.3	89.5	6.2	-0.7	96.5	59.1	3.9	-5.6	72.3	30.3	*	-10.1	49.5	
	T	97.5	1.0	3.0	93.4	2.4	-1.4	93.1	83.0	1.6	-4.9	75.8	69.0	*	-9.5	52.5	
ACI	E	99.5	0.6	11.5	83.7	20.6	-1.4	93.2	81.6	23.3	-1.6	92.3	49.7	*	-4.3	78.5	
	M	97.9	1.7	23.8	73.8	25.2	-1.0	94.9	59.1	8.6	-1.7	91.8	41.1	*	-2.4	88.0	
	L	63.0	11.2	15.1	68.2	10.2	0.4	101.8	32.7	1.0	-2.1	89.8	16.0	*	-3.1	84.5	
	T	95.2	2.6	17.2	68.6	4.1	-1.5	92.3	48.4	1.2	-2.8	86.3	38.9	*	-3.3	83.5	
PCI	E	100.0	0.0	0.9	100.0	0.0	0.0	100.0	100.0	0.0	0.0	100.0	100.0	*	0.0	100.0	
	M	100.0	0.0	3.8	98.6	3.4	-0.4	98.2	85.7	1.5	-3.8	81.0	40.0	*	-15.8	21.0	
	L	99.0	2.7	4.9	96.4	6.0	-0.5	97.4	100.0	0.0	0.2	101.0	71.4	*	-5.6	72.0	
	T	99.7	0.8	2.1	98.4	2.0	-0.7	96.8	95.4	0.3	-2.1	89.8	71.1	*	-13.6	32.0	
PVC		98.9	1.1	1.7	94.3	3.0	-2.7	86.4	95.8	0.8	-1.9	90.8	95.8	*	-1.8	91.0	
PVC-R		99.6	0.5	1.2	97.6	2.5	-1.7	91.8	96.1	0.8	-2.9	85.5	96.5	*	-2.6	87.0	
PPC		96.9	1.2	3.1	89.5	3.8	-2.4	88.1	86.1	0.9	-3.5	82.5	77.2	*	-6.4	68.0	
PPC-R		98.3	0.6	2.0	95.0	2.1	-1.6	91.8	88.4	0.8	-5.0	75.0	80.4	*	-8.9	55.5	
II		99.0	1.3	1.6	97.8	2.4	-0.7	96.3	93.1	6.8	-3.7	81.5	95.3	*	-2.3	88.5	

  

		Female															
Metric	DC	NSA			QRE				NSA/SD				SD				
		M	SD1	SD2	M	SD1	Z	S	M	SD1	Z	S	M	SD1	Z	S	
PCC	E	98.6	1.6	1.8	*	*	*	*	97.1	*	-0.8	96.0	100.0	*	0.8	104.0	
	M	96.5	4.2	4.6	*	*	*	*	94.8	*	-0.4	98.0	97.7	*	0.3	101.5	
	L	88.9	9.8	12.4	*	*	*	*	92.7	*	0.3	101.5	82.4	*	-0.5	97.5	
	T	95.0	3.6	4.6	*	*	*	*	95.0	*	0.0	100.0	94.4	*	-0.1	99.5	
PCC-A	E	98.6	1.6	1.8	*	*	*	*	97.1	*	-0.8	96.0	100.0	*	0.8	104.0	
	M	96.5	4.2	4.6	*	*	*	*	94.8	*	-0.4	98.0	97.7	*	0.3	101.5	
	L	93.7	5.2	5.9	*	*	*	*	92.7	*	-0.2	99.0	91.7	*	-0.3	98.5	
	T	96.4	2.9	3.1	*	*	*	*	95.0	*	-0.5	97.5	97.0	*	0.2	101.0	
PCC-R	E	99.5	0.7	1.6	*	*	*	*	97.1	*	-1.5	92.5	100.0	*	0.3	101.5	
	M	96.9	4.3	4.3	*	*	*	*	94.8	*	-0.5	97.5	98.5	*	0.4	102.0	
	L	93.8	5.2	5.8	*	*	*	*	92.7	*	-0.2	99.0	91.7	*	-0.4	98.0	
	T	96.9	3.0	3.0	*	*	*	*	95.0	*	-0.6	97.0	97.2	*	0.1	100.5	
ACI	E	98.6	1.6	9.6	*	*	*	*	97.1	*	-0.2	99.0	100.0	*	0.1	100.5	
	M	90.2	20.5	24.9	*	*	*	*	47.4	*	-1.7	91.5	97.7	*	0.3	101.5	
	L	76.7	22.2	14.5	*	*	*	*	46.4	*	-2.1	89.5	67.5	*	-0.6	97.0	
	T	82.1	22.6	16.8	*	*	*	*	95.0	*	0.8	104.0	72.2	*	-0.6	97.0	
PCI	E	100.0	0.0	1.0	*	*	*	*	100.0	*	0.0	100.0	100.0	*	0.0	100.0	
	M	100.0	0.0	4.0	*	*	*	*	100.0	*	0.0	100.0	93.3	*	-1.7	91.5	
	L	95.9	10.8	6.4	*	*	*	*	100.0	*	0.6	103.0	100.0	*	0.6	103.0	
	T	98.7	3.4	2.6	*	*	*	*	100.0	*	0.5	102.5	97.7	*	-0.4	98.0	
PVC		99.5	0.6	1.5	*	*	*	*	99.2	*	-0.2	99.0	97.9	*	-1.1	94.5	
PVC-R		99.7	0.4	0.9	*	*	*	*	99.2	*	-0.6	97.0	98.3	*	-1.6	92.0	
PPC		96.8	2.3	3.1	*	*	*	*	96.8	*	0.0	100.0	95.7	*	-0.4	98.0	
PPC-R		98.0	1.7	2.0	*	*	*	*	96.8	*	-0.6	97.0	97.6	*	-0.2	99.0	
II		99.1	0.9	1.8	*	*	*	*	100.0	*	0.5	102.5	99.5	*	0.2	101.0	

Reference Data: Ages 8;0 - 8;11.

