

ORIGINAL ARTICLE

Electrocardiograms in Healthy North American Children in the Digital Age

BACKGROUND: Interpretation of pediatric ECGs is limited by lack of accurate sex- and race-specific normal reference values obtained with modern technology for all ages. We sought to obtain contemporary digital ECG measurements in healthy children from North America, to evaluate the effects of sex and race, and to compare our results to commonly used published datasets.

METHODS: Digital ECGs (12-lead) were retrospectively collected for children ≤ 18 years old with normal echocardiograms at 19 centers in the Pediatric Heart Network. Patients were classified into 36 groups: 6 age, 2 sex, and 3 race (white, black, and other/mixed) categories. Standard intervals and amplitudes were measured; mean \pm SD and 2nd/98th percentiles were determined by age group, sex, and race. For each parameter, multivariable analysis, stratified by age, was conducted using sex and race as predictors. Parameters were compared with 2 large pediatric ECG data sets.

RESULTS: Among ECGs from 2400 children, significant differences were found by sex and race categories. The corrected QT interval in lead II was greater for girls compared with boys for age groups ≥ 3 years ($P \leq 0.03$) and for whites compared with blacks for age groups ≥ 12 years ($P < 0.05$). The R wave amplitude in V6 was greater for boys compared with girls for age groups ≥ 12 years ($P < 0.001$), for blacks compared with white or other race categories for age groups ≥ 3 years ($P \leq 0.006$), and greater compared with a commonly used public data set for age groups ≥ 12 years ($P < 0.0001$).

CONCLUSIONS: In this large, diverse cohort of healthy children, most ECG intervals and amplitudes varied by sex and race. These differences have important implications for interpreting pediatric ECGs in the modern era when used for diagnosis or screening, including thresholds for left ventricular hypertrophy.

VISUAL OVERVIEW: An online [visual overview](#) is available for this article.

Elizabeth V. Saarel, MD
et al

The full author list is available on page 7.

*A list of all Pediatric Heart Network Investigators is given in the [Data Supplement](#).

Key Words: electrocardiography
■ hypertrophy, left ventricular
■ pediatrics ■ reference value

© 2018 American Heart Association, Inc.

<http://circep.ahajournals.org>



WHAT IS KNOWN?

- Interpretation of pediatric electrocardiograms is limited by lack of sex- and race-specific normal reference values obtained with digital, modern technology for all ages.

WHAT THE STUDY ADDS?

- This data set can be used to refine the criteria based on ECG intervals, maximum and minimum voltages, and aggregate voltages for triggering further cardiac testing in seemingly healthy children with benign histories and normal physical examinations.
- The Pediatric Heart Network ECG data set suggests that the frequent high rate of false-positive ECG screening results may be skewed toward specific sex and race categories.
- Corrected QT interval in lead II and the R wave amplitude in V6 varied by sex and race and differed from previously published pediatric data sets and norms commonly used in practice. Relatively small differences in mean values correspond with substantial and potentially clinically important differences in the 98th percentile that represent the practical criteria for ECG diagnoses of prolonged QT or left ventricular enlargement.

The ECG is a cornerstone in the evaluation of children with acquired and congenital heart disease and may provide a basis for cardiac screening in the future.^{1,2} As a diagnostic tool, the modern ECG has multiple advantages, including the potential to detect cardiac disease, accurate automated interpretation, digital data storage, low cost, and essentially no risk. Currently, the use of ECGs in the identification of heart disease in children is limited by a lack of reliable reference values leading to poor accuracy.³ The amplitude and duration of surface ECG waveforms are affected by age, sex, cardiac rhythm, heart position, and the size of cardiovascular structures.⁴⁻¹² Electrocardiographic data may also be affected by race and ethnicity,¹³⁻¹⁵ but there is little supportive evidence in the pediatric population. Recent data, including children, indicate refinement of population, and patient-specific reference values improve diagnostic accuracy of the ECG,^{16,17} and the aim of this study is to further define the effects of sex and race on patient-specific ECG reference values for healthy children in North America from birth to age 18 years accounting for age.

Prior studies defining normal ECG data in children are limited by wide variation in methodology, inclusion criteria, number of subjects, and population.⁴⁻⁸ Indeed, the 2 most referenced normal data sets, from Davignon et al⁴ and Rijnbeek et al,⁵ were published before current American Heart Association recommendations were issued in 2009 in response to a shift from analog to

modern, computerized, digital ECG recording and analysis.² Available pediatric reports are largely constructed from single clinical sites and failed to account for analog versus digital ECG recording, geographic variations, or the influences of sex and race. Because of these differences in methodology and populations, there have been wide variations in reported normative values, including the QT interval and precordial R wave amplitudes.⁴⁻⁸ Focusing specifically on the ability to identify increased left ventricular mass, the sensitivity and specificity of current normal ECG parameters are estimated at 80% to 90% for children in the United States.³

We aimed to describe common contemporary ECG measurements adjusted for age, sex, and race for children with normal hearts enrolled in the Pediatric Heart Network (PHN) Echocardiogram Z score and ECG Database Project.^{18,19} We explored the relationship between age group, sex, and race for these measurements within the data set. Finally, we compared the median, lower (2nd), and upper (98th) percentiles of these measurements to existing public data sets from the Davignon et al⁴ and Rijnbeek et al⁵ studies, including statistical assessment of differences where possible.

PATIENTS AND METHODS

Study Design

Demographic and clinical data, echocardiogram images, and ECGs were collected from the records of healthy children at 19 centers in the PHN under the Echocardiogram Z score and ECG Database protocol. Because all data and images were collected retrospectively and were deidentified before submission, most children were enrolled under a waiver of consent after Institutional Review Board or Research Ethics Board approval was obtained at each participating center. Race and ethnicity information were not routinely obtained at 1 center, so these data were collected after obtaining informed consent and Institutional Review Board/Research Ethics Board approval. The subset of children enrolled in the PHN Echocardiogram Z score and ECG Database Project who had a digital 12-lead ECG uploaded to the database was included in this analysis. E.V.S. and S.G. had full access to the data in the study and take responsibility for its integrity and the data analysis.

Study Population

Healthy children ≤ 18.0 years old with echocardiograms performed after January 2008 and with documentation of age, height, weight, sex, and self-reported race were eligible for this study. Healthy children were identified by having a normal echocardiogram and no evidence of cardiac, inherited, or medical disease on review of the available medical records (Table I in the [Data Supplement](#)). Age groups were prespecified in the PHN Echocardiogram Z score study. A preappointed committee adjudicated potentially normal anatomic variants for the echocardiograms. Available ECGs with minimum standards of 12 leads, 10-second recording, sampling rate >500 Hz, and 150 Hz bandwidth in exportable digital format (MUSE; GE Healthcare, Waukesha, WI or

Philips Healthcare, Andover, MA) were collected closest to the date of the echocardiogram and included in the analysis. The study population (Table 1) represents a convenience sample subset of the PHN Echocardiogram Z score study. Self-reported race and ethnicity were divided into 3 categories for the study: white, black, and other (Hispanic, Asian, Pacific Islander, Native American, and multiracial).

Children were excluded (Table I in the [Data Supplement](#)) for evidence of acquired or congenital heart disease, corrected gestational age <37 weeks, obesity, acute or systemic disorder typically associated with cardiovascular manifestations, first-degree relative with a nonischemic cardiomyopathy, first-degree relative with a left-sided obstructive congenital heart lesion, or ECG waveforms that did not meet minimum digital standards or were inadequate for analysis.

Data Collection

Demographic, clinical, echocardiogram, and ECG data were obtained by participating centers and uploaded to a cloud database housed within the PHN Data Coordinating Center Bioinformatics Grid. All patient-specific information on the ECGs from the clinical centers was removed through PHN software tools with concurrent assignment of blind identifiers. All data transfers were completed through secure protocols using hypertext transfer protocol secure. Real-time validations, including both interinstrument and intrainstrument data checks, were integrated into the data entry system.

ECG Waveform Analysis

Deidentified extensible markup language format ECGs were transferred to the PHN ECG Core Lab server and were analyzed using Cal-ECG (AMPS LLC, New York, NY) software. The AMPS software suite is Food and Drug Administration certified and widely used in clinical research trials and throughout the pharmaceutical industry for assessment of drug-induced ECG changes. The AMPS algorithms for interval measurements have been validated and published in peer-reviewed journals.^{20,21} Quality assurance metrics consisted of 3 distinct measures: analysis of the waveforms to detect artifact, inter, and intra-reviewer variability. The Cal-ECG software automated artifact

detection program identified a disproportionate number of ECGs for infants with a heart rate >150 beats per minute, so 2 board-certified pediatric cardiologists reviewed all ECGs automatically excluded for artifact and manually determined if the waveforms were interpretable. Each of 64 parameters was measured by the Cal-ECG software and all were subsequently reviewed, including visual inspection of the digital ECG waveform, and validated by at least 1 board-certified pediatric cardiologist (Table II in the [Data Supplement](#)). The QT interval was measured from the beginning of the QRS complex to the end of the T-wave defined as the intercept between the isoelectric line with the tangent drawn through the maximum down slope of the T wave; the second phase for biphasic T waves was included, but U waves were excluded from QT interval. Additional customary parameters were calculated from these 64 measured values by the PHN Data Coordinating Center using standard methods (Table II in the [Data Supplement](#)).

Statistical Analysis

Thirty-six study groups were evaluated based on 6 age categories (<1 month, 1 month–<3 years, 3–<6 years, 6–<12 years, 12–<16 years, and 16–18 years), sex (male, female), and 3 race categories (white, black, other). The sample size was greater than the target of 60 in 27/36 groups. A sample size of 60 per group was chosen so that the margin of error for the mean would be 25% of the observed SD.

For every ECG parameter, descriptive statistics were determined for each age, sex, and race subgroup. All analyses were conducted using SAS v9.4 (SAS Institute, Inc, Cary, NC). For each parameter, a 2-way ANOVA, stratified by age group, was conducted using sex, race category, and the race category×sex interaction term as predictors. The interaction term tested whether the effect of sex depended on race or vice versa. In addition, for each parameter, a multivariable regression analysis, stratified by age group, was conducted using only sex and race category as predictors (excluding the interaction term). This model allowed us to test whether there was a difference between sex categories after accounting for race and whether there was a difference among race categories after accounting for sex. Furthermore, for each parameter, a 1-way ANOVA

Table 1. Male and Female Subjects With Measurable ECG by Age and Race

Race	<1 mo	(1 mo–<3 y)	(3–6) y	(6–12) y	(12–16) y	(16–18) y	Total
Boys							
White	54*	80	68	106	86	78	472
Black	34*	68	71	75	70	63	381
Other or mixed†	57*	81	73	73	75	63	422
Total	145	229	212	254	231	204	1275
Girls							
White	55*	77	75	79	87	75	448
Black	28*	62	46*	66	66	42*	310
Other or mixed†	29*	68	72	78	69	51*	367
Total	112	207	193	223	222	168	1125

*Sample sizes smaller than the target n=60.

†Other or mixed race includes data for race categories Asian, American Indian or Alaska Native and Native Hawaiian or other Pacific Islander, any non-Hispanic subject where >1 racial category was marked as yes indicating mixed race, and those whose ethnicity were marked as Hispanic or Latino/Latina.

was conducted comparing the 12- to 16-year-old age group to the 16- to 18-year-old age group. No formal adjustment for multiple testing was performed, but consistency of results across multiple outcomes was emphasized, as well as comparison of the number of significant effects to that which would be expected because of chance alone.

In addition, children in our study cohort were recategorized into the Davignon age groups to make a direct comparison with their published data.² Because only published means and SDs were available from Davignon et al,⁴ we used a 1-sample *t* test to compare the data. Comparisons were limited to amplitudes where mean values were published, including boys and girls age 12 to 16 years. No mean values were reported in the normal ECG data set published by Rijnbeek et al⁵ in 2001, so no statistical comparisons could be made with the PHN Normal ECG data (Tables III–IX in the [Data Supplement](#)). We reported raw rather than adjusted means to allow some comparison with the Rijnbeek data set.³

RESULTS

Among 2619 ECGs uploaded to the PHN data grid, the core laboratory excluded 219 because of inadequate quality of waveforms, leaving 2400 for this analysis (Table 1; Tables X–LXXXII in the [Data Supplement](#)). Intrareader variability was <2 ms for all intervals and <0.10 mV for all amplitudes. Inter-reader variability was a maximum of ±5 ms for intervals including the QT and a maximum of 0.15 mV for the amplitudes, including the R waves. Small but statistically and clinically significant differences were found in many intervals and amplitudes between sex and among race categories (Tables LXXXIII and LXXXIV in the [Data Supplement](#)).

QT Intervals

Differences in corrected QT interval (QTc) measurements up to 10 ms in lead II were found using both Bazett (Table 2) and Fridericia (Table LXXXV in the [Data Supplement](#))

correction for heart rate between sex and among race categories. Compared with boys, girls had a longer mean QTc by 5 to 10 ms at ≥3 years of age ($P=0.008$, 0.03, 0.03, 0.002 for boys versus girls in age groups 3–<6, 6–<12, 12–<16, and 16–18 years, respectively) using Bazett correction (Table 2). After accounting for sex, the mean QTc using Bazett correction measured 9 to 10 ms longer in white children than black children in age categories above 12 years ($P=0.002$ and 0.047 for white versus black in age groups 12–<16 and 16–18 years, respectively; Table 2). No interactions between sex and race were detected for the QTc using Bazett correction for heart rate ($P>0.05$ for all).

R Waves

Differences in precordial R wave measurements were noted between sex and among race categories in older children (Table 3). Overall, blacks had the tallest precordial R waves in all age categories ≥3 years (Table 3) with a maximum difference in the mean of 0.305 mV above age 16 years compared with subjects with other/mixed race ($P<0.001$) and a maximum difference in the 98th percentile of 0.677 mV compared with subjects with white race ($P<0.001$). Boys had taller precordial R waves than girls in V6 for ages ≥12 years (Table 3) with a mean difference of 0.415 to 0.349 mV ($P=0.03$ and 0.002 for boys versus girls in age groups 12–<16 years and 16–18 years, respectively). There was 1 statistically significant race×sex interaction calculated for the R wave in V6 in the age group 3–<6 years (Table 3; $P=0.04$), but in the context of multiple testing this is likely because of chance.

Comparison to Prior Large Pediatric ECG Data Sets

Table LXXXVI in the [Data Supplement](#) lists the breakdown in number of patients in our study limited to age

Table 2. Bazett Corrected QT Interval-II (ms) for the 6 Primary Age Categories by Race and Sex*

	Boys		Girls		White		Black		Other/Mixed		P Value Sex	P Value Race
	n	Mean±SD; Median (2nd, 98th)	n	Mean±SD; Median (2nd, 98th)	n	Mean±SD; Median (2nd, 98th)	n	Mean±SD; Median (2nd, 98th)	n	Mean±SD; Median (2nd, 98th)		
<1 mo*	138	392±29; 393 (304,455)	111	398±25; 395 (349, 459)	104	397±28; 398 (347, 461)	61	387±27; 388 (347, 450)	84	397±25; 399 (343, 455)	0.11	0.03
1 mo–<3 y*	229	388±25; 387 (342, 446)	205	393±26; 390 (345, 455)	156	392±24; 389 (352, 451)	130	391±26; 388 (338, 454)	148	390±27; 388 (339, 464)	0.11	0.74
3–<6 y*	211	384±21; 383 (343, 431)	191	390±24; 389 (356, 466)	143	390±22; 387 (345, 449)	115	386±23; 386 (343, 443)	144	386±23; 385 (343, 427)	0.008	0.29
6–<12 y*	254	390±21; 388 (356, 439)	223	394±24; 392 (353, 455)	185	395±25; 392 (350, 459)	141	389±20; 384 (355, 439)	151	392±22; 391 (356, 452)	0.03	0.10
12–<16 y*	231	390±25; 387 (342, 445)	222	395±23; 392 (357, 445)	173	397±25; 394 (356, 450)	136	387±24; 385 (342, 444)	144	391±23; 388 (351, 435)	0.03	0.002
16–18 y*	202	384±27; 382 (335,453)	168	394±22; 394 (344, 442)	152	393±25; 393 (344, 442)	105	384±26; 383 (334, 441)	113	388±26; 387 (337, 452)	0.002	0.047

*Interaction between sex and race was not statistically significant.

Table 3. R Wave Amplitude in V6 (mV) for Each of 6 Primary Age Categories by Race and Sex

	Boys		Girls		White		Black		Other/Mixed		P Value Sex	P Value Race
	n	Mean±SD; Median (2nd, 98th)	n	Mean±SD; Median (2nd, 98th)	n	Mean±SD; Median (2nd, 98th)	n	Mean±SD; Median (2nd, 98th)	n	Mean±SD; Median (2nd, 98th)		
<1 mo	143	0.756±0.425; 0.665 (0.157, 2.027)	111	0.868±0.445; 0.773 (0.189, 1.846)	108	0.825±0.444; 0.752 (0.127, 1.942)	61	0.875±0.509; 0.834 (0.225, 2.184)	85	0.729±0.358; 0.663 (0.159, 1.606)	0.07	0.17
1 mo–<3 y	229	1.446±0.558; 1.370 (0.407, 2.911)	207	1.455±0.588; 1.386 (0.413, 2.953)	157	1.490±0.566; 1.408 (0.447, 2.914)	130	1.406±0.622; 1.299 (0.358, 3.170)	149	1.447±0.530; 1.402 (0.439, 2.650)	0.89	0.46
3–<6 y*	212	1.629±0.648; 1.561 (0.663, 3.457)	193	1.626±0.661; 1.521 (0.651, 3.241)	143	1.531±0.563; 1.488 (0.676, 3.011)	117	1.801±0.628; 1.705 (0.820, 3.547)	145	1.582±0.729; 1.476 (0.503, 3.841)	0.74	0.002
6–<12 y	254	1.757±0.698; 1.677 (0.656, 3.571)	222	1.701±0.572; 1.587 (0.717, 3.203)	185	1.704±0.656; 1.598 (0.670, 3.530)	140	1.870±0.653; 1.778 (0.627, 3.525)	151	1.634±0.595; 1.549 (0.656, 2.843)	0.38	0.006
12–<16 y	231	1.798±0.631; 1.700 (0.744, 3.357)	222	1.383±0.482; 1.334 (0.619, 2.552)	173	1.590±0.587; 1.534 (0.348, 3.169)	136	1.714±0.632; 1.592 (0.741, 3.197)	144	1.486±0.564; 1.398 (0.619, 2.903)	<0.001	0.003
16–18 y	204	1.695±0.543; 1.677 (0.705, 2.974)	168	1.346±0.393; 1.267 (0.631, 2.344)	153	1.512±0.410; 1.479 (0.680, 2.298)	105	1.714±0.573; 1.711 (0.620, 2.975)	114	1.409±0.531; 1.288 (0.747, 2.845)	<0.001	<0.001

*Interaction between sex and race statistically significant $P=0.04$

groups used by Davignon et al.⁴ The R wave amplitudes in the PHN data set were statistically significantly different (all $P\leq 0.01$) for all precordial leads except V5 in both sex categories and V1 and V4 in boys (Table 4).

Mean values were not available in the Rijnbeek et al⁵ report, so statistical comparisons were not possible, but we were able to make observational assessments of discrepancies in the parameters reported in our study from those reported by Rijnbeek et al.⁵ For example, the 98th percentile for R waves in V6 in our study were higher for both boys and girls with a 0.3 mV difference in many categories (Tables III–VIII in the [Data Supplement](#)). In addition, the 98th percentile for the global QTc using Bazett correction in our study was 23 ms longer for boys in the <1 month age category (Table IV in the [Data Supplement](#)).

DISCUSSION

This is the first large pediatric data set from North America of ECG parameters obtained from digital acquisition, stratified by age, sex, and race, with echocardiogram confirmation of normal cardiac anatomy and exclusion of significant cardiac or systemic disease by medical record review. Our data, including interval and voltage parameters from digital 12-lead ECGs, indicate differences among age groups, between sex, and among race categories, as previously described in children and adults.^{4–15} These data have important implications for interpretation of the ECG in children in the current era, and they contrast existing pediatric public data sets.

Importantly, the QTc interval measurements from this PHN data set diverge from previous reports by expanding age stratification by sex and race.¹⁹ Our data indicate longer normal values for the QTc in girls age ≥ 3 years as well as clinically important racial differences in the QTc interval, where white children have longer values compared with black children. The PHN ECG data also suggest a broad range of QTc measurements in children <3 years of age, with the 98th percentile extending out to 464 ms in lead II for children with race other than white or black (Table 2).

Furthermore, the PHN Normal ECG data set diverges from prior reports for the R wave in V6. The most commonly referenced public ECG data set⁴ is based on waveforms acquired using analog technology in 2141 children living within a narrow geographic region of Canada without stratification by sex or race. Therefore, it is not surprising that the parameters documented by Davignon et al⁴ contrast with subsequent reports, most notably the Dutch pediatric study by Rijnbeek et al⁵ of 1912 digital ECGs. Comparison of Davignon et al⁴ values to the Dutch study reported by Rijnbeek et al⁵ indicates that the median R wave in V6 shifts from 1.5 to 2.0 mV and the 98th percentile from 2.3 to 3.1 mV for an adolescent, a 30% difference in the maximal normal R wave. Our data suggest an even further shift in the 98th percentile to 3.357 mV in boys and 3.197 mV in blacks in the age group 12–<16 years (Table 3). Similar differences can be identified when modern proprietary reading algorithms or other geographic samples are included.^{6–8}

Our data support both a broader range for defining normal and the need to stratify norms by sex and

Table 4. Comparison Sex Differences in Precordial R Wave Amplitudes (mV) in Age Group 12 to 16 Y Between Means From PHN to Davignon et al^a

Lead	Data Set	n	Sex	Mean	SD	P Value
V ₁	Davignon	142	Girls	0.37	0.23	<0.001
	PHN	216		0.29	0.21	<0.001
	Davignon	105	Boys	0.44	0.25	0.49
	PHN	227		0.42	0.24	0.49
V ₂	Davignon	142	Girls	0.92	0.36	<0.001
	PHN	220		0.62	0.36	<0.001
	Davignon	105	Boys	1.11	0.40	<0.001
	PHN	231		0.92	0.46	<0.001
V ₄	Davignon	142	Girls	1.76	0.57	0.003
	PHN	222		1.56	0.67	0.003
	Davignon	105	Boys	2.58	0.72	0.19
	PHN	231		2.46	0.88	0.19
V ₅	Davignon	142	Girls	1.66	0.50	0.12
	PHN	222		1.57	0.56	0.12
	Davignon	105	Boys	2.40	0.60	0.30
	PHN	231		2.32	0.75	0.30
V ₆	Davignon	142	Girls	1.23	0.30	<0.001
	PHN	222		1.38	0.48	<0.001
	Davignon	105	Boys	1.58	0.40	0.001
	PHN	231		1.80	0.63	0.001

PHN indicates Pediatric Heart Network.

^aP values are obtained by *t* test comparing means between the 2 data sets for each sex within each lead.

race for ECGs in children. It is possible that body size could negate the effects of sex and race on the ECG in healthy children, but this hypothesis has yet to be tested. These findings have important clinical implications because ECG parameters are currently used by clinicians and other groups who screen youth for the risk of sudden cardiac death from disorders, like long-QT syndrome and hypertrophic cardiomyopathy, and may guide diagnostic decisions (eg, referral for echocardiogram to rule out left ventricular hypertrophy in a patient with an elevated R wave in V6 above the 98% for age). The PHN ECG data set suggests that the frequent high rate of false-positive ECG screening results may be skewed toward specific sex and race categories.

Study Limitations

The main limitation of this study relates to the study cohort consisting of a convenience sample drawn from healthy children with normal echocardiograms enrolled in the PHN Echocardiogram Z score study rather than a random sample of the healthy population. Because the indication for the echocardiogram was not collected as part of the PHN Echocardiogram Z score and Database Project, the cohort could overrepresent children

with abnormal ECGs as the indication for the echocardiogram. However, our data did not indicate extreme outliers, and all measured intervals were normally distributed. In addition, it is important to note that obese children were excluded from the PHN study; because it is well described that obesity may affect the ECG,^{13,22,23} our findings are not generalizable to the large percentage of North American children who are obese but still considered healthy—17% overall and up to 25% in some age group, sex, and race categories.²⁴

This study was also inherently limited by its retrospective design. The study protocol required rigorous review of medical records and strict elimination of subjects with abnormal findings on any diagnostic study, but no records were reviewed after the study period to exclude subsequent abnormal findings. The ECGs included in this study were performed for clinical purposes, and investigators did not confirm correct lead placement. In addition, the study did not collect information about concomitant medication use in enrolled healthy children including non-cardiac medications that may change the ECG, including prolong the QT interval. As clinical researchers, we think that the gold standard for setting normal values for any pediatric medical test should include selection of subjects at random prospectively from a healthy population and performance of the given test under supervised conditions with quality control. Therefore, because our study population was a convenience sample and because the study is retrospective, the aim of this study is descriptive.

In addition, the National Institutes of Health definitions for race and ethnicity frequently differed from local definitions, leading to a widely diverse other race category. Indeed, several enrolling centers recorded Hispanic as a race category, and these subjects could not be included in our study because this local practice did not align with National Institutes of Health definitions of race and ethnicity; these potential subjects were not enrolled because they did not meet inclusion criteria. There is also a higher percentage of children with black race or Hispanic ethnicity than white race who are obese in the United States,²⁴ and this may have contributed to under-enrollment in the black and other race categories. This study, therefore, focused primarily on whites and blacks, so our findings may be less applicable to children of other races.

Another potential limitation of this study is the PHN ECG Core Lab process whereby the pediatric cardiologists who reviewed the ECG waveforms were not blinded to the results of the automatic waveform interval and amplitude measurements performed by the AMPS ECG software. This lack of blinded, independent analysis may have biased the results.

Finally, this retrospective study included ECGs recorded by GE or Philips systems that collect waveforms using a bandwidth of 150 Hz and fail to comply with current recommendations of using a bandwidth of up to 250 Hz in

children.² This shift would make it more likely to miss rapid, high-frequency elements of the ECG and reduce the amplitudes of Q, R, and S waves, particularly in younger children with faster heart rates and rapid cardiac depolarization. However, given the current clinical practice in North America where most centers use ECG recording systems that do not comply with current American Heart Association recommendations,² the PHN data are representative of contemporary real-world clinical practice.

Conclusions

In this large, diverse cohort of healthy children with normal echocardiograms from North America, numerous ECG intervals and amplitudes varied by sex and race.

In particular, the QTc interval in lead II and the R wave amplitude in V6 varied by sex and race and differed from previously published pediatric data sets and norms commonly used in practice. Relatively small differences in mean values correspond with substantial and potentially clinically important differences in the 98th percentile that represent the practical criteria for ECG diagnoses of prolonged QT or left ventricular enlargement. These differences have important implications for the interpretation of the pediatric ECG during diagnostic evaluations and screening for cardiac disease, and this data set can be used to refine the criteria based on ECG intervals, maximum and minimum voltages, and aggregate voltages for triggering further cardiac testing in seemingly healthy children with benign histories and normal physical examinations. Future prospective studies evaluating digital ECGs in healthy children should include stratification not only by age but also sex and race to validate our findings and further refine measurements in the normal pediatric population.

ARTICLE INFORMATION

Received August 27, 2017; accepted May 3, 2018.

The Data Supplement is available at <http://circep.ahajournals.org/lookup/suppl/doi:10.1161/CIRCEP.117.005808/-DC1>.

Authors

Elizabeth V. Saarel, MD; Suzanne Granger, MS; Jonathan R. Kaltman, MD; L. LuAnn Minich, MD; Martin Tristani-Firouzi, MD; Jeffrey J. Kim, MD; Kathleen Ash, MS; Sabrina S. Tsao, MD; Charles I. Berul, MD; Elizabeth A. Stephenson, MD; David G. Gamboa, MD; Felicia Trachtenberg, PhD; Peter Fischbach, MD; Victoria L. Vetter, MD; Richard J. Czossek, MD; Tiffanie R. Johnson, MD; Jack C. Salerno, MD; Nicole B. Cain, MD; Robert H. Pass, MD; Ilana Zeltser, MD; Eric S. Silver, MD; Joshua R. Kovach, MD; Mark E. Alexander, MD; for the Pediatric Heart Network Investigators*

Correspondence

Elizabeth V. Saarel, MD, Cleveland Clinic, M41, 9500 Euclid Ave, Cleveland, OH 44195. E-mail saarele@ccf.org

Affiliations

Cleveland Clinic Children's, OH (E.V.S.). New England Research Institutes, Watertown, MA (S.G., F.T.). National Heart, Lung, and Blood Institute,

Bethesda, MD (J.R.K.). Primary Children's Hospital & University of Utah, Salt Lake City (L.L.M., M.T.-F., D.G.G.). Texas Children's Hospital, Houston (J.J.K.). Cincinnati Children's Hospital, OH (K.A., R.J.C.). Ann & Robert H Lurie Children's Hospital, Chicago, IL (S.S.T.). Children's National Medical Center, Washington, DC (C.I.B.). The Hospital for Sick Children, Toronto, Ontario, Canada (E.A.S.). Children's Healthcare of Atlanta, GA (P.F.). Children's Hospital of Philadelphia, PA (V.L.V.). Riley Children's Hospital, Indianapolis, IN (T.R.J.). Seattle Children's Hospital, WA (J.C.S.). Medical University of South Carolina, Charleston (N.B.C.). Montefiore Medical Center, Bronx, NY (R.H.P.). University of Texas Southwestern, Dallas (I.Z.). Columbia University, New York, NY (E.S.S.). Children's Hospital of Wisconsin, Milwaukee (J.R.K.). Boston Children's Hospital, MA (M.E.A.).

Sources of Funding

The study was supported by grants (HL068270, HL068290, HL 109673, HL109737, HL109741, HL109741, HL109743, HL109777, HL109778, HL109781, HL109816, and HL109818) from the National Heart, Lung, and Blood Institute and National Institutes of Health. The contents of this work are solely the responsibility of the authors and do not necessarily represent the official views of the National Heart, Lung, and Blood Institute.

Disclosures

None.

REFERENCES

- Schlant RC, Adolph RJ, DiMarco JP, Dreifus LS, Dunn MI, Fisch C, Garson A Jr, Haywood LJ, Levine HJ, Murray JA. Guidelines for electrocardiography. A report of the American College of Cardiology/American Heart Association Task Force on Assessment of Diagnostic and Therapeutic Cardiovascular Procedures (Committee on Electrocardiography). *Circulation*. 1992;85:1221–1228.
- Kligfield P, Gettes LS, Bailey JJ, Childers R, Deal BJ, Hancock EW, van Herpen G, Kors JA, Macfarlane P, Mirvis DM, Pahlm O, Rautaharju P, Wagner GS, Josephson M, Mason JW, Okin P, Surawicz B, Wellens H; American Heart Association Electrocardiography and Arrhythmias Committee, Council on Clinical Cardiology; American College of Cardiology Foundation; Heart Rhythm Society. Recommendations for the standardization and interpretation of the electrocardiogram: part I: the electrocardiogram and its technology: a scientific statement from the American Heart Association Electrocardiography and Arrhythmias Committee, Council on Clinical Cardiology; the American College of Cardiology Foundation; and the Heart Rhythm Society: endorsed by the International Society for Computerized Electrocardiology. *Circulation*. 2007;115:1306–1324. doi: 10.1161/CIRCULATIONAHA.106.180200.
- Rodday AM, Triedman JK, Alexander ME, Cohen JT, Ip S, Newburger JW, Parsons SK, Trikalinos TA, Wong JB, Leslie LK. Electrocardiogram screening for disorders that cause sudden cardiac death in asymptomatic children: a meta-analysis. *Pediatrics*. 2012;129:e999–e1010. doi: 10.1542/peds.2011-0643.
- Davignon A, Rautaharju P, Boisselle E, Soumis F, Megelas M, Choquette A. Normal ECG standards for infants and children. *Pediatr Cardiol*. 1979;1:123–131.
- Rijnbeek PR, Witsenburg M, Schrama E, Hess J, Kors JA. New normal limits for the paediatric electrocardiogram. *Eur Heart J*. 2001;22:702–711. doi: 10.1053/euhj.2000.2399.
- Dickinson DF. The normal ECG in childhood and adolescence. *Heart*. 2005;91:1626–1630. doi: 10.1136/hrt.2004.057307.
- Macfarlane PW, Coleman EN, Pomphrey EO, McLaughlin S, Houston A, Aitchison T. Normal limits of the high-fidelity pediatric ECG. Preliminary observations. *J Electrocardiol*. 1989;22(suppl):162–168.
- Semizel E, Oztürk B, Bostan OM, Cil E, Ediz B. The effect of age and gender on the electrocardiogram in children. *Cardiol Young*. 2008;18:26–40. doi: 10.1017/S1047951107001722.
- Rautaharju PM, Zhou SH, Wong S, Calhoun HP, Berenson GS, Prineas R, Davignon A. Sex differences in the evolution of the electrocardiographic QT interval with age. *Can J Cardiol*. 1992;8:690–695.
- Alfakih K, Walters K, Jones T, Ridgway J, Hall AS, Sivananthan M. New gender-specific partition values for ECG criteria of left ventricular hypertrophy: recalibration against cardiac MRI. *Hypertension*. 2004;44:175–179. doi: 10.1161/01.HYP.0000135249.66192.30.

11. Casale PN, Devereux RB, Alonso DR, Campo E, Kligfield P. Improved sex-specific criteria of left ventricular hypertrophy for clinical and computer interpretation of electrocardiograms: validation with autopsy findings. *Circulation*. 1987;75:565–572.
12. Norman JE Jr, Levy D. Improved electrocardiographic detection of echocardiographic left ventricular hypertrophy: results of a correlated data base approach. *J Am Coll Cardiol*. 1995;26:1022–1029. doi: 10.1016/0735-1097(95)00269-5.
13. Rautaharju PM, Zhou SH, Calhoun HP. Ethnic differences in ECG amplitudes in North American white, black, and Hispanic men and women. Effect of obesity and age. *J Electrocardiol*. 1994;27(suppl):20–31.
14. Rao PS, Thapar MK, Harp RJ. Racial variations in electrocardiograms and vectorcardiograms between black and white children and their genesis. *J Electrocardiol*. 1984;17:239–252.
15. Vitelli LL, Crow RS, Shahar E, Hutchinson RG, Rautaharju PM, Folsom AR. Electrocardiographic findings in a healthy biracial population. Atherosclerosis Risk in Communities (ARIC) Study Investigators. *Am J Cardiol*. 1998;81:453–459.
16. Riding NR, Sheikh N, Adamuz C, Watt V, Farooq A, Whyte GP, George KP, Drezner JA, Sharma S, Wilson MG. Comparison of three current sets of electrocardiographic interpretation criteria for use in screening athletes. *Heart*. 2015;101:384–390. doi: 10.1136/heartjnl-2014-306437.
17. Sheikh N, Papadakis M, Ghani S, Zaidi A, Gati S, Adami PE, Carré F, Schnell F, Wilson M, Avila P, McKenna W, Sharma S. Comparison of electrocardiographic criteria for the detection of cardiac abnormalities in elite black and white athletes. *Circulation*. 2014;129:1637–1649. doi: 10.1161/CIRCULATIONAHA.113.006179.
18. Surawicz B, Childers R, Deal BJ, Gettes LS, Bailey JJ, Gorgels A, Hancock EW, Josephson M, Kligfield P, Kors JA, Macfarlane P, Mason JW, Mirvis DM, Okin P, Pahlm O, Rautaharju PM, van Herpen G, Wagner GS, Wellens H; American Heart Association Electrocardiography and Arrhythmias Committee, Council on Clinical Cardiology; American College of Cardiology Foundation; Heart Rhythm Society. AHA/ACCF/HRS recommendations for the standardization and interpretation of the electrocardiogram: part III: intraventricular conduction disturbances: a scientific statement from the American Heart Association Electrocardiography and Arrhythmias Committee, Council on Clinical Cardiology; the American College of Cardiology Foundation; and the Heart Rhythm Society: endorsed by the International Society for Computerized Electrocardiology. *Circulation*. 2009;119:e235–e240. doi: 10.1161/CIRCULATIONAHA.108.191095.
19. Rautaharju PM, Surawicz B, Gettes LS, Bailey JJ, Childers R, Deal BJ, Gorgels A, Hancock EW, Josephson M, Kligfield P, Kors JA, Macfarlane P, Mason JW, Mirvis DM, Okin P, Pahlm O, van Herpen G, Wagner GS, Wellens H; American Heart Association Electrocardiography and Arrhythmias Committee, Council on Clinical Cardiology; American College of Cardiology Foundation; Heart Rhythm Society. AHA/ACCF/HRS recommendations for the standardization and interpretation of the electrocardiogram: part IV: the ST segment, T and U waves, and the QT interval: a scientific statement from the American Heart Association Electrocardiography and Arrhythmias Committee, Council on Clinical Cardiology; the American College of Cardiology Foundation; and the Heart Rhythm Society. Endorsed by the International Society for Computerized Electrocardiology. *J Am Coll Cardiol*. 2009;53:982–991. doi: 10.1016/j.jacc.2008.12.014.
20. Kligfield P, Badilini F, Rowlandson I, Xue J, Clark E, Devine B, Macfarlane P, de Bie J, Mortara D, Babaeizadeh S, Gregg R, Helfenbein ED, Green CL. Comparison of automated measurements of electrocardiographic intervals and durations by computer-based algorithms of digital electrocardiographs. *Am Heart J*. 2014;167:150–159.
21. Sarapa N, Mortara JL, Brown BD, Isola L, Badilini F. Quantitative performance of E-Scribe warehouse in detecting quality issues with digital annotated ECG data from healthy subjects. *J Clin Pharmacol*. 2008;48:538–546. doi: 10.1177/0091270008316326.
22. Abergel E, Tase M, Menard J, Chatellier G. Influence of obesity on the diagnostic value of electrocardiographic criteria for detecting left ventricular hypertrophy. *Am J Cardiol*. 1996;77:739–744.
23. Okin PM, Roman MJ, Devereux RB, Kligfield P. Electrocardiographic identification of left ventricular hypertrophy: test performance in relation to definition of hypertrophy and presence of obesity. *J Am Coll Cardiol*. 1996;27:124–131. doi: 10.1016/0735-1097(95)00421-1.
24. Ogden CL, Carroll MD, Fryar CD, Flegal KM. Prevalence of Obesity Among Adults and Youth: United States, 2011–2014. U.S. Department of Health and Human Services, Center for Disease Control and Prevention: National Center for Health Statistics. Washington, DC. <https://www.cdc.gov/nchs/data/databriefs/db219.pdf>. Accessed October 28, 2015.

Electrocardiograms in Healthy North American Children in the Digital Age

Elizabeth V. Saarel, Suzanne Granger, Jonathan R. Kaltman, L. LuAnn Minich, Martin Tristani-Firouzi, Jeffrey J. Kim, Kathleen Ash, Sabrina S. Tsao, Charles I. Berul, Elizabeth A. Stephenson, David G. Gamboa, Felicia Trachtenberg, Peter Fischbach, Victoria L. Vetter, Richard J. Czosek, Tiffanie R. Johnson, Jack C. Salerno, Nicole B. Cain, Robert H. Pass, Ilana Zeltser, Eric S. Silver, Joshua R. Kovach and Mark E. Alexander
for the Pediatric Heart Network Investigators*

Circ Arrhythm Electrophysiol. 2018;11:

doi: 10.1161/CIRCEP.117.005808

Circulation: Arrhythmia and Electrophysiology is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231

Copyright © 2018 American Heart Association, Inc. All rights reserved.

Print ISSN: 1941-3149. Online ISSN: 1941-3084

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://circep.ahajournals.org/content/11/7/e005808>

Data Supplement (unedited) at:

<http://circep.ahajournals.org/content/suppl/2018/06/20/CIRCEP.117.005808.DC1>

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in *Circulation: Arrhythmia and Electrophysiology* can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the [Permissions and Rights Question and Answer](#) document.

Reprints: Information about reprints can be found online at:
<http://www.lww.com/reprints>

Subscriptions: Information about subscribing to *Circulation: Arrhythmia and Electrophysiology* is online at:
<http://circep.ahajournals.org/subscriptions/>

SUPPLEMENTAL MATERIALS

ACKNOWLEDGEMENTS:

PEDIATRIC HEART NETWORK INVESTIGATORS

National Heart, Lung, and Blood Institute: Gail Pearson, Mario Stylianou, Victoria Pemberton

Network Chair: Lynn Mahony, University of Texas Southwestern Medical Center

Data Coordinating Center: New England Research Institutes, Watertown, MA: David Pober*, Shan Chen*, Felicia Trachtenberg, Suzanne Granger, Paul Stark*, Christine Dyer-Ward*, Andrew Morrison*, Barbara Winrich*, Christina Toomey*, Tiffany Eldridge, Julia Keosaian*, Eric Gerstenberger*, Michelle Pucillo*, Katelyn Nelson*, Stephanie Moine*.