		Both							
		NSA		QRE		NSA/SD		SD	
Metric	DC	M	SD1	M	SD1	M	SD1	M	SD1
PCC	E	99.0	1.2	95.6	3.8	96.3	2.2	86.9	*
	M	97.2	3.2	93.6	5.0	88.7	8.8	55.4	*
	L	88.5	8.2	70.3	14.4	66.2	23.5	25.8	*
	T	95.3	2.7	87.6	5.1	84.6	9.1	64.0	*
PCC-A	E	99.0	1.2	95.6	3.8	96.3	2.2	86.9	*
	M	97.2	3.2	93.6	5.0	88.7	8.8	55.4	*
	L	93.7	3.8	87.4	6.1	70.3	19.6	30.3	*
	T	96.9	2.1	92.7	3.1	85.9	8.1	65.1	*
PCC-R	E	99.5	0.6	96.3	3.0	97.0	1.0	88.5	*
	M	97.7	3.2	94.3	4.9	91.6	6.2	67.4	*
	L	93.9	3.8	89.8	5.7	70.3	19.6	30.3	*
	T	97.2	2.2	93.9	2.6	87.0	7.0	69.0	*
ACI	E	99.0	1.2	86.0	19.8	86.7	18.7	49.7	*
	M	94.1	14.6	77.2	24.7	55.2	9.0	41.1	*
	L	69.8	18.3	68.1	9.3	37.3	7.9	16.0	*
	T	88.7	16.9	69.1	4.0	63.9	26.9	38.9	*
PCI	E	100.0	0.0	100.0	0.0	100.0	0.0	100.0	*
	M	100.0	0.0	97.9	3.7	90.4	8.4	40.0	*
	L	97.5	7.7	96.9	5.6	100.0	0.0	71.4	*
	T	99.2	2.5	98.3	1.8	96.9	2.7	71.1	*
PVC		99.2	1.0	94.8	3.0	96.9	2.1	95.8	*
PVC-R		99.6	0.4	97.7	2.3	97.1	1.9	96.5	*
PPC		96.9	1.8	90.4	4.2	89.6	6.2	77.2	*
PPC-R		98.2	1.3	95.4	2.2	91.2	4.9	80.4	*
II		99.1	1.1	98.1	2.3	95.4	6.2	95.3	*

Reference Data: Ages 6;0 - 8;11

Metric	DC	Male								Female								Both							
		NSA		QRE		NSA/SD		SD		NSA		QRE		NSA/SD		SD		NSA		QRE		NSA/SD		SD	
		M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1	M	SD1
PCC	E	97.7	1.7	97.0	3.2	95.4	2.4	87.5	9.7	98.2	1.7	98.1	2.0	97.5	1.6	90.7	6.8	97.9	1.7	97.2	3.0	96.0	2.4	88.0	9.3
	M	94.3	4.8	94.0	3.9	87.3	7.4	67.4	19.5	95.0	4.3	94.5	3.2	92.4	5.8	71.4	22.4	94.6	4.6	94.1	3.7	88.9	7.2	68.0	19.6
	L	82.0	12.0	60.5	14.8	60.7	20.5	28.1	19.7	84.7	11.9	65.3	25.5	66.9	17.2	42.7	16.7	83.2	12.0	61.3	16.4	62.6	19.4	30.5	19.7
	T	92.1	4.3	85.2	5.0	82.6	7.6	66.6	12.4	93.2	4.5	86.8	9.9	86.9	4.2	73.2	11.2	92.6	4.4	85.4	5.8	83.9	6.9	67.6	12.2
PCC-A	E	97.7	1.7	97.0	3.2	95.4	2.4	87.5	9.7	98.2	1.7	98.1	2.0	97.5	1.6	90.7	6.8	97.9	1.7	97.2	3.0	96.0	2.4	88.0	9.3
	M	94.4	4.7	94.3	3.9	87.6	6.8	67.5	19.6	95.0	4.3	94.5	3.2	92.4	5.8	71.4	22.4	94.7	4.5	94.3	3.7	89.1	6.8	68.1	19.6
	L	89.0	6.3	80.6	10.2	74.8	14.1	39.2	21.5	92.0	5.6	82.9	8.3	76.8	14.3	56.5	11.0	90.4	6.1	81.0	9.8	75.4	14.0	41.9	21.1
	T	94.2	3.0	91.4	3.5	87.0	5.6	69.6	13.3	95.4	3.0	92.4	4.2	89.9	3.8	76.6	11.1	94.8	3.0	91.5	3.6	87.9	5.2	70.7	13.0
PCC-R	E	98.2	1.5	97.5	2.9	95.9	2.4	88.7	8.6	98.7	1.5	98.3	1.6	97.7	1.4	92.7	4.6	98.4	1.5	97.6	2.8	96.5	2.3	89.3	8.1
	M	95.0	4.3	95.0	3.8	88.7	6.6	70.5	18.9	95.3	4.1	94.9	3.6	92.9	5.9	72.3	22.8	95.1	4.2	95.0	3.7	90.0	6.6	70.8	19.1
	L	90.1	6.3	81.8	10.7	75.6	14.2	42.7	21.5	92.5	5.5	83.0	8.3	77.3	14.3	56.5	11.0	91.2	6.0	82.0	10.2	76.1	14.0	44.9	20.6
	T	94.9	2.9	92.1	3.4	87.8	5.4	71.8	12.5	95.9	2.9	92.6	4.2	90.4	3.8	77.8	10.1	95.4	3.0	92.2	3.5	88.6	5.0	72.8	12.1
ACI	E	95.3	10.7	89.1	19.4	78.7	23.4	54.6	19.1	96.8	8.4	98.1	2.0	97.5	1.6	64.3	23.3	96.0	9.7	90.6	18.0	84.5	21.2	56.2	19.6
	M	78.0	23.7	75.7	23.0	56.0	18.7	38.7	11.7	77.0	24.7	71.5	29.4	69.5	25.9	37.7	12.1	77.5	24.0	75.0	23.5	60.2	21.7	38.5	11.5
	L	62.5	14.9	57.2	12.5	47.9	14.3	24.9	14.2	69.4	16.4	55.8	9.8	49.3	13.0	32.4	6.5	65.7	15.9	57.0	11.9	48.3	13.7	26.1	13.5
	T	73.2	18.5	65.4	7.9	55.2	9.8	42.1	9.9	77.7	17.6	63.7	6.1	61.7	14.3	45.6	8.5	75.3	18.2	65.1	7.5	57.2	11.5	42.7	9.6
PCI	E	99.9	0.8	100.0	0.0	100.0	0.0	97.6	5.2	99.9	0.9	100.0	0.0	100.0	0.0	100.0	0.0	99.9	0.8	100.0	0.0	100.0	0.0	98.0	4.9
	M	97.8	3.7	99.2	2.4	93.7	6.9	72.2	22.4	98.1	4.1	96.8	3.7	96.2	5.1	92.9	5.9	97.9	3.9	98.8	2.7	94.5	6.4	75.5	22.0
	L	97.5	4.7	95.1	7.0	93.7	9.6	65.3	27.4	97.3	6.4	97.9	4.2	92.7	7.1	89.0	9.5	97.4	5.5	95.6	6.7	93.4	8.8	69.1	26.8
	T	98.5	2.0	98.2	2.4	96.0	3.9	79.9	13.6	98.5	2.5	98.3	2.2	96.5	2.5	94.6	4.1	98.5	2.3	98.2	2.4	96.1	3.5	82.2	13.7
PVC		98.2	1.7	95.4	2.1	96.5	2.1	88.3	7.9	98.5	1.4	94.9	2.2	97.0	2.3	90.8	5.4	98.4	1.6	95.3	2.1	96.6	2.1	88.7	7.5
PVC-R		99.1	1.1	97.9	1.7	97.7	1.6	92.1	6.9	99.3	0.8	96.9	1.8	98.2	1.9	93.5	2.6	99.2	1.0	97.7	1.7	97.8	1.7	92.3	6.4
PPC		94.5	3.1	89.2	3.3	88.1	5.0	75.4	9.5	95.3	3.1	90.0	6.2	90.8	2.9	80.2	8.6	94.9	3.1	89.3	3.8	89.0	4.6	76.1	9.4
PPC-R		96.6	2.0	94.4	2.2	91.8	3.6	80.1	9.5	97.2	1.9	94.3	2.7	93.4	2.6	84.1	6.5	96.9	2.0	94.4	2.2	92.3	3.4	80.7	9.1
II		98.6	1.5	97.5	2.0	96.5	3.2	88.5	11.8	98.9	1.6	99.3	0.6	98.3	1.7	93.3	4.8	98.7	1.6	97.8	2.0	97.1	3.0	89.3	11.1

Reference Data: Ages 9;0-11;11

		Male											
		NSA			RE-1			RE-2			RE-3		
Metric	DC	M	SD	Min	M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	98.7	1.3	96.7	98.6	0.5	98.0	94.7	7.7	85.9	92.9	*	92.9
	M	97.4	3.6	90.9	95.3	3.2	90.4	87.0	11.4	78.9	95.1	*	95.1
	L	93.2	7.8	76.0	83.7	12.8	59.7	61.1	29.3	27.4	78.4	*	78.4
	T	96.6	3.5	89.1	93.1	3.8	86.7	82.9	12.2	68.8	89.4	*	89.4
PCC-A	E	98.7	1.3	96.7	98.6	0.5	98.0	94.7	7.7	85.9	92.9	*	92.9
	M	97.4	3.6	90.9	96.9	2.8	91.5	92.0	11.5	78.9	95.1	*	95.1
	L	93.5	7.9	76.0	93.0	7.3	77.6	70.6	30.4	35.6	83.3	*	83.3
	T	96.7	3.5	89.1	96.5	2.3	91.4	87.3	14.2	71.0	90.8	*	90.8
PCC-R	E	99.1	1.1	96.7	99.1	0.5	98.2	95.3	7.5	86.7	95.5	*	95.5
	M	98.0	3.1	90.9	97.5	2.5	93.6	93.0	9.9	81.7	96.0	*	96.0
	L	93.7	8.0	76.0	94.3	5.4	85.1	71.9	30.3	37.0	84.3	*	84.3
	T	97.1	3.5	89.1	97.2	1.8	93.9	88.2	13.7	72.4	92.5	*	92.5
ACI	E	98.7	1.3	96.7	98.6	0.5	98.0	81.3	30.9	45.6	64.6	*	64.6
	M	89.6	19.6	45.5	84.4	20.2	47.0	76.4	27.6	46.1	95.1	*	95.1
	L	79.7	26.7	38.0	75.3	18.3	46.9	49.5	25.9	20.3	52.9	*	52.9
	T	87.5	21.5	44.5	85.4	11.3	70.4	63.7	20.4	40.2	59.2	*	59.2
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	*	100.0
	M	100.0	0.0	100.0	100.0	0.0	100.0	97.4	4.4	92.3	91.7	*	91.7
	L	98.3	5.1	84.6	99.1	2.5	92.9	82.5	17.9	64.3	84.6	*	84.6
	T	99.5	1.5	95.5	99.7	0.8	97.8	93.8	7.1	86.0	92.3	*	92.3
PVC		99.2	0.7	97.8	97.1	5.2	84.3	92.7	6.7	85.6	96.0	*	96.0
PVC-R		99.4	0.6	98.3	99.1	2.0	94.2	96.5	4.1	91.8	98.0	*	98.0
PPC		97.7	2.2	93.0	94.6	4.0	85.7	86.9	9.7	75.7	91.8	*	91.8
PPC-R		98.1	2.1	93.2	97.9	1.7	94.0	91.6	9.7	80.3	94.4	*	94.4
II		99.2	0.9	97.8	97.9	2.8	91.7	96.3	5.6	89.8	98.4	*	98.4