Core Clinical Site Investigators: The Hospital for Sick Children, Toronto, CA: Steven Schwartz (Center PI), Elizabeth Stephenson (Study Site PI), Elizabeth Radojewski*; Boston Children's Hospital, Boston, MA: Jane Newburger (Center PI), Mark E Alexander (Study Site PI), Carolyn Dunbar-Masterson, Jill Handisides; The Children's Hospital of Philadelphia, Philadelphia, PA: Stephen Paridon (Center PI), Victoria Vetter (Study Site PI), Agbenu Ejemi*; Morgan Stanley; Medical University of South Carolina, Charleston, SC: Andrew Atz (Center PI), Eric Graham (Center PI), Nicole Cain (Study Site PI); Primary Children's Hospital and the University of Utah, Salt Lake City, Utah: L. LuAnn Minich (PI), Richard V. Williams (Center PI), Thomas Pilcher (Study Site PI), Elizabeth V. Saarel* (Study Site PI), David G. Gamboa, Linda M. Lambert, Marian E. Shearrow; University of Michigan Health System, Ann Arbor, MI: Caren Goldberg (Center PI), Richard Ohye (Center PI), David J. Bradley (Study Site PI); Cincinnati Children's Hospital and Medical Center, Cincinnati, Ohio: James Cnota (Center PI), Richard Czosek (Study Site PI), Kathleen Ash; Riley Hospital for Children at Indiana University Health, Indianapolis, IN: Mark Payne (Center PI), Tiffanie Johnson (Study Site PI), Liz Swan; Children's Healthcare of Atlanta, Atlanta, GA: William Mahle (Center PI), Peter Fischbach (Study Site PI); Texas Children's Hospital, Houston, TX: Daniel J. Penny (Center PI), Jeffrey Kim (Study Site PI), David Garuba.

Auxiliary Site Investigators: Children's Hospital of New York Presbyterian, New York, NY: Marc E. Richmond (Center PI), Eric S. Silver (Study Site PI); University of Texas Southwestern Medical Center, Dallas, Texas: Ilana Zeltser (PI); Children's Hospital of Wisconsin, Milwaukee, WI: Salil Ginde (Center PI), Joshua Kovach (Study Site PI), Michelle Otto, Michele Frommelt; Monroe Carrell Jr Children's Hospital at Vanderbilt University, Nashville, TN: Larry

Markham (Center PI), Andrew E. Radbill (Study Site PI); Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL: Joseph Camarda (Center PI), Sabrina Tsao (Study Site PI); Seattle Children's Hospital, Seattle, WA: Mark Lewin (Center PI), Jack Salerno (Study Site PI); Children's Hospital at Montefiore, Bronx, NY: Joseph Mahgerefteh (Center PI), Robert H. Pass (Study Site PI), Leo Lopez*, Kelly Ann Balem; Children's National Medical Center, Washington, DC: Craig Sable (Center PI), Charles I. Berul (Study Site PI).

Electrocardiography Core Laboratory: University of Utah, Salt Lake City, Utah: Martin Tristani-Firouzi (PI), Elizabeth V. Saarel (PI)*, Robert Lux, Phillip Ershler.

Protocol Review Committee: Michael Artman, Chair; Frank Evans, Executive Secretary; Richard Brill, Stephen Daniels, Ben Eidem, G. Paul Matherne, Timothy Feltes, Jogarao Gobburu, Jeffrey P. Krischer, Patrick McBride.

Data and Safety Monitoring Board: John Kugler, Chair; David Gordon, Executive Secretary; David Driscoll, Thomas Knight, Sally Hunsberger, Holly Taylor.

* No longer at the institution listed

SUPPLEMENTAL TABLES

Supplemental Table 1: Inclusion/Exclusion Criteria for Enrollment

A. Inclusion Criteria

- ≤18.0 years of age
- Echo images in DICOM (Digital Imaging and Communications in Medicine) format performed after January 1, 2008
- Documentation of height and weight
- Documentation of sex and race
- Normal echo study
- Electronic ECG data (minimum 12 leads, 10 second recording; sampling rate > 500 Hz and 150 Hz bandwidth) in digital format

B. Exclusion Criteria for Enrollment

- Structural congenital heart disease as determined by history, physical examination, chest X-ray, or echocardiogram
- Acquired or congenital heart disease based on the following electrocardiographic findings (if an electrocardiogram was performed): PR interval >220 ms, 2nd or 3rd degree heart block, QRS interval >120 ms, ventricular pre-excitation, non-sinus rhythm, and confirmed diagnosis of long QT syndrome
- Corrected gestational age <37 weeks at the time of the echocardiogram because of the high prevalence of hemodynamically significant cardiovascular and respiratory pathology in premature babies
- BMI ≥95th percentile for children ≥2 years old, or weight-for-length Z-score ≥2 based on the World Health Organization Child Growth Standards for children <2 years old because of associated cardiovascular pathology reported in association with obese children
- Acute or systemic disorder with cardiovascular manifestations (including but not limited to Marfan syndrome, sickle cell disease, cancer, renal failure, human immunodeficiency virus infection, Kawasaki disease, rheumatic fever, autoimmune disorder, and systemic hypertension) using criteria which were not based on electrocardiographic or echocardiographic findings but rather on specific physical exam findings or abnormal blood tests as documented in the medical record
- Documented history of a 1st degree relative with non-ischemic cardiomyopathy
- Documented history of a 1st degree relative with the following congenital left-sided heart lesions: mitral stenosis, left ventricular outflow tract obstruction, bicuspid aortic valve, aortic coarctation, and/or hypoplastic left heart syndrome.
- ECG waveforms inadequate for analysis

Supplemental Table 2: ECG Parameters

Measure
Heart rate (bpm)
PR interval (ms)
QRS duration (ms)
T wave duration - GBL (ms)
P wave duration - GBL (ms)
P wave duration - II (ms)
P wave amplitude - II (millivolt)
P wave amplitude - V1 (millivolt)
R wave amplitude - V4 (millivolt)
R wave amplitude - V5 (millivolt)
R wave amplitude - V6 (millivolt)
R+S amplitude in V3 +V4 (millivolt)
R amplitude in V6+ S amplitude in V1 (millivolt)
QT interval - GBL (ms)
QT interval - II (ms)
QT interval - V5 (ms)
QT interval - V6 (ms)
Bazett's corrected QT interval - GBL (ms)
Bazett's corrected QT interval - II (ms)
Bazett's corrected QT interval - V5 (ms)
Bazett's corrected QT interval - V6 (ms)

Fridericia corrected QT interval - GBL (ms)
Fridericia corrected QT interval - II (ms)
Fridericia corrected QT interval - V5 (ms)
Fridericia corrected QT interval - V6 (ms)
Mean frontal plane QRS axis (degree)
Mean frontal plane P wave axis (degree)
Mean frontal plane T wave axis (degree)
T wave amplitude - GBL (millivolt)
T wave amplitude - I (millivolt)
T wave amplitude - II (millivolt)
T wave amplitude - III (millivolt)
T wave amplitude - V1 (millivolt)
T wave amplitude - V2 (millivolt)
T wave amplitude - V3 (millivolt)
T wave amplitude - V4 (millivolt)
T wave amplitude - V5 (millivolt)
T wave amplitude - V6 (millivolt)
T wave amplitude - aVF (millivolt)
T wave amplitude - aVL (millivolt)
T wave amplitude - aVR (millivolt)
ST segment elevation - GBL (millivolt)
ST segment elevation - I (millivolt)
ST segment elevation - II (millivolt)

ST segment elevation - III (millivolt)
ST segment elevation - V1 (millivolt)
ST segment elevation - V2 (millivolt)
ST segment elevation - V3 (millivolt)
ST segment elevation - V4 (millivolt)
ST segment elevation - V5 (millivolt)
ST segment elevation - V6 (millivolt)
ST segment elevation - aVF (millivolt)
ST segment elevation - aVL (millivolt)
ST segment elevation - aVR (millivolt)
Net T wave amplitude - V1+V5+V6 (millivolt)
R' wave amplitude - V1 (millivolt)
R wave amplitude - V1 (millivolt)
R wave amplitude - V2 (millivolt)
R wave amplitude - V3 (millivolt)
R amplitude in V1 +S amplitude in V6 (millivolt)
S wave amplitude - V1 (millivolt)
S wave amplitude - V2 (millivolt)
S wave amplitude - V3 (millivolt)
S wave amplitude - V4 (millivolt)
S wave amplitude - V5 (millivolt)
S wave amplitude - V6 (millivolt)
Q wave amplitude - I (millivolt)

Q wave amplitude - II (millivolt)
Q wave amplitude - III (millivolt)
Q wave amplitude - V1 (millivolt)
Q wave amplitude - V6 (millivolt)
Q wave amplitude - aVF (millivolt)
Q wave amplitude - aVL (millivolt)

Supplemental Table 3. Age and sex distribution of the PHN ECG Database Project study population according to the age groupings presented in the article by Rijnbeek et al⁵

Age	Male	Female	Total
0 to 1 month	131	98	229
1 to 3 months	93	76	169
3 to 6 months	43	32	75
6 to 12 months	29	26	55
1 to 3 years	78	87	165
3 to 5 years	131	125	256
5 to 8 years	163	140	303
8 to 12 years	173	151	324
12 to 16 years	231	222	453
Above 16 years	203	168	371
Total	1275	1125	2400

Supplemental Table 4. Lead-independent ECG measurements for males (upper row) and females (lower row): median (2nd percentile, 98th percentile) according to the age groupings presented in the article by Rijnbeek et al⁵

Lead	0-1 months	1-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5-8 years	8-12 years	12-16 years	Above 16 years
Heart rate (beats/min)	146 (94, 169)	149 (99, 174)	132 (107, 161)	118 (103, 146)	109 (80, 138)	93 (71, 130)	85 (62, 109)	74 (52, 107)	68 (49, 108)	64 (46, 97)
	147 (100, 177)	150 (104, 177)	133 (89, 175)	124 (96, 152)	112 (70, 149)	96 (76, 135)	86 (64, 115)	80 (59, 128)	71 (50, 107)	69 (51, 101)
P axis (°)	53 (-27, 166)	55 (14, 121)	53 (-2, 197)	41 (-31, 70)	49 (6, 73)	47 (-2, 74)	43 (-33, 77)	40 (-18, 74)	45 (-35, 83)	49 (-40, 83)
	52 (-7, 92)	55.5 (17, 78)	46 (20, 73)	45.5 (22, 75)	50 (0, 72)	53 (2, 78)	44.5 (-29, 75)	46 (-44, 75)	46.5 (-34, 82)	43 (-28, 84)
P duration GBL (ms)	60 (42, 80)	62 (50, 76)	66 (54, 94)	68 (60, 82)	76 (52, 106)	80 (62, 98)	84 (66, 108)	90 (70, 118)	92 (68, 120)	96 (70, 124)
	57 (42, 78)	62 (44, 82)	66 (52, 92)	70 (58, 92)	75 (58, 94)	80 (62, 112)	84 (66, 102)	88 (70, 118)	92 (74, 120)	93 (72, 120)
P duration II (ms)	68 (44, 92)	68 (48, 90)	76 (40, 92)	74 (46, 100)	84 (56, 106)	84 (60, 114)	86 (60, 112)	92 (60, 120)	92 (60, 122)	98 (64, 126)
	65 (40, 98)	68 (44, 88)	70 (50, 92)	72 (58, 94)	80 (60, 102)	86 (62, 112)	85 (65, 110)	90 (62, 128)	92 (64, 120)	92 (56, 116)
PR interval (ms)	98 (66, 126)	96 (74, 130)	100 (58, 126)	108 (86, 136)	117 (90, 154)	120 (96, 162)	128 (100, 162)	138 (100, 190)	138 (98, 184)	150 (104, 210)
	94 (72, 122)	98 (72, 128)	98 (82, 126)	105 (86, 132)	116 (88, 166)	126 (94, 156)	126 (96, 172)	134 (98, 174)	138 (106, 182)	140 (104, 188)
QRS axis (°)	134 (37, 231)	90 (0, 195)	75 (-19, 224)	78 (27, 139)	76 (-28, 249)	71 (-11, 225)	75 (-12, 125)	78 (-3, 132)	78 (1, 167)	79 (-35, 130)
	126 (73, 210)	89 (41, 184)	70.5 (39, 167)	78 (27, 152)	76 (22, 136)	76 (-38, 157)	75 (-35, 125)	78 (-9, 118)	72 (15, 115)	71 (9, 107)
QRS duration GBL (ms)	60 (46, 94)	66 (48, 94)	66 (48, 106)	70 (42, 92)	76 (54, 106)	78 (60, 98)	80 (60, 108)	84 (66, 116)	88 (72, 112)	92 (68, 120)
	58 (44, 90)	62 (48, 86)	64 (42, 100)	68 (52, 86)	74 (54, 92)	76 (60, 116)	79 (58, 112)	82 (64, 106)	88 (66, 112)	90 (66, 118)
QTc interval GBL(ms)*	389 (321, 471)	385 (310, 433)	386 (351, 469)	372 (345, 442)	379 (339, 425)	380 (342, 421)	385 (347, 424)	389 (351, 446)	385 (340, 438)	375 (332, 422)
	391 (344, 453)	390 (342, 434)	384 (332, 442)	385 (324, 413)	384 (341, 422)	386 (346, 429)	382 (354, 444)	392 (348, 443)	397 (355, 443)	396 (348, 437)
QTc interval II(ms)*	394 (316, 455)	394 (313, 439)	391 (362, 478)	379 (350, 462)	383 (342, 443)	383 (343, 431)	386 (349, 431)	388 (355, 450)	387 (342, 442)	382 (335, 453)
	395 (348, 466)	393 (351, 454)	392 (339, 464)	388 (330, 429)	388 (345, 487)	390 (349, 493)	384 (359, 449)	397 (353, 455)	392 (357, 445)	394 (344, 442)
QTc interval V5(ms)*	392 (302, 449)	387 (296, 440)	386 (359, 460)	372 (344, 418)	377 (334, 435)	377 (338, 414)	379 (340, 419)	383 (341, 441)	382 (338, 430)	373 (331, 447)
	395 (340, 452)	390 (348, 454)	384 (326, 452)	382 (327, 411)	384 (343, 454)	382 (348, 439)	378 (348, 441)	388 (336, 437)	393 (349, 440)	392 (348, 439)
QTc interval V6(ms)*	392 (313, 448)	388 (299, 433)	391 (359, 466)	379 (350, 424)	383 (338, 457)	383 (342, 422)	384 (346, 427)	387 (345, 448)	388 (347, 437)	379 (336, 458)
	396 (340, 456)	394 (351, 441)	390 (320, 457)	387 (332, 419)	386 (347, 437)	387 (349, 455)	384 (353, 453)	391 (350, 451)	396 (351, 440)	393 (354, 444)

* Corrected QT interval, according to Bazett's formula

Supplemental Table 5. P-wave amplitudes (mV) for males (upper row) and females (lower row): median (98th percentile) according to the age groupings presented in the article by Rijnbeek et al⁵

Lead	0-1 months	1-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5-8 years	8-12 years	12-16 years	Above 16 years
II	0.14 (0.29)	0.14 (0.30)	0.16 (0.26)	0.14 (0.22)	0.16 (0.23)	0.14 (0.28)	0.13 (0.24)	0.13 (0.24)	0.13 (0.30)	0.13 (0.27)
	0.16 (0.32)	0.15 (0.26)	0.15 (0.26)	0.15 (0.23)	0.16 (0.24)	0.16 (0.26)	0.13 (0.29)	0.13 (0.30)	0.13 (0.27)	0.13 (0.25)
V1	0.08 (0.18)	-0.01 (0.15)	-0.02 (0.16)	0.00 (0.15)	0.08 (0.18)	0.09 (0.20)	0.07 (0.16)	0.06 (0.16)	0.06 (0.16)	0.05 (0.15)
	0.09 (0.25)	0.01 (0.15)	0.00 (0.13)	0.06 (0.11)	0.08 (0.16)	0.10 (0.17)	0.06 (0.17)	0.05 (0.15)	0.02 (0.13)	0.02 (0.12)

Supplemental Table 6. Q-wave amplitudes (mV) for males (upper row) and females (lower row): median (98th percentile) according to the age groupings presented in the article by Rijnbeek et al⁵

Lead	0-1 months	1-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5-8 years	8-12 years	12-16 years	Above 16 years
AVF	-0.18 (-0.05)	-0.27 (-0.04)	-0.35 (-0.04)	-0.36 (-0.05)	-0.29 (-0.04)	-0.19 (-0.03)	-0.19 (-0.03)	-0.14 (-0.03)	-0.12 (-0.03)	-0.11 (-0.03)
	-0.22 (-0.05)	-0.27 (-0.04)	-0.27 (-0.04)	-0.35 (-0.06)	-0.25 (-0.04)	-0.19 (-0.03)	-0.11 (-0.03)	-0.12 (-0.03)	-0.09 (-0.03)	-0.09 (-0.03)
AVL	-0.06 (-0.03)	-0.06 (-0.03)	-0.05 (-0.03)	-0.13 (-0.05)	-0.07 (-0.03)	-0.10 (-0.03)	-0.11 (-0.03)	-0.13 (-0.03)	-0.10 (-0.03)	-0.11 (-0.03)
	-0.08 (-0.03)	-0.08 (-0.04)	-0.07 (-0.03)	-0.04 (-0.03)	-0.09 (-0.03)	-0.11 (-0.03)	-0.11 (-0.03)	-0.11 (-0.03)	-0.09 (-0.02)	-0.08 (-0.03)
III	-0.25 (-0.06)	-0.35 (-0.03)	-0.42 (-0.04)	-0.54 (-0.03)	-0.45 (-0.14)	-0.33 (-0.03)	-0.24 (-0.03)	-0.18 (-0.03)	-0.14 (-0.03)	-0.12 (-0.03)
	-0.30 (-0.09)	-0.34 (-0.04)	-0.40 (-0.06)	-0.47 (-0.18)	-0.37 (-0.03)	-0.30 (-0.04)	-0.18 (-0.04)	-0.15 (-0.03)	-0.11 (-0.03)	-0.11 (-0.03)
II	-0.14 (-0.04)	-0.24 (-0.04)	-0.22 (-0.04)	-0.26 (-0.04)	-0.21 (-0.04)	-0.13 (-0.04)	-0.16 (-0.03)	-0.11 (-0.03)	-0.09 (-0.03)	-0.10 (-0.03)
	-0.18 (-0.03)	-0.20 (-0.05)	-0.19 (-0.03)	-0.21 (-0.03)	-0.16 (-0.03)	-0.14 (-0.03)	-0.10 (-0.03)	-0.12 (-0.03)	-0.08 (-0.03)	-0.08 (-0.03)
I	-0.07 (-0.03)	-0.07 (-0.03)	-0.04 (-0.03)	-0.08 (-0.03)	-0.09 (-0.03)	-0.10 (-0.03)	-0.08 (-0.03)	-0.09 (-0.03)	-0.06 (-0.03)	-0.06 (-0.03)
	-0.10 (-0.04)	-0.06 (-0.03)	-0.07 (-0.03)	-0.06 (-0.05)	-0.08 (-0.03)	-0.08 (-0.03)	-0.07 (-0.03)	-0.06 (-0.03)	-0.06 (-0.03)	-0.05 (-0.03)
V1	-0.04 (-0.03)	-0.03 (-0.03)	-0.04 (-0.04)	-0.41 (-0.04)	-0.03 (-0.03)	-0.14 (-0.03)	-0.04 (-0.03)	-0.19 (-0.03)	-0.58 (-0.03)	-1.00 (-0.04)
	-0.03 (-0.03)	-0.04 (-0.03)	-0.03 (-0.03)	-0.04 (-0.04)	-0.09 (-0.05)	-0.05 (-0.03)	-0.03 (-0.03)	-0.40 (-0.04)	-0.53 (-0.03)	-0.80 (-0.30)
V6	-0.14 (-0.04)	-0.21 (-0.04)	-0.19 (-0.04)	-0.26 (-0.03)	-0.27 (-0.05)	-0.20 (-0.04)	-0.20 (-0.03)	-0.18 (-0.04)	-0.12 (-0.03)	-0.11 (-0.03)
	-0.16 (-0.03)	-0.21 (-0.05)	-0.15 (-0.03)	-0.22 (-0.04)	-0.26 (-0.04)	-0.19 (-0.03)	-0.15 (-0.03)	-0.13 (-0.03)	-0.09 (-0.03)	-0.08 (-0.03)

Supplemental Table 7. R-wave amplitudes (mV) for males (upper row) and females (lower row): median (98th percentile) according to the age groupings presented in the article by Rijnbeek et al⁵

Lead	0-1 months	1-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5-8 years	8-12 years	12-16 years	Above 16 years
V1	1.10 (2.37)	0.87 (2.31)	1.00 (2.51)	0.86 (1.88)	0.72 (2.17)	0.66 (1.77)	0.58 (1.78)	0.45 (1.31)	0.38 (1.02)	0.32 (1.27)
	1.05 (2.36)	0.76 (2.10)	0.95 (2.20)	0.63 (1.91)	0.70 (1.70)	0.60 (1.28)	0.47 (1.29)	0.40 (1.13)	0.22 (0.87)	0.23 (0.74)
V2	1.48 (2.61)	1.49 (2.89)	1.89 (3.20)	1.72 (3.31)	1.75 (3.26)	1.53 (3.19)	1.24 (2.56)	1.02 (2.16)	0.89 (2.03)	0.77 (2.08)
	1.48 (3.14)	1.43 (2.83)	1.82 (3.16)	1.51 (2.62)	1.45 (2.64)	1.25 (2.43)	1.08 (2.32)	0.82 (2.08)	0.54 (1.52)	0.46 (1.23)
V3	1.57 (2.63)	1.91 (3.27)	2.22 (3.37)	1.97 (3.16)	1.87 (3.28)	1.80 (3.93)	1.66 (4.16)	1.43 (3.89)	1.31 (3.51)	1.16 (3.13)
	1.68 (3.26)	1.94 (2.93)	2.15 (3.59)	1.94 (3.18)	1.73 (3.11)	1.36 (3.57)	1.46 (3.63)	1.26 (2.87)	0.89 (2.23)	0.75 (2.24)
V4	1.34 (2.63)	2.03 (3.46)	2.28 (4.41)	2.31 (4.82)	2.17 (4.69)	2.68 (4.73)	2.64 (4.51)	2.58 (4.28)	2.47 (4.52)	2.22 (3.96)
	1.56 (3.14)	2.10 (3.58)	2.35 (4.72)	2.26 (3.86)	2.27 (4.08)	2.19 (4.37)	2.53 (5.10)	2.24 (4.09)	1.45 (3.26)	1.35 (2.65)
V5	0.99 (2.34)	1.71 (3.50)	1.93 (3.48)	2.08 (3.43)	1.88 (4.57)	1.99 (4.09)	2.31 (3.94)	2.39 (4.62)	2.31 (4.03)	2.17 (3.65)
	1.16 (2.63)	1.62 (3.36)	1.95 (2.92)	1.73 (2.91)	2.01 (3.77)	2.07 (4.22)	2.06 (3.93)	2.06 (4.01)	1.51 (2.79)	1.42 (2.55)
V6	0.67 (1.94)	1.21 (2.91)	1.48 (2.52)	1.43 (2.65)	1.46 (3.21)	1.46 (3.55)	1.63 (3.12)	1.75 (3.72)	1.71 (3.36)	1.68 (2.97)
	0.75 (1.85)	1.13 (3.00)	1.37 (3.17)	1.24 (2.58)	1.56 (2.95)	1.51 (3.19)	1.51 (3.26)	1.61 (3.30)	1.33 (2.55)	1.27 (2.34)

Supplemental Table 8. S-wave amplitudes (mV) for males (upper row) and females (lower row): median (98th percentile) according to the age groupings presented in the article by Rijnbeek et al⁵

Lead	0-1 months	1-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5-8 years	8-12 years	12-16 years	Above 16 years
V1	-0.50 (-0.12)	-0.50 (-0.10)	-0.48 (-0.14)	-0.72 (-0.15)	-0.66 (-0.14)	-0.81 (-0.23)	-0.87 (-0.23)	-0.95 (-0.29)	-1.02 (-0.24)	-1.17 (-0.17)
	-0.47 (-0.12)	-0.53 (-0.11)	-0.72 (-0.20)	-0.68 (-0.12)	-0.70 (-0.12)	-0.87 (-0.18)	-0.98 (-0.22)	-1.03 (-0.20)	-0.83 (-0.22)	-0.86 (-0.26)
V2	-1.26 (-0.41)	-1.04 (-0.16)	-1.15 (-0.47)	-1.14 (-0.21)	-1.42 (-0.32)	-1.56 (-0.26)	-1.64 (-0.40)	-1.77 (-0.67)	-1.90 (-0.48)	-1.92 (-0.48)
	-1.21 (-0.20)	-1.09 (-0.41)	-1.30 (-0.53)	-1.35 (-0.40)	-1.26 (-0.30)	-1.63 (-0.58)	-1.72 (-0.37)	-1.58 (-0.41)	-1.07 (-0.25)	-1.08 (-0.24)
V3	-1.04 (-0.39)	-0.99 (-0.22)	-1.27 (-0.37)	-0.97 (-0.29)	-1.08 (-0.13)	-1.30 (-0.23)	-1.30 (-0.43)	-1.18 (-0.29)	-1.19 (-0.32)	-1.29 (-0.24)
	-0.96 (-0.13)	-0.93 (-0.23)	-1.15 (-0.18)	-1.18 (-0.28)	-0.87 (-0.17)	-0.93 (-0.18)	-0.97 (-0.19)	-0.87 (-0.12)	-0.58 (-0.13)	-0.55 (-0.15)
V4	-0.90 (-0.26)	-0.94 (-0.27)	-1.03 (-0.26)	-0.98 (-0.21)	-0.77 (-0.14)	-0.75 (-0.18)	-0.79 (-0.14)	-0.68 (-0.16)	-0.65 (-0.14)	-0.71 (-0.15)
	-0.87 (-0.17)	-0.82 (-0.20)	-0.78 (-0.31)	-0.80 (-0.22)	-0.53 (-0.14)	-0.58 (-0.14)	-0.54 (-0.11)	-0.52 (-0.15)	-0.37 (-0.11)	-0.33 (-0.11)
V5	-0.62 (-0.18)	-0.68 (-0.15)	-0.64 (-0.12)	-0.57 (-0.11)	-0.49 (-0.14)	-0.41 (-0.16)	-0.37 (-0.12)	-0.33 (-0.11)	-0.41 (-0.11)	-0.42 (-0.12)
	-0.64 (-0.17)	-0.44 (-0.13)	-0.42 (-0.14)	-0.47 (-0.11)	-0.32 (-0.13)	-0.33 (-0.12)	-0.30 (-0.11)	-0.27 (-0.11)	-0.26 (-0.10)	-0.23 (-0.11)
V6	-0.40 (-0.15)	-0.37 (-0.12)	-0.36 (-0.15)	-0.32 (-0.10)	-0.29 (-0.11)	-0.24 (-0.11)	-0.22 (-0.11)	-0.22 (-0.10)	-0.25 (-0.10)	-0.24 (-0.10)
	-0.35 (-0.11)	-0.29 (-0.11)	-0.19 (-0.10)	-0.26 (-0.12)	-0.18 (-0.11)	-0.20 (-0.10)	-0.19 (-0.10)	-0.19 (-0.11)	-0.19 (-0.10)	-0.17 (-0.11)

Supplemental Table 9. R/S ratio in precordial leads for males (upper row) and females (lower row): median (2nd percentile, 98th percentile) according to the age groupings presented in the article by Rijnbeek et al⁵

Lead	0-1 months	1-3 months	3-6 months	6-12 months	1-3 years	3-5 years	5-8 years	8-12 years	12-16 years	Above 16 years
V1	-2.01 (-8.64, -0.74)	-1.96 (-6.56, -0.44)	-1.85 (-6.66, -0.39)	-1.60 (-5.33, -0.47)	-1.11 (-4.72, -0.23)	-0.77 (-2.75, -0.17)	-0.61 (-3.05, -0.08)	-0.48 (-1.34, -0.09)	-0.36 (-1.52, -0.10)	-0.31 (-1.55, -0.07)
	-2.05 (-8.48, -0.52)	-1.57 (-5.88, -0.45)	-1.62 (-5.21, -0.43)	-1.32 (-3.78, -0.23)	-0.88 (-3.45, -0.17)	-0.69 (-2.31, -0.09)	-0.55 (-2.53, -0.12)	-0.39 (-1.47, -0.10)	-0.30 (-1.57, -0.07)	-0.28 (-1.60, -0.06)
V2	-1.08 (-2.68, -0.52)	-1.52 (-5.31, -0.70)	-1.46 (-3.57, -0.54)	-1.54 (-5.19, -0.62)	-1.19 (-3.86, -0.46)	-0.93 (-4.03, -0.26)	-0.82 (-2.70, -0.18)	-0.59 (-1.43, -0.17)	-0.48 (-2.37, -0.08)	-0.42 (-1.46, -0.10)
	-1.14 (-7.39, -0.42)	-1.30 (-3.04, -0.58)	-1.29 (-2.94, -0.71)	-1.16 (-3.02, -0.73)	-1.10 (-3.72, -0.37)	-0.75 (-1.78, -0.20)	-0.71 (-2.56, -0.17)	-0.55 (-1.96, -0.17)	-0.52 (-2.26, -0.14)	-0.46 (-1.67, -0.09)
V3	-1.41 (-3.83, -0.65)	-1.89 (-12.4, -0.69)	-1.79 (-6.46, -0.71)	-1.94 (-8.37, -1.08)	-1.64 (-12.8, -0.56)	-1.38 (-6.24, -0.57)	-1.23 (-7.92, -0.39)	-1.12 (-7.55, -0.30)	-1.08 (-7.00, -0.12)	-0.86 (-7.98, -0.15)
	-1.83 (-13.4, -0.73)	-2.15 (-6.64, -0.95)	-1.80 (-9.88, -0.86)	-1.69 (-8.97, -0.66)	-1.71 (-9.50, -0.63)	-1.26 (-8.71, -0.42)	-1.37 (-14.3, -0.40)	-1.23 (-11.1, -0.34)	-1.43 (-7.85, -0.29)	-1.16 (-9.13, -0.33)

Supplemental Table 10A. Heart rate (bpm) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	138.2±22.3 (95.4,167.1)	80	126.3±23.6 (82.6,164.0)	68	91.9±12.9 (70.9,113.9)	106	75.4±14.2 (54.7,99.8)	86	67.7±11.5 (52.2,88.1)	78	64.0±12.0 (47.2,80.8)
Male African-American	34	148.2±13.5 (117.0,167.1)	68	131.4±19.7 (97.1,164.4)	71	91.2±14.4 (67.0,114.9)	75	77.0±13.3 (52.9,100.5)	70	68.8±12.6 (52.4,87.2)	63	63.9±11.6 (49.1,81.3)
Male Other or Mixed	57	143.7±21.2 (101.0,170.9)	81	126.5±22.3 (92.3,161.3)	73	92.6±11.3 (77.1,116.7)	73	79.0±13.6 (58.8,103.6)	75	70.9±15.1 (54.1,107.3)	63	66.2±11.5 (49.8,89.3)
Female White	55	145.9±19.5 (109.9,170.0)	77	127.2±21.2 (95.2,172.4)	75	94.0±13.4 (72.0,120.2)	79	82.5±16.7 (59.2,116.3)	87	72.2±12.8 (53.3,93.6)	75	70.4±14.6 (53.0,100.8)
Female African-American	28	145.9±12.1 (127.7,167.1)	62	130.3±23.5 (98.2,165.7)	46	95.4±16.4 (73.9,124.2)	66	83.3±13.4 (62.7,101.2)	66	69.8±9.0 (54.0,82.4)	42	70.1±11.1 (53.5,90.2)
Female Other or Mixed	29	142.2±19.7 (101.2,170.5)	68	126.7±23.7 (92.9,164.8)	72	94.0±12.8 (76.4,118.6)	78	85.1±15.1 (64.2,117.9)	69	74.3±14.9 (54.5,105.4)	51	70.5±9.5 (52.4,86.3)

Supplemental Table 10B. Heart rate (bpm) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	142.7 (124.7,154.6)	80	126.2 (110.5,144.2)	68	90.4 (83.3,101.4)	106	74.8 (65.4,81.9)	86	67.6 (58.9,73.9)	78	63.6 (56.1,69.5)
Male African-American	34	150.8 (138.2,158.3)	68	130.2 (119.0,146.7)	71	89.0 (82.1,99.2)	75	77.3 (66.2,85.1)	70	68.1 (59.5,74.0)	63	61.3 (56.1,70.0)
Male Other or Mixed	57	145.6 (132.5,159.2)	81	125.0 (108.5,142.5)	73	92.2 (84.9,99.7)	73	77.7 (69.1,87.1)	75	67.5 (58.3,78.4)	63	65.1 (58.5,70.6)
Female White	55	149.3 (137.0,158.3)	77	123.7 (111.5,141.8)	75	91.7 (85.6,101.4)	79	79.7 (71.1,93.2)	87	72.1 (63.4,79.3)	75	65.7 (59.8,78.9)
Female African-American	28	147.2 (137.6,154.7)	62	129.5 (115.8,147.4)	46	92.0 (83.6,104.7)	66	83.2 (74.6,93.0)	66	70.7 (65.1,77.8)	42	69.9 (62.2,75.7)
Female Other or Mixed	29	146.7 (125.3,157.9)	68	127.5 (109.8,141.7)	72	92.7 (85.7,100.7)	78	83.8 (74.5,93.2)	69	70.6 (64.5,84.2)	51	70.7 (64.8,76.7)

Supplemental Table 11A. PR interval (ms) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	54	97.3 \pm 13.7 (76.0,122.0)	80	105.0 \pm 17.5 (78.0,137.0)	68	123.3 \pm 15.4 (104.0,146.0)	106	136.1 \pm 19.0 (108.0,166.0)	86	136.4 \pm 20.9 (104.0,176.0)	78	144.7 \pm 25.0 (108.0,200.0)
Male African-American	34	98.9 \pm 15.6 (56.0,118.0)	68	106.4 \pm 15.1 (84.0,128.0)	71	125.9 \pm 16.6 (100.0,154.0)	75	138.7 \pm 21.7 (106.0,176.0)	70	142.7 \pm 21.1 (118.0,182.0)	63	157.6 \pm 23.7 (122.0,210.0)
Male Other or Mixed	57	97.0 \pm 13.2 (70.0,118.0)	81	108.1 \pm 16.0 (88.0,136.0)	73	125.0 \pm 17.3 (98.0,158.0)	73	135.6 \pm 18.6 (106.0,166.0)	75	138.3 \pm 21.5 (106.0,178.0)	63	148.1 \pm 22.5 (118.0,186.0)
Female White	55	96.4 \pm 13.0 (76.0,122.0)	77	106.9 \pm 18.6 (78.0,138.0)	75	125.3 \pm 17.1 (100.0,160.0)	79	131.4 \pm 17.5 (106.0,160.0)	87	136.3 \pm 21.4 (110.0,178.0)	75	137.9 \pm 19.8 (108.0,168.0)
Female African-American	28	99.9 \pm 10.9 (88.0,122.0)	62	105.0 \pm 15.2 (82.0,130.0)	46	123.2 \pm 19.1 (94.0,154.0)	66	133.9 \pm 19.4 (100.0,168.0)	66	147.1 \pm 18.2 (122.0,178.0)	42	150.0 \pm 21.9 (126.0,186.0)
Female Other or Mixed	29	97.8 \pm 12.0 (76.0,116.0)	67	109.0 \pm 17.8 (84.0,138.0)	72	124.8 \pm 13.7 (102.0,142.0)	78	132.6 \pm 18.2 (102.0,164.0)	69	141.0 \pm 18.1 (112.0,168.0)	51	142.3 \pm 20.0 (116.0,174.0)

Supplemental Table 11B. PR interval (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	98.0 (86.0,104.0)	80	102.0 (92.0,114.0)	68	123.0 (112.0,132.0)	106	134.0 (124.0,148.0)	86	132.0 (124.0,148.0)	78	143.0 (126.0,158.0)
Male African-American	34	99.0 (96.0,110.0)	68	106.0 (97.0,116.0)	71	124.0 (114.0,134.0)	75	134.0 (124.0,152.0)	70	141.0 (130.0,158.0)	63	158.0 (146.0,170.0)
Male Other or Mixed	57	98.0 (88.0,106.0)	81	106.0 (94.0,118.0)	73	122.0 (114.0,136.0)	73	136.0 (122.0,148.0)	75	138.0 (122.0,154.0)	63	148.0 (134.0,164.0)
Female White	55	92.0 (88.0,106.0)	77	106.0 (96.0,116.0)	75	125.0 (114.0,136.0)	79	128.0 (118.0,146.0)	87	132.0 (120.0,146.0)	75	136.0 (124.0,152.0)
Female African-American	28	98.0 (93.0,105.0)	62	104.0 (96.0,114.0)	46	121.0 (110.0,136.0)	66	134.0 (124.0,144.0)	66	147.0 (134.0,158.0)	42	146.0 (134.0,168.0)
Female Other or Mixed	29	100.0 (88.0,106.0)	67	108.0 (96.0,122.0)	72	126.0 (114.0,134.0)	78	132.0 (120.0,140.0)	69	138.0 (130.0,156.0)	51	140.0 (130.0,152.0)

Supplemental Table 12A. QRS duration (ms) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	54	65.0 \pm 10.2 (48.0,82.0)	80	73.5 \pm 10.6 (58.0,94.0)	68	82.6 \pm 10.0 (68.0,98.0)	106	87.5 \pm 10.9 (72.0,110.0)	86	89.9 \pm 9.2 (76.0,104.0)	78	95.7 \pm 12.0 (74.0,118.0)
Male African-American	34	58.6 \pm 12.3 (46.0,80.0)	68	67.4 \pm 11.7 (50.0,88.0)	71	75.5 \pm 9.8 (60.0,96.0)	75	80.4 \pm 9.8 (66.0,98.0)	70	87.9 \pm 11.5 (72.0,110.0)	63	86.4 \pm 10.9 (70.0,100.0)
Male Other or Mixed	55	63.4 \pm 11.3 (48.0,86.0)	81	71.2 \pm 11.2 (54.0,92.0)	73	77.2 \pm 9.8 (64.0,94.0)	73	84.5 \pm 8.7 (72.0,102.0)	75	88.9 \pm 9.8 (72.0,106.0)	63	93.3 \pm 12.8 (76.0,118.0)
Female White	55	62.7 \pm 11.9 (46.0,88.0)	77	71.4 \pm 9.8 (58.0,86.0)	75	79.8 \pm 11.4 (62.0,102.0)	79	85.0 \pm 11.6 (66.0,110.0)	87	88.8 \pm 10.4 (70.0,108.0)	75	92.8 \pm 11.6 (74.0,112.0)
Female African-American	28	56.9 \pm 7.6 (48.0,72.0)	62	66.6 \pm 11.5 (50.0,84.0)	46	76.9 \pm 12.1 (60.0,94.0)	66	78.8 \pm 10.5 (64.0,92.0)	66	87.6 \pm 11.8 (66.0,108.0)	42	84.1 \pm 12.6 (68.0,104.0)
Female Other or Mixed	28	59.8 \pm 11.1 (44.0,78.0)	68	69.4 \pm 10.9 (56.0,90.0)	72	78.5 \pm 10.6 (62.0,96.0)	78	81.2 \pm 10.8 (66.0,102.0)	69	86.5 \pm 11.4 (72.0,110.0)	51	90.7 \pm 10.4 (74.0,110.0)

Supplemental Table 12B. QRS duration (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	66.0 (58.0,70.0)	80	74.0 (66.0,78.0)	68	81.0 (76.0,88.0)	106	86.0 (80.0,94.0)	86	90.0 (84.0,96.0)	78	96.0 (90.0,104.0)
Male African-American	34	57.0 (50.0,62.0)	68	66.0 (60.0,71.0)	71	74.0 (70.0,80.0)	75	80.0 (76.0,84.0)	70	86.0 (80.0,96.0)	63	88.0 (80.0,94.0)
Male Other or Mixed	55	60.0 (54.0,74.0)	81	74.0 (64.0,78.0)	73	78.0 (70.0,82.0)	73	84.0 (78.0,90.0)	75	88.0 (82.0,96.0)	63	92.0 (86.0,100.0)
Female White	55	60.0 (54.0,68.0)	77	70.0 (64.0,78.0)	75	78.0 (74.0,86.0)	79	84.0 (78.0,92.0)	87	88.0 (82.0,94.0)	75	94.0 (86.0,100.0)
Female African-American	28	56.0 (50.0,59.0)	62	68.0 (56.0,76.0)	46	75.0 (70.0,82.0)	66	78.0 (72.0,86.0)	66	88.0 (80.0,96.0)	42	86.0 (76.0,92.0)
Female Other or Mixed	28	58.0 (51.0,69.0)	68	68.0 (62.0,76.0)	72	76.0 (73.0,84.0)	78	80.0 (72.0,86.0)	69	86.0 (80.0,92.0)	51	90.0 (84.0,98.0)