  

		Female											
		NSA			RE-1			RE-2			RE-3		
Metric	DC	M	SD	Min	M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	99.1	1.2	97.2	97.9	1.9	94.3	90.3	7.2	79.6	*	*	*
	M	97.5	2.6	93.4	96.3	2.5	92.6	79.6	10.9	66.7	*	*	*
	L	97.8	1.9	95.7	87.4	6.7	73.7	54.8	16.0	37.0	*	*	*
	T	98.2	1.6	95.7	93.9	2.5	90.7	77.0	10.0	65.5	*	*	*
PCC-A	E	99.1	1.2	97.2	97.9	1.9	94.3	90.3	7.2	79.6	*	*	*
	M	97.5	2.6	93.4	96.6	2.5	92.6	79.6	10.9	66.7	*	*	*
	L	98.3	1.3	96.8	97.4	2.3	92.4	67.6	7.9	58.5	*	*	*
	T	98.4	1.4	96.2	97.4	1.4	95.0	80.8	8.2	70.0	*	*	*
PCC-R	E	99.1	1.2	97.2	99.0	1.0	97.4	91.8	6.0	82.7	*	*	*
	M	97.7	2.7	93.4	96.7	2.6	92.6	82.6	8.0	73.0	*	*	*
	L	98.3	1.3	96.8	97.6	2.4	92.4	69.8	6.2	64.1	*	*	*
	T	98.4	1.5	96.2	97.9	1.1	96.0	82.9	6.2	75.5	*	*	*
ACI	E	99.1	1.2	97.2	97.7	2.4	92.1	69.7	25.0	47.3	*	*	*
	M	88.1	23.2	46.7	83.5	23.7	46.3	45.2	3.7	39.7	*	*	*
	L	97.8	1.9	95.7	85.6	9.1	71.3	41.5	3.1	38.2	*	*	*
	T	98.2	1.6	95.7	85.0	11.0	68.9	49.4	4.4	46.1	*	*	*
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	*	*	*
	M	100.0	0.0	100.0	98.7	2.8	92.9	97.1	3.9	92.3	*	*	*
	L	100.0	0.0	100.0	100.0	0.0	100.0	95.4	10.3	76.9	*	*	*
	T	100.0	0.0	100.0	99.6	0.9	97.7	97.6	3.0	92.7	*	*	*
PVC		99.3	1.0	97.7	97.8	1.5	95.5	88.7	12.8	66.2	*	*	*
PVC-R		99.9	0.2	99.6	99.5	0.4	98.9	93.1	7.3	80.9	*	*	*
PPC		98.7	1.3	96.5	95.4	1.5	93.4	81.8	10.5	65.8	*	*	*
PPC-R		99.0	0.9	97.6	98.5	0.7	97.1	87.0	6.3	77.7	*	*	*
II		99.0	1.2	97.1	98.3	2.4	92.2	90.7	11.0	71.8	*	*	*

Reference Data: Ages 9;0-11;11

Metric	DC	Both											
		NSA			RE-1			RE-2			RE-3		
		M	SD	Min	M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	98.9	1.2	96.7	98.2	1.5	94.3	91.9	7.2	79.6	92.9	*	92.9
	M	97.4	3.2	90.9	95.9	2.8	90.4	82.4	10.9	66.7	95.1	*	95.1
	L	94.9	6.6	76.0	85.9	9.6	59.7	57.1	20.1	27.4	78.4	*	78.4
	T	97.2	3.0	89.1	93.6	3.0	86.7	79.2	10.4	65.5	89.4	*	89.4
PCC-A	E	98.9	1.2	96.7	98.2	1.5	94.3	91.9	7.2	79.6	92.9	*	92.9
	M	97.4	3.2	90.9	96.7	2.6	91.5	84.2	12.1	66.7	95.1	*	95.1
	L	95.2	6.7	76.0	95.5	5.4	77.6	68.7	17.4	35.6	83.3	*	83.3
	T	97.3	3.0	89.1	97.0	1.9	91.4	83.2	10.4	70.0	90.8	*	90.8
PCC-R	E	99.1	1.1	96.7	99.0	0.8	97.4	93.1	6.3	82.7	95.5	*	95.5
	M	97.9	2.8	90.9	97.1	2.5	92.6	86.5	9.7	73.0	96.0	*	96.0
	L	95.4	6.8	76.0	96.2	4.2	85.1	70.6	16.9	37.0	84.3	*	84.3
	T	97.6	2.9	89.1	97.6	1.4	93.9	84.9	9.1	72.4	92.5	*	92.5
ACI	E	98.9	1.2	96.7	98.1	1.9	92.1	74.0	25.8	45.6	64.6	*	64.6
	M	89.1	20.1	45.5	83.9	21.7	46.3	56.9	22.0	39.7	95.1	*	95.1
	L	86.2	22.8	38.0	81.3	14.3	46.9	44.5	14.7	20.3	52.9	*	52.9
	T	91.3	17.7	44.5	85.2	10.8	68.9	54.7	13.6	40.2	59.2	*	59.2
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0	100.0	*	100.0
	M	100.0	0.0	100.0	99.3	2.2	92.9	97.2	3.8	92.3	91.7	*	91.7
	L	98.9	4.1	84.6	99.6	1.6	92.9	90.6	14.0	64.3	84.6	*	84.6
	T	99.7	1.2	95.5	99.6	0.8	97.7	96.2	4.8	86.0	92.3	*	92.3
PVC		99.3	0.8	97.7	97.5	3.5	84.3	90.2	10.5	66.2	96.0	*	96.0
PVC-R		99.6	0.5	98.3	99.3	1.3	94.2	94.4	6.2	80.9	98.0	*	98.0
PPC		98.0	1.9	93.0	95.1	2.7	85.7	83.7	9.9	65.8	91.8	*	91.8
PPC-R		98.4	1.8	93.2	98.3	1.2	94.0	88.7	7.4	77.7	94.4	*	94.4
II		99.1	1.0	97.1	98.1	2.5	91.7	92.8	9.3	71.8	98.4	*	98.4

Reference Data: Ages 12;0-17;11

		Male								
		NSA			RE-1			RE-2		
Metric	DC	M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	98.6	1.6	95.1	97.8	3.4	90.0	95.0	0.5	94.6
	M	97.0	3.9	87.6	96.9	1.7	94.1	93.0	5.1	87.2
	L	96.5	3.5	89.7	84.4	8.2	71.0	61.8	12.9	48.3
	T	97.5	2.6	91.7	93.4	2.9	89.1	85.1	4.4	80.5
PCC-A	E	98.6	1.6	95.1	97.8	3.4	90.0	95.0	0.5	94.6
	M	97.0	3.9	87.6	96.9	1.7	94.1	93.0	5.1	87.2
	L	97.0	3.3	89.7	91.9	5.5	83.9	78.9	7.7	70.3
	T	97.6	2.5	91.7	95.8	2.4	92.6	89.8	3.5	85.7
PCC-R	E	99.0	1.3	96.0	99.0	1.4	96.7	96.9	0.8	95.7
	M	97.3	3.5	87.6	97.0	1.8	94.1	93.6	4.2	89.7
	L	97.3	3.3	90.6	92.0	5.6	83.9	81.6	6.5	74.3
	T	98.0	2.3	93.6	96.3	2.0	93.3	91.5	2.8	87.9
ACI	E	98.6	1.6	95.1	96.5	6.9	79.6	77.3	12.4	68.7
	M	86.1	22.7	43.8	85.1	23.4	47.0	61.4	25.4	45.5
	L	88.9	19.4	45.3	69.9	15.3	52.0	55.9	7.4	49.0
	T	89.5	19.1	47.1	74.9	14.4	62.1	63.6	7.0	55.9
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0
	M	98.7	2.8	93.3	100.0	0.0	100.0	93.3	9.4	80.0
	L	100.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0
	T	99.5	0.9	97.7	100.0	0.0	100.0	97.7	3.3	93.0
PVC		99.7	0.3	99.1	96.0	3.7	88.9	92.0	6.7	82.0
PVC-R		99.8	0.3	99.4	98.2	2.0	95.0	96.8	1.4	94.8
PPC		98.4	1.6	94.9	94.5	2.6	90.8	87.8	4.5	82.1
PPC-R		98.7	1.4	96.0	97.1	1.8	94.3	93.6	1.7	91.9
II		99.2	1.3	96.1	98.3	1.5	95.9	94.5	4.8	89.2

  

		Female								
		NSA			RE-1			RE-2		
Metric	DC	M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	99.4	0.9	97.3	99.3	1.4	97.1	93.8	*	93.8
	M	99.1	0.8	97.7	98.0	1.7	95.9	69.4	*	69.4
	L	98.2	2.3	94.0	87.0	4.4	83.0	13.9	*	13.9
	T	98.9	1.0	97.1	95.2	1.1	93.6	68.1	*	68.1
PCC-A	E	99.4	0.9	97.3	99.3	1.4	97.1	93.8	*	93.8
	M	99.1	0.8	97.7	98.0	1.7	95.9	69.4	*	69.4
	L	98.6	1.8	94.0	98.5	1.4	96.7	37.5	*	37.5
	T	99.1	0.8	97.1	98.7	1.1	97.7	73.3	*	73.3
PCC-R	E	99.5	0.9	97.3	99.4	1.1	97.7	93.8	*	93.8
	M	99.4	0.6	98.2	98.3	1.8	95.9	71.2	*	71.2
	L	98.7	1.9	94.0	98.5	1.4	96.7	38.9	*	38.9
	T	99.2	0.8	97.1	98.8	1.0	97.7	74.2	*	74.2
ACI	E	99.4	0.9	97.3	99.3	1.4	97.1	46.9	*	46.9
	M	99.1	0.8	97.7	98.0	1.7	95.9	37.6	*	37.6
	L	92.7	16.6	47.0	87.2	5.7	81.9	21.5	*	21.5
	T	98.9	1.0	97.1	91.5	8.4	78.8	43.6	*	43.6
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	*	100.0
	M	100.0	0.0	100.0	100.0	0.0	100.0	92.3	*	92.3
	L	100.0	0.0	100.0	100.0	0.0	100.0	71.4	*	71.4
	T	100.0	0.0	100.0	100.0	0.0	100.0	88.4	*	88.4
PVC		99.6	0.4	99.0	99.1	1.3	97.2	95.9	*	95.9
PVC-R		99.6	0.4	99.0	99.9	0.2	99.6	96.3	*	96.3
PPC		99.2	0.7	98.0	96.8	1.2	95.0	79.9	*	79.9
PPC-R		99.4	0.6	98.0	99.2	0.6	98.6	83.6	*	83.6
II		99.1	0.6	98.3	99.8	0.5	99.1	75.0	*	75.0