Supplemental Table 13A. T wave duration - GBL (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	121.5±38.1 (62.0,194.0)	78	115.4±17.1 (96.0,148.0)	68	122.1±13.9 (104.0,144.0)	105	131.6±19.1 (110.0,166.0)	85	137.3±21.5 (114.0,172.0)	78	139.4±21.3 (112.0,186.0)
Male African-American	33	113.9±24.9 (70.0,152.0)	64	112.2±17.5 (84.0,140.0)	71	121.3±17.8 (100.0,150.0)	75	126.0±20.5 (102.0,162.0)	70	142.5±27.1 (112.0,202.0)	63	141.1±18.8 (116.0,170.0)
Male Other or Mixed	51	117.8±21.6 (90.0,156.0)	80	113.0±21.5 (69.0,149.0)	73	124.8±17.1 (100.0,154.0)	71	126.7±16.8 (104.0,152.0)	75	141.9±29.6 (100.0,202.0)	63	141.6±25.9 (112.0,186.0)
Female White	52	119.9±32.9 (84.0,170.0)	76	109.2±20.0 (74.0,144.0)	74	116.9±15.2 (98.0,150.0)	79	120.0±16.5 (98.0,138.0)	86	137.0±26.5 (114.0,196.0)	75	134.6±22.9 (106.0,164.0)
Female African-American	27	107.4±22.7 (68.0,156.0)	61	114.2±24.0 (86.0,140.0)	46	121.9±12.7 (102.0,144.0)	66	129.4±25.8 (102.0,190.0)	66	137.5±28.6 (108.0,188.0)	42	137.7±23.3 (112.0,176.0)
Female Other or Mixed	28	122.3±23.9 (92.0,162.0)	64	115.2±18.8 (94.0,138.0)	72	121.0±14.4 (104.0,152.0)	78	123.2±17.1 (102.0,144.0)	69	134.6±23.0 (110.0,160.0)	51	135.9±29.2 (108.0,192.0)

Supplemental Table 13B. T wave duration - GBL (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	112.0 (102.0,136.0)	78	112.0 (106.0,124.0)	68	118.0 (112.0,132.0)	105	128.0 (120.0,140.0)	85	132.0 (126.0,144.0)	78	138.0 (126.0,146.0)
Male African-American	33	114.0 (98.0,132.0)	64	114.0 (104.0,120.0)	71	118.0 (112.0,130.0)	75	124.0 (114.0,136.0)	70	136.0 (124.0,154.0)	63	140.0 (128.0,152.0)
Male Other or Mixed	51	118.0 (104.0,128.0)	80	113.0 (100.0,126.0)	73	124.0 (114.0,134.0)	71	124.0 (116.0,136.0)	75	138.0 (126.0,154.0)	63	138.0 (128.0,146.0)
Female White	52	113.0 (103.0,131.0)	76	108.0 (96.0,123.0)	74	114.0 (110.0,122.0)	79	122.0 (112.0,130.0)	86	128.0 (122.0,142.0)	75	132.0 (122.0,144.0)
Female African-American	27	102.0 (96.0,116.0)	61	116.0 (100.0,126.0)	46	120.0 (114.0,128.0)	66	124.0 (112.0,138.0)	66	130.0 (118.0,148.0)	42	131.0 (126.0,146.0)
Female Other or Mixed	28	117.0 (103.0,145.0)	64	116.0 (105.0,128.0)	72	120.0 (110.0,126.0)	78	122.0 (112.0,134.0)	69	132.0 (120.0,142.0)	51	128.0 (120.0,146.0)

Supplemental Table 14A. P wave duration - GBL (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	58.5±7.9 (48.0,74.0)	80	68.0±9.8 (53.0,83.0)	68	80.6±8.3 (70.0,94.0)	106	89.3±11.0 (72.0,110.0)	85	89.9±13.1 (72.0,112.0)	78	93.4±11.8 (72.0,114.0)
Male African-American	33	58.9±7.3 (46.0,72.0)	68	69.2±11.4 (54.0,88.0)	71	81.5±10.0 (64.0,98.0)	75	89.6±13.5 (70.0,112.0)	70	95.0±11.8 (74.0,114.0)	63	100.7±12.0 (84.0,118.0)
Male Other or Mixed	57	61.2±11.5 (44.0,80.0)	81	70.5±10.7 (56.0,90.0)	73	79.8±8.9 (68.0,98.0)	73	88.7±9.2 (72.0,104.0)	75	92.4±13.2 (74.0,118.0)	63	95.3±14.6 (70.0,118.0)
Female White	55	57.0±8.9 (44.0,76.0)	77	67.9±9.7 (52.0,82.0)	75	80.4±10.4 (66.0,96.0)	79	86.8±9.2 (72.0,100.0)	87	92.0±10.1 (76.0,108.0)	75	91.6±11.0 (72.0,110.0)
Female African-American	28	58.6±9.4 (46.0,72.0)	62	69.3±9.7 (56.0,86.0)	46	80.5±9.5 (66.0,94.0)	66	90.4±12.5 (74.0,108.0)	66	95.6±12.7 (76.0,118.0)	42	94.8±9.1 (82.0,110.0)
Female Other or Mixed	29	60.2±9.9 (44.0,76.0)	66	70.5±11.2 (54.0,90.0)	72	82.5±10.0 (68.0,98.0)	76	88.8±10.6 (72.0,108.0)	69	93.6±11.7 (75.0,120.0)	51	94.1±10.0 (80.0,120.0)

Supplemental Table 14B. P wave duration - GBL (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	58.0 (52.0,62.0)	80	67.0 (62.0,75.0)	68	80.0 (76.0,86.0)	106	89.0 (82.0,96.0)	85	90.0 (80.0,96.0)	78	92.0 (86.0,100.0)
Male African-American	33	60.0 (54.0,62.0)	68	66.0 (60.0,75.5)	71	82.0 (76.0,88.0)	75	88.0 (80.0,94.0)	70	95.0 (88.0,102.0)	63	100.0 (92.0,106.0)
Male Other or Mixed	57	62.0 (54.0,67.0)	81	70.0 (64.0,76.0)	73	80.0 (74.0,86.0)	73	90.0 (82.0,94.0)	75	92.0 (84.0,100.0)	63	94.0 (86.0,106.0)
+												
Female White	55	56.0 (50.0,62.0)	77	68.0 (62.0,74.0)	75	80.0 (72.0,86.0)	79	86.0 (80.0,94.0)	87	90.0 (84.0,100.0)	75	92.0 (84.0,98.0)
Female African-American	28	58.0 (54.0,63.0)	62	68.0 (62.0,76.0)	46	81.0 (76.0,86.0)	66	89.0 (82.0,98.0)	66	94.0 (88.0,104.0)	42	94.5 (88.0,102.0)
Female Other or Mixed	29	60.0 (52.0,66.0)	66	70.0 (62.0,78.0)	72	82.0 (76.0,88.0)	76	88.0 (82.0,95.0)	69	94.0 (86.0,98.0)	51	92.0 (88.0,98.0)

Supplemental Table 15A. P wave duration - II (ms) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	54	66.1 \pm 12.4 (48.0,90.0)	80	74.8 \pm 12.8 (53.0,94.0)	68	82.9 \pm 11.4 (64.0,98.0)	106	90.2 \pm 14.1 (66.0,110.0)	86	89.2 \pm 16.9 (60.0,114.0)	78	93.9 \pm 13.8 (70.0,120.0)
Male African-American	33	67.3 \pm 8.4 (55.0,82.0)	68	74.9 \pm 12.8 (54.0,100.0)	71	83.0 \pm 13.0 (64.0,108.0)	75	88.6 \pm 13.4 (66.0,114.0)	70	92.8 \pm 12.9 (74.0,116.0)	63	99.6 \pm 15.7 (75.0,124.0)
Male Other or Mixed	56	66.4 \pm 11.7 (48.0,84.0)	81	76.5 \pm 11.3 (58.0,94.0)	73	84.9 \pm 12.4 (66.0,106.0)	73	92.3 \pm 13.7 (70.0,118.0)	75	92.3 \pm 15.6 (70.0,118.0)	63	95.1 \pm 18.0 (66.0,120.0)
Female White	55	67.1 \pm 11.5 (50.0,90.0)	77	73.4 \pm 9.8 (58.0,88.0)	75	83.6 \pm 10.8 (65.0,104.0)	79	88.7 \pm 13.2 (66.0,110.0)	87	92.2 \pm 13.2 (68.0,112.0)	75	92.0 \pm 14.7 (60.0,112.0)
Female African-American	28	63.8 \pm 12.1 (48.0,80.0)	62	74.2 \pm 11.7 (56.0,94.0)	46	83.6 \pm 11.3 (62.0,100.0)	65	88.6 \pm 12.4 (70.0,106.0)	66	94.7 \pm 13.4 (75.0,116.0)	42	96.5 \pm 12.7 (75.0,112.0)
Female Other or Mixed	29	65.2 \pm 11.5 (46.0,78.0)	67	74.6 \pm 12.6 (50.0,92.0)	72	85.7 \pm 13.0 (68.0,110.0)	77	90.5 \pm 12.7 (70.0,110.0)	68	92.9 \pm 14.3 (70.0,116.0)	51	92.3 \pm 14.7 (75.0,114.0)

Supplemental Table 15B. P wave duration - II (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	66.0 (56.0,76.0)	80	76.0 (64.5,86.0)	68	85.5 (76.0,90.0)	106	92.0 (84.0,100.0)	86	92.0 (80.0,100.0)	78	94.0 (84.0,102.0)
Male African-American	33	66.0 (62.0,74.0)	68	74.0 (68.0,84.0)	71	84.0 (74.0,90.0)	75	88.0 (80.0,98.0)	70	90.0 (84.0,100.0)	63	100.0 (92.0,108.0)
Male Other or Mixed	56	68.0 (57.0,74.0)	81	76.0 (68.0,84.0)	73	86.0 (76.0,92.0)	73	92.0 (82.0,102.0)	75	94.0 (80.0,104.0)	63	98.0 (80.0,108.0)
Female White	55	66.0 (60.0,74.0)	77	74.0 (66.0,80.0)	75	84.0 (78.0,90.0)	79	90.0 (80.0,96.0)	87	92.0 (84.0,102.0)	75	92.0 (84.0,104.0)
Female African-American	28	63.0 (54.0,73.0)	62	73.0 (66.0,84.0)	46	86.0 (78.0,90.0)	65	88.0 (80.0,96.0)	66	94.0 (86.0,102.0)	42	98.0 (88.0,106.0)
Female Other or Mixed	29	66.0 (58.0,72.0)	67	75.0 (68.0,86.0)	72	86.0 (77.0,94.0)	77	90.0 (82.0,98.0)	68	90.0 (85.5,102.0)	51	90.0 (84.0,102.0)

Supplemental Table 16A. P wave amplitude - II (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	0.170±0.079 (0.034,0.300)	80	0.146±0.064 (0.004,0.227)	68	0.142±0.051 (0.063,0.223)	106	0.130±0.055 (0.044,0.216)	86	0.137±0.069 (0.053,0.238)	78	0.119±0.074 (-0.015,0.231)
Male African-American	34	0.131±0.064 (0.006,0.223)	68	0.147±0.057 (0.051,0.237)	71	0.139±0.057 (0.062,0.259)	75	0.113±0.058 (0.035,0.224)	70	0.122±0.062 (0.016,0.230)	63	0.132±0.086 (0.017,0.273)
Male Other or Mixed	57	0.118±0.068 (0.006,0.207)	81	0.145±0.043 (0.084,0.221)	73	0.137±0.057 (0.043,0.235)	73	0.131±0.058 (0.043,0.231)	75	0.125±0.083 (0.040,0.243)	63	0.125±0.053 (0.044,0.213)
Female White	55	0.176±0.060 (0.025,0.263)	77	0.163±0.043 (0.091,0.234)	75	0.150±0.049 (0.066,0.231)	79	0.151±0.064 (0.071,0.301)	87	0.136±0.060 (0.047,0.233)	75	0.135±0.055 (0.053,0.235)
Female African-American	28	0.139±0.057 (0.028,0.232)	62	0.145±0.045 (0.084,0.218)	46	0.138±0.057 (0.055,0.226)	66	0.134±0.076 (0.001,0.268)	66	0.130±0.073 (0.030,0.247)	42	0.129±0.055 (0.049,0.208)
Female Other or Mixed	29	0.136±0.068 (0.030,0.265)	68	0.147±0.058 (0.017,0.228)	72	0.145±0.050 (0.066,0.229)	78	0.139±0.058 (0.057,0.231)	69	0.129±0.062 (0.033,0.238)	51	0.120±0.058 (0.019,0.233)

Supplemental Table 16B. P wave amplitude - II (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	0.164 (0.126,0.200)	80	0.156 (0.126,0.193)	68	0.147 (0.112,0.176)	106	0.133 (0.085,0.174)	86	0.135 (0.094,0.172)	78	0.123 (0.081,0.163)
Male African-American	34	0.139 (0.106,0.164)	68	0.151 (0.127,0.178)	71	0.129 (0.095,0.175)	75	0.110 (0.071,0.150)	70	0.120 (0.091,0.153)	63	0.128 (0.088,0.174)
Male Other or Mixed	57	0.137 (0.073,0.171)	81	0.141 (0.115,0.178)	73	0.133 (0.105,0.173)	73	0.128 (0.091,0.168)	75	0.121 (0.080,0.171)	63	0.121 (0.095,0.145)
Female White	55	0.171 (0.145,0.209)	77	0.160 (0.134,0.200)	75	0.153 (0.112,0.190)	79	0.141 (0.111,0.184)	87	0.126 (0.091,0.180)	75	0.132 (0.094,0.174)
Female African-American	28	0.145 (0.089,0.171)	62	0.144 (0.121,0.168)	46	0.134 (0.097,0.183)	66	0.130 (0.081,0.173)	66	0.129 (0.085,0.179)	42	0.123 (0.092,0.165)
Female Other or Mixed	29	0.137 (0.087,0.165)	68	0.154 (0.117,0.181)	72	0.145 (0.107,0.183)	78	0.129 (0.106,0.174)	69	0.120 (0.093,0.165)	51	0.116 (0.082,0.158)

Supplemental Table 17A. P wave amplitude - V1 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	0.053±0.077 (-0.059,0.160)	80	0.012±0.070 (-0.098,0.148)	68	0.058±0.081 (-0.069,0.170)	106	0.037±0.078 (-0.101,0.146)	86	0.041±0.066 (-0.067,0.135)	78	0.033±0.064 (-0.077,0.125)
Male African-American	34	0.076±0.071 (-0.023,0.201)	67	0.045±0.078 (-0.067,0.159)	71	0.061±0.082 (-0.086,0.160)	75	0.044±0.065 (-0.067,0.117)	70	0.038±0.071 (-0.091,0.132)	63	0.045±0.076 (-0.102,0.151)
Male Other or Mixed	57	0.054±0.068 (-0.050,0.155)	81	0.025±0.070 (-0.070,0.146)	73	0.061±0.075 (-0.068,0.161)	73	0.056±0.067 (-0.066,0.146)	75	0.036±0.078 (-0.115,0.124)	63	0.019±0.074 (-0.100,0.105)
Female White	55	0.059±0.079 (-0.074,0.191)	77	0.041±0.074 (-0.079,0.145)	75	0.056±0.077 (-0.085,0.148)	79	0.035±0.084 (-0.118,0.148)	87	0.002±0.071 (-0.105,0.097)	75	0.008±0.060 (-0.088,0.112)
Female African-American	28	0.072±0.085 (-0.044,0.209)	62	0.021±0.071 (-0.076,0.139)	46	0.060±0.066 (-0.053,0.129)	66	0.026±0.080 (-0.106,0.145)	66	0.005±0.068 (-0.079,0.107)	42	0.002±0.077 (-0.122,0.111)
Female Other or Mixed	29	0.071±0.081 (-0.063,0.155)	68	0.029±0.071 (-0.087,0.131)	72	0.059±0.077 (-0.075,0.154)	78	0.039±0.074 (-0.082,0.157)	69	0.007±0.077 (-0.115,0.095)	51	0.013±0.063 (-0.100,0.099)

Supplemental Table 17B. P wave amplitude - V1 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.072 (-0.024,0.113)	80	-0.011 (-0.032,0.059)	68	0.066 (-0.017,0.126)	106	0.060 (-0.035,0.098)	86	0.053 (0.018,0.083)	78	0.046 (-0.029,0.079)
Male African-American	34	0.074 (0.026,0.120)	67	0.069 (-0.030,0.104)	71	0.090 (-0.013,0.119)	75	0.063 (-0.008,0.094)	70	0.057 (-0.025,0.089)	63	0.066 (-0.020,0.099)
Male Other or Mixed	57	0.067 (-0.002,0.110)	81	0.008 (-0.037,0.080)	73	0.082 (0.002,0.113)	73	0.074 (0.001,0.102)	75	0.066 (-0.030,0.089)	63	0.051 (-0.053,0.078)
Female White	55	0.076 (0.000,0.107)	77	0.064 (-0.027,0.095)	75	0.092 (-0.023,0.115)	79	0.068 (-0.043,0.099)	87	0.008 (-0.050,0.061)	75	0.016 (-0.049,0.060)
Female African-American	28	0.101 (-0.019,0.133)	62	0.008 (-0.041,0.079)	46	0.078 (0.025,0.107)	66	0.043 (-0.038,0.090)	66	-0.017 (-0.048,0.064)	42	0.010 (-0.063,0.060)
Female Other or Mixed	29	0.096 (0.013,0.119)	68	0.033 (-0.031,0.097)	72	0.082 (-0.016,0.113)	78	0.063 (-0.026,0.091)	69	0.039 (-0.046,0.065)	51	0.032 (-0.038,0.057)

Supplemental Table 18A. R wave amplitude - V4 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	1.565±0.627 (0.665,2.600)	80	2.184±0.806 (1.031,3.379)	68	2.510±0.729 (1.536,3.842)	106	2.561±0.846 (1.331,3.948)	86	2.444±0.837 (0.837,3.576)	78	2.218±0.738 (0.917,3.238)
Male African-American	34	1.555±0.538 (0.739,2.719)	68	2.399±0.793 (1.489,3.895)	71	3.125±0.983 (1.516,4.689)	75	2.706±0.979 (0.889,4.162)	70	2.736±0.917 (1.291,4.544)	63	2.523±0.824 (1.104,3.836)
Male Other or Mixed	57	1.304±0.454 (0.532,2.079)	81	2.310±0.706 (1.490,3.644)	73	2.698±0.914 (1.247,4.294)	73	2.663±0.902 (1.375,4.189)	75	2.223±0.842 (0.971,3.752)	63	2.087±0.744 (1.139,3.341)
Female White	55	1.645±0.572 (0.671,2.535)	77	2.234±0.696 (1.109,3.495)	75	2.430±0.938 (1.249,4.032)	79	2.305±0.829 (1.061,4.094)	87	1.575±0.606 (0.666,2.488)	75	1.407±0.473 (0.741,2.348)
Female African-American	28	1.757±0.694 (0.944,2.856)	62	2.301±0.699 (1.256,3.606)	46	2.835±0.961 (1.524,4.367)	66	2.770±0.995 (1.158,4.653)	66	1.572±0.734 (0.741,2.518)	42	1.529±0.606 (0.683,2.539)
Female Other or Mixed	29	1.630±0.531 (0.827,2.577)	68	2.226±0.717 (0.956,3.523)	72	2.348±0.911 (1.119,3.894)	78	2.197±0.726 (0.964,3.394)	69	1.526±0.688 (0.548,3.156)	51	1.324±0.519 (0.612,2.129)

Supplemental Table 18B. R wave amplitude - V4 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	1.485 (1.156,1.933)	80	2.093 (1.725,2.626)	68	2.462 (1.956,3.029)	106	2.414 (1.943,3.271)	86	2.472 (1.889,3.031)	78	2.238 (1.765,2.785)
Male African-American	34	1.511 (1.260,1.836)	68	2.261 (1.880,2.804)	71	3.068 (2.357,3.832)	75	2.771 (2.217,3.290)	70	2.647 (2.060,3.336)	63	2.526 (2.069,3.054)
Male Other or Mixed	57	1.271 (1.020,1.506)	81	2.231 (1.808,2.715)	73	2.618 (2.132,3.159)	73	2.668 (1.964,3.290)	75	2.225 (1.550,2.797)	63	1.930 (1.527,2.612)
Female White	55	1.670 (1.169,2.069)	77	2.253 (1.785,2.582)	75	2.193 (1.706,2.957)	79	2.214 (1.733,2.854)	87	1.508 (1.126,2.015)	75	1.396 (1.016,1.760)
Female African-American	28	1.590 (1.251,2.240)	62	2.210 (1.838,2.805)	46	2.633 (2.056,3.576)	66	2.615 (2.148,3.383)	66	1.559 (1.052,1.959)	42	1.482 (1.041,1.902)
Female Other or Mixed	29	1.568 (1.205,1.964)	68	2.252 (1.792,2.638)	72	2.173 (1.672,2.995)	78	2.262 (1.680,2.601)	69	1.354 (1.167,1.692)	51	1.248 (0.933,1.655)

Supplemental Table 19A. R wave amplitude - V5 (millivolt) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	54	1.214 \pm 0.585 (0.305,2.297)	80	1.950 \pm 0.633 (1.037,3.042)	68	2.049 \pm 0.591 (1.192,3.139)	106	2.354 \pm 0.905 (1.061,3.971)	86	2.251 \pm 0.697 (1.074,3.443)	78	2.126 \pm 0.593 (1.257,3.271)
Male African-American	34	1.167 \pm 0.537 (0.373,1.988)	68	1.968 \pm 0.819 (0.902,3.496)	71	2.613 \pm 0.812 (1.368,3.934)	75	2.470 \pm 0.903 (0.930,4.309)	70	2.638 \pm 0.700 (1.624,3.772)	63	2.381 \pm 0.672 (1.259,3.479)
Male Other or Mixed	57	0.954 \pm 0.376 (0.417,1.633)	81	1.945 \pm 0.564 (1.084,2.999)	73	2.135 \pm 0.775 (0.993,3.696)	73	2.297 \pm 0.750 (1.058,3.581)	75	2.083 \pm 0.771 (0.905,3.458)	63	2.004 \pm 0.670 (1.147,3.211)
Female White	55	1.245 \pm 0.487 (0.505,2.235)	77	2.001 \pm 0.679 (1.060,3.262)	75	2.154 \pm 0.796 (1.109,3.702)	79	2.095 \pm 0.651 (1.152,3.443)	87	1.621 \pm 0.593 (0.725,2.590)	75	1.511 \pm 0.419 (0.886,2.378)
Female African-American	28	1.435 \pm 0.652 (0.822,2.790)	62	1.881 \pm 0.635 (0.949,2.880)	46	2.318 \pm 0.738 (1.342,3.684)	66	2.542 \pm 0.889 (1.317,4.301)	66	1.578 \pm 0.546 (0.866,2.666)	42	1.594 \pm 0.536 (0.866,2.533)
Female Other or Mixed	29	1.244 \pm 0.475 (0.591,2.015)	68	1.899 \pm 0.702 (0.940,3.134)	72	2.120 \pm 0.805 (0.917,3.367)	78	1.973 \pm 0.655 (0.856,3.019)	69	1.503 \pm 0.536 (0.721,2.579)	51	1.352 \pm 0.428 (0.803,2.243)

Supplemental Table 19B. R wave amplitude - V5 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	1.207 (0.852,1.509)	80	1.884 (1.523,2.376)	68	1.969 (1.564,2.460)	106	2.134 (1.730,3.018)	86	2.285 (1.796,2.622)	78	2.098 (1.727,2.447)
Male African-American	34	1.131 (0.739,1.469)	68	1.828 (1.568,2.173)	71	2.551 (2.021,3.068)	75	2.422 (1.924,2.900)	70	2.633 (2.079,3.113)	63	2.339 (2.008,2.782)
Male Other or Mixed	57	0.921 (0.677,1.133)	81	1.861 (1.559,2.289)	73	1.936 (1.500,2.713)	73	2.345 (1.741,2.791)	75	2.073 (1.569,2.636)	63	1.910 (1.432,2.419)
Female White	55	1.178 (0.882,1.483)	77	1.924 (1.508,2.326)	75	2.033 (1.489,2.663)	79	2.029 (1.679,2.502)	87	1.585 (1.116,2.015)	75	1.439 (1.246,1.707)
Female African-American	28	1.232 (1.036,1.587)	62	1.858 (1.389,2.344)	46	2.249 (1.728,2.824)	66	2.270 (1.990,3.050)	66	1.502 (1.116,1.884)	42	1.484 (1.209,1.987)
Female Other or Mixed	29	1.164 (0.881,1.445)	68	1.743 (1.469,2.353)	72	1.983 (1.583,2.641)	78	1.949 (1.446,2.444)	69	1.451 (1.090,1.809)	51	1.235 (1.086,1.563)

Supplemental Table 20A. R wave amplitude - V6 (millivolt) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	54	0.847 \pm 0.499 (0.217,1.942)	80	1.436 \pm 0.524 (0.556,2.356)	68	1.470 \pm 0.476 (0.721,2.253)	106	1.760 \pm 0.739 (0.753,3.181)	86	1.771 \pm 0.606 (0.908,2.917)	78	1.642 \pm 0.422 (0.965,2.298)
Male African-American	33	0.778 \pm 0.407 (0.271,1.418)	68	1.434 \pm 0.661 (0.554,2.911)	71	1.895 \pm 0.658 (0.905,3.474)	75	1.819 \pm 0.692 (0.860,3.453)	70	1.984 \pm 0.633 (1.152,3.133)	63	1.886 \pm 0.584 (0.895,2.974)
Male Other or Mixed	56	0.655 \pm 0.335 (0.255,1.450)	81	1.467 \pm 0.499 (0.699,2.296)	73	1.519 \pm 0.702 (0.663,3.122)	73	1.688 \pm 0.643 (0.787,2.843)	75	1.654 \pm 0.623 (0.744,2.823)	63	1.571 \pm 0.589 (0.843,2.825)
Female White	54	0.802 \pm 0.386 (0.195,1.526)	77	1.546 \pm 0.605 (0.658,2.717)	75	1.587 \pm 0.629 (0.709,2.885)	79	1.629 \pm 0.520 (0.869,2.660)	87	1.411 \pm 0.512 (0.690,2.455)	75	1.377 \pm 0.353 (0.880,2.043)
Female African-American	28	0.990 \pm 0.594 (0.303,2.184)	62	1.375 \pm 0.580 (0.687,2.248)	46	1.655 \pm 0.556 (0.857,2.604)	65	1.928 \pm 0.605 (1.201,3.203)	66	1.428 \pm 0.494 (0.760,2.461)	42	1.455 \pm 0.451 (0.738,2.346)
Female Other or Mixed	29	0.872 \pm 0.364 (0.381,1.600)	68	1.423 \pm 0.569 (0.539,2.419)	72	1.647 \pm 0.754 (0.719,3.186)	78	1.583 \pm 0.546 (0.747,2.560)	69	1.304 \pm 0.426 (0.702,2.028)	51	1.209 \pm 0.366 (0.750,1.876)

Supplemental Table 20B. R wave amplitude - V6 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	0.799 (0.452,1.146)	80	1.355 (1.134,1.797)	68	1.496 (1.071,1.710)	106	1.677 (1.273,2.111)	86	1.699 (1.351,2.080)	78	1.677 (1.372,1.950)
Male African-American	33	0.724 (0.465,0.997)	68	1.283 (0.955,1.856)	71	1.765 (1.482,2.321)	75	1.714 (1.486,2.109)	70	1.921 (1.396,2.490)	63	1.855 (1.540,2.240)
Male Other or Mixed	56	0.561 (0.428,0.828)	81	1.402 (1.078,1.801)	73	1.388 (1.055,1.740)	73	1.647 (1.232,2.075)	75	1.517 (1.218,2.030)	63	1.456 (1.110,1.893)
Female White	54	0.748 (0.504,1.068)	77	1.425 (1.107,1.889)	75	1.472 (1.062,2.056)	79	1.534 (1.283,1.874)	87	1.429 (1.005,1.746)	75	1.290 (1.140,1.638)
Female African-American	28	0.896 (0.520,1.264)	62	1.307 (0.922,1.798)	46	1.553 (1.209,2.038)	65	1.858 (1.450,2.224)	66	1.347 (1.083,1.669)	42	1.460 (1.134,1.747)
Female Other or Mixed	29	0.819 (0.663,1.122)	68	1.391 (1.027,1.720)	72	1.536 (1.135,2.037)	78	1.484 (1.193,1.958)	69	1.220 (0.980,1.631)	51	1.110 (0.969,1.409)

Supplemental Table 21A. R+S amplitude in V3 +V4 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	5.523±1.367 (3.477,7.687)	77	6.153±1.926 (3.125,10.077)	65	6.368±1.411 (4.079,8.590)	106	6.269±1.611 (3.784,9.005)	79	5.772±1.346 (3.329,8.059)	74	5.534±1.373 (3.871,8.211)
Male African-American	33	5.385±1.624 (2.544,8.817)	67	6.794±2.042 (3.755,10.210)	66	7.469±1.862 (4.114,10.615)	72	6.574±1.776 (3.349,9.470)	60	6.295±1.970 (3.513,10.218)	55	6.166±1.470 (3.131,8.416)
Male Other or Mixed	56	4.813±1.483 (2.898,7.954)	79	6.544±1.431 (4.256,9.088)	71	6.978±2.068 (3.896,11.108)	67	6.520±1.716 (4.132,8.721)	68	5.795±1.446 (3.569,8.518)	57	5.760±1.711 (3.264,9.019)
Female White	53	5.459±1.660 (2.786,8.998)	74	5.719±1.528 (3.567,8.409)	69	5.641±1.434 (3.108,7.697)	71	5.336±1.574 (2.905,8.802)	67	3.835±1.327 (1.980,6.573)	60	3.171±0.866 (1.978,4.256)
Female African-American	25	5.485±1.775 (3.405,9.170)	59	5.879±1.525 (3.257,8.585)	41	6.373±1.858 (3.839,9.516)	56	6.108±1.802 (3.433,9.457)	46	3.572±1.331 (1.861,5.659)	29	3.112±1.001 (1.868,5.086)
Female Other or Mixed	29	5.177±1.688 (3.349,8.028)	67	6.143±1.807 (3.266,9.026)	66	5.544±1.559 (3.049,7.860)	66	5.001±1.246 (2.783,7.041)	58	3.618±1.185 (1.810,6.042)	38	3.144±0.863 (2.031,4.546)

Supplemental Table 21B. R+S amplitude in V3 +V4 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	5.589 (4.630,6.500)	77	6.064 (4.795,7.160)	65	6.558 (5.420,7.280)	106	6.120 (5.198,7.091)	79	5.697 (4.997,6.683)	74	5.329 (4.548,6.344)
Male African-American	33	5.298 (4.452,5.959)	67	6.751 (5.115,8.279)	66	7.226 (6.424,8.918)	72	6.693 (5.527,7.858)	60	5.910 (4.866,7.522)	55	6.001 (5.145,7.402)
Male Other or Mixed	56	4.488 (3.743,5.585)	79	6.371 (5.653,7.499)	71	6.764 (5.824,8.089)	67	6.734 (4.829,7.705)	68	5.598 (4.654,6.676)	57	5.353 (4.621,6.874)
Female White	53	5.366 (4.311,6.532)	74	5.696 (4.533,6.648)	69	5.680 (4.841,6.619)	71	5.254 (4.199,6.036)	67	3.743 (2.943,4.717)	60	3.132 (2.542,3.622)
Female African-American	25	4.771 (4.368,6.478)	59	5.682 (4.972,7.023)	41	6.210 (4.716,7.269)	56	6.057 (4.820,7.321)	46	3.603 (2.551,4.180)	29	2.910 (2.587,3.309)
Female Other or Mixed	29	5.056 (3.884,5.748)	67	6.178 (5.055,7.232)	66	5.491 (4.364,6.821)	66	5.044 (4.302,5.844)	58	3.656 (2.829,4.070)	38	2.939 (2.401,3.885)

Supplemental Table 22A. R amplitude in V6+ S amplitude in V1 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	1.336±0.630 (0.529,2.356)	77	2.035±0.709 (0.975,3.325)	68	2.349±0.652 (1.374,3.409)	105	2.691±0.902 (1.192,4.201)	85	2.814±0.823 (1.626,4.402)	75	2.746±0.772 (1.416,3.789)
Male African-American	32	1.467±0.658 (0.566,2.797)	65	2.190±0.870 (0.971,4.038)	68	3.066±0.920 (1.538,4.719)	70	3.000±0.906 (1.453,4.387)	68	3.413±1.004 (1.897,4.919)	62	3.241±0.936 (1.771,4.995)
Male Other or Mixed	50	1.278±0.542 (0.586,2.362)	76	2.125±0.694 (1.100,3.286)	68	2.390±0.906 (1.070,3.875)	73	2.622±0.786 (1.444,3.789)	74	2.716±0.858 (1.569,4.382)	61	2.748±0.892 (1.385,4.094)
Female White	52	1.293±0.544 (0.558,2.311)	76	2.271±0.817 (1.107,3.606)	72	2.545±0.856 (1.238,4.206)	78	2.684±0.825 (1.332,4.447)	79	2.348±0.730 (1.105,3.705)	67	2.235±0.480 (1.602,3.225)
Female African-American	27	1.624±0.815 (0.642,3.089)	60	2.092±0.766 (1.021,3.720)	44	2.615±0.890 (1.626,4.515)	65	3.079±0.803 (1.618,4.569)	62	2.373±0.719 (1.258,3.677)	36	2.478±0.781 (1.453,3.944)
Female Other or Mixed	29	1.480±0.481 (0.836,2.223)	67	2.098±0.791 (1.059,3.355)	71	2.571±0.941 (1.173,4.443)	76	2.667±0.828 (1.487,4.064)	65	2.180±0.641 (1.320,3.234)	48	2.072±0.565 (1.282,3.069)

Supplemental Table 22B. R amplitude in V6+ S amplitude in V1 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	1.218 (0.760,1.743)	77	1.973 (1.532,2.501)	68	2.336 (1.832,2.868)	105	2.693 (2.006,3.193)	85	2.651 (2.248,3.282)	75	2.805 (2.257,3.318)
Male African-American	32	1.336 (1.127,1.590)	65	2.099 (1.628,2.550)	68	3.171 (2.497,3.596)	70	3.005 (2.419,3.677)	68	3.306 (2.604,4.224)	62	3.237 (2.704,3.838)
Male Other or Mixed	50	1.134 (0.962,1.405)	76	2.014 (1.602,2.744)	68	2.293 (1.659,3.077)	73	2.553 (2.162,3.189)	74	2.584 (2.157,3.179)	61	2.609 (2.166,3.515)
Female White	52	1.165 (0.873,1.690)	76	2.126 (1.592,2.876)	72	2.409 (1.925,3.136)	78	2.712 (2.169,3.137)	79	2.275 (1.790,2.805)	67	2.194 (1.894,2.466)
Female African-American	27	1.457 (1.007,2.283)	60	2.059 (1.495,2.445)	44	2.573 (1.834,3.216)	65	3.176 (2.499,3.564)	62	2.261 (1.896,2.799)	36	2.354 (1.955,2.945)
Female Other or Mixed	29	1.426 (1.140,1.804)	67	1.934 (1.604,2.449)	71	2.555 (1.853,3.091)	76	2.617 (1.963,3.346)	65	2.112 (1.765,2.570)	48	1.966 (1.698,2.327)

Supplemental Table 23A. QT interval - GBL (ms) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	51	259.7 \pm 29.8 (224.0,324.0)	80	267.5 \pm 28.0 (231.0, 314.0)	68	311.6 \pm 24.2 (272.0, 350.0)	106	351.5 \pm 29.3 (304.0, 408.0)	86	369.8 \pm 32.4 (322.0, 424.0)	78	370.2 \pm 30.8 (326.0, 426.0)
Male African-American	34	242.6 \pm 21.8 (208.0,284.0)	68	261.2 \pm 23.4 (226.0, 302.0)	71	310.7 \pm 20.4 (278.0, 342.0)	75	344.6 \pm 28.8 (298.0, 396.0)	70	361.1 \pm 25.4 (320.0, 394.0)	63	365.1 \pm 30.3 (320.0, 408.0)
Male Other or Mixed	55	255.7 \pm 24.8 (222.0,298.0)	81	265.9 \pm 26.3 (226.0, 312.0)	73	306.7 \pm 22.5 (276.0, 344.0)	73	343.0 \pm 32.1 (298.0, 404.0)	75	361.9 \pm 30.2 (304.0, 410.0)	63	359.0 \pm 29.1 (326.0, 412.0)
Female White	55	253.0 \pm 26.1 (224.0,304.0)	77	266.8 \pm 24.2 (230.0, 308.0)	75	311.4 \pm 24.1 (272.0, 354.0)	79	339.7 \pm 30.9 (298.0, 390.0)	87	370.4 \pm 32.1 (324.0, 418.0)	75	374.5 \pm 32.8 (322.0, 432.0)
Female African-American	27	252.8 \pm 24.6 (212.0,298.0)	62	268.8 \pm 34.1 (230.0, 316.0)	46	309.1 \pm 22.6 (274.0, 346.0)	66	333.1 \pm 27.7 (296.0, 372.0)	66	368.1 \pm 28.3 (322.0, 414.0)	42	364.8 \pm 29.6 (322.0, 414.0)
Female Other or Mixed	29	256.8 \pm 22.8 (228.0,296.0)	68	266.1 \pm 26.0 (228.0, 314.0)	72	307.8 \pm 23.2 (270.0, 346.0)	78	331.5 \pm 28.7 (288.0, 388.0)	69	358.6 \pm 34.5 (304.0, 430.0)	51	366.0 \pm 23.6 (330.0, 404.0)

Supplemental Table 23B. QT interval - GBL (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	252.0 (240.0,274.0)	80	264.0 (250.0,280.0)	68	312.0 (296.0,328.0)	106	350.0 (334.0,370.0)	86	366.0 (348.0,388.0)	78	366.0 (350.0,388.0)
Male African-American	34	239.0 (228.0,254.0)	68	256.0 (248.0,273.0)	71	310.0 (300.0,322.0)	75	346.0 (322.0,366.0)	70	365.0 (340.0,382.0)	63	370.0 (342.0,390.0)
Male Other or Mixed	55	250.0 (242.0,268.0)	81	266.0 (248.0,282.0)	73	306.0 (292.0,320.0)	73	342.0 (320.0,362.0)	75	362.0 (344.0,380.0)	63	360.0 (334.0,376.0)
Female White	55	246.0 (232.0,268.0)	77	266.0 (248.0,282.0)	75	312.0 (296.0,324.0)	79	338.0 (318.0,356.0)	87	368.0 (352.0,390.0)	75	378.0 (348.0,398.0)
Female African-American	27	250.0 (240.0,262.0)	62	266.0 (246.0,284.0)	46	311.0 (296.0,322.0)	66	332.0 (318.0,350.0)	66	369.0 (346.0,388.0)	42	360.0 (348.0,382.0)
Female Other or Mixed	29	254.0 (238.0,274.0)	68	267.0 (249.0,280.0)	72	306.0 (295.0,325.0)	78	332.0 (312.0,348.0)	69	358.0 (334.0,380.0)	51	368.0 (346.0,380.0)

Supplemental Table 24A. QT interval - II (ms) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	50	261.8 \pm 25.7 (228.0,306.0)	80	273.9 \pm 32.8 (237.0,327.0)	68	314.4 \pm 24.1 (274.0,354.0)	106	353.2 \pm 29.7 (308.0,408.0)	86	373.9 \pm 31.9 (328.0,424.0)	77	377.5 \pm 32.0 (338.0,426.0)
Male African-American	33	242.7 \pm 21.0 (214.0,284.0)	68	263.4 \pm 23.1 (226.0,300.0)	70	313.3 \pm 21.2 (278.0,346.0)	75	345.3 \pm 28.6 (296.0,394.0)	70	361.4 \pm 28.1 (322.0,398.0)	63	373.2 \pm 32.3 (318.0,426.0)
Male Other or Mixed	55	256.9 \pm 21.9 (224.0,302.0)	81	269.8 \pm 26.3 (230.0,318.0)	73	309.6 \pm 23.0 (276.0,360.0)	73	343.7 \pm 31.0 (296.0,400.0)	75	363.9 \pm 31.1 (302.0,418.0)	62	370.2 \pm 35.7 (324.0,438.0)
Female White	54	257.1 \pm 26.6 (226.0,312.0)	76	271.9 \pm 26.9 (232.0,324.0)	75	315.9 \pm 27.1 (274.0,362.0)	79	343.1 \pm 30.1 (296.0,390.0)	87	368.3 \pm 32.3 (314.0,418.0)	75	374.1 \pm 31.1 (324.0,428.0)
Female African-American	28	254.0 \pm 21.9 (226.0,294.0)	62	272.4 \pm 35.8 (232.0,320.0)	45	312.6 \pm 24.1 (274.0,356.0)	66	334.8 \pm 26.2 (298.0,376.0)	66	365.0 \pm 28.6 (322.0,406.0)	42	360.5 \pm 30.4 (302.0,414.0)
Female Other or Mixed	29	260.1 \pm 20.1 (228.0,298.0)	67	271.8 \pm 24.4 (234.0,314.0)	71	312.5 \pm 26.2 (274.0,350.0)	78	333.5 \pm 32.2 (284.0,398.0)	69	356.3 \pm 35.8 (294.0,424.0)	51	362.9 \pm 25.0 (328.0,414.0)