Reference Data: Ages 12;0-17;11

Metric	DC	Both								
		NSA			RE-1			RE-2		
		M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	98.9	1.4	95.1	98.3	2.9	90.0	94.8	0.7	93.8
	M	97.8	3.2	87.6	97.3	1.7	94.1	88.3	11.4	69.4
	L	97.2	3.1	89.7	85.3	7.0	71.0	52.3	24.2	13.9
	T	98.1	2.2	91.7	94.0	2.6	89.1	81.7	8.5	68.1
PCC-A	E	98.9	1.4	95.1	98.3	2.9	90.0	94.8	0.7	93.8
	M	97.8	3.2	87.6	97.3	1.7	94.1	88.3	11.4	69.4
	L	97.7	2.9	89.7	94.1	5.5	83.9	70.6	19.7	37.5
	T	98.2	2.1	91.7	96.7	2.4	92.6	86.5	8.0	73.3
PCC-R	E	99.2	1.2	96.0	99.2	1.3	96.7	96.3	1.5	93.8
	M	98.1	2.9	87.6	97.4	1.8	94.1	89.1	10.7	71.2
	L	97.9	2.8	90.6	94.1	5.5	83.9	73.0	19.9	38.9
	T	98.5	1.9	93.6	97.1	2.1	93.3	88.0	8.1	74.2
ACI	E	98.9	1.4	95.1	97.4	5.8	79.6	71.2	17.3	46.9
	M	91.3	18.5	43.8	89.4	19.7	47.0	56.6	24.4	37.6
	L	90.4	18.0	45.3	75.6	15.2	52.0	49.0	16.7	21.5
	T	93.3	15.3	47.1	80.4	14.8	62.1	59.6	10.8	43.6
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	0.0	100.0
	M	99.2	2.2	93.3	100.0	0.0	100.0	93.1	8.2	80.0
	L	100.0	0.0	100.0	100.0	0.0	100.0	94.3	12.8	71.4
	T	99.7	0.7	97.7	100.0	0.0	100.0	95.8	5.1	88.4
PVC		99.7	0.4	99.0	97.0	3.4	88.9	92.8	6.1	82.0
PVC-R		99.7	0.3	99.0	98.8	1.8	95.0	96.7	1.2	94.8
PPC		98.7	1.3	94.9	95.2	2.5	90.8	86.2	5.2	79.9
PPC-R		99.0	1.2	96.0	97.8	1.8	94.3	91.6	4.7	83.6
II		99.1	1.0	96.1	98.8	1.4	95.9	90.6	9.7	75.0



Reference Data: Ages 18;0-39;11

		Male								
		NSA			RE-1			RE-2		
Metric	DC	M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	99.5	0.7	97.2	98.5	1.3	97.7	*	*	*
	M	98.1	2.9	90.3	99.1	0.2	98.9	*	*	*
	L	96.5	3.7	87.5	89.0	7.1	80.8	*	*	*
	T	98.2	1.6	94.7	95.7	1.6	93.9	*	*	*
PCC-A	E	99.5	0.7	97.2	98.5	1.3	97.7	*	*	*
	M	98.1	2.9	90.3	99.1	0.2	98.9	*	*	*
	L	96.8	3.5	87.5	96.2	2.0	93.9	*	*	*
	T	98.2	1.6	94.7	98.0	1.0	96.9	*	*	*
PCC-R	E	99.6	0.7	97.2	98.8	1.1	97.9	*	*	*
	M	98.1	2.9	90.3	99.1	0.2	98.9	*	*	*
	L	96.8	3.5	87.5	96.2	2.0	93.9	*	*	*
	T	98.3	1.6	95.0	98.0	1.0	96.9	*	*	*
ACI	E	99.5	0.7	97.2	98.5	1.3	97.7	*	*	*
	M	90.7	19.9	45.1	99.1	0.2	98.9	*	*	*
	L	85.0	22.3	43.8	72.0	14.6	55.4	*	*	*
	T	96.4	9.7	50.3	93.4	5.6	87.0	*	*	*
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	*	*	*
	M	100.0	0.0	100.0	100.0	0.0	100.0	*	*	*
	L	99.7	1.4	92.9	100.0	0.0	100.0	*	*	*
	T	99.9	0.5	97.7	100.0	0.0	100.0	*	*	*
PVC		99.7	0.3	98.8	98.5	2.2	95.9	*	*	*
PVC-R		99.8	0.3	98.8	99.7	0.2	99.6	*	*	*
PPC		98.8	1.0	96.7	96.8	1.8	94.7	*	*	*
PPC-R		98.9	1.0	96.9	98.7	0.5	98.1	*	*	*
II		99.6	0.7	96.9	99.8	0.3	99.4	*	*	*

  