Supplemental Table 24B. QT interval - II (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	50	257.0 (244.0,274.0)	80	268.0 (252.0,285.0)	68	315.0 (300.0,327.0)	106	352.0 (336.0,372.0)	86	368.0 (354.0,394.0)	77	376.0 (356.0,398.0)
Male African-American	33	238.0 (226.0,252.0)	68	258.0 (248.0,274.0)	70	313.0 (304.0,324.0)	75	344.0 (322.0,366.0)	70	362.0 (344.0,380.0)	63	376.0 (348.0,392.0)
Male Other or Mixed	55	252.0 (244.0,268.0)	81	266.0 (250.0,286.0)	73	308.0 (294.0,324.0)	73	344.0 (320.0,362.0)	75	362.0 (348.0,384.0)	62	365.0 (338.0,386.0)
Female White	54	250.0 (238.0,270.0)	76	271.0 (250.0,288.0)	75	314.0 (298.0,328.0)	79	340.0 (322.0,362.0)	87	368.0 (348.0,388.0)	75	374.0 (348.0,398.0)
Female African-American	28	252.0 (241.0,266.0)	62	268.0 (248.0,288.0)	45	314.0 (296.0,324.0)	66	330.0 (320.0,352.0)	66	366.0 (342.0,392.0)	42	364.0 (344.0,374.0)
Female Other or Mixed	29	258.0 (246.0,274.0)	67	274.0 (254.0,284.0)	71	314.0 (296.0,326.0)	78	332.0 (310.0,350.0)	69	358.0 (334.0,378.0)	51	364.0 (342.0,378.0)

Supplemental Table 25A. QT interval - V5 (ms) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	51	260.8 \pm 31.1 (224.0,326.0)	79	267.0 \pm 27.4 (230.0,312.0)	68	309.1 \pm 23.6 (270.0,346.0)	106	346.0 \pm 28.0 (302.0,398.0)	86	366.5 \pm 32.2 (320.0,426.0)	78	367.6 \pm 30.5 (322.0,420.0)
Male African-American	34	241.5 \pm 21.5 (210.0,284.0)	68	261.9 \pm 24.3 (232.0,302.0)	71	307.8 \pm 21.1 (272.0,344.0)	75	340.2 \pm 27.3 (294.0,386.0)	70	357.6 \pm 25.1 (316.0,400.0)	63	365.2 \pm 27.3 (324.0,416.0)
Male Other or Mixed	56	255.2 \pm 22.2 (222.0,298.0)	80	266.7 \pm 25.7 (226.0,308.0)	73	303.2 \pm 22.0 (272.0,344.0)	73	337.0 \pm 29.9 (292.0,390.0)	75	358.1 \pm 29.5 (306.0,400.0)	63	361.5 \pm 34.2 (318.0,442.0)
Female White	54	254.9 \pm 26.1 (216.0,306.0)	77	268.7 \pm 25.9 (228.0,316.0)	75	309.6 \pm 24.1 (272.0,352.0)	79	336.0 \pm 29.1 (296.0,384.0)	87	366.9 \pm 30.4 (326.0,412.0)	75	370.6 \pm 32.8 (318.0,422.0)
Female African-American	28	256.7 \pm 23.3 (222.0,296.0)	62	269.4 \pm 34.5 (234.0,324.0)	46	308.7 \pm 22.9 (272.0,350.0)	66	329.9 \pm 28.0 (298.0,372.0)	66	365.6 \pm 27.7 (322.0,410.0)	41	364.3 \pm 31.5 (318.0,420.0)
Female Other or Mixed	29	256.2 \pm 21.7 (228.0,288.0)	67	267.8 \pm 26.0 (224.0,312.0)	72	305.8 \pm 23.2 (270.0,344.0)	78	326.7 \pm 30.7 (284.0,386.0)	69	354.4 \pm 34.4 (298.0,426.0)	51	363.2 \pm 24.3 (326.0,404.0)

Supplemental Table 25B. QT interval - V5 (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	256.0 (240.0,272.0)	79	262.0 (248.0,282.0)	68	309.0 (293.0,324.0)	106	346.0 (328.0,362.0)	86	363.0 (344.0,384.0)	78	367.0 (346.0,390.0)
Male African-American	34	238.0 (226.0,252.0)	68	259.0 (247.0,274.0)	71	308.0 (296.0,320.0)	75	344.0 (320.0,360.0)	70	360.0 (338.0,376.0)	63	372.0 (340.0,386.0)
Male Other or Mixed	56	250.0 (242.0,274.0)	80	264.0 (247.0,287.0)	73	306.0 (290.0,314.0)	73	338.0 (314.0,354.0)	75	356.0 (338.0,380.0)	63	360.0 (340.0,378.0)
Female White	54	248.0 (236.0,274.0)	77	266.0 (250.0,288.0)	75	310.0 (292.0,322.0)	79	334.0 (314.0,352.0)	87	366.0 (348.0,386.0)	75	372.0 (344.0,394.0)
Female African-American	28	253.0 (248.0,261.0)	62	265.0 (246.0,284.0)	46	307.0 (292.0,326.0)	66	329.0 (314.0,348.0)	66	364.0 (346.0,388.0)	41	362.0 (342.0,386.0)
Female Other or Mixed	29	256.0 (238.0,268.0)	67	268.0 (252.0,280.0)	72	304.0 (290.0,324.0)	78	327.0 (308.0,344.0)	69	354.0 (328.0,376.0)	51	366.0 (342.0,376.0)

Supplemental Table 26A. QT interval - V6 (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	50	259.6±23.5 (228.0,302.0)	80	269.4±28.6 (232.0,314.0)	68	313.2±23.3 (274.0,350.0)	106	352.0±29.4 (312.0,402.0)	86	372.6±32.5 (328.0,428.0)	77	376.8±30.9 (330.0,434.0)
Male African-American	33	244.1±20.9 (218.0,286.0)	68	263.7±23.2 (232.0,302.0)	71	312.1±20.5 (280.0,346.0)	75	344.2±26.8 (294.0,388.0)	70	362.4±25.7 (322.0,400.0)	61	371.6±27.2 (324.0,412.0)
Male Other or Mixed	56	255.2±22.5 (224.0,300.0)	81	268.9±26.4 (232.0,314.0)	73	307.2±22.0 (276.0,350.0)	73	341.6±30.0 (296.0,396.0)	75	363.0±30.5 (306.0,412.0)	62	368.7±34.8 (322.0,446.0)
Female White	55	257.0±26.3 (224.0,306.0)	77	269.6±24.4 (232.0,310.0)	75	312.5±23.4 (276.0,356.0)	79	340.4±27.7 (302.0,394.0)	87	369.4±30.5 (328.0,416.0)	75	373.0±32.6 (320.0,424.0)
Female African-American	27	253.1±20.5 (222.0,288.0)	62	271.9±36.8 (234.0,316.0)	46	311.7±20.2 (282.0,344.0)	66	332.3±26.9 (304.0,368.0)	66	366.4±26.6 (326.0,412.0)	42	363.2±33.5 (310.0,436.0)
Female Other or Mixed	29	256.7±21.1 (224.0,290.0)	68	269.6±25.0 (226.0,320.0)	72	308.5±24.2 (270.0,346.0)	78	331.3±30.1 (286.0,388.0)	69	355.3±36.8 (300.0,426.0)	51	365.1±25.4 (326.0,412.0)

Supplemental Table 26B. QT interval - V6 (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	50	258.0 (242.0,274.0)	80	263.0 (250.0,283.0)	68	312.0 (297.0,328.0)	106	351.0 (334.0,366.0)	86	371.0 (348.0,392.0)	77	376.0 (354.0,400.0)
Male African-American	33	240.0 (230.0,256.0)	68	261.0 (250.0,277.0)	71	314.0 (300.0,322.0)	75	346.0 (324.0,364.0)	70	367.0 (346.0,380.0)	61	376.0 (350.0,388.0)
Male Other or Mixed	56	251.0 (240.0,271.0)	81	266.0 (250.0,288.0)	73	308.0 (294.0,320.0)	73	344.0 (320.0,358.0)	75	358.0 (342.0,388.0)	62	364.0 (344.0,388.0)
Female White	55	252.0 (236.0,270.0)	77	270.0 (250.0,284.0)	75	314.0 (296.0,328.0)	79	338.0 (320.0,356.0)	87	370.0 (352.0,388.0)	75	374.0 (348.0,394.0)
Female African-American	27	254.0 (240.0,262.0)	62	265.0 (254.0,288.0)	46	311.0 (298.0,322.0)	66	334.0 (318.0,348.0)	66	366.0 (346.0,388.0)	42	365.0 (342.0,380.0)
Female Other or Mixed	29	260.0 (244.0,266.0)	68	269.0 (254.0,282.0)	72	308.0 (293.0,325.0)	78	331.0 (310.0,348.0)	69	356.0 (330.0,380.0)	51	366.0 (342.0,380.0)

Supplemental Table 27A. Bazett's corrected QT interval - GBL (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	392.1±34.6 (352.4,438.9)	80	383.1±18.7 (358.2,418.6)	68	383.1±18.3 (345.8,411.1)	106	390.1±23.2 (356.4,428.7)	86	389.4±24.1 (356.7,437.9)	78	378.6±21.2 (340.5,411.3)
Male African-American	34	379.8±25.0 (347.1,431.0)	68	383.7±23.3 (347.1,416.4)	71	380.4±18.1 (346.8,408.4)	75	386.5±18.4 (357.7,418.5)	70	383.5±21.6 (352.9,416.3)	63	373.2±20.4 (336.4,410.2)
Male Other or Mixed	55	395.0±26.4 (359.7,442.8)	81	382.1±24.6 (345.5,417.7)	73	379.3±21.5 (349.6,417.6)	73	389.5±19.6 (363.6,429.3)	75	388.9±24.4 (355.9,433.5)	63	373.8±21.5 (345.0,404.7)
Female White	55	391.4±23.3 (356.1,434.0)	77	384.7±18.3 (348.7,410.1)	75	387.0±17.3 (360.0,419.3)	79	393.7±22.2 (353.3,428.8)	87	402.2±21.2 (367.1,435.6)	75	400.6±21.7 (363.8,433.2)
Female African-American	27	393.1±32.0 (348.3,452.9)	62	390.3±23.3 (356.5,430.4)	46	386.5±16.8 (362.5,411.1)	66	389.3±22.8 (355.8,424.0)	66	394.6±23.3 (366.5,439.2)	42	391.3±21.2 (361.9,422.6)
Female Other or Mixed	29	392.5±21.2 (361.0,428.3)	68	382.0±21.3 (344.8,419.2)	72	383.0±17.7 (354.4,411.3)	78	391.2±22.7 (361.7,440.5)	69	394.2±21.3 (363.0,428.3)	51	394.9±22.1 (361.1,422.7)

Supplemental Table 27B. Bazett's corrected QT interval - GBL (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	396.3 (376.5,409.4)	80	381.6 (371.3,393.6)	68	383.5 (370.4,395.3)	106	387.9 (375.5,405.2)	86	387.1 (373.7,401.6)	78	377.3 (364.3,392.6)
Male African-American	34	377.4 (367.5,389.8)	68	384.0 (371.8,399.3)	71	381.1 (370.0,394.7)	75	384.7 (376.1,397.3)	70	381.9 (369.4,400.1)	63	370.8 (359.7,387.2)
Male Other or Mixed	55	391.6 (380.8,406.7)	81	380.7 (367.7,398.6)	73	375.6 (363.0,395.6)	73	388.6 (374.2,401.8)	75	385.6 (370.8,407.0)	63	372.4 (358.6,385.1)
Female White	55	391.2 (376.5,407.7)	77	385.5 (373.6,398.0)	75	386.0 (376.9,395.9)	79	390.2 (379.8,407.4)	87	401.2 (388.0,416.3)	75	400.1 (387.2,417.4)
Female African-American	27	389.4 (382.8,411.2)	62	387.0 (375.8,404.4)	46	384.2 (375.7,399.6)	66	388.5 (374.7,403.4)	66	393.4 (381.2,405.6)	42	392.5 (374.4,404.8)
Female Other or Mixed	29	391.3 (378.4,408.8)	68	381.6 (369.7,395.3)	72	384.4 (370.9,396.4)	78	387.8 (372.8,403.0)	69	393.7 (379.8,410.9)	51	395.1 (381.3,412.0)

Supplemental Table 28A. Bazett's corrected QT interval - II (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	50	395.6±32.6 (356.4,441.3)	80	391.9±24.4 (360.9,438.1)	68	386.7±21.3 (355.2,431.0)	106	392.0±24.5 (357.3,432.2)	86	393.9±26.6 (362.4,442.0)	77	384.9±25.4 (346.3,431.4)
Male African-American	33	380.1±24.9 (347.1,419.2)	68	386.9±23.4 (347.3,421.6)	70	383.2±19.8 (347.0,412.5)	75	387.3±18.9 (358.6,416.8)	70	383.7±23.5 (354.4,420.7)	63	381.9±29.1 (343.7,436.3)
Male Other or Mixed	55	396.6±25.0 (364.0,445.2)	81	387.8±26.7 (350.9,426.9)	73	382.9±23.3 (349.2,421.4)	73	390.5±18.8 (363.6,422.4)	75	390.9±23.6 (356.0,431.5)	62	385.1±27.6 (350.8,427.0)
Female White	54	398.7±24.0 (363.7,439.2)	76	392.0±23.7 (352.7,429.2)	75	392.6±23.0 (363.5,433.6)	79	397.9±24.7 (353.3,450.2)	87	400.0±22.6 (359.2,435.0)	75	400.3±21.8 (359.8,435.5)
Female African-American	28	395.0±27.8 (349.0,449.7)	62	395.6±28.0 (363.3,443.3)	45	390.2±26.6 (364.2,443.2)	66	391.5±22.0 (363.9,425.8)	66	391.3±23.8 (362.6,435.0)	42	386.6±20.5 (356.9,418.2)
Female Other or Mixed	29	398.0±25.2 (358.4,428.3)	67	391.6±27.5 (357.9,430.9)	71	388.2±22.0 (357.0,417.2)	78	393.4±24.8 (360.9,451.6)	69	391.7±22.9 (361.8,428.1)	51	391.4±22.6 (356.0,427.0)

Supplemental Table 28B. Bazett's corrected QT interval - II (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	50	400.5 (382.1,412.1)	80	388.7 (375.3,402.1)	68	385.7 (370.8,398.9)	106	390.4 (374.6,407.5)	86	390.4 (378.0,403.9)	77	384.1 (366.0,403.9)
Male African-American	33	382.6 (364.2,392.2)	68	385.7 (374.4,401.1)	70	383.9 (370.0,396.7)	75	383.9 (377.9,401.0)	70	379.8 (368.0,398.4)	63	377.4 (363.5,393.5)
Male Other or Mixed	55	398.4 (381.5,408.2)	81	386.9 (371.7,404.3)	73	379.6 (365.6,402.2)	73	388.3 (377.0,403.0)	75	389.0 (373.9,410.3)	62	378.5 (365.2,399.1)
Female White	54	395.9 (384.8,412.8)	76	390.5 (376.9,404.8)	75	388.7 (379.1,397.7)	79	394.7 (381.1,414.7)	87	399.5 (387.0,415.6)	75	399.3 (388.8,414.0)
Female African-American	28	392.5 (377.1,409.6)	62	390.9 (375.2,409.9)	45	385.6 (374.0,399.1)	66	386.7 (375.8,407.1)	66	389.0 (374.7,401.7)	42	389.7 (369.4,396.8)
Female Other or Mixed	29	399.6 (381.9,417.7)	67	389.4 (376.1,399.9)	71	389.1 (374.7,401.3)	78	391.6 (375.6,404.5)	69	388.2 (374.8,406.7)	51	392.6 (377.0,407.8)

Supplemental Table 29A. Bazett's corrected QT interval - V5 (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	393.0±35.3 (349.5,448.9)	79	382.6±21.9 (348.9,434.9)	68	380.1±18.6 (346.4,408.6)	106	384.1±23.4 (349.0,419.1)	86	386.0±23.7 (350.6,424.6)	78	376.2±24.6 (338.4,421.8)
Male African-American	34	378.2±24.6 (341.1,419.2)	68	384.7±24.8 (350.5,422.6)	71	376.9±19.3 (339.5,410.7)	75	381.7±19.5 (351.4,415.9)	70	379.8±22.1 (348.8,413.7)	63	374.0±26.9 (336.0,426.2)
Male Other or Mixed	56	393.2±27.1 (352.6,446.3)	80	382.3±25.3 (346.6,423.7)	73	375.0±21.9 (340.4,413.5)	73	382.9±19.3 (357.0,419.1)	75	384.9±24.7 (349.1,428.3)	63	376.5±29.4 (340.7,429.8)
Female White	54	394.5±23.8 (360.5,439.9)	77	387.4±21.8 (352.6,411.4)	75	385.0±21.1 (357.1,426.5)	79	389.7±23.6 (348.7,434.8)	87	398.6±22.2 (363.1,435.4)	75	396.4±21.4 (356.2,426.5)
Female African-American	28	399.1±28.1 (352.3,447.3)	62	391.3±25.9 (350.0,449.5)	46	386.1±21.1 (364.4,432.6)	66	385.6±24.1 (349.3,430.5)	66	392.1±23.4 (356.0,430.5)	41	389.6±23.4 (361.9,433.3)
Female Other or Mixed	29	392.0±25.4 (357.8,431.1)	67	385.8±30.6 (350.7,434.2)	72	380.5±18.6 (352.0,411.2)	78	385.4±23.3 (355.8,432.2)	69	389.6±20.9 (359.3,422.4)	51	391.9±24.0 (356.9,431.5)

Supplemental Table 29B. Bazett's corrected QT interval - V5 (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	398.4 (378.9,408.4)	79	380.9 (368.2,393.3)	68	380.5 (367.8,391.1)	106	382.2 (368.2,397.5)	86	384.2 (370.7,397.9)	78	373.8 (359.0,392.8)
Male African-American	34	377.3 (367.7,392.8)	68	383.8 (371.9,402.1)	71	378.0 (363.8,389.4)	75	379.5 (368.0,394.2)	70	379.1 (362.4,392.8)	63	371.1 (356.3,384.1)
Male Other or Mixed	56	392.2 (379.0,407.0)	80	379.7 (363.7,397.6)	73	374.5 (356.9,393.0)	73	383.1 (367.8,394.9)	75	382.1 (367.7,406.1)	63	372.3 (356.5,390.4)
Female White	54	393.5 (379.5,409.3)	77	388.8 (374.6,401.6)	75	380.8 (370.7,395.0)	79	385.4 (376.6,405.9)	87	395.6 (383.4,413.2)	75	396.9 (383.4,409.8)
Female African-American	28	392.1 (381.4,417.5)	62	388.0 (373.8,406.5)	46	380.4 (372.8,397.6)	66	384.4 (370.0,402.9)	66	391.4 (377.6,406.2)	41	386.7 (372.4,399.0)
Female Other or Mixed	29	395.1 (373.6,408.4)	67	381.5 (371.5,395.7)	72	381.3 (366.8,392.5)	78	383.2 (369.5,398.2)	69	387.8 (373.9,405.2)	51	390.4 (377.7,410.0)

Supplemental Table 30A. Bazett's corrected QT interval - V6 (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	50	393.5±32.1 (349.5,436.7)	80	385.8±22.6 (352.5,427.0)	68	385.2±19.2 (351.2,417.4)	106	390.7±24.9 (353.5,429.9)	86	392.4±24.7 (351.1,439.4)	77	384.2±25.8 (344.3,432.6)
Male African-American	33	382.2±25.2 (353.7,428.7)	68	387.5±25.5 (344.5,423.7)	71	382.2±19.3 (344.8,411.8)	75	386.2±19.5 (357.7,415.9)	70	384.8±21.1 (357.9,418.9)	61	379.0±25.3 (347.9,431.5)
Male Other or Mixed	56	393.1±26.9 (342.9,443.0)	81	386.5±26.1 (349.7,424.6)	73	379.9±21.7 (347.8,418.3)	73	388.2±19.3 (361.4,428.0)	75	390.2±25.7 (355.9,433.7)	62	383.7±28.9 (349.2,434.8)
Female White	55	397.6±22.8 (362.3,439.9)	77	388.8±19.2 (355.1,417.4)	75	388.5±17.1 (359.3,419.3)	79	394.9±23.8 (355.6,437.1)	87	401.3±23.2 (365.0,439.9)	75	399.0±20.9 (360.0,433.1)
Female African-American	27	394.7±28.4 (348.3,449.2)	62	394.5±24.8 (361.3,441.9)	46	390.2±22.1 (367.8,419.6)	66	388.5±23.3 (352.8,428.8)	66	392.9±22.9 (359.7,432.8)	42	389.4±23.7 (356.2,428.7)
Female Other or Mixed	29	392.8±25.8 (345.1,424.6)	68	387.4±23.5 (350.7,425.7)	72	383.8±19.2 (354.6,413.6)	78	391.0±24.0 (361.9,437.9)	69	390.4±22.5 (351.2,426.9)	51	394.0±26.0 (360.3,435.9)

Supplemental Table 30B. Bazett's corrected QT interval - V6 (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	50	395.6 (379.6,412.7)	80	384.6 (374.0,396.9)	68	386.2 (371.9,396.5)	106	388.8 (375.9,405.2)	86	391.3 (378.3,406.5)	77	382.8 (366.6,403.7)
Male African-American	33	380.9 (370.4,393.1)	68	386.8 (374.7,401.3)	71	383.9 (372.3,395.3)	75	383.6 (372.9,401.3)	70	383.8 (369.1,400.2)	61	375.2 (361.9,393.2)
Male Other or Mixed	56	392.8 (378.7,407.7)	81	383.5 (366.6,403.3)	73	379.3 (366.2,397.4)	73	387.3 (374.9,399.0)	75	388.0 (369.1,411.4)	62	378.4 (363.0,401.3)
Female White	55	395.5 (381.3,414.8)	77	389.7 (378.5,401.9)	75	387.1 (376.5,398.8)	79	391.4 (379.9,411.0)	87	401.3 (385.8,419.8)	75	400.2 (387.3,412.6)
Female African-American	27	395.8 (379.2,404.9)	62	392.2 (377.5,406.9)	46	383.8 (376.3,402.1)	66	388.4 (374.2,399.6)	66	390.1 (377.4,408.1)	42	390.2 (373.0,405.5)
Female Other or Mixed	29	395.9 (376.8,409.9)	68	386.9 (374.3,400.3)	72	384.7 (369.2,395.4)	78	389.3 (372.8,400.7)	69	389.3 (374.6,406.2)	51	390.4 (380.5,411.8)

Supplemental Table 31A. Fridericia corrected QT interval - GBL (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	341.5±30.2 (309.0,409.3)	80	339.5±17.6 (317.3,374.6)	68	357.4±17.7 (327.6,382.2)	106	376.4±19.8 (345.9,415.1)	86	382.5±22.6 (352.0,423.0)	78	375.4±19.5 (340.9,408.8)
Male African-American	34	327.0±23.3 (292.7,371.5)	68	337.3±20.5 (308.0,371.9)	71	355.4±14.2 (332.6,384.1)	75	371.7±17.2 (342.6,399.2)	70	375.6±17.7 (347.6,409.3)	63	370.2±19.5 (341.2,406.4)
Male Other or Mixed	55	341.5±23.8 (305.4,388.0)	81	338.3±22.2 (306.9,380.5)	73	353.3±19.7 (323.9,383.7)	73	373.1±20.6 (342.9,419.2)	75	379.3±20.2 (350.0,413.8)	63	368.5±19.1 (337.2,395.4)
Female White	55	338.2±23.0 (306.6,381.8)	77	340.3±17.7 (302.9,367.8)	75	359.8±17.1 (334.4,392.5)	79	374.4±19.4 (341.5,409.8)	87	391.0±20.1 (362.6,422.8)	75	391.3±18.8 (361.4,419.0)
Female African-American	27	339.2±28.7 (295.6,393.9)	62	344.2±23.3 (313.1,381.7)	46	358.5±14.1 (338.2,381.2)	66	369.3±21.2 (344.6,404.6)	66	385.4±22.1 (354.1,423.1)	42	382.0±20.1 (351.2,408.8)
Female Other or Mixed	29	340.6±19.7 (309.7,379.5)	68	338.3±19.0 (300.9,368.2)	72	355.9±17.4 (329.3,383.7)	78	369.9±20.7 (340.5,410.7)	69	381.5±20.7 (348.1,415.6)	51	384.8±18.9 (353.2,414.0)

Supplemental Table 31B. Fridericia corrected QT interval - GBL (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	343.6 (322.7,352.6)	80	337.7 (325.5,348.6)	68	358.6 (347.8,367.3)	106	375.5 (362.8,388.6)	86	380.6 (368.3,393.2)	78	373.9 (362.5,388.9)
Male African-American	34	324.9 (312.0,340.2)	68	337.7 (324.7,347.8)	71	356.1 (343.7,363.9)	75	374.0 (357.9,385.2)	70	377.3 (363.7,383.7)	63	370.8 (353.7,381.8)
Male Other or Mixed	55	340.3 (329.2,352.7)	81	336.7 (323.6,351.8)	73	352.9 (339.1,368.0)	73	370.7 (359.5,384.2)	75	377.1 (362.3,394.5)	63	367.9 (359.1,378.1)
Female White	55	336.0 (321.3,352.6)	77	341.2 (329.3,351.9)	75	359.2 (347.3,368.6)	79	372.5 (362.6,386.1)	87	391.9 (377.8,402.7)	75	391.5 (381.3,406.1)
Female African-American	27	341.8 (327.7,353.7)	62	341.4 (328.3,359.1)	46	360.4 (347.8,369.8)	66	366.9 (357.1,381.5)	66	382.4 (370.0,400.6)	42	380.3 (369.5,395.1)
Female Other or Mixed	29	339.7 (327.0,351.6)	68	340.7 (326.2,354.4)	72	356.8 (344.4,368.2)	78	366.1 (356.1,381.1)	69	382.9 (367.4,394.0)	51	387.7 (373.4,399.8)

Supplemental Table 32A. Fridericia corrected QT interval - II (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	50	344.5±27.2 (308.9,402.3)	80	347.4±23.7 (322.3,386.7)	68	360.7±19.4 (332.0,393.8)	106	378.3±20.9 (348.3,417.0)	86	386.8±24.0 (355.7,432.4)	77	382.1±23.5 (342.4,419.2)
Male African-American	33	327.2±22.8 (292.7,368.2)	68	340.2±20.4 (305.5,373.3)	70	358.1±15.9 (337.3,385.1)	75	372.4±17.4 (342.2,401.4)	70	375.9±20.6 (349.3,414.9)	63	378.7±25.9 (342.8,426.6)
Male Other or Mixed	55	342.9±21.0 (308.7,384.8)	81	343.3±23.3 (312.6,387.6)	73	356.5±21.1 (326.7,387.8)	73	373.9±19.4 (347.2,409.4)	75	381.3±20.0 (351.3,413.1)	62	379.7±26.3 (345.2,419.7)
Female White	54	344.2±23.7 (313.1,381.6)	76	346.7±22.3 (312.9,392.4)	75	365.0±22.0 (338.7,405.1)	79	378.3±20.5 (347.1,411.5)	87	388.8±21.1 (354.8,422.5)	75	391.0±17.7 (362.2,416.8)
Female African-American	28	340.9±25.0 (301.5,391.1)	62	348.9±27.0 (316.2,392.4)	45	362.2±21.5 (336.7,404.3)	66	371.3±19.6 (348.4,404.7)	66	382.2±22.5 (351.3,420.3)	42	377.5±20.3 (339.1,403.3)
Female Other or Mixed	29	345.2±20.4 (309.7,379.5)	67	346.4±21.4 (315.9,378.0)	71	361.0±21.6 (327.8,385.4)	78	372.0±23.9 (336.5,419.8)	69	379.1±22.7 (340.4,415.0)	51	381.4±20.1 (346.4,412.6)

Supplemental Table 32B. Fridericia corrected QT interval - II (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	50	348.4 (330.5,357.6)	80	341.8 (332.2,358.1)	68	361.7 (347.2,370.0)	106	377.8 (363.1,388.6)	86	385.9 (371.3,393.6)	77	379.5 (366.6,398.5)
Male African-American	33	330.2 (311.5,340.2)	68	341.6 (328.7,352.1)	70	356.7 (345.8,369.5)	75	375.2 (357.5,383.6)	70	374.6 (364.7,383.2)	63	377.4 (362.7,391.3)
Male Other or Mixed	55	342.9 (328.7,356.0)	81	340.9 (328.5,358.4)	73	353.8 (341.7,371.5)	73	371.8 (358.3,387.9)	75	379.6 (364.5,396.3)	62	373.9 (361.9,391.8)
Female White	54	337.8 (328.0,360.2)	76	345.1 (330.5,356.6)	75	363.8 (350.8,374.7)	79	378.1 (363.0,391.0)	87	389.1 (378.1,401.1)	75	390.4 (379.8,403.3)
Female African-American	28	341.8 (326.9,352.5)	62	343.0 (332.3,362.8)	45	363.4 (346.6,368.7)	66	366.9 (357.1,386.7)	66	380.8 (365.5,393.0)	42	378.4 (365.4,387.9)
Female Other or Mixed	29	339.9 (332.7,354.9)	67	346.3 (331.9,358.3)	71	359.9 (348.3,375.2)	78	369.7 (354.3,383.1)	69	377.2 (363.5,397.6)	51	382.2 (369.8,395.3)

Supplemental Table 33A. Fridericia corrected QT interval - V5 (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	342.5±31.1 (306.2,415.5)	79	339.0±19.0 (308.7,379.3)	68	354.6±17.6 (325.8,386.5)	106	370.6±19.4 (338.5,407.3)	86	379.1±22.4 (345.1,417.7)	78	373.0±21.7 (338.9,409.9)
Male African-American	34	325.6±22.9 (289.8,368.2)	68	338.2±21.9 (308.1,372.1)	71	352.1±15.7 (327.2,380.5)	75	367.0±17.3 (339.2,390.0)	70	372.0±18.0 (343.3,400.7)	63	370.8±22.5 (341.4,407.9)
Male Other or Mixed	56	340.2±22.5 (298.6,379.3)	80	338.8±22.4 (304.9,379.3)	73	349.2±19.8 (317.6,378.1)	73	366.7±19.3 (339.3,406.5)	75	375.3±20.2 (345.6,411.6)	63	371.1±27.3 (334.2,423.8)
Female White	54	340.8±23.2 (309.8,382.3)	77	342.7±20.9 (309.5,372.5)	75	357.8±19.4 (329.1,395.2)	79	370.5±19.4 (339.5,403.5)	87	387.4±20.0 (359.0,419.5)	75	387.2±18.7 (357.3,419.0)
Female African-American	28	344.4±25.9 (298.9,389.8)	62	345.1±25.1 (306.0,394.8)	46	358.1±17.1 (335.7,388.4)	66	365.8±22.3 (339.9,405.6)	66	382.9±21.8 (351.6,418.7)	41	380.7±22.8 (351.2,427.7)
Female Other or Mixed	29	340.0±21.6 (309.7,372.8)	67	341.2±24.6 (302.0,373.7)	72	353.6±18.0 (327.0,382.9)	78	364.5±22.4 (335.8,407.2)	69	377.1±20.6 (338.6,414.8)	51	381.9±20.8 (349.1,414.8)

Supplemental Table 33B. Fridericia corrected QT interval - V5 (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	347.8 (327.7,351.8)	79	334.9 (327.6,348.7)	68	355.8 (343.9,365.1)	106	368.6 (356.3,383.2)	86	377.2 (364.3,391.0)	78	372.5 (358.0,388.0)
Male African-American	34	323.4 (311.7,340.2)	68	339.4 (326.7,348.2)	71	352.4 (340.2,362.3)	75	369.1 (349.7,381.3)	70	371.7 (361.4,381.6)	63	371.4 (353.2,381.4)
Male Other or Mixed	56	340.2 (328.6,351.8)	80	336.4 (323.3,352.2)	73	349.2 (332.7,365.1)	73	365.9 (353.2,379.4)	75	373.5 (360.1,389.4)	63	367.7 (357.1,378.9)
Female White	54	339.2 (326.8,352.5)	77	341.8 (329.6,355.0)	75	356.2 (344.1,368.2)	79	369.3 (357.0,382.1)	87	384.4 (374.0,403.1)	75	387.3 (373.7,400.1)
Female African-American	28	337.5 (334.1,357.4)	62	341.0 (329.8,362.8)	46	356.3 (346.4,364.1)	66	361.4 (353.5,376.9)	66	380.3 (369.8,398.6)	41	375.9 (365.7,393.2)
Female Other or Mixed	29	338.3 (322.9,355.3)	67	340.2 (326.5,354.3)	72	354.4 (340.1,364.4)	78	363.9 (351.7,378.0)	69	376.1 (363.5,389.2)	51	382.5 (366.1,397.4)

Supplemental Table 34A. Fridericia corrected QT interval - V6 (ms) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	50	342.3±25.7 (306.6,376.1)	80	341.9±20.2 (308.1,381.1)	68	359.3±17.7 (325.8,384.8)	106	377.0±21.0 (344.7,411.8)	86	385.4±23.2 (347.9,423.0)	77	381.4±23.2 (344.5,424.5)
Male African-American	33	329.1±22.9 (298.3,374.6)	68	340.6±21.7 (310.4,374.2)	71	357.0±15.1 (332.4,383.1)	75	371.4±16.8 (345.8,397.1)	70	376.9±17.6 (349.9,412.5)	61	376.2±21.6 (345.4,415.0)
Male Other or Mixed	56	340.1±22.5 (298.6,380.0)	81	342.2±22.9 (309.9,380.5)	73	353.8±19.6 (320.5,385.2)	73	371.7±19.1 (342.4,406.1)	75	380.5±21.2 (348.2,421.6)	62	378.3±26.9 (342.5,422.2)
Female White	55	343.6±22.9 (310.4,387.3)	77	343.9±18.4 (312.0,376.5)	75	361.1±16.5 (335.7,388.7)	79	375.5±18.4 (345.7,406.4)	87	390.0±20.6 (359.4,421.1)	75	389.7±18.2 (360.3,419.0)
Female African-American	27	340.3±24.7 (301.1,382.8)	62	348.0±25.5 (316.5,394.8)	46	361.7±15.9 (340.6,392.0)	66	368.6±21.1 (335.7,403.8)	66	383.7±21.1 (357.8,415.1)	42	380.2±23.9 (350.7,425.8)
Female Other or Mixed	29	340.7±21.5 (311.9,369.4)	68	342.9±19.4 (306.4,375.2)	72	356.7±18.9 (325.4,383.7)	78	369.7±22.4 (338.3,416.8)	69	377.9±23.2 (340.4,410.5)	51	384.0±22.6 (350.1,421.5)

Supplemental Table 34B. Fridericia corrected QT interval - V6 (ms) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	50	347.0 (327.2,357.4)	80	340.3 (330.8,351.4)	68	360.9 (348.2,370.0)	106	375.1 (360.9,388.4)	86	385.3 (372.2,396.4)	77	381.4 (364.3,398.8)
Male African-American	33	328.7 (315.1,340.8)	68	344.3 (329.4,350.8)	71	357.0 (345.6,367.0)	75	372.9 (356.2,382.7)	70	375.2 (368.2,385.8)	61	376.2 (360.5,387.3)
Male Other or Mixed	56	340.6 (327.5,352.3)	81	340.6 (326.7,353.9)	73	352.4 (339.0,369.3)	73	370.8 (360.0,383.7)	75	379.4 (363.7,392.2)	62	373.8 (364.0,387.2)
Female White	55	340.5 (329.2,355.5)	77	342.6 (332.1,357.6)	75	360.4 (349.7,370.6)	79	374.4 (364.8,387.2)	87	389.4 (377.8,405.7)	75	389.5 (377.1,401.1)
Female African-American	27	342.2 (326.1,350.9)	62	342.2 (331.2,362.8)	46	359.2 (350.6,368.5)	66	365.5 (356.4,379.2)	66	381.4 (368.7,399.2)	42	378.1 (363.3,393.7)
Female Other or Mixed	29	343.7 (322.7,353.2)	68	343.0 (331.6,357.3)	72	358.1 (344.3,368.7)	78	367.3 (356.1,379.0)	69	377.9 (363.1,394.9)	51	383.4 (369.5,400.7)

Supplemental Table 35A. Mean frontal plane QRS axis (degree) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	140.6±42.5 (67.0,222.0)	78	80.2±38.0 (27.0,130.0)	68	66.5±37.4 (1.0,106.0)	106	78.7±31.3 (25.0,123.0)	86	80.2±34.1 (26.0,111.0)	77	79.2±29.7 (15.0,129.0)
Male African-American	34	136.7±46.1 (76.0,230.0)	65	76.4±48.8 (0.0,138.0)	71	65.0±28.6 (12.0,101.0)	75	68.9±28.6 (22.0,97.0)	70	70.1±19.5 (39.0,93.0)	62	66.8±32.0 (-16.0,100.0)
Male Other or Mixed	56	134.5±44.5 (70.0,204.0)	79	78.7±37.7 (23.0,139.0)	73	78.3±46.2 (0.0,131.0)	73	70.6±38.6 (-3.0,120.0)	75	82.3±41.3 (35.0,154.0)	62	70.0±35.7 (12.0,105.0)
Female White	55	131.5±33.3 (76.0,189.0)	77	82.0±32.1 (27.0,136.0)	75	74.1±40.4 (-30.0,128.0)	78	72.3±29.0 (0.0,104.0)	87	79.9±27.4 (33.0,102.0)	75	68.1±31.6 (9.0,99.0)
Female African-American	28	116.3±43.3 (65.0,176.0)	61	75.1±17.6 (42.0,98.0)	46	63.7±34.6 (-20.0,101.0)	66	71.1±23.8 (40.0,97.0)	66	62.8±20.6 (23.0,89.0)	42	60.8±16.9 (27.0,82.0)
Female Other or Mixed	29	123.7±37.1 (79.0,203.0)	68	81.9±30.6 (37.0,132.0)	71	70.0±37.9 (21.0,122.0)	78	74.6±27.9 (29.0,118.0)	68	65.0±29.3 (23.0,97.0)	51	70.1±21.3 (37.0,104.0)

Supplemental Table 35B. Mean frontal plane QRS axis (degree) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	131.5 (114.0,169.0)	78	78.5 (69.0,90.0)	68	68.5 (48.5,87.0)	106	80.5 (68.0,92.0)	86	83.0 (73.0,91.0)	77	82.0 (72.0,93.0)
Male African-American	34	134.5 (103.0,165.0)	65	75.0 (56.0,102.0)	71	73.0 (47.0,81.0)	75	76.0 (61.0,86.0)	70	73.0 (61.0,84.0)	62	75.5 (59.0,85.0)
Male Other or Mixed	56	131.5 (107.5,168.0)	79	79.0 (60.0,96.0)	73	78.0 (55.0,92.0)	73	74.0 (58.0,92.0)	75	78.0 (61.0,96.0)	62	80.5 (63.0,90.0)
Female White	55	127.0 (106.0,157.0)	77	83.0 (66.0,95.0)	75	80.0 (65.0,88.0)	78	79.0 (65.0,87.0)	87	82.0 (67.0,91.0)	75	74.0 (59.0,89.0)
Female African-American	28	111.0 (85.0,138.5)	61	76.0 (66.0,85.0)	46	70.0 (53.0,84.0)	66	73.5 (62.0,84.0)	66	66.0 (54.0,76.0)	42	63.5 (49.0,76.0)
Female Other or Mixed	29	114.0 (93.0,145.0)	68	81.0 (60.5,100.0)	71	70.0 (55.0,85.0)	78	76.0 (60.0,90.0)	68	71.0 (49.0,84.0)	51	68.0 (52.0,86.0)

Supplemental Table 36A. Mean frontal plane P wave axis (degree) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	52.9±33.5 (-17.0,79.0)	80	54.6±34.1 (10.5,77.5)	68	44.8±24.1 (5.0,72.0)	106	42.0±31.2 (-3.0,68.0)	86	40.2±26.8 (-12.0,77.0)	78	38.4±34.3 (-37.0,76.0)
Male African-American	34	51.4±39.7 (11.0,72.0)	68	49.8±14.0 (23.0,71.0)	71	39.9±18.5 (0.0,66.0)	75	36.0±37.3 (-16.0,68.0)	70	41.7±26.4 (-11.0,76.0)	63	47.1±33.2 (-7.0,82.0)
Male Other or Mixed	57	51.0±30.9 (23.0,70.0)	81	46.8±18.6 (18.0,70.0)	73	41.5±25.2 (-1.0,74.0)	73	38.9±22.9 (-5.0,67.0)	75	37.9±40.5 (-22.0,82.0)	63	44.2±25.2 (4.0,79.0)
Female White	55	58.0±13.5 (34.0,78.0)	77	48.2±15.8 (20.0,72.0)	75	47.1±19.2 (7.0,69.0)	79	41.6±24.3 (-21.0,73.0)	87	42.7±27.3 (-5.0,78.0)	75	42.3±24.9 (-2.0,77.0)
Female African-American	28	41.9±24.6 (2.0,70.0)	62	47.8±17.8 (20.0,74.0)	46	46.8±20.1 (11.0,75.0)	66	38.6±31.2 (-29.0,69.0)	66	39.9±29.5 (-9.0,78.0)	42	45.2±27.5 (-3.0,83.0)
Female Other or Mixed	29	41.7±22.2 (9.0,75.0)	68	47.8±16.0 (22.0,72.0)	72	44.5±20.0 (5.0,73.0)	78	41.0±29.9 (-3.0,70.0)	69	40.4±29.3 (-19.0,75.0)	51	34.4±30.6 (-25.0,81.0)

Supplemental Table 36B. Mean frontal plane P wave axis (degree) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	60.0 (47.0,68.0)	80	53.5 (39.0,64.5)	68	50.5 (35.5,63.0)	106	44.0 (29.0,58.0)	86	45.0 (28.0,55.0)	78	47.5 (29.0,62.0)
Male African-American	34	46.0 (40.0,58.0)	68	51.5 (42.5,58.0)	71	42.0 (28.0,54.0)	75	35.0 (19.0,53.0)	70	45.5 (30.0,58.0)	63	54.0 (31.0,71.0)
Male Other or Mixed	57	52.0 (37.0,62.0)	81	49.0 (36.0,60.0)	73	47.0 (23.0,59.0)	73	43.0 (31.0,53.0)	75	43.0 (12.0,57.0)	63	47.0 (33.0,60.0)
Female White	55	58.0 (51.0,68.0)	77	48.0 (37.0,61.0)	75	53.0 (38.0,63.0)	79	48.0 (23.0,59.0)	87	46.0 (24.0,67.0)	75	44.0 (29.0,62.0)
Female African-American	28	44.0 (31.0,55.0)	62	49.5 (36.0,60.0)	46	46.5 (36.0,62.0)	66	45.0 (32.0,59.0)	66	46.5 (25.0,59.0)	42	47.5 (25.0,66.0)
Female Other or Mixed	29	45.0 (26.0,56.0)	68	48.5 (37.0,61.0)	72	46.0 (34.0,60.0)	78	45.5 (29.0,59.0)	69	49.0 (22.0,64.0)	51	38.0 (15.0,58.0)

Supplemental Table 37A. Mean frontal plane T wave axis (degree) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	48.1±33.8 (-15.0,118.0)	80	47.3±19.2 (10.0,75.5)	68	50.1±16.8 (29.0,75.0)	106	53.3±16.7 (26.0,76.0)	86	52.9±21.7 (19.0,77.0)	78	51.8±18.1 (19.0,73.0)
Male African-American	34	48.6±49.0 (-6.0,146.0)	68	50.5±15.2 (30.0,76.0)	71	52.6±17.6 (24.0,76.0)	75	54.9±15.4 (29.0,80.0)	70	50.3±15.7 (19.0,71.0)	63	45.8±22.8 (5.0,72.0)
Male Other or Mixed	57	37.9±23.1 (0.0,78.0)	81	45.2±14.9 (18.0,67.0)	73	48.7±20.3 (19.0,73.0)	73	54.9±15.5 (25.0,79.0)	75	52.7±13.9 (29.0,75.0)	63	47.7±34.1 (16.0,75.0)
Female White	55	47.2±42.8 (-3.0,83.0)	77	43.1±18.9 (8.0,69.0)	75	46.4±19.9 (8.0,74.0)	79	47.9±21.9 (3.0,77.0)	87	52.4±18.7 (18.0,74.0)	75	45.9±20.7 (9.0,71.0)
Female African-American	28	52.8±32.8 (5.0,128.0)	62	52.0±17.0 (27.0,76.0)	46	55.4±33.1 (23.0,81.0)	66	56.9±17.1 (33.0,80.0)	66	48.7±14.9 (20.0,73.0)	42	45.5±17.5 (16.0,68.0)
Female Other or Mixed	29	40.4±28.8 (0.0,72.0)	68	45.0±20.1 (13.0,74.0)	72	44.8±16.6 (12.0,70.0)	78	47.8±17.8 (17.0,71.0)	69	44.9±21.5 (17.0,77.0)	51	45.5±17.1 (18.0,70.0)

Supplemental Table 37B. Mean frontal plane T wave axis (degree) by sex, race and age group, median (interquartile range)

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	46.0 (33.0,62.0)	80	48.5 (37.0,62.0)	68	50.0 (41.0,61.0)	106	55.0 (43.0,65.0)	86	60.0 (43.0,67.0)	78	55.0 (43.0,64.0)
Male African-American	34	45.5 (18.0,63.0)	68	47.5 (41.0,61.5)	71	56.0 (44.0,64.0)	75	55.0 (46.0,66.0)	70	53.5 (41.0,61.0)	63	52.0 (30.0,63.0)
Male Other or Mixed	57	44.0 (19.0,52.0)	81	46.0 (36.0,55.0)	73	48.0 (35.0,60.0)	73	55.0 (48.0,65.0)	75	52.0 (43.0,64.0)	63	46.0 (33.0,59.0)
Female White	55	46.0 (31.0,56.0)	77	42.0 (33.0,56.0)	75	47.0 (33.0,61.0)	79	53.0 (35.0,66.0)	87	54.0 (45.0,65.0)	75	51.0 (34.0,61.0)
Female African-American	28	48.0 (30.0,70.5)	62	53.0 (44.0,64.0)	46	51.0 (45.0,63.0)	66	57.0 (44.0,67.0)	66	50.0 (39.0,59.0)	42	49.5 (34.0,55.0)
Female Other or Mixed	29	49.0 (14.0,64.0)	68	46.0 (29.5,58.5)	72	47.0 (38.0,55.5)	78	51.0 (38.0,59.0)	69	44.0 (33.0,61.0)	51	47.0 (37.0,56.0)

Supplemental Table 38A. T wave amplitude - GBL (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	52	0.211±0.084 (0.088,0.365)	80	0.302±0.097 (0.156,0.463)	68	0.351±0.102 (0.199,0.522)	106	0.438±0.144 (0.251,0.731)	85	0.415±0.136 (0.206,0.622)	78	0.468±0.150 (0.232,0.689)
Male African-American	33	0.193±0.062 (0.076,0.301)	68	0.281±0.099 (0.155,0.500)	71	0.392±0.109 (0.225,0.557)	75	0.385±0.145 (0.166,0.550)	70	0.390±0.133 (0.179,0.621)	63	0.419±0.139 (0.197,0.616)
Male Other or Mixed	57	0.182±0.056 (0.099,0.287)	81	0.329±0.087 (0.189,0.443)	73	0.395±0.106 (0.218,0.580)	73	0.426±0.142 (0.233,0.712)	75	0.411±0.134 (0.206,0.659)	62	0.439±0.145 (0.204,0.680)
Female White	55	0.189±0.062 (0.097,0.288)	77	0.280±0.082 (0.150,0.398)	75	0.319±0.101 (0.153,0.504)	79	0.344±0.130 (0.147,0.562)	87	0.288±0.102 (0.127,0.469)	75	0.294±0.109 (0.107,0.478)
Female African-American	28	0.188±0.094 (0.070,0.333)	62	0.276±0.088 (0.145,0.402)	46	0.358±0.092 (0.224,0.515)	66	0.377±0.144 (0.190,0.631)	66	0.277±0.125 (0.110,0.505)	42	0.229±0.087 (0.077,0.385)
Female Other or Mixed	29	0.200±0.076 (0.101,0.310)	67	0.308±0.094 (0.165,0.468)	72	0.335±0.094 (0.184,0.498)	78	0.331±0.124 (0.170,0.604)	69	0.279±0.093 (0.117,0.462)	51	0.265±0.096 (0.138,0.486)

Supplemental Table 38B. T wave amplitude - GBL (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	0.200 (0.155,0.263)	80	0.298 (0.227,0.374)	68	0.344 (0.284,0.413)	106	0.409 (0.347,0.509)	85	0.392 (0.318,0.523)	78	0.468 (0.363,0.584)
Male African-American	33	0.181 (0.154,0.243)	68	0.262 (0.206,0.336)	71	0.378 (0.313,0.458)	75	0.385 (0.287,0.477)	70	0.373 (0.298,0.486)	63	0.443 (0.318,0.506)
Male Other or Mixed	57	0.177 (0.150,0.213)	81	0.329 (0.276,0.378)	73	0.385 (0.318,0.472)	73	0.398 (0.326,0.502)	75	0.407 (0.305,0.504)	62	0.432 (0.344,0.550)
Female White	55	0.196 (0.137,0.237)	77	0.289 (0.211,0.331)	75	0.308 (0.252,0.383)	79	0.349 (0.248,0.430)	87	0.285 (0.222,0.350)	75	0.288 (0.225,0.361)
Female African-American	28	0.180 (0.106,0.240)	62	0.268 (0.206,0.345)	46	0.337 (0.298,0.404)	66	0.339 (0.263,0.490)	66	0.259 (0.182,0.340)	42	0.231 (0.173,0.280)
Female Other or Mixed	29	0.181 (0.134,0.266)	67	0.310 (0.230,0.364)	72	0.331 (0.275,0.384)	78	0.325 (0.244,0.393)	69	0.265 (0.222,0.337)	51	0.252 (0.202,0.305)

Supplemental Table 39A. T wave amplitude - I (millivolt) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	53	0.148 \pm 0.102 (-0.023,0.350)	80	0.218 \pm 0.117 (0.046,0.427)	68	0.242 \pm 0.101 (0.086,0.411)	106	0.263 \pm 0.096 (0.111,0.429)	86	0.232 \pm 0.096 (0.094,0.396)	78	0.252 \pm 0.095 (0.110,0.439)
Male African-American	34	0.145 \pm 0.076 (0.009,0.252)	68	0.202 \pm 0.109 (0.035,0.392)	71	0.237 \pm 0.086 (0.079,0.373)	75	0.229 \pm 0.093 (0.080,0.409)	70	0.262 \pm 0.103 (0.120,0.415)	63	0.250 \pm 0.117 (0.089,0.392)
Male Other or Mixed	57	0.145 \pm 0.072 (0.020,0.256)	81	0.262 \pm 0.107 (0.098,0.451)	72	0.289 \pm 0.124 (0.108,0.459)	73	0.261 \pm 0.102 (0.095,0.444)	75	0.251 \pm 0.105 (0.093,0.490)	63	0.260 \pm 0.112 (0.080,0.451)
Female White	55	0.137 \pm 0.094 (-0.014,0.314)	77	0.227 \pm 0.089 (0.057,0.385)	75	0.230 \pm 0.112 (0.068,0.419)	79	0.227 \pm 0.092 (0.088,0.398)	87	0.201 \pm 0.078 (0.092,0.344)	75	0.231 \pm 0.097 (0.098,0.387)
Female African-American	28	0.141 \pm 0.112 (-0.011,0.308)	62	0.179 \pm 0.076 (0.075,0.318)	46	0.248 \pm 0.127 (0.063,0.461)	65	0.208 \pm 0.101 (0.093,0.347)	66	0.231 \pm 0.112 (0.076,0.427)	42	0.200 \pm 0.076 (0.089,0.334)
Female Other or Mixed	29	0.149 \pm 0.067 (0.067,0.267)	68	0.232 \pm 0.112 (0.056,0.438)	72	0.259 \pm 0.085 (0.128,0.416)	78	0.244 \pm 0.104 (0.085,0.437)	69	0.225 \pm 0.089 (0.092,0.351)	51	0.229 \pm 0.084 (0.097,0.351)

Supplemental Table 39B. T wave amplitude - I (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.138 (0.089,0.201)	80	0.206 (0.131,0.305)	68	0.238 (0.173,0.303)	106	0.252 (0.207,0.317)	86	0.225 (0.164,0.286)	78	0.250 (0.178,0.317)
Male African-American	34	0.141 (0.103,0.199)	68	0.197 (0.149,0.260)	71	0.235 (0.187,0.283)	75	0.227 (0.161,0.294)	70	0.249 (0.200,0.316)	63	0.238 (0.172,0.312)
Male Other or Mixed	57	0.144 (0.109,0.187)	81	0.250 (0.199,0.318)	72	0.315 (0.202,0.378)	73	0.252 (0.201,0.327)	75	0.237 (0.186,0.293)	63	0.255 (0.196,0.334)
Female White	55	0.126 (0.085,0.191)	77	0.232 (0.179,0.289)	75	0.231 (0.145,0.287)	79	0.219 (0.170,0.285)	87	0.190 (0.145,0.259)	75	0.218 (0.156,0.311)
Female African-American	28	0.148 (0.064,0.227)	62	0.164 (0.125,0.235)	46	0.245 (0.174,0.329)	65	0.204 (0.149,0.255)	66	0.216 (0.165,0.274)	42	0.203 (0.140,0.233)
Female Other or Mixed	29	0.136 (0.105,0.181)	68	0.225 (0.167,0.273)	72	0.253 (0.212,0.306)	78	0.236 (0.173,0.315)	69	0.235 (0.158,0.284)	51	0.220 (0.168,0.293)

Supplemental Table 40A. T wave amplitude - II (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	0.230±0.173 (-0.003,0.472)	80	0.316±0.140 (0.087,0.538)	68	0.397±0.141 (0.170,0.601)	106	0.479±0.151 (0.230,0.722)	86	0.425±0.187 (0.054,0.706)	78	0.433±0.179 (0.099,0.759)
Male African-American	34	0.208±0.137 (0.006,0.388)	68	0.312±0.172 (0.114,0.567)	71	0.443±0.159 (0.205,0.765)	75	0.439±0.162 (0.200,0.681)	70	0.448±0.192 (0.141,0.870)	63	0.388±0.217 (0.049,0.698)
Male Other or Mixed	57	0.166±0.091 (0.050,0.358)	81	0.358±0.141 (0.131,0.618)	73	0.436±0.147 (0.205,0.685)	73	0.485±0.163 (0.236,0.772)	75	0.420±0.142 (0.202,0.663)	63	0.364±0.198 (0.051,0.717)
Female White	55	0.175±0.119 (-0.053,0.404)	77	0.313±0.129 (0.105,0.516)	75	0.346±0.133 (0.123,0.574)	79	0.371±0.148 (0.093,0.601)	87	0.347±0.154 (0.129,0.619)	75	0.345±0.147 (0.068,0.590)
Female African-American	28	0.208±0.160 (-0.020,0.507)	62	0.313±0.136 (0.109,0.540)	46	0.426±0.169 (0.115,0.678)	66	0.432±0.168 (0.178,0.733)	66	0.365±0.159 (0.103,0.591)	42	0.293±0.115 (0.092,0.457)
Female Other or Mixed	29	0.192±0.106 (0.056,0.430)	68	0.328±0.136 (0.095,0.537)	72	0.371±0.139 (0.180,0.710)	78	0.375±0.164 (0.127,0.665)	69	0.331±0.128 (0.145,0.514)	51	0.335±0.124 (0.157,0.578)

Supplemental Table 40B. T wave amplitude - II (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	0.210 (0.116,0.302)	80	0.306 (0.203,0.426)	68	0.379 (0.304,0.485)	106	0.494 (0.371,0.573)	86	0.436 (0.299,0.574)	78	0.460 (0.321,0.539)
Male African-American	34	0.213 (0.166,0.286)	68	0.301 (0.217,0.410)	71	0.429 (0.332,0.549)	75	0.446 (0.321,0.529)	70	0.443 (0.314,0.561)	63	0.401 (0.230,0.534)
Male Other or Mixed	57	0.157 (0.103,0.226)	81	0.347 (0.276,0.443)	73	0.433 (0.361,0.490)	73	0.475 (0.373,0.582)	75	0.403 (0.327,0.521)	63	0.364 (0.250,0.480)
Female White	55	0.167 (0.100,0.257)	77	0.301 (0.214,0.425)	75	0.332 (0.268,0.432)	79	0.386 (0.281,0.485)	87	0.352 (0.236,0.442)	75	0.349 (0.244,0.441)
Female African-American	28	0.210 (0.110,0.292)	62	0.307 (0.228,0.391)	46	0.434 (0.324,0.535)	66	0.403 (0.300,0.577)	66	0.360 (0.268,0.460)	42	0.299 (0.227,0.346)
Female Other or Mixed	29	0.178 (0.116,0.219)	68	0.318 (0.238,0.445)	72	0.367 (0.271,0.449)	78	0.350 (0.253,0.468)	69	0.335 (0.255,0.412)	51	0.329 (0.271,0.412)

Supplemental Table 41A. T wave amplitude - III (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	0.078±0.111 (-0.078,0.285)	80	0.098±0.131 (-0.091,0.323)	68	0.154±0.142 (-0.016,0.385)	106	0.216±0.158 (-0.029,0.517)	86	0.192±0.177 (-0.067,0.461)	78	0.180±0.163 (-0.106,0.476)
Male African-American	34	0.062±0.111 (-0.126,0.260)	68	0.109±0.138 (-0.081,0.409)	71	0.206±0.157 (-0.038,0.482)	75	0.210±0.168 (-0.008,0.504)	70	0.185±0.156 (-0.026,0.486)	63	0.138±0.212 (-0.160,0.459)
Male Other or Mixed	57	0.021±0.081 (-0.101,0.158)	81	0.096±0.122 (-0.101,0.328)	73	0.154±0.152 (-0.061,0.418)	73	0.223±0.168 (-0.033,0.506)	75	0.168±0.128 (-0.026,0.405)	63	0.102±0.160 (-0.149,0.422)
Female White	55	0.038±0.091 (-0.118,0.235)	77	0.086±0.117 (-0.079,0.334)	75	0.117±0.140 (-0.106,0.330)	79	0.143±0.151 (-0.092,0.409)	87	0.145±0.135 (-0.086,0.360)	75	0.113±0.150 (-0.108,0.352)
Female African-American	28	0.067±0.116 (-0.105,0.284)	62	0.133±0.128 (-0.038,0.352)	46	0.177±0.122 (-0.046,0.364)	66	0.229±0.168 (0.005,0.492)	66	0.133±0.123 (-0.028,0.384)	42	0.092±0.105 (-0.064,0.302)
Female Other or Mixed	29	0.043±0.105 (-0.129,0.182)	68	0.095±0.149 (-0.134,0.316)	72	0.112±0.131 (-0.130,0.303)	78	0.131±0.134 (-0.041,0.362)	69	0.106±0.124 (-0.066,0.359)	51	0.105±0.116 (-0.067,0.315)

Supplemental Table 41B. T wave amplitude - III (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.068 (-0.005,0.152)	80	0.093 (0.012,0.166)	68	0.131 (0.063,0.251)	106	0.204 (0.106,0.311)	86	0.198 (0.075,0.309)	78	0.197 (0.040,0.301)
Male African-American	34	0.064 (-0.014,0.145)	68	0.100 (0.046,0.139)	71	0.206 (0.080,0.286)	75	0.188 (0.083,0.292)	70	0.176 (0.063,0.284)	63	0.132 (-0.012,0.238)
Male Other or Mixed	57	0.022 (-0.039,0.080)	81	0.084 (0.021,0.159)	73	0.135 (0.041,0.276)	73	0.194 (0.122,0.328)	75	0.141 (0.063,0.272)	63	0.086 (0.006,0.189)
Female White	55	0.041 (-0.016,0.078)	77	0.058 (0.009,0.159)	75	0.125 (0.011,0.200)	79	0.134 (0.028,0.242)	87	0.158 (0.071,0.225)	75	0.091 (0.019,0.226)
Female African-American	28	0.044 (-0.019,0.120)	62	0.134 (0.041,0.190)	46	0.179 (0.101,0.260)	66	0.214 (0.089,0.324)	66	0.117 (0.038,0.192)	42	0.086 (0.022,0.137)
Female Other or Mixed	29	0.039 (-0.015,0.113)	68	0.075 (-0.010,0.204)	72	0.114 (0.047,0.193)	78	0.119 (0.035,0.207)	69	0.089 (0.008,0.173)	51	0.089 (0.031,0.179)

Supplemental Table 42A. T wave amplitude - V1 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	-0.232±0.180 (-0.466,0.089)	79	-0.316±0.164 (-0.607,-0.019)	68	-0.300±0.117 (-0.497,-0.124)	106	-0.235±0.144 (-0.427,0.052)	86	-0.067±0.192 (-0.400,0.279)	78	-0.037±0.170 (-0.306,0.275)
Male African-American	34	-0.175±0.144 (-0.340,0.206)	67	-0.299±0.148 (-0.499,-0.023)	71	-0.328±0.152 (-0.518,-0.115)	75	-0.246±0.132 (-0.426,-0.012)	70	-0.080±0.187 (-0.368,0.247)	63	0.019±0.195 (-0.281,0.286)
Male Other or Mixed	57	-0.229±0.166 (-0.474,0.116)	81	-0.403±0.132 (-0.646,-0.220)	73	-0.316±0.118 (-0.515,-0.119)	73	-0.228±0.122 (-0.437,-0.031)	75	-0.058±0.183 (-0.320,0.305)	62	0.005±0.209 (-0.309,0.290)
Female White	55	-0.233±0.153 (-0.465,0.044)	77	-0.331±0.124 (-0.579,-0.156)	75	-0.265±0.110 (-0.453,-0.074)	79	-0.184±0.139 (-0.392,0.074)	87	-0.105±0.148 (-0.327,0.129)	75	-0.114±0.108 (-0.306,0.064)
Female African-American	28	-0.214±0.122 (-0.398,-0.042)	62	-0.313±0.132 (-0.542,-0.124)	46	-0.320±0.125 (-0.510,-0.146)	66	-0.255±0.129 (-0.451,-0.018)	66	-0.149±0.122 (-0.364,0.029)	42	-0.090±0.108 (-0.239,0.069)
Female Other or Mixed	29	-0.262±0.173 (-0.549,0.052)	68	-0.351±0.109 (-0.549,-0.213)	72	-0.322±0.099 (-0.467,-0.166)	78	-0.225±0.148 (-0.451,0.091)	69	-0.087±0.125 (-0.273,0.136)	51	-0.126±0.103 (-0.243,0.053)

Supplemental Table 42B. T wave amplitude - V1 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	-0.249 (-0.321,-0.149)	79	-0.317 (-0.416,-0.220)	68	-0.303 (-0.366,-0.233)	106	-0.259 (-0.325,-0.181)	86	-0.067 (-0.214,0.034)	78	-0.031 (-0.158,0.044)
Male African-American	34	-0.223 (-0.263,-0.122)	67	-0.303 (-0.381,-0.219)	71	-0.322 (-0.432,-0.238)	75	-0.246 (-0.358,-0.150)	70	-0.099 (-0.223,0.036)	63	0.004 (-0.125,0.152)
Male Other or Mixed	57	-0.261 (-0.329,-0.135)	81	-0.382 (-0.478,-0.312)	73	-0.316 (-0.396,-0.247)	73	-0.220 (-0.312,-0.166)	75	-0.043 (-0.206,0.076)	62	0.016 (-0.157,0.122)
Female White	55	-0.247 (-0.331,-0.133)	77	-0.318 (-0.380,-0.234)	75	-0.270 (-0.353,-0.167)	79	-0.191 (-0.269,-0.103)	87	-0.118 (-0.196,-0.020)	75	-0.111 (-0.180,-0.049)
Female African-American	28	-0.193 (-0.319,-0.137)	62	-0.289 (-0.396,-0.208)	46	-0.339 (-0.394,-0.217)	66	-0.259 (-0.336,-0.180)	66	-0.151 (-0.218,-0.069)	42	-0.101 (-0.192,0.006)
Female Other or Mixed	29	-0.257 (-0.344,-0.168)	68	-0.327 (-0.415,-0.272)	72	-0.333 (-0.398,-0.246)	78	-0.234 (-0.344,-0.147)	69	-0.101 (-0.156,-0.001)	51	-0.142 (-0.194,-0.069)

Supplemental Table 43A. T wave amplitude - V2 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	-0.137±0.216 (-0.514,0.223)	80	-0.219±0.289 (-0.732,0.381)	68	-0.124±0.260 (-0.602,0.309)	106	0.096±0.278 (-0.312,0.616)	86	0.402±0.375 (-0.149,1.015)	78	0.489±0.325 (-0.198,0.989)
Male African-American	33	-0.111±0.169 (-0.314,0.283)	67	-0.179±0.187 (-0.423,0.122)	71	-0.213±0.269 (-0.629,0.156)	75	0.013±0.242 (-0.314,0.437)	70	0.315±0.306 (-0.181,0.922)	63	0.527±0.296 (0.098,0.990)
Male Other or Mixed	57	-0.144±0.234 (-0.563,0.182)	81	-0.259±0.217 (-0.633,0.140)	73	-0.092±0.237 (-0.498,0.328)	73	0.058±0.230 (-0.308,0.439)	75	0.367±0.315 (-0.096,0.987)	63	0.505±0.404 (-0.117,1.179)
Female White	55	-0.170±0.181 (-0.523,0.123)	77	-0.270±0.207 (-0.660,0.011)	75	-0.119±0.228 (-0.438,0.307)	79	0.064±0.265 (-0.321,0.634)	87	0.184±0.238 (-0.158,0.630)	75	0.242±0.208 (-0.069,0.597)
Female African-American	28	-0.175±0.142 (-0.375,0.061)	62	-0.241±0.168 (-0.494,0.033)	46	-0.175±0.191 (-0.524,0.145)	66	-0.060±0.247 (-0.456,0.343)	66	0.096±0.196 (-0.197,0.426)	42	0.129±0.189 (-0.135,0.440)
Female Other or Mixed	29	-0.208±0.230 (-0.651,0.150)	67	-0.230±0.200 (-0.531,0.172)	72	-0.166±0.217 (-0.462,0.269)	78	0.007±0.228 (-0.391,0.442)	69	0.190±0.214 (-0.120,0.549)	51	0.156±0.185 (-0.116,0.516)

Supplemental Table 43B. T wave amplitude - V2 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	-0.139 (-0.270,-0.007)	80	-0.229 (-0.345,-0.107)	68	-0.134 (-0.274,0.062)	106	0.067 (-0.079,0.243)	86	0.410 (0.115,0.630)	78	0.514 (0.282,0.757)
Male African-American	33	-0.127 (-0.223,-0.032)	67	-0.190 (-0.318,-0.069)	71	-0.263 (-0.414,-0.024)	75	0.045 (-0.212,0.138)	70	0.286 (0.093,0.515)	63	0.476 (0.334,0.742)
Male Other or Mixed	57	-0.147 (-0.261,-0.045)	81	-0.255 (-0.389,-0.109)	73	-0.113 (-0.253,0.073)	73	0.060 (-0.099,0.220)	75	0.324 (0.118,0.577)	63	0.545 (0.200,0.815)
Female White	55	-0.161 (-0.261,-0.052)	77	-0.225 (-0.420,-0.110)	75	-0.152 (-0.293,0.028)	79	0.035 (-0.117,0.184)	87	0.142 (-0.008,0.331)	75	0.217 (0.094,0.401)
Female African-American	28	-0.165 (-0.283,-0.070)	62	-0.243 (-0.374,-0.109)	46	-0.184 (-0.273,-0.060)	66	-0.081 (-0.226,0.105)	66	0.085 (-0.040,0.230)	42	0.111 (-0.010,0.243)
Female Other or Mixed	29	-0.166 (-0.341,-0.098)	67	-0.225 (-0.391,-0.095)	72	-0.192 (-0.343,-0.024)	78	0.006 (-0.151,0.185)	69	0.170 (0.029,0.333)	51	0.176 (0.019,0.293)

Supplemental Table 44A. T wave amplitude - V3 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	52	0.002±0.253 (-0.423,0.400)	80	-0.022±0.322 (-0.542,0.674)	68	0.119±0.305 (-0.378,0.662)	106	0.364±0.354 (-0.133,0.922)	86	0.498±0.337 (-0.055,1.012)	77	0.690±0.310 (0.126,1.173)
Male African-American	33	0.010±0.198 (-0.218,0.352)	68	0.074±0.256 (-0.364,0.475)	71	0.031±0.389 (-0.529,0.718)	75	0.206±0.346 (-0.310,0.884)	70	0.366±0.330 (-0.126,0.950)	63	0.535±0.317 (0.117,1.040)
Male Other or Mixed	57	-0.044±0.183 (-0.326,0.265)	81	0.046±0.303 (-0.399,0.455)	73	0.194±0.383 (-0.352,0.904)	73	0.310±0.335 (-0.239,0.884)	75	0.510±0.298 (-0.056,0.937)	62	0.661±0.298 (0.206,1.078)
Female White	55	-0.076±0.208 (-0.414,0.267)	77	-0.055±0.226 (-0.472,0.349)	75	0.096±0.342 (-0.411,0.718)	79	0.287±0.331 (-0.172,0.887)	87	0.266±0.213 (-0.071,0.616)	75	0.314±0.209 (0.027,0.645)
Female African-American	28	-0.026±0.178 (-0.308,0.338)	62	-0.052±0.223 (-0.386,0.258)	46	0.011±0.312 (-0.332,0.575)	66	0.103±0.343 (-0.365,0.736)	66	0.226±0.204 (-0.082,0.561)	42	0.172±0.195 (-0.121,0.516)
Female Other or Mixed	29	-0.034±0.206 (-0.470,0.263)	68	-0.016±0.292 (-0.444,0.519)	72	0.044±0.332 (-0.390,0.677)	78	0.191±0.307 (-0.296,0.665)	69	0.267±0.209 (-0.056,0.663)	51	0.219±0.214 (-0.094,0.594)

Supplemental Table 44B. T wave amplitude - V3 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	-0.019 (-0.181,0.227)	80	-0.048 (-0.165,0.104)	68	0.135 (-0.130,0.329)	106	0.269 (0.142,0.628)	86	0.496 (0.254,0.702)	77	0.699 (0.444,0.925)
Male African-American	33	-0.043 (-0.120,0.124)	68	0.067 (-0.055,0.275)	71	0.029 (-0.278,0.307)	75	0.193 (-0.054,0.434)	70	0.393 (0.074,0.567)	63	0.557 (0.249,0.815)
Male Other or Mixed	57	-0.055 (-0.179,0.112)	81	0.022 (-0.160,0.272)	73	0.176 (-0.115,0.461)	73	0.315 (0.100,0.527)	75	0.534 (0.353,0.693)	62	0.639 (0.514,0.876)
Female White	55	-0.005 (-0.228,0.066)	77	-0.073 (-0.192,0.070)	75	0.061 (-0.137,0.340)	79	0.237 (0.039,0.548)	87	0.239 (0.113,0.414)	75	0.318 (0.158,0.452)
Female African-American	28	-0.034 (-0.167,0.072)	62	-0.059 (-0.212,0.105)	46	-0.045 (-0.166,0.170)	66	0.079 (-0.089,0.286)	66	0.228 (0.075,0.342)	42	0.153 (0.083,0.318)
Female Other or Mixed	29	0.023 (-0.114,0.097)	68	-0.035 (-0.193,0.194)	72	0.007 (-0.247,0.251)	78	0.170 (-0.019,0.452)	69	0.226 (0.130,0.388)	51	0.221 (0.050,0.343)

Supplemental Table 45A. T wave amplitude - V4 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	52	0.185±0.226 (-0.182,0.525)	80	0.295±0.258 (-0.153,0.718)	68	0.506±0.296 (-0.040,0.952)	106	0.687±0.308 (0.249,1.239)	86	0.619±0.326 (0.129,1.120)	78	0.734±0.320 (0.174,1.192)
Male African-American	34	0.221±0.188 (-0.064,0.518)	68	0.308±0.241 (-0.059,0.769)	71	0.486±0.342 (0.023,0.929)	75	0.556±0.321 (0.030,1.064)	70	0.524±0.276 (0.111,0.934)	63	0.561±0.288 (0.096,0.957)
Male Other or Mixed	57	0.141±0.148 (-0.109,0.431)	81	0.358±0.246 (-0.002,0.685)	73	0.577±0.290 (0.084,1.076)	73	0.676±0.318 (0.185,1.294)	75	0.619±0.294 (0.138,1.075)	62	0.662±0.332 (0.193,1.224)
Female White	55	0.122±0.185 (-0.230,0.424)	77	0.272±0.204 (-0.087,0.635)	75	0.415±0.317 (-0.105,0.898)	79	0.520±0.297 (0.115,1.083)	87	0.372±0.195 (0.091,0.761)	75	0.390±0.191 (0.139,0.775)
Female African-American	28	0.155±0.188 (-0.114,0.504)	62	0.320±0.192 (0.010,0.632)	46	0.427±0.332 (0.019,0.958)	66	0.520±0.320 (0.126,1.085)	66	0.338±0.225 (0.060,0.763)	42	0.268±0.166 (-0.006,0.532)
Female Other or Mixed	29	0.173±0.143 (-0.003,0.490)	68	0.332±0.246 (-0.078,0.699)	72	0.386±0.312 (-0.144,0.858)	78	0.453±0.281 (0.062,0.892)	69	0.358±0.178 (0.098,0.697)	51	0.337±0.183 (0.064,0.700)

Supplemental Table 45B. T wave amplitude - V4 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	0.153 (0.019,0.374)	80	0.306 (0.125,0.457)	68	0.511 (0.310,0.694)	106	0.674 (0.493,0.838)	86	0.612 (0.400,0.842)	78	0.719 (0.529,0.995)
Male African-American	34	0.227 (0.059,0.365)	68	0.288 (0.161,0.431)	71	0.503 (0.252,0.681)	75	0.597 (0.355,0.764)	70	0.545 (0.308,0.693)	63	0.588 (0.388,0.754)
Male Other or Mixed	57	0.137 (0.042,0.253)	81	0.378 (0.217,0.500)	73	0.589 (0.380,0.758)	73	0.626 (0.458,0.864)	75	0.629 (0.388,0.777)	62	0.647 (0.438,0.876)
Female White	55	0.156 (0.019,0.257)	77	0.266 (0.156,0.414)	75	0.400 (0.213,0.663)	79	0.453 (0.282,0.740)	87	0.349 (0.256,0.516)	75	0.376 (0.261,0.491)
Female African-American	28	0.102 (0.011,0.281)	62	0.299 (0.206,0.435)	46	0.436 (0.186,0.698)	66	0.464 (0.291,0.705)	66	0.331 (0.170,0.445)	42	0.247 (0.173,0.403)
Female Other or Mixed	29	0.156 (0.079,0.215)	68	0.329 (0.174,0.504)	72	0.402 (0.150,0.615)	78	0.427 (0.282,0.601)	69	0.331 (0.242,0.472)	51	0.327 (0.212,0.450)

Supplemental Table 46A. T wave amplitude - V5 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	0.242±0.194 (-0.064,0.506)	80	0.392±0.185 (0.046,0.677)	68	0.496±0.189 (0.212,0.818)	105	0.648±0.264 (0.330,1.199)	86	0.544±0.255 (0.111,0.932)	78	0.594±0.272 (0.139,1.038)
Male African-American	34	0.238±0.132 (0.005,0.439)	68	0.352±0.186 (0.113,0.716)	71	0.569±0.238 (0.230,0.948)	75	0.588±0.311 (0.210,1.071)	70	0.538±0.230 (0.174,0.900)	63	0.515±0.282 (0.050,0.996)
Male Other or Mixed	57	0.189±0.110 (0.009,0.369)	81	0.422±0.186 (0.150,0.677)	73	0.576±0.185 (0.307,0.929)	73	0.656±0.255 (0.319,1.191)	75	0.550±0.243 (0.191,0.995)	63	0.536±0.299 (0.135,1.021)
Female White	55	0.179±0.149 (-0.070,0.397)	77	0.358±0.156 (0.154,0.565)	75	0.448±0.196 (0.139,0.794)	79	0.500±0.223 (0.169,0.869)	87	0.383±0.177 (0.131,0.664)	75	0.386±0.164 (0.107,0.720)
Female African-American	28	0.211±0.164 (-0.026,0.477)	62	0.371±0.162 (0.177,0.637)	46	0.494±0.234 (0.110,0.928)	66	0.581±0.285 (0.224,1.206)	66	0.363±0.200 (0.118,0.770)	42	0.293±0.146 (0.036,0.589)
Female Other or Mixed	29	0.218±0.122 (0.048,0.448)	68	0.399±0.198 (0.107,0.652)	72	0.479±0.192 (0.188,0.801)	78	0.474±0.225 (0.172,0.946)	69	0.372±0.158 (0.125,0.630)	51	0.349±0.155 (0.131,0.704)

Supplemental Table 46B. T wave amplitude - V5 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.237 (0.119,0.381)	80	0.388 (0.283,0.532)	68	0.478 (0.387,0.626)	105	0.578 (0.457,0.778)	86	0.545 (0.374,0.667)	78	0.557 (0.432,0.793)
Male African-American	34	0.244 (0.163,0.348)	68	0.341 (0.236,0.410)	71	0.545 (0.392,0.739)	75	0.531 (0.397,0.713)	70	0.520 (0.345,0.735)	63	0.543 (0.263,0.678)
Male Other or Mixed	57	0.188 (0.140,0.254)	81	0.449 (0.337,0.501)	73	0.579 (0.450,0.653)	73	0.597 (0.482,0.798)	75	0.511 (0.363,0.690)	63	0.505 (0.304,0.738)
Female White	55	0.193 (0.091,0.290)	77	0.353 (0.249,0.451)	75	0.462 (0.307,0.556)	79	0.488 (0.353,0.649)	87	0.354 (0.289,0.485)	75	0.376 (0.282,0.486)
Female African-American	28	0.200 (0.086,0.355)	62	0.350 (0.248,0.468)	46	0.518 (0.344,0.585)	66	0.511 (0.401,0.721)	66	0.335 (0.235,0.473)	42	0.285 (0.190,0.384)
Female Other or Mixed	29	0.193 (0.140,0.295)	68	0.383 (0.261,0.541)	72	0.481 (0.315,0.587)	78	0.461 (0.306,0.587)	69	0.360 (0.284,0.458)	51	0.338 (0.216,0.437)

Supplemental Table 47A. T wave amplitude - V6 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	0.199±0.131 (-0.014,0.432)	80	0.338±0.150 (0.094,0.542)	68	0.399±0.141 (0.186,0.664)	105	0.503±0.225 (0.229,0.955)	86	0.426±0.211 (0.144,0.797)	78	0.438±0.202 (0.090,0.817)
Male African-American	34	0.187±0.099 (-0.025,0.333)	68	0.303±0.148 (0.090,0.541)	71	0.456±0.192 (0.192,0.812)	75	0.460±0.229 (0.188,0.796)	70	0.418±0.190 (0.138,0.726)	63	0.409±0.244 (0.046,0.825)
Male Other or Mixed	57	0.174±0.089 (0.009,0.325)	81	0.367±0.135 (0.143,0.566)	73	0.469±0.161 (0.225,0.839)	73	0.514±0.186 (0.266,0.954)	75	0.448±0.211 (0.200,0.855)	63	0.391±0.223 (0.056,0.738)
Female White	55	0.176±0.108 (0.004,0.331)	77	0.316±0.131 (0.139,0.513)	75	0.362±0.140 (0.160,0.630)	79	0.401±0.171 (0.142,0.729)	87	0.337±0.156 (0.133,0.645)	75	0.337±0.141 (0.090,0.588)
Female African-American	28	0.192±0.124 (-0.003,0.414)	62	0.324±0.141 (0.128,0.539)	46	0.409±0.156 (0.209,0.657)	65	0.479±0.221 (0.221,0.906)	66	0.338±0.182 (0.115,0.692)	42	0.276±0.119 (0.065,0.467)
Female Other or Mixed	29	0.195±0.111 (0.044,0.435)	68	0.350±0.152 (0.168,0.538)	72	0.408±0.138 (0.174,0.707)	78	0.408±0.210 (0.149,0.875)	69	0.332±0.133 (0.149,0.536)	51	0.310±0.138 (0.117,0.590)