		Female								
		NSA			RE-1			RE-2		
Metric	DC	M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	99.1	1.2	94.8	100.0	0.0	100.0	94.8	*	94.8
	M	98.5	2.8	85.0	100.0	0.0	100.0	85.8	*	85.8
	L	98.1	2.4	85.7	88.7	4.9	85.2	81.6	*	81.6
	T	98.6	1.7	90.2	96.2	1.6	95.0	87.6	*	87.6
PCC-A	E	99.1	1.2	94.8	100.0	0.0	100.0	94.8	*	94.8
	M	98.5	2.8	85.0	100.0	0.0	100.0	85.8	*	85.8
	L	98.4	2.0	88.8	99.6	0.6	99.1	85.9	*	85.9
	T	98.7	1.6	91.0	99.9	0.2	99.7	89.1	*	89.1
PCC-R	E	99.3	1.0	96.5	100.0	0.0	100.0	94.8	*	94.8
	M	98.5	2.8	85.0	100.0	0.0	100.0	85.8	*	85.8
	L	98.4	2.0	88.8	99.6	0.6	99.1	85.9	*	85.9
	T	98.8	1.6	91.0	99.9	0.2	99.7	89.1	*	89.1
ACI	E	98.7	3.5	77.4	100.0	0.0	100.0	47.4	*	47.4
	M	94.1	15.9	42.5	100.0	0.0	100.0	42.9	*	42.9
	L	94.7	12.6	53.0	91.6	1.5	90.5	52.5	*	52.5
	T	97.7	7.7	49.4	96.2	1.6	95.0	49.7	*	49.7
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	*	100.0
	M	100.0	0.0	100.0	100.0	0.0	100.0	81.3	*	81.3
	L	99.5	1.9	92.3	100.0	0.0	100.0	100.0	*	100.0
	T	99.8	0.6	97.7	100.0	0.0	100.0	93.5	*	93.5
PVC		99.8	0.4	98.1	100.0	0.0	100.0	94.4	*	94.4
PVC-R		99.9	0.2	99.1	100.0	0.0	100.0	96.3	*	96.3
PPC		99.1	1.1	94.1	97.7	0.9	97.1	90.4	*	90.4
PPC-R		99.2	1.0	94.6	99.9	0.1	99.8	92.0	*	92.0
II		99.7	0.6	97.2	100.0	0.0	100.0	100.0	*	100.0

Reference Data: Ages 18;0-39;11

Metric	DC	Both								
		NSA			RE-1			RE-2		
		M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	99.3	1.0	94.8	99.1	1.2	97.7	94.8	*	94.8
	M	98.3	2.8	85.0	99.5	0.5	98.9	85.8	*	85.8
	L	97.5	3.1	85.7	88.9	5.6	80.8	81.6	*	81.6
	T	98.5	1.7	90.2	95.9	1.4	93.9	87.6	*	87.6
PCC-A	E	99.3	1.0	94.8	99.1	1.2	97.7	94.8	*	94.8
	M	98.3	2.8	85.0	99.5	0.5	98.9	85.8	*	85.8
	L	97.8	2.8	87.5	97.5	2.3	93.9	85.9	*	85.9
	T	98.5	1.6	91.0	98.7	1.2	96.9	89.1	*	89.1
PCC-R	E	99.4	0.9	96.5	99.3	1.0	97.9	94.8	*	94.8
	M	98.4	2.8	85.0	99.5	0.5	98.9	85.8	*	85.8
	L	97.8	2.8	87.5	97.5	2.3	93.9	85.9	*	85.9
	T	98.6	1.6	91.0	98.8	1.2	96.9	89.1	*	89.1
ACI	E	99.0	2.8	77.4	99.1	1.2	97.7	47.4	*	47.4
	M	92.8	17.4	42.5	99.5	0.5	98.9	42.9	*	42.9
	L	91.1	17.4	43.8	79.8	14.9	55.4	52.5	*	52.5
	T	97.2	8.5	49.4	94.5	4.3	87.0	49.7	*	49.7
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	*	100.0
	M	100.0	0.0	100.0	100.0	0.0	100.0	81.3	*	81.3
	L	99.6	1.7	92.3	100.0	0.0	100.0	100.0	*	100.0
	T	99.9	0.5	97.7	100.0	0.0	100.0	93.5	*	93.5
PVC		99.8	0.4	98.1	99.1	1.8	95.9	94.4	*	94.4
PVC-R		99.9	0.3	98.8	99.8	0.2	99.6	96.3	*	96.3
PPC		99.0	1.1	94.1	97.2	1.4	94.7	90.4	*	90.4
PPC-R		99.1	1.0	94.6	99.2	0.8	98.1	92.0	*	92.0
II		99.7	0.7	96.9	99.9	0.2	99.4	100.0	*	100.0

## Reference Data: Ages 40+

		Male								
Metric	DC	NSA			RE-1			RE-2		
		M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	99.5	0.6	98.3	93.9	*	93.9	95.9	*	95.9
	M	99.1	1.1	97.5	95.9	*	95.9	90.9	*	90.9
	L	92.8	10.1	66.7	81.5	*	81.5	86.3	*	86.3
	T	97.2	3.4	88.9	89.8	*	89.8	90.9	*	90.9
PCC-A	E	99.5	0.6	98.3	93.9	*	93.9	95.9	*	95.9
	M	99.1	1.1	97.5	95.9	*	95.9	90.9	*	90.9
	L	92.9	10.1	66.7	84.6	*	84.6	87.2	*	87.2
	T	97.2	3.3	88.9	90.9	*	90.9	91.2	*	91.2
PCC-R	E	99.9	0.3	99.2	93.9	*	93.9	96.4	*	96.4
	M	99.3	1.1	97.5	95.9	*	95.9	90.9	*	90.9
	L	97.1	2.2	92.7	84.6	*	84.6	87.2	*	87.2
	T	98.8	1.0	96.7	90.9	*	90.9	91.4	*	91.4
ACI	E	99.5	0.6	98.3	46.9	*	46.9	95.9	*	95.9
	M	99.1	1.1	97.5	95.9	*	95.9	45.5	*	45.5
	L	89.2	15.0	52.9	49.1	*	49.1	46.6	*	46.6
	T	97.7	2.0	93.3	50.6	*	50.6	48.2	*	48.2
PCI	E	100.0	0.0	100.0	100.0	*	100.0	100.0	*	100.0
	M	99.3	2.2	93.3	100.0	*	100.0	100.0	*	100.0
	L	100.0	0.0	100.0	100.0	*	100.0	100.0	*	100.0
	T	99.8	0.7	97.8	100.0	*	100.0	100.0	*	100.0
PVC		99.7	0.4	99.2	96.1	*	96.1	98.9	*	98.9
PVC-R		99.8	0.3	99.2	98.9	*	98.9	99.2	*	99.2
PPC		98.2	2.0	93.2	92.3	*	92.3	94.0	*	94.0
PPC-R		99.2	0.6	98.0	94.1	*	94.1	94.4	*	94.4
II		99.7	0.4	98.7	98.7	*	98.7	99.3	*	99.3