Supplemental Table 47B. T wave amplitude - V6 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.189 (0.117,0.300)	80	0.337 (0.239,0.450)	68	0.395 (0.310,0.466)	105	0.464 (0.348,0.601)	86	0.427 (0.287,0.527)	78	0.416 (0.310,0.565)
Male African-American	34	0.197 (0.120,0.250)	68	0.299 (0.231,0.383)	71	0.430 (0.319,0.569)	75	0.430 (0.327,0.553)	70	0.412 (0.278,0.551)	63	0.424 (0.197,0.579)
Male Other or Mixed	57	0.181 (0.141,0.234)	81	0.370 (0.284,0.451)	73	0.448 (0.355,0.561)	73	0.478 (0.386,0.602)	75	0.418 (0.295,0.564)	63	0.397 (0.202,0.555)
Female White	55	0.174 (0.110,0.256)	77	0.307 (0.234,0.379)	75	0.352 (0.271,0.450)	79	0.397 (0.281,0.493)	87	0.322 (0.252,0.414)	75	0.325 (0.262,0.399)
Female African-American	28	0.200 (0.099,0.281)	62	0.286 (0.227,0.425)	46	0.397 (0.312,0.506)	65	0.430 (0.305,0.613)	66	0.313 (0.211,0.425)	42	0.283 (0.203,0.337)
Female Other or Mixed	29	0.178 (0.112,0.252)	68	0.332 (0.237,0.428)	72	0.409 (0.299,0.488)	78	0.366 (0.282,0.478)	69	0.327 (0.249,0.409)	51	0.291 (0.215,0.385)

Supplemental Table 48A. T wave amplitude - aVF (millivolt) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	52	0.141 \pm 0.107 (-0.055,0.304)	80	0.209 \pm 0.123 (0.014,0.411)	68	0.277 \pm 0.132 (0.102,0.485)	106	0.349 \pm 0.147 (0.123,0.605)	86	0.310 \pm 0.175 (0.022,0.563)	78	0.308 \pm 0.164 (0.046,0.600)
Male African-American	34	0.136 \pm 0.118 (-0.023,0.359)	68	0.212 \pm 0.147 (0.007,0.471)	71	0.326 \pm 0.152 (0.090,0.627)	75	0.327 \pm 0.159 (0.126,0.616)	70	0.319 \pm 0.167 (0.069,0.639)	63	0.265 \pm 0.206 (-0.030,0.577)
Male Other or Mixed	57	0.094 \pm 0.079 (-0.027,0.234)	81	0.229 \pm 0.121 (0.061,0.465)	73	0.296 \pm 0.132 (0.104,0.537)	73	0.356 \pm 0.157 (0.142,0.651)	75	0.296 \pm 0.125 (0.111,0.532)	63	0.234 \pm 0.171 (-0.012,0.513)
Female White	55	0.108 \pm 0.095 (-0.052,0.295)	77	0.201 \pm 0.115 (0.038,0.417)	75	0.233 \pm 0.125 (0.026,0.459)	79	0.259 \pm 0.142 (0.008,0.490)	87	0.247 \pm 0.139 (0.020,0.458)	75	0.231 \pm 0.140 (0.001,0.465)
Female African-American	28	0.139 \pm 0.128 (-0.055,0.396)	62	0.224 \pm 0.126 (0.045,0.420)	46	0.303 \pm 0.134 (0.056,0.513)	66	0.332 \pm 0.158 (0.114,0.610)	66	0.250 \pm 0.131 (0.043,0.473)	42	0.194 \pm 0.103 (0.061,0.354)
Female Other or Mixed	29	0.119 \pm 0.099 (-0.050,0.298)	68	0.214 \pm 0.130 (0.024,0.466)	72	0.243 \pm 0.128 (0.034,0.509)	78	0.255 \pm 0.140 (0.051,0.472)	69	0.220 \pm 0.118 (0.068,0.396)	51	0.221 \pm 0.112 (0.064,0.447)

Supplemental Table 48B. T wave amplitude - aVF (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	0.136 (0.058,0.232)	80	0.197 (0.120,0.293)	68	0.258 (0.197,0.365)	106	0.352 (0.253,0.438)	86	0.313 (0.190,0.439)	78	0.302 (0.207,0.405)
Male African-American	34	0.140 (0.084,0.211)	68	0.198 (0.152,0.274)	71	0.319 (0.205,0.411)	75	0.325 (0.200,0.405)	70	0.307 (0.194,0.410)	63	0.255 (0.117,0.374)
Male Other or Mixed	57	0.104 (0.036,0.149)	81	0.207 (0.142,0.314)	73	0.280 (0.202,0.386)	73	0.316 (0.257,0.464)	75	0.263 (0.208,0.374)	63	0.227 (0.137,0.314)
Female White	55	0.108 (0.060,0.150)	77	0.187 (0.113,0.281)	75	0.240 (0.142,0.322)	79	0.256 (0.179,0.364)	87	0.260 (0.158,0.330)	75	0.221 (0.131,0.337)
Female African-American	28	0.116 (0.051,0.235)	62	0.217 (0.139,0.277)	46	0.307 (0.219,0.394)	66	0.318 (0.218,0.443)	66	0.232 (0.174,0.325)	42	0.189 (0.124,0.245)
Female Other or Mixed	29	0.111 (0.054,0.184)	68	0.195 (0.116,0.315)	72	0.253 (0.160,0.327)	78	0.248 (0.165,0.331)	69	0.215 (0.154,0.291)	51	0.217 (0.147,0.280)

Supplemental Table 49A. T wave amplitude - aVL (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	0.034±0.075 (-0.099,0.144)	80	0.062±0.103 (-0.087,0.250)	68	0.046±0.100 (-0.109,0.205)	106	0.026±0.107 (-0.168,0.203)	86	0.022±0.106 (-0.138,0.206)	78	0.038±0.098 (-0.103,0.206)
Male African-American	34	0.043±0.066 (-0.060,0.155)	68	0.048±0.090 (-0.087,0.188)	71	0.018±0.098 (-0.176,0.180)	75	0.011±0.109 (-0.210,0.181)	70	0.041±0.091 (-0.111,0.230)	63	0.058±0.132 (-0.114,0.305)
Male Other or Mixed	57	0.063±0.062 (-0.036,0.182)	81	0.085±0.091 (-0.039,0.254)	73	0.066±0.126 (-0.142,0.238)	73	0.021±0.112 (-0.153,0.196)	75	0.043±0.093 (-0.124,0.178)	63	0.080±0.095 (-0.096,0.249)
Female White	55	0.051±0.070 (-0.057,0.174)	77	0.073±0.082 (-0.071,0.194)	75	0.059±0.108 (-0.104,0.270)	79	0.044±0.101 (-0.127,0.231)	87	0.031±0.077 (-0.095,0.167)	75	0.061±0.102 (-0.071,0.226)
Female African-American	28	0.038±0.081 (-0.091,0.162)	62	0.025±0.080 (-0.099,0.144)	46	0.036±0.091 (-0.137,0.185)	65	-0.007±0.110 (-0.163,0.124)	66	0.051±0.086 (-0.112,0.186)	42	0.056±0.071 (-0.070,0.179)
Female Other or Mixed	29	0.054±0.070 (-0.041,0.212)	68	0.067±0.113 (-0.097,0.289)	72	0.075±0.086 (-0.067,0.246)	78	0.058±0.088 (-0.088,0.183)	69	0.061±0.086 (-0.102,0.185)	51	0.063±0.080 (-0.049,0.178)

Supplemental Table 49B. T wave amplitude - aVL (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.042 (-0.004,0.083)	80	0.058 (-0.014,0.119)	68	0.059 (-0.010,0.108)	106	0.031 (-0.045,0.100)	86	0.017 (-0.050,0.087)	78	0.035 (-0.025,0.102)
Male African-American	34	0.025 (0.001,0.096)	68	0.061 (-0.004,0.106)	71	0.017 (-0.027,0.074)	75	0.023 (-0.053,0.087)	70	0.043 (-0.020,0.086)	63	0.057 (-0.015,0.121)
Male Other or Mixed	57	0.065 (0.025,0.105)	81	0.085 (0.032,0.134)	73	0.081 (-0.022,0.163)	73	0.024 (-0.065,0.075)	75	0.053 (-0.036,0.098)	63	0.090 (0.029,0.126)
Female White	55	0.043 (0.014,0.079)	77	0.085 (0.020,0.117)	75	0.052 (-0.013,0.131)	79	0.047 (-0.031,0.100)	87	0.019 (-0.023,0.070)	75	0.042 (-0.003,0.128)
Female African-American	28	0.035 (-0.019,0.098)	62	0.034 (-0.024,0.069)	46	0.047 (-0.026,0.083)	65	0.010 (-0.070,0.074)	66	0.049 (0.002,0.105)	42	0.048 (0.026,0.105)
Female Other or Mixed	29	0.056 (0.017,0.081)	68	0.075 (0.003,0.134)	72	0.072 (0.029,0.119)	78	0.058 (-0.003,0.127)	69	0.076 (-0.008,0.111)	51	0.062 (0.013,0.122)

Supplemental Table 50A. T wave amplitude - aVR (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	-0.175±0.111 (-0.369,0.022)	80	-0.266±0.111 (-0.443,-0.076)	68	-0.317±0.100 (-0.468,-0.157)	106	-0.369±0.098 (-0.562,-0.218)	86	-0.326±0.119 (-0.517,-0.111)	78	-0.341±0.118 (-0.574,-0.118)
Male African-American	34	-0.175±0.095 (-0.337,-0.008)	68	-0.255±0.126 (-0.451,-0.083)	71	-0.338±0.101 (-0.509,-0.189)	75	-0.332±0.102 (-0.522,-0.173)	70	-0.353±0.133 (-0.588,-0.148)	63	-0.317±0.138 (-0.514,-0.102)
Male Other or Mixed	57	-0.154±0.071 (-0.265,-0.038)	81	-0.308±0.108 (-0.495,-0.127)	73	-0.357±0.121 (-0.574,-0.171)	73	-0.371±0.107 (-0.575,-0.209)	75	-0.333±0.107 (-0.549,-0.208)	62	-0.317±0.130 (-0.522,-0.113)
Female White	55	-0.154±0.097 (-0.324,0.035)	77	-0.268±0.094 (-0.434,-0.114)	75	-0.286±0.101 (-0.434,-0.082)	79	-0.297±0.097 (-0.428,-0.145)	87	-0.271±0.101 (-0.433,-0.144)	75	-0.286±0.099 (-0.451,-0.086)
Female African-American	28	-0.174±0.125 (-0.365,-0.012)	62	-0.244±0.089 (-0.388,-0.110)	46	-0.335±0.136 (-0.503,-0.115)	66	-0.315±0.115 (-0.507,-0.150)	66	-0.296±0.123 (-0.506,-0.095)	42	-0.245±0.081 (-0.388,-0.099)
Female Other or Mixed	29	-0.168±0.071 (-0.305,-0.072)	68	-0.278±0.099 (-0.461,-0.132)	72	-0.313±0.095 (-0.494,-0.189)	78	-0.308±0.120 (-0.525,-0.123)	69	-0.276±0.090 (-0.422,-0.140)	51	-0.280±0.089 (-0.457,-0.151)

Supplemental Table 50B. T wave amplitude - aVR (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	-0.184 (-0.243,-0.090)	80	-0.263 (-0.358,-0.177)	68	-0.310 (-0.385,-0.258)	106	-0.368 (-0.439,-0.298)	86	-0.324 (-0.414,-0.234)	78	-0.350 (-0.418,-0.273)
Male African-American	34	-0.195 (-0.220,-0.135)	68	-0.253 (-0.320,-0.193)	71	-0.335 (-0.401,-0.272)	75	-0.335 (-0.401,-0.266)	70	-0.329 (-0.444,-0.260)	63	-0.318 (-0.420,-0.209)
Male Other or Mixed	57	-0.149 (-0.200,-0.110)	81	-0.308 (-0.378,-0.243)	73	-0.352 (-0.413,-0.284)	73	-0.353 (-0.448,-0.292)	75	-0.323 (-0.384,-0.257)	62	-0.315 (-0.387,-0.253)
Female White	55	-0.146 (-0.221,-0.094)	77	-0.264 (-0.335,-0.211)	75	-0.287 (-0.350,-0.228)	79	-0.298 (-0.370,-0.222)	87	-0.274 (-0.325,-0.195)	75	-0.290 (-0.352,-0.218)
Female African-American	28	-0.172 (-0.239,-0.089)	62	-0.240 (-0.310,-0.174)	46	-0.333 (-0.439,-0.263)	66	-0.294 (-0.399,-0.237)	66	-0.274 (-0.366,-0.222)	42	-0.255 (-0.283,-0.200)
Female Other or Mixed	29	-0.151 (-0.193,-0.120)	68	-0.275 (-0.342,-0.212)	72	-0.301 (-0.359,-0.250)	78	-0.294 (-0.393,-0.225)	69	-0.278 (-0.337,-0.221)	51	-0.271 (-0.325,-0.238)

Supplemental Table 51A. ST segment elevation - GBL (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	0.043±0.019 (0.010,0.071)	78	0.044±0.021 (0.016,0.088)	68	0.034±0.013 (0.017,0.057)	106	0.044±0.020 (0.018,0.085)	86	0.050±0.019 (0.020,0.086)	78	0.069±0.023 (0.035,0.111)
Male African-American	34	0.040±0.019 (0.019,0.077)	68	0.044±0.023 (0.014,0.085)	71	0.048±0.019 (0.021,0.083)	75	0.051±0.022 (0.020,0.087)	70	0.072±0.028 (0.034,0.121)	63	0.087±0.027 (0.047,0.137)
Male Other or Mixed	57	0.045±0.023 (0.015,0.088)	81	0.045±0.020 (0.018,0.073)	73	0.045±0.017 (0.021,0.078)	73	0.043±0.018 (0.020,0.075)	75	0.065±0.024 (0.030,0.111)	63	0.077±0.029 (0.035,0.128)
Female White	55	0.045±0.024 (0.016,0.101)	77	0.034±0.015 (0.014,0.063)	75	0.032±0.014 (0.012,0.061)	79	0.034±0.016 (0.014,0.058)	87	0.033±0.017 (0.014,0.053)	75	0.031±0.011 (0.015,0.052)
Female African-American	28	0.042±0.019 (0.013,0.074)	62	0.042±0.020 (0.017,0.081)	46	0.042±0.018 (0.017,0.077)	66	0.046±0.019 (0.021,0.087)	66	0.038±0.019 (0.017,0.074)	42	0.036±0.017 (0.015,0.063)
Female Other or Mixed	29	0.047±0.023 (0.015,0.099)	67	0.042±0.021 (0.018,0.080)	72	0.035±0.016 (0.014,0.063)	78	0.038±0.020 (0.015,0.081)	69	0.035±0.019 (0.013,0.066)	51	0.028±0.015 (0.013,0.068)

Supplemental Table 51B. ST segment elevation - GBL (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	0.045 (0.030,0.057)	78	0.041 (0.028,0.053)	68	0.033 (0.026,0.043)	106	0.039 (0.030,0.055)	86	0.048 (0.039,0.061)	78	0.067 (0.053,0.083)
Male African-American	34	0.036 (0.029,0.045)	68	0.042 (0.026,0.058)	71	0.045 (0.035,0.056)	75	0.049 (0.033,0.062)	70	0.070 (0.050,0.093)	63	0.085 (0.066,0.102)
Male Other or Mixed	57	0.042 (0.027,0.059)	81	0.042 (0.032,0.056)	73	0.044 (0.033,0.056)	73	0.042 (0.031,0.053)	75	0.065 (0.044,0.080)	63	0.072 (0.057,0.094)
Female White	55	0.039 (0.029,0.054)	77	0.032 (0.023,0.042)	75	0.032 (0.020,0.041)	79	0.033 (0.025,0.040)	87	0.030 (0.022,0.043)	75	0.030 (0.024,0.038)
Female African-American	28	0.041 (0.030,0.056)	62	0.039 (0.026,0.053)	46	0.037 (0.030,0.053)	66	0.042 (0.033,0.054)	66	0.035 (0.023,0.050)	42	0.033 (0.025,0.046)
Female Other or Mixed	29	0.041 (0.035,0.058)	67	0.036 (0.028,0.049)	72	0.034 (0.024,0.044)	78	0.032 (0.026,0.045)	69	0.032 (0.021,0.045)	51	0.024 (0.017,0.034)

Supplemental Table 52A. ST segment elevation - I (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	0.044±0.032 (-0.021,0.093)	80	0.031±0.027 (-0.017,0.069)	68	0.020±0.018 (-0.004,0.050)	106	0.021±0.018 (0.004,0.048)	86	0.019±0.018 (-0.010,0.053)	78	0.027±0.020 (-0.002,0.068)
Male African-American	34	0.047±0.029 (0.000,0.098)	67	0.044±0.027 (0.006,0.087)	70	0.030±0.021 (-0.002,0.063)	75	0.027±0.021 (-0.006,0.065)	68	0.039±0.026 (0.003,0.082)	63	0.039±0.027 (0.002,0.087)
Male Other or Mixed	57	0.043±0.028 (0.000,0.099)	81	0.042±0.024 (0.008,0.082)	73	0.034±0.023 (-0.001,0.067)	72	0.024±0.019 (-0.006,0.052)	75	0.030±0.021 (0.005,0.062)	63	0.030±0.019 (0.003,0.059)
Female White	54	0.039±0.030 (-0.007,0.076)	77	0.033±0.022 (- 0.004,0.066)	75	0.022±0.025 (-0.019,0.064)	78	0.014±0.018 (-0.014,0.046)	87	0.013±0.017 (-0.012,0.036)	75	0.019±0.019 (-0.006,0.051)
Female African-American	28	0.043±0.030 (-0.013,0.092)	62	0.034±0.021 (0.003,0.062)	46	0.031±0.023 (0.005,0.072)	66	0.028±0.025 (-0.002,0.061)	66	0.031±0.020 (0.005,0.064)	42	0.027±0.018 (0.002,0.057)
Female Other or Mixed	29	0.042±0.022 (0.016,0.078)	66	0.038±0.032 (0.001,0.088)	72	0.023±0.021 (-0.007,0.062)	77	0.025±0.020 (-0.005,0.057)	69	0.019±0.018 (-0.012,0.051)	51	0.021±0.014 (-0.001,0.043)

Supplemental Table 52B. ST segment elevation - I (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.041 (0.033,0.059)	80	0.036 (0.014,0.048)	68	0.021 (0.007,0.033)	106	0.021 (0.008,0.030)	86	0.019 (0.008,0.028)	78	0.025 (0.013,0.038)
Male African-American	34	0.042 (0.028,0.067)	67	0.038 (0.027,0.059)	70	0.028 (0.014,0.043)	75	0.025 (0.012,0.039)	68	0.035 (0.026,0.051)	63	0.034 (0.024,0.053)
Male Other or Mixed	57	0.040 (0.030,0.056)	81	0.041 (0.025,0.056)	73	0.033 (0.019,0.048)	72	0.023 (0.015,0.031)	75	0.025 (0.017,0.046)	63	0.032 (0.016,0.042)
Female White	54	0.035 (0.021,0.054)	77	0.034 (0.017,0.048)	75	0.020 (0.010,0.033)	78	0.012 (0.001,0.027)	87	0.011 (0.004,0.024)	75	0.016 (0.008,0.027)
Female African-American	28	0.043 (0.024,0.066)	62	0.032 (0.022,0.045)	46	0.027 (0.017,0.045)	66	0.030 (0.013,0.043)	66	0.030 (0.016,0.041)	42	0.030 (0.013,0.037)
Female Other or Mixed	29	0.039 (0.022,0.053)	66	0.032 (0.021,0.053)	72	0.023 (0.012,0.036)	77	0.024 (0.012,0.036)	69	0.020 (0.009,0.032)	51	0.020 (0.011,0.032)

Supplemental Table 53A. ST segment elevation - II (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	0.070±0.049 (0.005,0.207)	80	0.050±0.043 (-0.014,0.115)	68	0.029±0.032 (-0.024,0.073)	106	0.037±0.032 (-0.019,0.100)	86	0.037±0.040 (-0.029,0.104)	78	0.045±0.038 (-0.019,0.105)
Male African-American	34	0.055±0.034 (0.016,0.117)	67	0.066±0.041 (0.003,0.122)	71	0.038±0.032 (-0.023,0.081)	75	0.043±0.028 (0.002,0.088)	70	0.049±0.042 (-0.010,0.120)	61	0.051±0.036 (-0.008,0.116)
Male Other or Mixed	57	0.063±0.050 (-0.006,0.137)	81	0.064±0.036 (0.013,0.125)	73	0.045±0.032 (-0.011,0.098)	73	0.043±0.029 (-0.004,0.092)	75	0.049±0.038 (0.003,0.106)	63	0.047±0.040 (-0.011,0.108)
Female White	55	0.056±0.036 (-0.003,0.129)	77	0.043±0.035 (-0.013,0.097)	75	0.022±0.031 (-0.034,0.081)	79	0.024±0.032 (-0.024,0.065)	87	0.022±0.035 (-0.036,0.074)	75	0.025±0.029 (-0.029,0.064)
Female African-American	28	0.057±0.039 (0.008,0.109)	62	0.060±0.036 (0.009,0.118)	46	0.039±0.032 (-0.007,0.084)	66	0.038±0.032 (-0.019,0.096)	66	0.040±0.027 (-0.007,0.089)	42	0.040±0.027 (-0.002,0.086)
Female Other or Mixed	29	0.052±0.032 (0.000,0.113)	67	0.050±0.045 (-0.026,0.136)	72	0.031±0.025 (-0.016,0.065)	77	0.036±0.031 (-0.018,0.079)	69	0.026±0.034 (-0.039,0.083)	51	0.031±0.028 (-0.010,0.071)

Supplemental Table 53B. ST segment elevation - II (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	0.065 (0.042,0.079)	80	0.049 (0.026,0.072)	68	0.030 (0.010,0.050)	106	0.038 (0.017,0.057)	86	0.036 (0.012,0.060)	78	0.049 (0.024,0.066)
Male African-American	34	0.047 (0.031,0.075)	67	0.064 (0.038,0.085)	71	0.044 (0.020,0.056)	75	0.042 (0.021,0.057)	70	0.053 (0.021,0.074)	61	0.053 (0.032,0.069)
Male Other or Mixed	57	0.062 (0.036,0.080)	81	0.065 (0.040,0.084)	73	0.049 (0.022,0.065)	73	0.045 (0.024,0.062)	75	0.051 (0.028,0.071)	63	0.048 (0.021,0.074)
Female White	55	0.060 (0.037,0.073)	77	0.042 (0.020,0.070)	75	0.021 (0.004,0.039)	79	0.026 (0.004,0.041)	87	0.025 (0.007,0.043)	75	0.026 (0.005,0.046)
Female African-American	28	0.060 (0.033,0.074)	62	0.056 (0.038,0.085)	46	0.037 (0.020,0.063)	66	0.040 (0.017,0.057)	66	0.042 (0.023,0.058)	42	0.037 (0.023,0.061)
Female Other or Mixed	29	0.052 (0.025,0.071)	67	0.046 (0.027,0.073)	72	0.031 (0.017,0.047)	77	0.038 (0.022,0.056)	69	0.032 (0.011,0.043)	51	0.034 (0.013,0.051)

Supplemental Table 54A. ST segment elevation - III (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	0.029±0.041 (-0.020,0.100)	79	0.015±0.027 (-0.027,0.061)	68	0.008±0.023 (-0.029,0.046)	106	0.016±0.029 (-0.029,0.061)	86	0.018±0.035 (-0.043,0.085)	78	0.018±0.034 (-0.033,0.064)
Male African-American	34	0.007±0.030 (-0.061,0.060)	67	0.021±0.028 (-0.028,0.063)	71	0.007±0.028 (-0.041,0.045)	75	0.016±0.029 (-0.032,0.068)	70	0.010±0.041 (-0.070,0.065)	61	0.012±0.039 (-0.057,0.068)
Male Other or Mixed	57	0.019±0.034 (-0.035,0.054)	81	0.022±0.026 (-0.016,0.064)	73	0.010±0.032 (-0.055,0.063)	73	0.021±0.026 (-0.026,0.067)	75	0.019±0.032 (-0.033,0.075)	63	0.017±0.038 (-0.052,0.076)
Female White	55	0.019±0.027 (-0.028,0.066)	77	0.010±0.029 (-0.037,0.059)	75	-0.001±0.026 (-0.038,0.048)	79	0.008±0.025 (-0.042,0.044)	87	0.008±0.028 (-0.037,0.048)	75	0.005±0.023 (-0.033,0.041)
Female African-American	28	0.013±0.035 (-0.032,0.088)	62	0.026±0.029 (-0.016,0.076)	46	0.007±0.026 (-0.038,0.045)	66	0.010±0.031 (-0.043,0.056)	66	0.008±0.024 (-0.035,0.042)	42	0.013±0.021 (-0.020,0.045)
Female Other or Mixed	29	0.009±0.024 (-0.030,0.053)	67	0.014±0.033 (-0.051,0.067)	72	0.007±0.025 (-0.035,0.047)	78	0.007±0.030 (-0.054,0.045)	69	0.007±0.027 (-0.044,0.047)	51	0.010±0.023 (-0.029,0.039)

Supplemental Table 54B. ST segment elevation - III (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	0.022 (0.003,0.042)	79	0.014 (-0.001,0.030)	68	0.010 (-0.007,0.020)	106	0.014 (-0.005,0.036)	86	0.016 (0.000,0.037)	78	0.019 (-0.004,0.041)
Male African-American	34	0.008 (-0.004,0.026)	67	0.022 (0.001,0.036)	71	0.009 (-0.010,0.025)	75	0.014 (0.001,0.031)	70	0.016 (-0.016,0.039)	61	0.011 (-0.011,0.037)
Male Other or Mixed	57	0.018 (0.001,0.036)	81	0.021 (0.005,0.039)	73	0.012 (-0.005,0.031)	73	0.019 (0.007,0.038)	75	0.020 (-0.001,0.037)	63	0.014 (-0.004,0.044)
Female White	55	0.020 (-0.002,0.038)	77	0.011 (-0.012,0.032)	75	-0.005 (-0.017,0.015)	79	0.009 (-0.004,0.022)	87	0.008 (-0.004,0.026)	75	0.004 (-0.009,0.022)
Female African-American	28	0.010 (-0.010,0.029)	62	0.023 (0.007,0.043)	46	0.009 (-0.010,0.025)	66	0.012 (-0.005,0.030)	66	0.010 (-0.006,0.026)	42	0.010 (-0.001,0.024)
Female Other or Mixed	29	0.010 (-0.006,0.026)	67	0.014 (-0.004,0.030)	72	0.008 (-0.007,0.019)	78	0.013 (-0.006,0.027)	69	0.008 (-0.006,0.022)	51	0.010 (0.000,0.025)

Supplemental Table 55A. ST segment elevation - V1 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	-0.033±0.048 (-0.121,0.054)	79	-0.010±0.041 (-0.081,0.063)	68	0.018±0.029 (-0.022,0.062)	106	0.026±0.029 (-0.019,0.074)	86	0.032±0.033 (-0.020,0.082)	78	0.035±0.029 (-0.016,0.084)
Male African-American	34	-0.013±0.056 (-0.098,0.117)	66	-0.001±0.037 (-0.065,0.063)	70	0.034±0.034 (-0.022,0.088)	75	0.039±0.032 (-0.008,0.099)	70	0.054±0.040 (-0.013,0.128)	62	0.062±0.040 (0.001,0.122)
Male Other or Mixed	56	-0.028±0.045 (-0.102,0.052)	81	-0.013±0.039 (-0.083,0.039)	73	0.022±0.032 (-0.034,0.076)	73	0.038±0.025 (0.004,0.085)	75	0.047±0.040 (-0.017,0.120)	62	0.054±0.048 (-0.021,0.135)
Female White	55	-0.042±0.044 (-0.117,0.047)	77	-0.009±0.027 (-0.060,0.037)	75	0.018±0.025 (-0.042,0.050)	79	0.028±0.030 (-0.015,0.083)	87	0.020±0.027 (-0.013,0.060)	75	0.019±0.023 (-0.010,0.069)
Female African-American	28	-0.026±0.038 (-0.072,0.025)	62	-0.010±0.034 (-0.068,0.044)	46	0.025±0.030 (-0.030,0.066)	66	0.033±0.032 (-0.012,0.090)	66	0.025±0.021 (-0.005,0.062)	42	0.024±0.030 (-0.024,0.075)
Female Other or Mixed	29	-0.042±0.042 (-0.121,0.014)	67	-0.005±0.042 (-0.066,0.061)	72	0.025±0.033 (-0.028,0.071)	78	0.033±0.030 (-0.009,0.096)	69	0.032±0.032 (-0.016,0.080)	51	0.023±0.025 (-0.016,0.073)

Supplemental Table 55B. ST segment elevation - V1 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	-0.028 (-0.070,-0.011)	79	-0.010 (-0.040,0.017)	68	0.015 (0.001,0.037)	106	0.023 (0.004,0.046)	86	0.031 (0.006,0.053)	78	0.039 (0.015,0.057)
Male African-American	34	-0.025 (-0.039,0.008)	66	0.001 (-0.021,0.018)	70	0.032 (0.011,0.052)	75	0.035 (0.011,0.062)	70	0.051 (0.031,0.074)	62	0.061 (0.029,0.093)
Male Other or Mixed	56	-0.027 (-0.062,-0.003)	81	-0.012 (-0.037,0.017)	73	0.023 (0.002,0.041)	73	0.038 (0.025,0.051)	75	0.041 (0.021,0.080)	62	0.050 (0.020,0.076)
Female White	55	-0.042 (-0.069,-0.020)	77	-0.009 (-0.022,0.008)	75	0.022 (0.003,0.033)	79	0.024 (0.012,0.042)	87	0.020 (0.006,0.038)	75	0.017 (0.004,0.028)
Female African-American	28	-0.032 (-0.054,-0.007)	62	-0.008 (-0.027,0.012)	46	0.023 (0.004,0.049)	66	0.029 (0.015,0.052)	66	0.022 (0.010,0.038)	42	0.027 (0.008,0.040)
Female Other or Mixed	29	-0.041 (-0.062,-0.014)	67	-0.006 (-0.032,0.030)	72	0.021 (0.011,0.045)	78	0.028 (0.011,0.051)	69	0.030 (0.013,0.046)	51	0.021 (0.004,0.035)

Supplemental Table 56A. ST segment elevation - V2 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	0.017±0.069 (-0.090,0.121)	80	0.028±0.060 (-0.083,0.128)	68	0.061±0.044 (0.005,0.135)	106	0.081±0.055 (-0.002,0.173)	86	0.105±0.053 (0.013,0.184)	78	0.125±0.061 (0.013,0.234)
Male African-American	34	0.030±0.048 (-0.034,0.137)	67	0.044±0.052 (-0.029,0.124)	71	0.088±0.047 (0.023,0.170)	75	0.107±0.053 (0.032,0.233)	70	0.146±0.070 (0.038,0.268)	63	0.161±0.066 (0.068,0.266)
Male Other or Mixed	56	0.008±0.061 (-0.109,0.101)	81	0.037±0.054 (-0.044,0.113)	73	0.084±0.047 (-0.003,0.168)	73	0.097±0.040 (0.037,0.164)	75	0.128±0.066 (0.024,0.248)	62	0.141±0.075 (0.027,0.277)
Female White	55	0.003±0.048 (-0.081,0.092)	77	0.026±0.043 (-0.048,0.098)	75	0.059±0.042 (-0.009,0.131)	78	0.068±0.051 (-0.004,0.157)	86	0.058±0.045 (0.003,0.136)	75	0.066±0.035 (0.014,0.132)
Female African-American	28	0.004±0.047 (-0.067,0.085)	62	0.028±0.045 (-0.031,0.097)	46	0.079±0.045 (0.020,0.150)	66	0.092±0.054 (0.011,0.188)	66	0.077±0.045 (0.020,0.145)	42	0.070±0.049 (-0.011,0.154)
Female Other or Mixed	29	0.003±0.053 (-0.081,0.110)	65	0.037±0.053 (-0.062,0.125)	72	0.080±0.045 (0.015,0.159)	77	0.084±0.042 (0.006,0.183)	69	0.073±0.044 (0.009,0.150)	51	0.059±0.033 (0.004,0.116)

Supplemental Table 56B. ST segment elevation - V2 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	0.011 (-0.037,0.064)	80	0.027 (-0.013,0.068)	68	0.055 (0.035,0.081)	106	0.081 (0.050,0.109)	86	0.106 (0.070,0.143)	78	0.127 (0.081,0.167)
Male African-American	34	0.028 (-0.004,0.048)	67	0.044 (0.012,0.081)	71	0.092 (0.050,0.122)	75	0.104 (0.068,0.132)	70	0.139 (0.106,0.200)	63	0.155 (0.121,0.206)
Male Other or Mixed	56	0.012 (-0.028,0.044)	81	0.046 (-0.002,0.072)	73	0.083 (0.050,0.122)	73	0.097 (0.072,0.120)	75	0.123 (0.088,0.167)	62	0.138 (0.086,0.186)
Female White	55	0.000 (-0.024,0.024)	77	0.024 (-0.006,0.055)	75	0.058 (0.032,0.082)	78	0.072 (0.030,0.099)	86	0.052 (0.024,0.087)	75	0.064 (0.038,0.090)
Female African-American	28	0.004 (-0.019,0.037)	62	0.024 (0.001,0.055)	46	0.075 (0.043,0.111)	66	0.083 (0.054,0.128)	66	0.073 (0.041,0.102)	42	0.066 (0.039,0.098)
Female Other or Mixed	29	0.000 (-0.032,0.040)	65	0.038 (0.006,0.070)	72	0.074 (0.055,0.108)	77	0.083 (0.057,0.102)	69	0.070 (0.039,0.100)	51	0.053 (0.039,0.078)

Supplemental Table 57A. ST segment elevation - V3 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	0.042±0.069 (-0.070,0.143)	80	0.053±0.057 (-0.050,0.134)	68	0.077±0.036 (0.006,0.126)	106	0.094±0.046 (0.025,0.166)	86	0.109±0.045 (0.045,0.179)	78	0.147±0.062 (0.035,0.262)
Male African-American	34	0.049±0.056 (-0.025,0.144)	67	0.080±0.053 (0.006,0.182)	71	0.103±0.042 (0.040,0.183)	75	0.108±0.050 (0.029,0.193)	70	0.137±0.064 (0.037,0.252)	63	0.181±0.063 (0.093,0.281)
Male Other or Mixed	57	0.022±0.055 (-0.065,0.095)	81	0.065±0.049 (-0.022,0.137)	73	0.090±0.045 (0.024,0.168)	73	0.095±0.048 (0.029,0.191)	75	0.132±0.063 (0.030,0.235)	63	0.167±0.074 (0.054,0.319)
Female White	54	0.020±0.046 (-0.081,0.085)	77	0.051±0.041 (-0.011,0.118)	75	0.064±0.040 (0.008,0.138)	78	0.066±0.038 (-0.002,0.132)	87	0.058±0.038 (0.000,0.130)	75	0.056±0.034 (0.000,0.123)
Female African-American	28	0.031±0.050 (-0.068,0.115)	62	0.057±0.047 (-0.042,0.131)	46	0.073±0.052 (-0.001,0.152)	66	0.097±0.047 (0.028,0.189)	66	0.074±0.042 (0.014,0.141)	42	0.067±0.043 (0.010,0.135)
Female Other or Mixed	29	0.025±0.046 (-0.059,0.094)	65	0.057±0.046 (-0.012,0.127)	72	0.066±0.043 (-0.007,0.129)	78	0.076±0.052 (0.006,0.173)	69	0.063±0.047 (0.007,0.150)	51	0.055±0.037 (0.006,0.140)

Supplemental Table 57B. ST segment elevation - V3 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.039 (-0.002,0.098)	80	0.062 (0.016,0.092)	68	0.085 (0.047,0.107)	106	0.090 (0.065,0.126)	86	0.107 (0.075,0.140)	78	0.153 (0.105,0.185)
Male African-American	34	0.043 (0.016,0.088)	67	0.075 (0.051,0.109)	71	0.098 (0.074,0.132)	75	0.105 (0.073,0.147)	70	0.129 (0.102,0.179)	63	0.176 (0.132,0.229)
Male Other or Mixed	57	0.024 (-0.011,0.069)	81	0.065 (0.041,0.100)	73	0.092 (0.057,0.119)	73	0.092 (0.059,0.119)	75	0.137 (0.098,0.180)	63	0.163 (0.108,0.215)
Female White	54	0.025 (-0.011,0.056)	77	0.051 (0.021,0.085)	75	0.061 (0.041,0.089)	78	0.069 (0.037,0.087)	87	0.059 (0.030,0.081)	75	0.054 (0.036,0.076)
Female African-American	28	0.024 (0.003,0.065)	62	0.062 (0.032,0.085)	46	0.070 (0.030,0.114)	66	0.099 (0.064,0.121)	66	0.068 (0.046,0.098)	42	0.062 (0.041,0.088)
Female Other or Mixed	29	0.031 (-0.002,0.057)	65	0.054 (0.024,0.088)	72	0.067 (0.044,0.095)	78	0.073 (0.047,0.095)	69	0.054 (0.032,0.080)	51	0.050 (0.034,0.078)

Supplemental Table 58A. ST segment elevation - V4 (millivolt) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	53	0.067 \pm 0.058 (-0.018,0.137)	80	0.070 \pm 0.052 (-0.020,0.153)	68	0.057 \pm 0.042 (-0.019,0.128)	106	0.068 \pm 0.045 (0.005,0.162)	86	0.065 \pm 0.042 (0.001,0.142)	78	0.095 \pm 0.053 (0.008,0.186)
Male African-American	34	0.077 \pm 0.042 (0.006,0.153)	67	0.088 \pm 0.055 (0.004,0.183)	71	0.085 \pm 0.041 (0.023,0.150)	75	0.079 \pm 0.050 (0.014,0.171)	70	0.097 \pm 0.058 (0.020,0.219)	63	0.122 \pm 0.066 (0.024,0.251)
Male Other or Mixed	57	0.052 \pm 0.053 (-0.032,0.120)	81	0.076 \pm 0.041 (0.009,0.144)	73	0.079 \pm 0.039 (0.027,0.157)	73	0.068 \pm 0.040 (0.017,0.143)	75	0.094 \pm 0.056 (0.005,0.194)	63	0.112 \pm 0.063 (0.025,0.223)
Female White	55	0.057 \pm 0.048 (-0.020,0.142)	77	0.057 \pm 0.043 (-0.011,0.121)	75	0.047 \pm 0.037 (-0.006,0.115)	79	0.042 \pm 0.044 (-0.013,0.103)	87	0.038 \pm 0.037 (-0.023,0.094)	75	0.039 \pm 0.030 (-0.009,0.094)
Female African-American	28	0.061 \pm 0.039 (0.005,0.125)	62	0.079 \pm 0.044 (0.024,0.148)	46	0.068 \pm 0.047 (0.005,0.146)	66	0.075 \pm 0.045 (0.013,0.164)	66	0.056 \pm 0.032 (0.009,0.115)	42	0.054 \pm 0.037 (0.001,0.104)
Female Other or Mixed	29	0.055 \pm 0.043 (-0.030,0.110)	67	0.073 \pm 0.052 (-0.011,0.151)	72	0.058 \pm 0.034 (0.016,0.129)	77	0.059 \pm 0.047 (0.000,0.153)	69	0.044 \pm 0.041 (-0.021,0.117)	51	0.040 \pm 0.030 (-0.006,0.109)

Supplemental Table 58B. ST segment elevation - V4 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.064 (0.034,0.101)	80	0.070 (0.041,0.101)	68	0.061 (0.031,0.080)	106	0.062 (0.042,0.087)	86	0.065 (0.031,0.092)	78	0.097 (0.057,0.131)
Male African-American	34	0.076 (0.053,0.103)	67	0.083 (0.054,0.114)	71	0.078 (0.051,0.115)	75	0.071 (0.044,0.110)	70	0.096 (0.061,0.119)	63	0.115 (0.075,0.154)
Male Other or Mixed	57	0.048 (0.018,0.083)	81	0.075 (0.050,0.108)	73	0.081 (0.052,0.103)	73	0.063 (0.040,0.091)	75	0.084 (0.065,0.135)	63	0.106 (0.061,0.157)
Female White	55	0.063 (0.027,0.087)	77	0.054 (0.025,0.085)	75	0.043 (0.024,0.068)	79	0.040 (0.017,0.066)	87	0.038 (0.014,0.060)	75	0.039 (0.014,0.058)
Female African-American	28	0.060 (0.030,0.088)	62	0.076 (0.046,0.105)	46	0.060 (0.041,0.099)	66	0.076 (0.046,0.093)	66	0.052 (0.034,0.077)	42	0.057 (0.024,0.078)
Female Other or Mixed	29	0.073 (0.021,0.089)	67	0.075 (0.045,0.103)	72	0.054 (0.037,0.078)	77	0.051 (0.028,0.078)	69	0.040 (0.021,0.067)	51	0.041 (0.024,0.055)

Supplemental Table 59A. ST segment elevation - V5 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	52	0.063±0.039 (-0.003,0.122)	80	0.062±0.048 (-0.014,0.136)	68	0.035±0.033 (-0.020,0.098)	106	0.040±0.038 (-0.009,0.130)	86	0.038±0.034 (-0.018,0.104)	78	0.054±0.041 (-0.016,0.136)
Male African-American	34	0.068±0.036 (0.009,0.140)	67	0.072±0.044 (0.009,0.150)	71	0.052±0.036 (-0.006,0.115)	75	0.047±0.042 (0.004,0.127)	70	0.063±0.049 (-0.002,0.173)	63	0.078±0.053 (0.002,0.176)
Male Other or Mixed	56	0.049±0.034 (-0.008,0.101)	81	0.069±0.035 (0.017,0.133)	73	0.054±0.032 (0.010,0.117)	73	0.045±0.027 (0.008,0.087)	75	0.061±0.044 (-0.005,0.133)	63	0.065±0.042 (-0.008,0.136)
Female White	55	0.053±0.035 (-0.009,0.124)	77	0.051±0.037 (0.001,0.114)	75	0.028±0.030 (-0.016,0.078)	79	0.024±0.036 (-0.034,0.069)	87	0.024±0.032 (-0.026,0.069)	75	0.026±0.026 (-0.020,0.068)
Female African-American	28	0.063±0.031 (0.013,0.109)	62	0.066±0.037 (0.016,0.136)	46	0.044±0.035 (-0.015,0.099)	66	0.049±0.035 (0.007,0.122)	66	0.042±0.028 (0.002,0.082)	42	0.043±0.032 (-0.004,0.086)
Female Other or Mixed	29	0.053±0.038 (-0.016,0.105)	67	0.061±0.046 (-0.001,0.144)	72	0.044±0.031 (0.006,0.106)	78	0.041±0.043 (-0.016,0.113)	69	0.031±0.035 (-0.035,0.088)	51	0.029±0.023 (-0.008,0.067)

Supplemental Table 59B. ST segment elevation - V5 (millivolt) by sex,race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	0.062 (0.044,0.087)	80	0.062 (0.037,0.089)	68	0.034 (0.013,0.054)	106	0.032 (0.017,0.053)	86	0.034 (0.014,0.058)	78	0.049 (0.029,0.079)
Male African-American	34	0.066 (0.047,0.083)	67	0.071 (0.041,0.095)	71	0.053 (0.027,0.072)	75	0.039 (0.018,0.065)	70	0.061 (0.029,0.087)	63	0.074 (0.039,0.114)
Male Other or Mixed	56	0.051 (0.028,0.069)	81	0.068 (0.043,0.095)	73	0.051 (0.031,0.069)	73	0.043 (0.025,0.066)	75	0.060 (0.036,0.084)	63	0.065 (0.037,0.095)
Female White	55	0.051 (0.028,0.077)	77	0.047 (0.025,0.075)	75	0.024 (0.007,0.044)	79	0.023 (0.005,0.043)	87	0.024 (0.008,0.041)	75	0.026 (0.007,0.045)
Female African-American	28	0.068 (0.041,0.083)	62	0.060 (0.043,0.084)	46	0.041 (0.024,0.074)	66	0.046 (0.025,0.069)	66	0.042 (0.024,0.054)	42	0.043 (0.024,0.064)
Female Other or Mixed	29	0.064 (0.028,0.084)	67	0.055 (0.038,0.084)	72	0.040 (0.023,0.061)	78	0.038 (0.018,0.062)	69	0.032 (0.015,0.047)	51	0.028 (0.015,0.042)

Supplemental Table 60A. ST segment elevation - V6 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	52	0.047±0.029 (-0.009,0.092)	79	0.046±0.034 (-0.008,0.120)	68	0.022±0.025 (-0.019,0.064)	106	0.025±0.028 (-0.017,0.071)	86	0.022±0.028 (-0.025,0.068)	78	0.034±0.032 (-0.011,0.088)
Male African-American	34	0.051±0.029 (0.004,0.119)	67	0.056±0.036 (0.003,0.109)	71	0.033±0.030 (-0.014,0.087)	75	0.029±0.029 (-0.003,0.084)	70	0.039±0.041 (-0.018,0.133)	63	0.049±0.041 (-0.005,0.129)
Male Other or Mixed	56	0.044±0.029 (-0.006,0.077)	81	0.054±0.030 (0.014,0.099)	73	0.039±0.028 (-0.002,0.088)	73	0.030±0.021 (0.000,0.061)	75	0.043±0.036 (0.001,0.119)	63	0.039±0.032 (-0.012,0.083)
Female White	55	0.046±0.026 (0.011,0.096)	77	0.040±0.032 (-0.008,0.099)	75	0.017±0.026 (-0.021,0.069)	79	0.016±0.026 (-0.019,0.046)	87	0.016±0.026 (-0.027,0.047)	75	0.018±0.025 (-0.020,0.054)
Female African-American	28	0.052±0.029 (0.004,0.101)	62	0.053±0.032 (0.011,0.131)	46	0.028±0.027 (-0.009,0.068)	66	0.034±0.036 (-0.003,0.090)	66	0.031±0.024 (-0.002,0.066)	42	0.032±0.026 (-0.004,0.067)
Female Other or Mixed	29	0.044±0.029 (0.000,0.083)	67	0.048±0.038 (-0.007,0.114)	72	0.029±0.025 (-0.002,0.076)	78	0.029±0.033 (-0.016,0.083)	69	0.022±0.030 (-0.037,0.073)	51	0.021±0.018 (-0.012,0.051)

Supplemental Table 60B. ST segment elevation - V6 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	0.048 (0.033,0.069)	79	0.045 (0.025,0.066)	68	0.022 (0.005,0.040)	106	0.023 (0.008,0.037)	86	0.021 (0.006,0.039)	78	0.033 (0.013,0.052)
Male African-American	34	0.048 (0.036,0.066)	67	0.051 (0.030,0.080)	71	0.031 (0.015,0.047)	75	0.021 (0.010,0.042)	70	0.036 (0.013,0.054)	63	0.043 (0.020,0.082)
Male Other or Mixed	56	0.047 (0.025,0.061)	81	0.051 (0.038,0.070)	73	0.037 (0.022,0.056)	73	0.029 (0.019,0.045)	75	0.040 (0.020,0.062)	63	0.039 (0.018,0.061)
Female White	55	0.041 (0.028,0.063)	77	0.034 (0.018,0.059)	75	0.015 (0.000,0.032)	79	0.018 (0.001,0.031)	87	0.018 (0.004,0.029)	75	0.019 (0.001,0.035)
Female African-American	28	0.052 (0.034,0.068)	62	0.046 (0.032,0.068)	46	0.028 (0.011,0.049)	66	0.029 (0.014,0.040)	66	0.031 (0.015,0.043)	42	0.035 (0.014,0.049)
Female Other or Mixed	29	0.048 (0.019,0.070)	67	0.043 (0.026,0.069)	72	0.030 (0.011,0.042)	78	0.027 (0.011,0.047)	69	0.027 (0.010,0.033)	51	0.023 (0.009,0.034)

Supplemental Table 61A. ST segment elevation - aVF (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	0.050±0.041 (-0.008,0.135)	79	0.031±0.030 (-0.021,0.085)	68	0.019±0.026 (-0.026,0.059)	106	0.027±0.030 (-0.024,0.081)	86	0.027±0.037 (-0.034,0.098)	77	0.033±0.031 (-0.020,0.084)
Male African-American	34	0.032±0.029 (-0.019,0.084)	67	0.044±0.032 (-0.005,0.090)	71	0.023±0.027 (-0.024,0.060)	75	0.029±0.026 (-0.014,0.076)	70	0.030±0.038 (-0.039,0.088)	61	0.031±0.035 (-0.020,0.084)
Male Other or Mixed	57	0.042±0.041 (-0.015,0.093)	81	0.043±0.029 (0.001,0.085)	73	0.028±0.030 (-0.018,0.076)	73	0.032±0.025 (-0.014,0.082)	75	0.035±0.033 (-0.010,0.084)	63	0.032±0.038 (-0.032,0.092)
Female White	55	0.038±0.026 (-0.008,0.082)	77	0.027±0.030 (-0.019,0.075)	75	0.011±0.026 (-0.031,0.062)	79	0.016±0.026 (-0.031,0.059)	87	0.015±0.031 (-0.041,0.059)	75	0.015±0.024 (-0.031,0.051)
Female African-American	28	0.036±0.034 (-0.012,0.103)	62	0.043±0.031 (-0.002,0.090)	46	0.023±0.027 (-0.022,0.060)	66	0.024±0.029 (-0.031,0.073)	66	0.024±0.023 (-0.010,0.064)	42	0.027±0.023 (-0.004,0.065)
Female Other or Mixed	29	0.032±0.026 (-0.011,0.073)	67	0.032±0.035 (-0.032,0.100)	72	0.019±0.022 (-0.022,0.054)	78	0.021±0.030 (-0.035,0.061)	69	0.017±0.030 (-0.044,0.070)	51	0.021±0.024 (-0.019,0.051)

Supplemental Table 61B. ST segment elevation - aVF (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	0.043 (0.023,0.067)	79	0.033 (0.015,0.050)	68	0.020 (0.004,0.032)	106	0.024 (0.008,0.047)	86	0.028 (0.006,0.046)	77	0.035 (0.014,0.054)
Male African-American	34	0.029 (0.016,0.051)	67	0.043 (0.021,0.065)	71	0.027 (0.003,0.042)	75	0.029 (0.011,0.042)	70	0.033 (0.007,0.058)	61	0.031 (0.009,0.055)
Male Other or Mixed	57	0.042 (0.015,0.057)	81	0.042 (0.025,0.060)	73	0.027 (0.008,0.047)	73	0.033 (0.015,0.048)	75	0.035 (0.015,0.057)	63	0.031 (0.010,0.057)
Female White	55	0.039 (0.021,0.053)	77	0.025 (0.004,0.054)	75	0.010 (-0.006,0.022)	79	0.017 (0.001,0.035)	87	0.016 (0.001,0.031)	75	0.014 (0.000,0.035)
Female African-American	28	0.038 (0.013,0.050)	62	0.038 (0.021,0.065)	46	0.018 (0.009,0.043)	66	0.028 (0.002,0.041)	66	0.025 (0.007,0.043)	42	0.022 (0.010,0.044)
Female Other or Mixed	29	0.030 (0.016,0.050)	67	0.032 (0.017,0.049)	72	0.020 (0.007,0.034)	78	0.024 (0.008,0.041)	69	0.019 (0.005,0.034)	51	0.023 (0.007,0.040)

Supplemental Table 62A. ST segment elevation - aVL (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	0.009±0.023 (-0.029,0.036)	79	0.009±0.019 (-0.021,0.042)	68	0.006±0.013 (-0.016,0.025)	106	0.002±0.018 (-0.023,0.025)	85	0.001±0.019 (-0.026,0.034)	78	0.005±0.021 (-0.028,0.041)
Male African-American	34	0.020±0.024 (-0.015,0.076)	68	0.012±0.021 (-0.019,0.039)	71	0.012±0.022 (-0.016,0.045)	75	0.005±0.020 (-0.026,0.041)	68	0.014±0.024 (-0.020,0.061)	63	0.011±0.032 (-0.035,0.074)
Male Other or Mixed	57	0.012±0.019 (-0.019,0.050)	81	0.010±0.018 (-0.013,0.046)	73	0.012±0.022 (-0.021,0.055)	73	0.001±0.019 (-0.026,0.030)	75	0.005±0.019 (-0.027,0.040)	63	0.007±0.022 (-0.026,0.047)
Female White	55	0.009±0.026 (-0.032,0.047)	77	0.011±0.019 (-0.023,0.041)	75	0.012±0.020 (-0.014,0.049)	79	0.004±0.019 (-0.018,0.037)	87	0.002±0.014 (-0.021,0.029)	75	0.007±0.016 (-0.017,0.029)
Female African-American	28	0.015±0.027 (-0.036,0.044)	62	0.004±0.017 (-0.023,0.032)	46	0.012±0.019 (-0.016,0.047)	66	0.009±0.023 (-0.025,0.046)	66	0.011±0.017 (-0.015,0.043)	42	0.007±0.014 (-0.010,0.026)
Female Other or Mixed	29	0.017±0.017 (-0.008,0.042)	66	0.013±0.021 (-0.018,0.054)	72	0.009±0.019 (-0.021,0.037)	77	0.008±0.016 (-0.013,0.036)	69	0.006±0.015 (-0.020,0.028)	51	0.006±0.013 (-0.015,0.025)

Supplemental Table 62B. ST segment elevation - aVL (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	0.015 (-0.003,0.023)	79	0.010 (-0.006,0.020)	68	0.007 (-0.002,0.016)	106	0.000 (-0.008,0.013)	85	0.000 (-0.012,0.012)	78	0.004 (-0.012,0.017)
Male African-American	34	0.019 (0.006,0.033)	68	0.008 (0.000,0.024)	71	0.009 (0.001,0.022)	75	0.003 (-0.006,0.018)	68	0.013 (-0.002,0.029)	63	0.008 (-0.004,0.029)
Male Other or Mixed	57	0.011 (0.000,0.023)	81	0.008 (-0.001,0.020)	73	0.008 (0.000,0.022)	73	0.000 (-0.008,0.009)	75	0.005 (-0.004,0.016)	63	0.004 (-0.008,0.019)
Female White	55	0.011 (-0.004,0.021)	77	0.010 (0.002,0.020)	75	0.012 (-0.004,0.023)	79	0.001 (-0.008,0.012)	87	0.001 (-0.008,0.011)	75	0.006 (-0.004,0.016)
Female African-American	28	0.021 (0.002,0.032)	62	0.004 (-0.005,0.014)	46	0.011 (0.002,0.020)	66	0.008 (0.000,0.020)	66	0.008 (0.000,0.020)	42	0.008 (-0.002,0.018)
Female Other or Mixed	29	0.018 (0.005,0.029)	66	0.011 (-0.003,0.025)	72	0.009 (-0.002,0.020)	77	0.006 (-0.002,0.015)	69	0.007 (-0.004,0.015)	51	0.006 (-0.004,0.014)

Supplemental Table 63A. ST segment elevation - aVR (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	54	-0.055±0.039 (-0.132,0.001)	80	-0.040±0.030 (-0.089,0.012)	68	-0.024±0.023 (-0.060,0.014)	106	-0.029±0.021 (-0.064,0.008)	86	-0.028±0.026 (-0.072,0.014)	78	-0.036±0.024 (-0.078,0.008)
Male African-American	34	-0.051±0.027 (-0.095,-0.012)	66	-0.052±0.026 (-0.097,-0.008)	70	-0.033±0.023 (-0.068,0.009)	75	-0.035±0.021 (-0.069,0.002)	70	-0.044±0.031 (-0.096,-0.001)	63	-0.047±0.028 (-0.092,0.000)
Male Other or Mixed	56	-0.050±0.030 (-0.102,0.008)	81	-0.053±0.028 (-0.105,-0.017)	73	-0.039±0.023 (-0.076,0.002)	73	-0.033±0.022 (-0.064,0.000)	75	-0.039±0.026 (-0.077,-0.009)	63	-0.038±0.025 (-0.074,0.004)
Female White	54	-0.048±0.028 (-0.106,-0.007)	77	-0.038±0.025 (-0.078,0.000)	75	-0.022±0.025 (-0.067,0.020)	78	-0.018±0.020 (-0.050,0.015)	87	-0.017±0.024 (-0.051,0.024)	75	-0.022±0.021 (-0.058,0.015)
Female African-American	28	-0.050±0.030 (-0.091,-0.011)	62	-0.047±0.026 (-0.089,-0.008)	46	-0.035±0.025 (-0.074,0.001)	66	-0.033±0.024 (-0.074,0.004)	66	-0.035±0.021 (-0.070,-0.003)	42	-0.034±0.021 (-0.071,-0.004)
Female Other or Mixed	29	-0.047±0.024 (-0.086,-0.009)	67	-0.043±0.037 (-0.105,0.019)	72	-0.027±0.019 (-0.056,0.005)	78	-0.030±0.027 (-0.072,0.009)	69	-0.022±0.024 (-0.064,0.015)	51	-0.026±0.019 (-0.053,0.003)

Supplemental Table 63B. ST segment elevation - aVR (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	-0.052 (-0.066,-0.038)	80	-0.043 (-0.057,-0.022)	68	-0.026 (-0.042,-0.008)	106	-0.029 (-0.044,-0.014)	86	-0.030 (-0.044,-0.012)	78	-0.036 (-0.050,-0.024)
Male African-American	34	-0.053 (-0.071,-0.032)	66	-0.053 (-0.066,-0.037)	70	-0.036 (-0.043,-0.023)	75	-0.035 (-0.047,-0.022)	70	-0.041 (-0.059,-0.027)	63	-0.047 (-0.058,-0.032)
Male Other or Mixed	56	-0.049 (-0.061,-0.036)	81	-0.051 (-0.073,-0.034)	73	-0.044 (-0.054,-0.021)	73	-0.033 (-0.047,-0.020)	75	-0.038 (-0.058,-0.022)	63	-0.042 (-0.054,-0.020)
Female White	54	-0.046 (-0.063,-0.033)	77	-0.039 (-0.056,-0.020)	75	-0.023 (-0.035,-0.009)	78	-0.019 (-0.033,-0.004)	87	-0.019 (-0.029,-0.006)	75	-0.021 (-0.035,-0.008)
Female African-American	28	-0.053 (-0.068,-0.028)	62	-0.045 (-0.064,-0.029)	46	-0.033 (-0.052,-0.022)	66	-0.034 (-0.045,-0.022)	66	-0.038 (-0.047,-0.020)	42	-0.031 (-0.049,-0.016)
Female Other or Mixed	29	-0.047 (-0.060,-0.032)	67	-0.039 (-0.060,-0.029)	72	-0.028 (-0.039,-0.015)	78	-0.028 (-0.045,-0.020)	69	-0.027 (-0.035,-0.010)	51	-0.030 (-0.038,-0.013)

Supplemental Table 64A. Net T wave amplitude - V1+V5+V6 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	52	0.185±0.251 (-0.230,0.634)	79	0.422±0.303 (-0.141,0.926)	68	0.594±0.299 (0.126,1.057)	105	0.918±0.466 (0.317,1.830)	86	0.903±0.418 (0.350,1.506)	78	0.995±0.439 (0.346,1.817)
Male African-American	34	0.251±0.201 (-0.061,0.665)	67	0.363±0.273 (-0.035,0.923)	71	0.697±0.412 (0.133,1.537)	75	0.802±0.516 (0.138,1.563)	70	0.875±0.376 (0.315,1.475)	63	0.943±0.455 (0.214,1.655)
Male Other or Mixed	57	0.134±0.190 (-0.202,0.446)	81	0.387±0.319 (-0.153,0.800)	73	0.728±0.332 (0.284,1.393)	73	0.942±0.414 (0.343,1.830)	75	0.941±0.420 (0.313,1.676)	62	0.931±0.509 (0.300,1.864)
Female White	55	0.122±0.231 (-0.384,0.380)	77	0.343±0.280 (-0.010,0.736)	75	0.545±0.330 (0.029,1.118)	79	0.717±0.371 (0.160,1.466)	87	0.615±0.285 (0.200,1.074)	75	0.609±0.295 (0.156,1.108)
Female African-American	28	0.189±0.255 (-0.202,0.614)	62	0.382±0.269 (0.021,0.837)	46	0.583±0.396 (-0.106,1.312)	65	0.806±0.471 (0.263,1.680)	66	0.552±0.347 (0.123,1.170)	42	0.478±0.282 (0.039,0.997)
Female Other or Mixed	29	0.152±0.239 (-0.297,0.515)	68	0.398±0.332 (-0.127,0.852)	72	0.565±0.312 (0.110,1.140)	78	0.657±0.404 (0.052,1.476)	69	0.618±0.291 (0.160,1.093)	51	0.533±0.292 (0.115,1.095)

Supplemental Table 64B. Net T wave amplitude - V1+V5+V6 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	0.185 (-0.008,0.361)	79	0.427 (0.233,0.622)	68	0.614 (0.390,0.759)	105	0.845 (0.627,1.103)	86	0.854 (0.674,1.089)	78	0.954 (0.666,1.207)
Male African-American	34	0.270 (0.128,0.367)	67	0.336 (0.152,0.551)	71	0.627 (0.407,0.987)	75	0.777 (0.482,0.937)	70	0.870 (0.612,1.146)	63	0.974 (0.602,1.265)
Male Other or Mixed	57	0.155 (0.044,0.249)	81	0.402 (0.219,0.584)	73	0.679 (0.487,0.918)	73	0.884 (0.620,1.144)	75	0.927 (0.637,1.136)	62	0.855 (0.512,1.186)
Female White	55	0.173 (-0.027,0.300)	77	0.307 (0.167,0.476)	75	0.548 (0.271,0.784)	79	0.674 (0.478,0.907)	87	0.589 (0.425,0.826)	75	0.578 (0.400,0.804)
Female African-American	28	0.193 (0.010,0.345)	62	0.347 (0.207,0.567)	46	0.617 (0.297,0.856)	65	0.696 (0.462,1.079)	66	0.501 (0.306,0.738)	42	0.475 (0.261,0.631)
Female Other or Mixed	29	0.125 (0.018,0.299)	68	0.424 (0.165,0.555)	72	0.577 (0.367,0.724)	78	0.619 (0.458,0.860)	69	0.603 (0.416,0.779)	51	0.497 (0.333,0.691)

Table 65A. R' wave amplitude - V1 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	8	0.679±0.769 (0.040,2.171)	28	0.424±0.333 (0.051,1.293)	21	0.240±0.142 (0.057,0.491)	24	0.377±0.264 (0.101,0.960)	14	0.273±0.222 (0.061,0.793)	23	0.401±0.290 (0.069,1.112)
Male African-American	0	NA	11	0.399±0.436 (0.052,1.503)	9	0.380±0.212 (0.084,0.648)	5	0.208±0.268 (0.024,0.678)	7	0.470±0.273 (0.266,1.050)	5	0.118±0.058 (0.060,0.211)
Male Other or Mixed	7	0.345±0.364 (0.051,0.874)	10	0.258±0.214 (0.059,0.685)	21	0.354±0.281 (0.063,0.847)	11	0.149±0.074 (0.054,0.290)	21	0.289±0.191 (0.068,0.587)	16	0.336±0.265 (0.059,0.944)
Female White	10	0.585±0.584 (0.086,1.538)	12	0.253±0.192 (0.015,0.673)	12	0.406±0.291 (0.046,0.988)	10	0.344±0.196 (0.030,0.662)	21	0.178±0.120 (0.059,0.420)	11	0.169±0.071 (0.086,0.297)
Female African-American	4	0.786±1.193 (0.128,2.574)	5	0.251±0.147 (0.136,0.500)	6	0.388±0.401 (0.054,1.181)	6	0.291±0.270 (0.025,0.752)	15	0.213±0.132 (0.052,0.460)	7	0.206±0.161 (0.080,0.548)
Female Other or Mixed	2	0.160±0.112 (0.081,0.239)	14	0.372±0.226 (0.054,0.761)	13	0.264±0.246 (0.052,0.859)	8	0.231±0.135 (0.074,0.494)	14	0.240±0.205 (0.079,0.777)	9	0.143±0.110 (0.025,0.380)

Table 65B. R' wave amplitude - V1 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	8	0.448 (0.079,1.083)	28	0.356 (0.193,0.558)	21	0.205 (0.155,0.286)	24	0.322 (0.172,0.526)	14	0.174 (0.125,0.384)	23	0.363 (0.199,0.537)
Male African-American	0	NA	11	0.183 (0.070,0.649)	9	0.394 (0.272,0.548)	5	0.118 (0.056,0.162)	7	0.379 (0.272,0.527)	5	0.104 (0.087,0.128)
Male Other or Mixed	7	0.157 (0.062,0.839)	10	0.211 (0.086,0.286)	21	0.259 (0.180,0.451)	11	0.128 (0.116,0.201)	21	0.305 (0.127,0.409)	16	0.256 (0.117,0.562)
Female White	10	0.304 (0.154,1.183)	12	0.246 (0.095,0.392)	12	0.340 (0.175,0.674)	10	0.372 (0.167,0.435)	21	0.138 (0.089,0.259)	11	0.150 (0.114,0.208)
Female African-American	4	0.220 (0.159,1.412)	5	0.182 (0.171,0.267)	6	0.293 (0.189,0.317)	6	0.183 (0.136,0.468)	15	0.185 (0.128,0.307)	7	0.125 (0.116,0.241)
Female Other or Mixed	2	0.160 (0.081,0.239)	14	0.309 (0.219,0.553)	13	0.200 (0.078,0.388)	8	0.232 (0.126,0.284)	14	0.131 (0.086,0.366)	9	0.141 (0.056,0.192)

Supplemental Table 66A. R wave amplitude - V1 (millivolt) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	53	1.054 \pm 0.564 (0.271,2.259)	80	0.772 \pm 0.491 (0.207,1.641)	68	0.644 \pm 0.394 (0.115,1.367)	105	0.485 \pm 0.272 (0.103,0.996)	86	0.381 \pm 0.232 (0.114,0.856)	76	0.337 \pm 0.245 (0.101,0.961)
Male African-American	34	1.208 \pm 0.460 (0.445,2.126)	68	0.969 \pm 0.474 (0.247,1.753)	69	0.817 \pm 0.487 (0.199,1.723)	74	0.523 \pm 0.321 (0.111,1.038)	67	0.443 \pm 0.237 (0.131,0.850)	62	0.433 \pm 0.302 (0.100,1.075)
Male Other or Mixed	57	1.087 \pm 0.523 (0.309,2.304)	81	1.018 \pm 0.505 (0.314,1.732)	72	0.681 \pm 0.403 (0.151,1.374)	73	0.557 \pm 0.312 (0.129,1.143)	74	0.445 \pm 0.258 (0.114,1.001)	63	0.462 \pm 0.327 (0.121,1.226)
Female White	55	0.971 \pm 0.564 (0.256,2.145)	77	0.827 \pm 0.473 (0.156,1.822)	74	0.554 \pm 0.259 (0.199,1.028)	79	0.462 \pm 0.305 (0.126,1.083)	84	0.271 \pm 0.182 (0.070,0.604)	66	0.269 \pm 0.178 (0.059,0.656)
Female African-American	28	0.959 \pm 0.463 (0.325,1.928)	62	0.770 \pm 0.386 (0.164,1.538)	45	0.605 \pm 0.316 (0.094,1.056)	66	0.450 \pm 0.263 (0.117,0.961)	65	0.305 \pm 0.239 (0.079,0.817)	37	0.318 \pm 0.170 (0.101,0.742)
Female Other or Mixed	29	1.214 \pm 0.500 (0.530,2.143)	68	0.816 \pm 0.427 (0.230,1.617)	72	0.575 \pm 0.331 (0.122,1.190)	77	0.521 \pm 0.319 (0.120,1.029)	67	0.313 \pm 0.207 (0.067,0.749)	51	0.235 \pm 0.136 (0.085,0.522)

Supplemental Table 66B. R wave amplitude - V1 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	1.021 (0.678,1.278)	80	0.625 (0.432,1.010)	68	0.627 (0.294,0.837)	105	0.448 (0.282,0.674)	86	0.317 (0.191,0.537)	76	0.272 (0.174,0.437)
Male African-American	34	1.179 (0.973,1.451)	68	0.850 (0.657,1.306)	69	0.728 (0.473,1.151)	74	0.483 (0.309,0.666)	67	0.410 (0.255,0.665)	62	0.342 (0.238,0.560)
Male Other or Mixed	57	1.118 (0.679,1.380)	81	1.004 (0.655,1.348)	72	0.603 (0.472,0.880)	73	0.543 (0.318,0.765)	74	0.390 (0.256,0.604)	63	0.403 (0.193,0.616)
Female White	55	0.878 (0.534,1.289)	77	0.735 (0.469,0.986)	74	0.535 (0.336,0.725)	79	0.376 (0.266,0.627)	84	0.223 (0.145,0.343)	66	0.232 (0.136,0.345)
Female African-American	28	1.015 (0.563,1.181)	62	0.729 (0.478,1.026)	45	0.645 (0.322,0.851)	66	0.413 (0.236,0.579)	65	0.219 (0.147,0.362)	37	0.286 (0.194,0.393)
Female Other or Mixed	29	1.152 (0.954,1.573)	68	0.758 (0.460,1.079)	72	0.542 (0.343,0.753)	77	0.482 (0.305,0.719)	67	0.240 (0.169,0.424)	51	0.203 (0.140,0.279)

Supplemental Table 67A. R wave amplitude - V2 (millivolt) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	54	1.525 \pm 0.570 (0.646,2.486)	80	1.567 \pm 0.649 (0.575,2.859)	68	1.312 \pm 0.567 (0.446,2.291)	105	1.061 \pm 0.454 (0.382,1.757)	86	0.821 \pm 0.401 (0.283,1.652)	78	0.758 \pm 0.429 (0.187,1.713)
Male African-American	34	1.501 \pm 0.575 (0.616,2.548)	68	1.666 \pm 0.609 (0.870,2.811)	71	1.559 \pm 0.722 (0.514,3.018)	74	1.097 \pm 0.541 (0.371,1.888)	70	0.956 \pm 0.490 (0.194,1.827)	63	0.925 \pm 0.517 (0.228,1.692)
Male Other or Mixed	57	1.453 \pm 0.556 (0.678,2.463)	81	1.861 \pm 0.597 (0.913,2.891)	73	1.566 \pm 0.631 (0.638,2.848)	73	1.206 \pm 0.486 (0.343,2.060)	75	1.000 \pm 0.494 (0.299,2.025)	62	0.919 \pm 0.553 (0.221,2.029)
Female White	55	1.492 \pm 0.731 (0.469,2.727)	77	1.487 \pm 0.573 (0.646,2.463)	75	1.117 \pm 0.470 (0.409,2.048)	79	0.910 \pm 0.541 (0.341,2.000)	85	0.573 \pm 0.329 (0.176,1.207)	72	0.538 \pm 0.292 (0.107,1.081)
Female African-American	28	1.345 \pm 0.568 (0.620,2.214)	61	1.437 \pm 0.563 (0.476,2.217)	46	1.272 \pm 0.528 (0.315,1.924)	66	1.036 \pm 0.454 (0.384,1.827)	66	0.672 \pm 0.374 (0.157,1.401)	41	0.575 \pm 0.319 (0.167,1.200)
Female Other or Mixed	29	1.642 \pm 0.575 (0.604,2.829)	68	1.694 \pm 0.557 (0.567,2.516)	72	1.294 \pm 0.557 (0.451,2.319)	78	0.983 \pm 0.481 (0.263,1.941)	69	0.643 \pm 0.368 (0.170,1.351)	51	0.472 \pm 0.269 (0.087,0.945)

Supplemental Table 67B. R wave amplitude - V2 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	1.497 (1.061,1.976)	80	1.518 (1.050,2.024)	68	1.241 (0.952,1.701)	105	1.031 (0.690,1.412)	86	0.785 (0.519,1.044)	78	0.647 (0.472,0.938)
Male African-American	34	1.593 (1.142,1.861)	68	1.583 (1.218,2.041)	71	1.498 (1.051,2.004)	74	1.064 (0.711,1.377)	70	0.932 (0.586,1.197)	63	0.905 (0.554,1.222)
Male Other or Mixed	57	1.304 (1.033,1.756)	81	1.873 (1.517,2.166)	73	1.532 (1.149,1.883)	73	1.193 (0.896,1.555)	75	0.954 (0.662,1.277)	62	0.817 (0.566,1.158)
Female White	55	1.521 (0.891,2.008)	77	1.424 (1.040,1.886)	75	1.050 (0.784,1.435)	79	0.777 (0.541,1.176)	85	0.496 (0.349,0.746)	72	0.490 (0.320,0.698)
Female African-American	28	1.304 (1.018,1.614)	61	1.466 (1.194,1.679)	46	1.380 (0.834,1.678)	66	1.003 (0.718,1.412)	66	0.601 (0.399,0.915)	41	0.457 (0.326,0.758)
Female Other or Mixed	29	1.625 (1.371,2.036)	68	1.692 (1.302,2.186)	72	1.312 (0.844,1.596)	78	0.912 (0.623,1.263)	69	0.565 (0.364,0.885)	51	0.388 (0.327,0.598)

Supplemental Table 68A. R wave amplitude - V3 (millivolt) by sex, race and age group, mean \pm SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)	N	Mean \pm SD (p5,p95)
Male White	54	1.758 \pm 0.587 (0.887,2.770)	80	1.810 \pm 0.678 (0.574,3.027)	68	1.704 \pm 0.652 (0.750,2.865)	106	1.639 \pm 0.877 (0.590,3.454)	86	1.281 \pm 0.591 (0.352,2.320)	78	1.180 \pm 0.693 (0.407,2.741)
Male African-American	34	1.723 \pm 0.525 (0.821,2.615)	68	2.118 \pm 0.688 (0.966,3.234)	71	2.017 \pm 0.840 (1.096,3.745)	74	1.672 \pm 0.899 (0.550,3.907)	70	1.592 \pm 0.877 (0.425,3.557)	63	1.384 \pm 0.651 (0.564,2.389)
Male Other or Mixed	57	1.523 \pm 0.501 (0.683,2.363)	81	2.084 \pm 0.550 (1.298,3.164)	73	2.014 \pm 0.813 (0.849,3.653)	73	1.718 \pm 0.796 (0.584,3.109)	75	1.397 \pm 0.582 (0.644,2.397)	63	1.397 \pm 0.694 (0.526,2.550)
Female White	55	1.792 \pm 0.605 (0.780,2.835)	77	1.768 \pm 0.604 (0.966,2.812)	75	1.509 \pm 0.738 (0.606,3.004)	79	1.397 \pm 0.787 (0.464,2.872)	86	0.943 \pm 0.494 (0.365,1.788)	75	0.851 \pm 0.433 (0.306,1.782)
Female African-American	28	1.766 \pm 0.678 (0.681,3.124)	62	1.793 \pm 0.579 (0.908,2.815)	46	1.682 \pm 0.917 (0.295,3.313)	66	1.483 \pm 0.566 (0.687,2.523)	66	1.039 \pm 0.505 (0.380,1.905)	42	0.946 \pm 0.502 (0.405,1.990)
Female Other or Mixed	29	1.698 \pm 0.552 (1.014,2.920)	68	1.932 \pm 0.609 (0.979,2.885)	72	1.586 \pm 0.797 (0.619,3.235)	78	1.374 \pm 0.628 (0.430,2.624)	69	1.008 \pm 0.508 (0.278,1.821)	51	0.863 \pm 0.541 (0.285,1.854)

Supplemental Table 68B. R wave amplitude - V3 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	54	1.640 (1.344,2.159)	80	1.816 (1.343,2.214)	68	1.590 (1.268,2.128)	106	1.431 (1.008,2.017)	86	1.270 (0.846,1.694)	78	1.042 (0.677,1.586)
Male African-American	34	1.657 (1.354,2.128)	68	2.041 (1.679,2.495)	71	1.800 (1.423,2.342)	74	1.498 (1.048,2.064)	70	1.405 (1.008,2.037)	63	1.315 (0.835,1.844)
Male Other or Mixed	57	1.540 (1.188,1.731)	81	2.065 (1.638,2.440)	73	1.819 (1.471,2.267)	73	1.554 (1.111,2.074)	75	1.287 (0.982,1.807)	63	1.213 (0.955,1.764)
Female White	55	1.826 (1.374,2.275)	77	1.798 (1.264,2.117)	75	1.359 (0.978,1.793)	79	1.209 (0.801,1.815)	86	0.851 (0.609,1.162)	75	0.738 (0.547,1.097)
Female African-American	28	1.687 (1.274,2.238)	62	1.761 (1.410,2.091)	46	1.669 (1.050,2.279)	66	1.478 (1.041,1.816)	66	0.887 (0.602,1.401)	42	0.843 (0.546,1.208)
Female Other or Mixed	29	1.585 (1.323,2.025)	68	1.946 (1.495,2.261)	72	1.443 (0.998,2.077)	78	1.277 (0.909,1.784)	69	0.938 (0.669,1.286)	51	0.714 (0.527,1.140)

Supplemental Table 69A. R amplitude in V1 +S amplitude in V6 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	47	1.529±0.679 (0.735,2.778)	62	1.142±0.537 (0.483,2.381)	49	0.887±0.442 (0.395,1.871)	59	0.736±0.296 (0.296,1.294)	57	0.635±0.238 (0.305,1.077)	45	0.621±0.260 (0.353,1.239)
Male African-American	27	1.590±0.571 (0.627,2.581)	49	1.392±0.512 (0.687,2.439)	38	1.070±0.400 (0.554,1.814)	36	0.748±0.303 (0.329,1.228)	27	0.846±0.648 (0.465,1.308)	33	0.698±0.295 (0.343,1.486)
Male Other or Mixed	50	1.544±0.671 (0.651,2.495)	73	1.416±0.551 (0.512,2.320)	52	1.014±0.425 (0.410,1.814)	50	0.786±0.271 (0.360,1.274)	51	0.830±0.569 (0.294,1.786)	36	0.818±0.425 (0.267,1.813)
Female White	41	1.425±0.716 (0.524,2.640)	51	1.073±0.501 (0.524,2.296)	42	0.713±0.300 (0.323,1.187)	37	0.690±0.269 (0.272,1.210)	35	0.482±0.245 (0.195,1.072)	31	0.436±0.222 (0.169,1.035)
Female African-American	23	1.371±0.604 (0.745,2.371)	33	1.054±0.394 (0.410,1.767)	21	0.884±0.556 (0.395,1.590)	27	0.644±0.332 (0.214,1.342)	21	0.506±0.221 (0.240,0.934)	13	0.445±0.152 (0.206,0.729)
Female Other or Mixed	20	1.693±0.531 (0.899,2.650)	54	1.133±0.509 (0.419,2.066)	46	0.843±0.410 (0.306,1.471)	31	0.787±0.404 (0.251,1.473)	34	0.562±0.251 (0.276,1.110)	20	0.464±0.166 (0.244,0.778)

Supplemental Table 69B. R amplitude in V1 +S amplitude in V6 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	47	1.445 (1.061,1.847)	62	1.078 (0.787,1.370)	49	0.833 (0.490,1.106)	59	0.712 (0.498,0.906)	57	0.594 (0.437,0.761)	45	0.558 (0.445,0.670)
Male African-American	27	1.655 (1.114,2.016)	49	1.265 (1.038,1.720)	38	1.026 (0.792,1.373)	36	0.668 (0.523,1.006)	27	0.703 (0.556,0.862)	33	0.693 (0.477,0.812)
Male Other or Mixed	50	1.516 (0.960,1.897)	73	1.463 (1.021,1.785)	52	0.933 (0.718,1.259)	50	0.756 (0.591,0.960)	51	0.755 (0.542,0.919)	36	0.738 (0.516,0.949)
Female White	41	1.307 (0.872,1.767)	51	0.960 (0.718,1.194)	42	0.734 (0.460,0.846)	37	0.669 (0.491,0.854)	35	0.434 (0.315,0.614)	31	0.382 (0.294,0.544)
Female African-American	23	1.259 (0.791,1.807)	33	0.999 (0.821,1.326)	21	0.818 (0.531,1.000)	27	0.575 (0.362,0.857)	21	0.516 (0.320,0.591)	13	0.390 (0.366,0.555)
Female Other or Mixed	20	1.797 (1.283,1.998)	54	1.057 (0.786,1.527)	46	0.805 (0.540,1.017)	31	0.688 (0.541,0.908)	34	0.459 (0.390,0.697)	20	0.449 (0.315,0.567)