  

		Female								
Metric	DC	NSA			RE-1			RE-2		
		M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	98.8	2.5	92.8	99.2	0.1	99.2	*	*	*
	M	98.9	0.8	97.2	98.4	2.3	96.7	*	*	*
	L	98.7	2.0	94.1	97.0	2.2	95.5	*	*	*
	T	98.8	1.2	97.0	98.1	0.0	98.1	*	*	*
PCC-A	E	98.8	2.5	92.8	99.2	0.1	99.2	*	*	*
	M	98.9	0.8	97.2	98.4	2.3	96.7	*	*	*
	L	98.7	2.0	94.1	99.3	1.0	98.6	*	*	*
	T	98.8	1.2	97.0	98.9	1.1	98.2	*	*	*
PCC-R	E	99.5	0.9	97.6	99.6	0.6	99.2	*	*	*
	M	99.0	0.7	97.9	98.4	2.3	96.7	*	*	*
	L	98.7	2.0	94.1	99.3	1.0	98.6	*	*	*
	T	99.1	0.9	97.6	99.1	1.0	98.4	*	*	*
ACI	E	97.8	5.3	83.9	99.2	0.1	99.2	*	*	*
	M	98.9	0.8	97.2	98.4	2.3	96.7	*	*	*
	L	93.5	17.4	47.0	97.0	2.2	95.5	*	*	*
	T	98.8	1.2	97.0	98.1	0.0	98.1	*	*	*
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	*	*	*
	M	98.6	4.2	87.5	100.0	0.0	100.0	*	*	*
	L	100.0	0.0	100.0	100.0	0.0	100.0	*	*	*
	T	99.5	1.5	95.6	100.0	0.0	100.0	*	*	*
PVC		99.9	0.2	99.5	99.1	1.2	98.2	*	*	*
PVC-R		99.9	0.2	99.5	99.8	0.2	99.6	*	*	*
PPC		99.2	0.8	98.2	98.5	0.5	98.2	*	*	*
PPC-R		99.4	0.6	98.4	99.4	0.7	98.9	*	*	*
II		99.7	0.8	97.5	100.0	0.0	100.0	*	*	*

## Reference Data: Ages 40+

Metric	DC	Both								
		NSA			RE-1			RE-2		
		M	SD	Min	M	SD	Min	M	SD	Min
PCC	E	99.2	1.8	92.8	97.4	3.1	93.9	95.9	*	95.9
	M	99.0	1.0	97.2	97.5	2.2	95.9	90.9	*	90.9
	L	95.7	7.7	66.7	91.8	9.1	81.5	86.3	*	86.3
	T	98.0	2.6	88.9	95.4	4.8	89.8	90.9	*	90.9
PCC-A	E	99.2	1.8	92.8	97.4	3.1	93.9	95.9	*	95.9
	M	99.0	1.0	97.2	97.5	2.2	95.9	90.9	*	90.9
	L	95.8	7.7	66.7	94.4	8.5	84.6	87.2	*	87.2
	T	98.0	2.6	88.9	96.3	4.7	90.9	91.2	*	91.2
PCC-R	E	99.7	0.7	97.6	97.7	3.3	93.9	96.4	*	96.4
	M	99.1	0.9	97.5	97.5	2.2	95.9	90.9	*	90.9
	L	97.9	2.2	92.7	94.4	8.5	84.6	87.2	*	87.2
	T	98.9	1.0	96.7	96.4	4.7	90.9	91.4	*	91.4
ACI	E	98.7	3.8	83.9	81.8	30.2	46.9	95.9	*	95.9
	M	99.0	1.0	97.2	97.5	2.2	95.9	45.5	*	45.5
	L	91.3	15.9	47.0	81.0	27.7	49.1	46.6	*	46.6
	T	98.3	1.7	93.3	82.3	27.5	50.6	48.2	*	48.2
PCI	E	100.0	0.0	100.0	100.0	0.0	100.0	100.0	*	100.0
	M	98.9	3.3	87.5	100.0	0.0	100.0	100.0	*	100.0
	L	100.0	0.0	100.0	100.0	0.0	100.0	100.0	*	100.0
	T	99.6	1.1	95.6	100.0	0.0	100.0	100.0	*	100.0
PVC		99.8	0.3	99.2	98.1	1.9	96.1	98.9	*	98.9
PVC-R		99.9	0.2	99.2	99.5	0.5	98.9	99.2	*	99.2
PPC		98.7	1.6	93.2	96.5	3.6	92.3	94.0	*	94.0
PPC-R		99.3	0.6	98.0	97.6	3.1	94.1	94.4	*	94.4
II		99.7	0.7	97.5	99.6	0.8	98.7	99.3	*	99.3