Supplemental Table 70A. S wave amplitude - V1 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	-0.484±0.350 (-1.219,-0.119)	77	-0.587±0.418 (-1.352,-0.139)	68	-0.880±0.497 (-1.938,-0.299)	105	-0.942±0.450 (-1.725,-0.389)	85	-1.049±0.524 (-1.987,-0.331)	75	-1.096±0.584 (-2.081,-0.173)
Male African-American	33	-0.676±0.487 (-1.299,-0.204)	65	-0.740±0.414 (-1.549,-0.253)	68	-1.197±0.569 (-2.283,-0.391)	70	-1.168±0.543 (-2.149,-0.358)	68	-1.419±0.660 (-2.432,-0.501)	62	-1.367±0.666 (-2.660,-0.467)
Male Other or Mixed	51	-0.616±0.368 (-1.314,-0.149)	76	-0.639±0.369 (-1.315,-0.151)	68	-0.842±0.457 (-1.724,-0.182)	73	-0.934±0.467 (-1.821,-0.289)	74	-1.071±0.574 (-2.185,-0.262)	61	-1.193±0.580 (-2.268,-0.306)
Female White	53	-0.487±0.362 (-1.349,-0.110)	76	-0.710±0.448 (-1.711,-0.148)	72	-0.927±0.445 (-1.839,-0.254)	78	-1.054±0.473 (-1.996,-0.333)	79	-0.905±0.404 (-1.680,-0.314)	67	-0.878±0.291 (-1.347,-0.517)
Female African-American	27	-0.635±0.432 (-1.649,-0.155)	60	-0.721±0.363 (-1.501,-0.210)	44	-0.964±0.562 (-2.243,-0.239)	66	-1.139±0.527 (-2.037,-0.301)	62	-0.953±0.448 (-1.698,-0.388)	36	-1.033±0.557 (-1.959,-0.230)
Female Other or Mixed	29	-0.608±0.325 (-1.136,-0.192)	67	-0.659±0.414 (-1.409,-0.187)	71	-0.927±0.441 (-1.655,-0.215)	76	-1.076±0.544 (-2.246,-0.383)	65	-0.870±0.470 (-1.678,-0.221)	48	-0.861±0.345 (-1.483,-0.267)

Supplemental Table 70B. S wave amplitude - V1 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18) Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	-0.371 (-0.645,-0.197)	77	-0.480 (-0.720,-0.284)	68	-0.710 (-1.198,-0.495)	105	-0.851 (-1.114,-0.636)	85	-0.943 (-1.329,-0.696)	75	-1.163 (-1.399,-0.705)
Male African-American	33	-0.656 (-0.793,-0.376)	65	-0.636 (-0.885,-0.439)	68	-1.118 (-1.606,-0.739)	70	-1.120 (-1.442,-0.823)	68	-1.399 (-1.910,-0.868)	62	-1.204 (-1.815,-0.836)
Male Other or Mixed	51	-0.580 (-0.789,-0.331)	76	-0.599 (-0.895,-0.314)	68	-0.756 (-1.116,-0.521)	73	-0.867 (-1.200,-0.579)	74	-0.971 (-1.312,-0.724)	61	-1.176 (-1.534,-0.692)
Female White	53	-0.406 (-0.642,-0.264)	76	-0.638 (-0.919,-0.355)	72	-0.901 (-1.137,-0.583)	78	-1.023 (-1.279,-0.698)	79	-0.847 (-1.105,-0.629)	67	-0.853 (-1.070,-0.627)
Female African-American	27	-0.538 (-0.822,-0.302)	60	-0.658 (-0.869,-0.493)	44	-0.896 (-1.128,-0.619)	66	-1.154 (-1.553,-0.790)	62	-0.879 (-1.107,-0.680)	36	-0.982 (-1.352,-0.749)
Female Other or Mixed	29	-0.522 (-0.864,-0.358)	67	-0.569 (-0.875,-0.311)	71	-0.922 (-1.227,-0.543)	76	-0.890 (-1.431,-0.712)	65	-0.817 (-1.098,-0.550)	48	-0.827 (-1.031,-0.654)

Supplemental Table 71A. S wave amplitude - V2 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	53	-1.334±0.540 (-2.252,-0.565)	79	-1.260±0.626 (-2.460,-0.401)	68	-1.554±0.706 (-2.875,-0.514)	105	-1.665±0.581 (-2.586,-0.670)	85	-1.870±0.670 (-3.016,-0.786)	78	-1.882±0.821 (-3.270,-0.564)
Male African-American	33	-1.334±0.637 (-2.606,-0.412)	68	-1.270±0.560 (-2.317,-0.423)	70	-1.758±0.803 (-3.068,-0.600)	73	-1.821±0.707 (-2.885,-0.470)	69	-1.936±0.736 (-3.032,-0.582)	63	-2.107±0.910 (-3.736,-0.727)
Male Other or Mixed	57	-1.256±0.508 (-2.223,-0.605)	80	-1.275±0.545 (-2.338,-0.515)	73	-1.664±0.708 (-2.839,-0.458)	72	-1.782±0.569 (-2.806,-0.911)	75	-1.881±0.674 (-3.227,-0.929)	61	-1.888±0.815 (-2.876,-0.626)
Female White	54	-1.262±0.536 (-2.089,-0.564)	77	-1.271±0.530 (-2.576,-0.488)	75	-1.646±0.614 (-2.637,-0.659)	79	-1.675±0.638 (-2.801,-0.785)	85	-1.236±0.690 (-2.334,-0.345)	71	-1.188±0.464 (-1.892,-0.529)
Female African-American	28	-1.120±0.603 (-2.419,-0.541)	61	-1.227±0.596 (-2.092,-0.444)	45	-1.559±0.608 (-2.863,-0.666)	65	-1.659±0.679 (-2.735,-0.674)	64	-1.136±0.596 (-2.068,-0.351)	40	-1.167±0.627 (-2.434,-0.242)
Female Other or Mixed	29	-1.292±0.550 (-2.113,-0.391)	68	-1.409±0.537 (-2.391,-0.645)	71	-1.698±0.540 (-2.450,-0.860)	77	-1.628±0.677 (-2.791,-0.561)	68	-1.204±0.626 (-2.429,-0.442)	50	-1.043±0.366 (-1.719,-0.527)

Supplemental Table 71B. S wave amplitude - V2 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	53	-1.272 (-1.668,-0.976)	79	-1.223 (-1.629,-0.754)	68	-1.440 (-2.070,-1.037)	105	-1.667 (-2.107,-1.304)	85	-1.880 (-2.288,-1.400)	78	-1.851 (-2.531,-1.267)
Male African-American	33	-1.209 (-1.618,-0.945)	68	-1.186 (-1.666,-0.827)	70	-1.758 (-2.279,-1.025)	73	-1.871 (-2.408,-1.364)	69	-1.955 (-2.385,-1.455)	63	-1.992 (-2.745,-1.404)
Male Other or Mixed	57	-1.219 (-1.618,-0.826)	80	-1.192 (-1.603,-0.911)	73	-1.559 (-2.174,-1.171)	72	-1.847 (-2.212,-1.296)	75	-1.825 (-2.324,-1.389)	61	-1.982 (-2.413,-1.359)
Female White	54	-1.292 (-1.604,-0.801)	77	-1.207 (-1.466,-0.925)	75	-1.657 (-2.016,-1.235)	79	-1.568 (-2.039,-1.221)	85	-1.126 (-1.680,-0.722)	71	-1.171 (-1.553,-0.812)
Female African-American	28	-0.955 (-1.505,-0.632)	61	-1.211 (-1.409,-0.774)	45	-1.551 (-1.799,-1.224)	65	-1.684 (-2.165,-1.147)	64	-1.055 (-1.365,-0.694)	40	-0.967 (-1.547,-0.776)
Female Other or Mixed	29	-1.346 (-1.655,-0.965)	68	-1.380 (-1.747,-1.003)	71	-1.675 (-2.064,-1.337)	77	-1.619 (-2.043,-1.132)	68	-1.081 (-1.518,-0.791)	50	-1.066 (-1.291,-0.696)

Supplemental Table 72A. S wave amplitude - V3 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	52	-1.203±0.457 (-2.086,-0.534)	80	-1.144±0.561 (-2.225,-0.344)	67	-1.349±0.633 (-2.333,-0.366)	106	-1.327±0.585 (-2.379,-0.519)	85	-1.326±0.717 (-2.626,-0.351)	78	-1.366±0.721 (-2.893,-0.375)
Male African-American	33	-1.116±0.595 (-2.599,-0.436)	68	-1.219±0.654 (-2.366,-0.289)	69	-1.435±0.681 (-2.655,-0.424)	74	-1.324±0.597 (-2.374,-0.472)	66	-1.266±0.768 (-2.693,-0.368)	60	-1.424±0.651 (-2.566,-0.361)
Male Other or Mixed	57	-1.036±0.557 (-2.444,-0.390)	81	-1.165±0.491 (-2.105,-0.479)	72	-1.329±0.618 (-2.427,-0.544)	72	-1.276±0.664 (-2.412,-0.234)	73	-1.330±0.699 (-2.729,-0.344)	61	-1.465±0.915 (-3.179,-0.305)
Female White	53	-1.063±0.550 (-2.262,-0.314)	77	-1.003±0.482 (-1.936,-0.249)	74	-1.114±0.523 (-1.988,-0.214)	78	-1.042±0.587 (-2.171,-0.223)	84	-0.787±0.496 (-1.741,-0.174)	69	-0.656±0.361 (-1.371,-0.179)
Female African-American	25	-0.985±0.530 (-1.753,-0.297)	61	-0.990±0.492 (-1.786,-0.363)	44	-0.971±0.671 (-2.374,-0.238)	65	-1.098±0.661 (-2.158,-0.252)	57	-0.654±0.447 (-1.629,-0.139)	34	-0.575±0.310 (-1.463,-0.227)
Female Other or Mixed	29	-0.940±0.557 (-2.060,-0.134)	68	-1.122±0.582 (-2.079,-0.288)	70	-0.991±0.566 (-2.089,-0.277)	74	-0.915±0.483 (-1.825,-0.281)	65	-0.656±0.401 (-1.486,-0.145)	46	-0.629±0.380 (-1.342,-0.186)

Supplemental Table 72B. S wave amplitude - V3 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	-1.128 (-1.465,-0.858)	80	-1.048 (-1.503,-0.695)	67	-1.321 (-1.844,-0.857)	106	-1.236 (-1.740,-0.900)	85	-1.178 (-1.706,-0.867)	78	-1.239 (-1.908,-0.829)
Male African-American	33	-1.008 (-1.414,-0.703)	68	-1.138 (-1.759,-0.701)	69	-1.439 (-1.863,-0.904)	74	-1.338 (-1.738,-0.846)	66	-1.032 (-1.647,-0.739)	60	-1.394 (-1.790,-0.900)
Male Other or Mixed	57	-0.948 (-1.345,-0.585)	81	-1.155 (-1.393,-0.795)	72	-1.194 (-1.744,-0.806)	72	-1.104 (-1.672,-0.890)	73	-1.279 (-1.633,-0.782)	61	-1.291 (-1.912,-0.800)
Female White	53	-0.987 (-1.331,-0.703)	77	-0.954 (-1.354,-0.621)	74	-1.137 (-1.497,-0.721)	78	-0.956 (-1.332,-0.653)	84	-0.635 (-1.136,-0.430)	69	-0.596 (-0.804,-0.423)
Female African-American	25	-0.955 (-1.423,-0.513)	61	-0.948 (-1.278,-0.591)	44	-0.816 (-1.094,-0.445)	65	-1.067 (-1.569,-0.552)	57	-0.509 (-0.847,-0.308)	34	-0.511 (-0.735,-0.343)
Female Other or Mixed	29	-0.816 (-1.230,-0.513)	68	-0.974 (-1.491,-0.728)	70	-0.869 (-1.269,-0.601)	74	-0.874 (-1.222,-0.587)	65	-0.581 (-0.859,-0.401)	46	-0.546 (-0.829,-0.367)

Supplemental Table 73A. S wave amplitude - V4 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	52	-0.988±0.388 (-1.771,-0.470)	77	-0.963±0.511 (-1.867,-0.272)	65	-0.821±0.409 (-1.636,-0.303)	106	-0.742±0.418 (-1.588,-0.174)	79	-0.720±0.378 (-1.570,-0.211)	74	-0.720±0.401 (-1.579,-0.148)
Male African-American	33	-0.961±0.457 (-1.914,-0.316)	67	-1.065±0.576 (-2.100,-0.245)	66	-0.949±0.560 (-2.091,-0.175)	72	-0.775±0.468 (-1.519,-0.213)	60	-0.779±0.567 (-1.903,-0.193)	55	-0.790±0.456 (-1.660,-0.268)
Male Other or Mixed	56	-0.911±0.441 (-1.775,-0.325)	79	-0.970±0.421 (-1.823,-0.442)	71	-0.889±0.531 (-2.000,-0.207)	67	-0.828±0.449 (-1.643,-0.155)	68	-0.838±0.494 (-1.705,-0.179)	57	-0.801±0.522 (-1.730,-0.194)
Female White	53	-0.943±0.505 (-2.027,-0.237)	74	-0.693±0.345 (-1.350,-0.256)	69	-0.637±0.344 (-1.292,-0.158)	71	-0.586±0.311 (-1.357,-0.221)	68	-0.440±0.246 (-0.880,-0.135)	60	-0.366±0.180 (-0.710,-0.140)
Female African-American	25	-0.909±0.493 (-1.668,-0.182)	59	-0.741±0.413 (-1.549,-0.196)	41	-0.680±0.450 (-1.645,-0.167)	56	-0.671±0.337 (-1.255,-0.182)	46	-0.355±0.189 (-0.709,-0.135)	29	-0.344±0.203 (-0.700,-0.122)
Female Other or Mixed	29	-0.909±0.440 (-1.705,-0.243)	67	-0.854±0.475 (-1.814,-0.253)	66	-0.641±0.379 (-1.415,-0.173)	67	-0.551±0.317 (-1.127,-0.147)	59	-0.402±0.232 (-0.782,-0.135)	38	-0.376±0.215 (-0.885,-0.109)

Supplemental Table 73B. S wave amplitude - V4 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	52	-0.925 (-1.189,-0.714)	77	-0.859 (-1.177,-0.588)	65	-0.741 (-1.064,-0.535)	106	-0.652 (-0.977,-0.406)	79	-0.645 (-0.936,-0.466)	74	-0.710 (-0.958,-0.412)
Male African-American	33	-0.980 (-1.192,-0.573)	67	-0.965 (-1.515,-0.608)	66	-0.857 (-1.304,-0.473)	72	-0.708 (-1.044,-0.400)	60	-0.626 (-1.001,-0.311)	55	-0.662 (-1.143,-0.387)
Male Other or Mixed	56	-0.798 (-1.211,-0.596)	79	-0.867 (-1.204,-0.669)	71	-0.717 (-1.237,-0.525)	67	-0.759 (-1.075,-0.455)	68	-0.814 (-1.127,-0.424)	57	-0.721 (-1.046,-0.404)
Female White	53	-0.865 (-1.254,-0.599)	74	-0.648 (-0.918,-0.432)	69	-0.573 (-0.805,-0.435)	71	-0.496 (-0.709,-0.353)	68	-0.406 (-0.567,-0.229)	60	-0.338 (-0.456,-0.230)
Female African-American	25	-0.919 (-1.326,-0.449)	59	-0.634 (-1.020,-0.415)	41	-0.571 (-0.841,-0.362)	56	-0.649 (-0.910,-0.422)	46	-0.329 (-0.463,-0.201)	29	-0.270 (-0.478,-0.189)
Female Other or Mixed	29	-0.885 (-1.253,-0.695)	67	-0.798 (-1.109,-0.486)	66	-0.564 (-0.829,-0.348)	67	-0.451 (-0.723,-0.294)	59	-0.365 (-0.502,-0.234)	38	-0.336 (-0.550,-0.191)

Supplemental Table 74A. S wave amplitude - V5 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	51	-0.728±0.324 (-1.263,-0.329)	75	-0.630±0.385 (-1.444,-0.159)	60	-0.426±0.211 (-0.900,-0.178)	94	-0.403±0.271 (-0.952,-0.141)	68	-0.438±0.290 (-1.020,-0.165)	62	-0.429±0.271 (-0.922,-0.135)
Male African-American	31	-0.665±0.282 (-1.058,-0.263)	63	-0.698±0.394 (-1.374,-0.169)	58	-0.520±0.332 (-1.342,-0.130)	58	-0.428±0.305 (-1.099,-0.138)	44	-0.526±0.505 (-1.145,-0.119)	45	-0.481±0.323 (-0.893,-0.130)
Male Other or Mixed	55	-0.652±0.334 (-1.362,-0.241)	78	-0.638±0.336 (-1.390,-0.151)	65	-0.530±0.352 (-1.321,-0.132)	62	-0.458±0.291 (-1.121,-0.162)	61	-0.535±0.336 (-1.135,-0.143)	49	-0.482±0.376 (-0.960,-0.127)
Female White	48	-0.698±0.430 (-1.602,-0.211)	66	-0.436±0.242 (-0.930,-0.176)	61	-0.343±0.239 (-0.667,-0.118)	60	-0.327±0.186 (-0.626,-0.128)	53	-0.293±0.153 (-0.576,-0.118)	45	-0.252±0.113 (-0.482,-0.118)
Female African-American	26	-0.684±0.401 (-1.445,-0.180)	53	-0.415±0.249 (-1.024,-0.125)	35	-0.415±0.415 (-1.516,-0.114)	48	-0.409±0.298 (-1.142,-0.120)	35	-0.229±0.117 (-0.468,-0.104)	24	-0.254±0.156 (-0.453,-0.115)
Female Other or Mixed	26	-0.639±0.372 (-1.152,-0.179)	62	-0.539±0.335 (-1.099,-0.160)	59	-0.419±0.314 (-0.992,-0.123)	54	-0.333±0.194 (-0.741,-0.113)	47	-0.322±0.183 (-0.621,-0.111)	30	-0.281±0.153 (-0.612,-0.111)

Supplemental Table 74B. S wave amplitude - V5 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	51	-0.652 (-0.911,-0.497)	75	-0.550 (-0.852,-0.320)	60	-0.384 (-0.502,-0.279)	94	-0.317 (-0.558,-0.207)	68	-0.367 (-0.537,-0.267)	62	-0.404 (-0.547,-0.190)
Male African-American	31	-0.683 (-0.870,-0.355)	63	-0.678 (-0.927,-0.392)	58	-0.456 (-0.609,-0.286)	58	-0.329 (-0.603,-0.208)	44	-0.469 (-0.643,-0.249)	45	-0.421 (-0.666,-0.237)
Male Other or Mixed	55	-0.564 (-0.798,-0.428)	78	-0.565 (-0.829,-0.403)	65	-0.379 (-0.734,-0.277)	62	-0.392 (-0.563,-0.249)	61	-0.505 (-0.735,-0.246)	49	-0.439 (-0.589,-0.242)
Female White	48	-0.597 (-0.848,-0.421)	66	-0.380 (-0.510,-0.270)	61	-0.303 (-0.429,-0.191)	60	-0.283 (-0.433,-0.198)	53	-0.261 (-0.380,-0.170)	45	-0.217 (-0.305,-0.167)
Female African-American	26	-0.683 (-0.997,-0.340)	53	-0.380 (-0.497,-0.245)	35	-0.286 (-0.428,-0.192)	48	-0.331 (-0.471,-0.201)	35	-0.216 (-0.326,-0.120)	24	-0.199 (-0.323,-0.143)
Female Other or Mixed	26	-0.672 (-0.916,-0.315)	62	-0.463 (-0.727,-0.278)	59	-0.350 (-0.530,-0.203)	54	-0.277 (-0.452,-0.181)	47	-0.296 (-0.409,-0.205)	30	-0.247 (-0.362,-0.157)

Supplemental Table 75A. S wave amplitude - V6 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	47	-0.493±0.275 (-1.068,-0.145)	62	-0.367±0.209 (-0.769,-0.123)	49	-0.254±0.171 (-0.527,-0.121)	59	-0.284±0.167 (-0.637,-0.119)	57	-0.265±0.154 (-0.523,-0.114)	47	-0.275±0.141 (-0.495,-0.131)
Male African-American	27	-0.395±0.210 (-0.831,-0.155)	49	-0.478±0.326 (-1.322,-0.137)	40	-0.322±0.248 (-0.828,-0.108)	36	-0.283±0.192 (-0.815,-0.108)	27	-0.411±0.598 (-0.659,-0.111)	33	-0.310±0.232 (-0.596,-0.104)
Male Other or Mixed	50	-0.432±0.265 (-0.920,-0.167)	73	-0.399±0.265 (-0.978,-0.115)	53	-0.329±0.232 (-0.901,-0.108)	50	-0.268±0.167 (-0.663,-0.106)	51	-0.429±0.504 (-1.254,-0.107)	36	-0.339±0.309 (-0.681,-0.127)
Female White	41	-0.427±0.293 (-1.046,-0.145)	51	-0.257±0.187 (-0.714,-0.106)	42	-0.220±0.186 (-0.355,-0.105)	37	-0.240±0.132 (-0.545,-0.108)	35	-0.221±0.097 (-0.366,-0.103)	32	-0.186±0.074 (-0.334,-0.110)
Female African-American	23	-0.427±0.298 (-1.018,-0.132)	33	-0.264±0.179 (-0.680,-0.109)	21	-0.333±0.406 (-0.682,-0.102)	27	-0.253±0.193 (-0.705,-0.107)	21	-0.187±0.078 (-0.331,-0.106)	14	-0.199±0.079 (-0.403,-0.117)
Female Other or Mixed	20	-0.498±0.307 (-1.015,-0.132)	54	-0.310±0.202 (-0.714,-0.118)	46	-0.279±0.224 (-0.620,-0.113)	32	-0.259±0.147 (-0.593,-0.115)	35	-0.256±0.148 (-0.627,-0.114)	20	-0.219±0.121 (-0.462,-0.109)

Supplemental Table 75B. S wave amplitude - V6 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	47	-0.472 (-0.691,-0.273)	62	-0.343 (-0.449,-0.218)	49	-0.213 (-0.290,-0.152)	59	-0.228 (-0.358,-0.154)	57	-0.220 (-0.354,-0.156)	47	-0.225 (-0.363,-0.173)
Male African-American	27	-0.355 (-0.531,-0.214)	49	-0.428 (-0.615,-0.250)	40	-0.237 (-0.420,-0.142)	36	-0.217 (-0.349,-0.157)	27	-0.285 (-0.388,-0.182)	33	-0.254 (-0.394,-0.176)
Male Other or Mixed	50	-0.357 (-0.549,-0.257)	73	-0.322 (-0.502,-0.212)	53	-0.241 (-0.448,-0.171)	50	-0.212 (-0.334,-0.147)	51	-0.321 (-0.459,-0.182)	36	-0.261 (-0.407,-0.193)
Female White	41	-0.334 (-0.473,-0.241)	51	-0.193 (-0.292,-0.144)	42	-0.168 (-0.277,-0.120)	37	-0.219 (-0.258,-0.155)	35	-0.219 (-0.273,-0.150)	32	-0.160 (-0.221,-0.135)
Female African-American	23	-0.371 (-0.627,-0.184)	33	-0.222 (-0.291,-0.135)	21	-0.197 (-0.290,-0.140)	27	-0.184 (-0.308,-0.126)	21	-0.160 (-0.249,-0.124)	14	-0.190 (-0.245,-0.134)
Female Other or Mixed	20	-0.414 (-0.769,-0.188)	54	-0.260 (-0.376,-0.164)	46	-0.207 (-0.306,-0.160)	32	-0.211 (-0.328,-0.155)	35	-0.227 (-0.298,-0.172)	20	-0.176 (-0.291,-0.122)

Supplemental Table 76A. Q wave amplitude - I (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	12	-0.088±0.094 (-0.367,-0.027)	28	-0.114±0.079 (-0.243,-0.028)	36	-0.139±0.095 (-0.335,-0.025)	42	-0.116±0.086 (-0.288,-0.029)	37	-0.069±0.039 (-0.176,-0.030)	28	-0.059±0.040 (-0.103,-0.026)
Male African-American	12	-0.163±0.150 (-0.548,-0.041)	33	-0.097±0.074 (-0.280,-0.028)	35	-0.091±0.074 (-0.255,-0.028)	33	-0.100±0.058 (-0.226,-0.031)	32	-0.068±0.033 (-0.141,-0.029)	28	-0.073±0.041 (-0.145,-0.027)
Male Other or Mixed	17	-0.115±0.166 (-0.678,-0.032)	27	-0.118±0.131 (-0.425,-0.027)	26	-0.112±0.104 (-0.413,-0.030)	36	-0.096±0.063 (-0.221,-0.028)	32	-0.075±0.059 (-0.163,-0.028)	27	-0.090±0.069 (-0.270,-0.028)
Female White	13	-0.127±0.082 (-0.311,-0.038)	29	-0.112±0.098 (-0.321,-0.027)	27	-0.096±0.067 (-0.231,-0.032)	39	-0.087±0.059 (-0.225,-0.026)	26	-0.064±0.039 (-0.127,-0.026)	23	-0.073±0.043 (-0.151,-0.028)
Female African-American	5	-0.450±0.597 (-1.436,-0.062)	14	-0.064±0.031 (-0.120,-0.025)	22	-0.080±0.045 (-0.150,-0.030)	23	-0.080±0.072 (-0.161,-0.030)	21	-0.086±0.075 (-0.174,-0.029)	17	-0.067±0.052 (-0.230,-0.028)
Female Other or Mixed	5	-0.075±0.047 (-0.144,-0.035)	22	-0.085±0.045 (-0.161,-0.030)	29	-0.102±0.076 (-0.250,-0.039)	35	-0.084±0.057 (-0.224,-0.026)	18	-0.067±0.042 (-0.197,-0.027)	15	-0.067±0.035 (-0.140,-0.030)

Supplemental Table 76B. Q wave amplitude - I (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	12	-0.064 (-0.101,-0.032)	28	-0.087 (-0.164,-0.050)	36	-0.121 (-0.213,-0.045)	42	-0.088 (-0.157,-0.058)	37	-0.062 (-0.088,-0.038)	28	-0.046 (-0.075,-0.033)
Male African-American	12	-0.096 (-0.240,-0.069)	33	-0.066 (-0.129,-0.042)	35	-0.073 (-0.117,-0.036)	33	-0.092 (-0.124,-0.066)	32	-0.058 (-0.082,-0.043)	28	-0.056 (-0.106,-0.044)
Male Other or Mixed	17	-0.059 (-0.087,-0.043)	27	-0.057 (-0.102,-0.043)	26	-0.074 (-0.133,-0.040)	36	-0.078 (-0.139,-0.037)	32	-0.056 (-0.088,-0.037)	27	-0.073 (-0.107,-0.040)
Female White	13	-0.098 (-0.187,-0.058)	29	-0.063 (-0.145,-0.038)	27	-0.070 (-0.143,-0.045)	39	-0.074 (-0.110,-0.037)	26	-0.053 (-0.093,-0.034)	23	-0.067 (-0.098,-0.038)
Female African-American	5	-0.079 (-0.598,-0.073)	14	-0.053 (-0.080,-0.044)	22	-0.068 (-0.123,-0.040)	23	-0.047 (-0.109,-0.033)	21	-0.062 (-0.100,-0.051)	17	-0.050 (-0.067,-0.033)
Female Other or Mixed	5	-0.063 (-0.099,-0.035)	22	-0.075 (-0.117,-0.050)	29	-0.080 (-0.097,-0.054)	35	-0.066 (-0.116,-0.041)	18	-0.057 (-0.082,-0.039)	15	-0.051 (-0.091,-0.041)

Supplemental Table 77A. Q wave amplitude - II (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	48	-0.237±0.169 (-0.559,-0.048)	75	-0.265±0.170 (-0.604,-0.045)	51	-0.197±0.152 (-0.571,-0.037)	82	-0.161±0.117 (-0.408,-0.034)	57	-0.152±0.113 (-0.414,-0.035)	60	-0.119±0.080 (-0.247,-0.033)
Male African-American	29	-0.211±0.169 (-0.638,-0.048)	46	-0.284±0.234 (-0.749,-0.046)	44	-0.223±0.181 (-0.551,-0.046)	43	-0.163±0.142 (-0.463,-0.042)	46	-0.119±0.108 (-0.326,-0.031)	29	-0.118±0.088 (-0.304,-0.028)
Male Other or Mixed	47	-0.146±0.120 (-0.267,-0.041)	63	-0.245±0.157 (-0.483,-0.041)	45	-0.198±0.187 (-0.682,-0.035)	48	-0.145±0.128 (-0.375,-0.032)	40	-0.108±0.094 (-0.292,-0.030)	45	-0.121±0.098 (-0.247,-0.040)
Female White	51	-0.225±0.138 (-0.437,-0.039)	73	-0.263±0.196 (-0.729,-0.062)	59	-0.198±0.162 (-0.498,-0.030)	63	-0.143±0.094 (-0.314,-0.034)	58	-0.111±0.067 (-0.246,-0.034)	51	-0.099±0.064 (-0.232,-0.029)
Female African-American	24	-0.250±0.390 (-0.776,-0.029)	49	-0.162±0.113 (-0.369,-0.032)	32	-0.161±0.111 (-0.354,-0.027)	37	-0.161±0.128 (-0.461,-0.042)	30	-0.083±0.059 (-0.191,-0.028)	16	-0.076±0.041 (-0.180,-0.029)
Female Other or Mixed	25	-0.204±0.137 (-0.379,-0.050)	57	-0.227±0.150 (-0.546,-0.048)	46	-0.163±0.168 (-0.464,-0.040)	51	-0.113±0.079 (-0.275,-0.027)	33	-0.082±0.061 (-0.150,-0.027)	27	-0.091±0.045 (-0.180,-0.031)

Supplemental Table 77B. Q wave amplitude - II (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	48	-0.181 (-0.335,-0.127)	75	-0.239 (-0.380,-0.108)	51	-0.152 (-0.243,-0.089)	82	-0.128 (-0.217,-0.074)	57	-0.120 (-0.200,-0.074)	60	-0.102 (-0.164,-0.059)
Male African-American	29	-0.144 (-0.250,-0.108)	46	-0.253 (-0.327,-0.111)	44	-0.164 (-0.300,-0.096)	43	-0.095 (-0.230,-0.068)	46	-0.079 (-0.168,-0.050)	29	-0.099 (-0.162,-0.051)
Male Other or Mixed	47	-0.121 (-0.184,-0.070)	63	-0.225 (-0.342,-0.123)	45	-0.125 (-0.258,-0.077)	48	-0.103 (-0.164,-0.066)	40	-0.090 (-0.131,-0.047)	45	-0.097 (-0.147,-0.059)
Female White	51	-0.188 (-0.307,-0.125)	73	-0.213 (-0.360,-0.117)	59	-0.153 (-0.250,-0.098)	63	-0.122 (-0.184,-0.078)	58	-0.090 (-0.143,-0.058)	51	-0.088 (-0.133,-0.046)
Female African-American	24	-0.135 (-0.268,-0.054)	49	-0.130 (-0.220,-0.092)	32	-0.132 (-0.254,-0.063)	37	-0.103 (-0.232,-0.065)	30	-0.071 (-0.090,-0.045)	16	-0.073 (-0.087,-0.044)
Female Other or Mixed	25	-0.173 (-0.238,-0.121)	57	-0.199 (-0.307,-0.106)	46	-0.111 (-0.183,-0.063)	51	-0.095 (-0.155,-0.056)	33	-0.073 (-0.093,-0.040)	27	-0.080 (-0.135,-0.064)

Supplemental Table 78A. Q wave amplitude - III (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	50	-0.329±0.174 (-0.742,-0.086)	70	-0.478±0.315 (-1.115,-0.091)	44	-0.347±0.279 (-0.843,-0.087)	81	-0.221±0.172 (-0.479,-0.037)	58	-0.178±0.126 (-0.478,-0.034)	60	-0.156±0.106 (-0.340,-0.036)
Male African-American	32	-0.332±0.282 (-1.158,-0.095)	48	-0.521±0.320 (-1.169,-0.132)	55	-0.389±0.291 (-0.994,-0.035)	42	-0.295±0.226 (-0.707,-0.056)	47	-0.218±0.259 (-0.540,-0.040)	31	-0.188±0.185 (-0.524,-0.041)
Male Other or Mixed	52	-0.231±0.138 (-0.500,-0.062)	68	-0.436±0.260 (-0.856,-0.086)	52	-0.417±0.425 (-1.411,-0.064)	42	-0.251±0.287 (-0.826,-0.046)	45	-0.148±0.124 (-0.339,-0.036)	45	-0.162±0.154 (-0.341,-0.033)
Female White	53	-0.326±0.172 (-0.714,-0.101)	70	-0.529±0.348 (-1.226,-0.064)	60	-0.333±0.192 (-0.744,-0.089)	60	-0.194±0.160 (-0.570,-0.035)	63	-0.148±0.102 (-0.334,-0.038)	56	-0.127±0.080 (-0.274,-0.032)
Female African-American	27	-0.382±0.303 (-1.061,-0.109)	53	-0.365±0.262 (-0.924,-0.066)	32	-0.339±0.293 (-0.949,-0.069)	45	-0.270±0.254 (-0.673,-0.045)	32	-0.147±0.128 (-0.515,-0.026)	21	-0.096±0.048 (-0.170,-0.027)
Female Other or Mixed	28	-0.329±0.198 (-0.646,-0.090)	59	-0.453±0.289 (-0.982,-0.105)	50	-0.310±0.281 (-1.052,-0.046)	56	-0.175±0.138 (-0.482,-0.036)	41	-0.125±0.093 (-0.313,-0.034)	30	-0.119±0.064 (-0.235,-0.035)

Supplemental Table 78B. Q wave amplitude - III (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	50	-0.328 (-0.375,-0.226)	70	-0.381 (-0.670,-0.284)	44	-0.273 (-0.429,-0.169)	81	-0.195 (-0.298,-0.096)	58	-0.141 (-0.220,-0.096)	60	-0.122 (-0.224,-0.071)
Male African-American	32	-0.223 (-0.420,-0.171)	48	-0.463 (-0.635,-0.318)	55	-0.332 (-0.618,-0.140)	42	-0.218 (-0.412,-0.110)	47	-0.148 (-0.264,-0.086)	31	-0.124 (-0.215,-0.083)
Male Other or Mixed	52	-0.196 (-0.303,-0.125)	68	-0.375 (-0.611,-0.210)	52	-0.319 (-0.532,-0.177)	42	-0.170 (-0.269,-0.103)	45	-0.105 (-0.186,-0.062)	45	-0.127 (-0.193,-0.080)
Female White	53	-0.291 (-0.421,-0.222)	70	-0.458 (-0.735,-0.292)	60	-0.301 (-0.420,-0.199)	60	-0.147 (-0.264,-0.082)	63	-0.118 (-0.194,-0.070)	56	-0.104 (-0.183,-0.065)
Female African-American	27	-0.312 (-0.404,-0.180)	53	-0.300 (-0.503,-0.161)	32	-0.306 (-0.432,-0.118)	45	-0.176 (-0.375,-0.116)	32	-0.106 (-0.194,-0.052)	21	-0.112 (-0.125,-0.047)
Female Other or Mixed	28	-0.308 (-0.441,-0.194)	59	-0.396 (-0.603,-0.225)	50	-0.202 (-0.469,-0.095)	56	-0.145 (-0.209,-0.077)	41	-0.100 (-0.151,-0.058)	30	-0.126 (-0.162,-0.063)

Supplemental Table 79A. Q wave amplitude - V1 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	4	-0.033±0.005 (-0.039,-0.028)	7	-0.198±0.293 (-0.785,-0.026)	1	-0.026 (-0.026,-0.026)	3	-0.372±0.467 (-0.904,-0.029)	2	-0.265±0.314 (-0.487,-0.043)	3	-0.607±0.493 (-0.964,-0.044)
Male African-American	0	NA	0	NA	4	-0.358±0.399 (-0.844,-0.027)	3	-0.275±0.301 (-0.610,-0.026)	3	-0.665±0.631 (-1.290,-0.028)	1	-1.998 (-1.998,-1.998)
Male Other or Mixed	5	-0.041±0.016 (-0.058,-0.025)	8	-0.035±0.006 (-0.047,-0.028)	2	-0.140±0.148 (-0.245,-0.035)	1	-0.052 (-0.052,-0.052)	2	-0.571±0.730 (-1.087,-0.054)	2	-1.124±0.126 (-1.213,-1.035)
Female White	5	-0.032±0.007 (-0.045,-0.026)	6	-0.067±0.035 (-0.130,-0.043)	4	-0.224±0.237 (-0.546,-0.035)	2	-0.223±0.273 (-0.416,-0.030)	6	-0.465±0.190 (-0.752,-0.251)	8	-0.685±0.148 (-0.892,-0.428)
Female African-American	0	NA	4	-0.243±0.415 (-0.865,-0.028)	2	-0.190±0.223 (-0.348,-0.032)	3	-0.155±0.205 (-0.391,-0.027)	3	-1.021±0.273 (-1.255,-0.721)	6	-1.199±0.702 (-2.486,-0.570)
Female Other or Mixed	1	-0.027 (-0.027,-0.027)	6	-0.038±0.009 (-0.049,-0.026)	5	-0.049±0.022 (-0.080,-0.026)	3	-0.441±0.352 (-0.665,-0.035)	3	-0.356±0.496 (-0.926,-0.028)	3	-0.741±0.399 (-1.081,-0.302)

Supplemental Table 79B. Q wave amplitude - V1 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	4	-0.033 (-0.038,-0.029)	7	-0.039 (-0.405,-0.032)	1	-0.026 (-0.026,-0.026)	3	-0.183 (-0.904,-0.029)	2	-0.265 (-0.487,-0.043)	3	-0.812 (-0.964,-0.044)
Male African-American	0	NA	0	NA	4	-0.280 (-0.684,-0.032)	3	-0.188 (-0.610,-0.026)	3	-0.677 (-1.290,-0.028)	1	-1.998 (-1.998,-1.998)
Male Other or Mixed	5	-0.041 (-0.055,-0.026)	8	-0.035 (-0.036,-0.032)	2	-0.140 (-0.245,-0.035)	1	-0.052 (-0.052,-0.052)	2	-0.571 (-1.087,-0.054)	2	-1.124 (-1.213,-1.035)
Female White	5	-0.031 (-0.031,-0.029)	6	-0.048 (-0.086,-0.045)	4	-0.158 (-0.403,-0.046)	2	-0.223 (-0.416,-0.030)	6	-0.414 (-0.632,-0.327)	8	-0.647 (-0.814,-0.619)
Female African-American	0	NA	4	-0.039 (-0.456,-0.030)	2	-0.190 (-0.348,-0.032)	3	-0.046 (-0.391,-0.027)	3	-1.088 (-1.255,-0.721)	6	-1.014 (-1.424,-0.685)
Female Other or Mixed	1	-0.027 (-0.027,-0.027)	6	-0.039 (-0.045,-0.030)	5	-0.050 (-0.057,-0.031)	3	-0.622 (-0.665,-0.035)	3	-0.114 (-0.926,-0.028)	3	-0.841 (-1.081,-0.302)

Supplemental Table 80A. Q wave amplitude - V6 (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	45	-0.203±0.121 (-0.417,-0.041)	76	-0.304±0.181 (-0.582,-0.065)	62	-0.264±0.152 (-0.548,-0.080)	96	-0.217±0.139 (-0.525,-0.050)	81	-0.157±0.104 (-0.352,-0.031)	70	-0.123±0.068 (-0.254,-0.040)
Male African-American	27	-0.179±0.109 (-0.394,-0.051)	61	-0.257±0.217 (-0.583,-0.054)	65	-0.262±0.181 (-0.586,-0.059)	66	-0.193±0.131 (-0.494,-0.057)	57	-0.160±0.111 (-0.310,-0.041)	49	-0.134±0.086 (-0.293,-0.037)
Male Other or Mixed	45	-0.134±0.086 (-0.280,-0.038)	73	-0.252±0.146 (-0.522,-0.048)	61	-0.243±0.204 (-0.616,-0.047)	65	-0.208±0.153 (-0.612,-0.037)	53	-0.130±0.090 (-0.296,-0.031)	48	-0.147±0.118 (-0.436,-0.044)
Female White	50	-0.200±0.123 (-0.436,-0.031)	75	-0.303±0.201 (-0.636,-0.062)	71	-0.223±0.156 (-0.544,-0.038)	72	-0.176±0.120 (-0.440,-0.046)	71	-0.108±0.065 (-0.240,-0.033)	64	-0.093±0.058 (-0.212,-0.027)
Female African-American	23	-0.228±0.231 (-0.652,-0.041)	58	-0.185±0.140 (-0.457,-0.040)	41	-0.218±0.149 (-0.505,-0.034)	57	-0.178±0.131 (-0.472,-0.035)	46	-0.092±0.051 (-0.192,-0.030)	23	-0.077±0.036 (-0.144,-0.033)
Female Other or Mixed	25	-0.185±0.115 (-0.355,-0.045)	58	-0.280±0.167 (-0.566,-0.046)	62	-0.213±0.189 (-0.643,-0.039)	66	-0.149±0.111 (-0.338,-0.032)	38	-0.089±0.077 (-0.191,-0.029)	32	-0.082±0.041 (-0.164,-0.027)

Supplemental Table 80B. Q wave amplitude - V6 (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years)		[3-6) Years		[6-12) Years		[12-16) Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	45	-0.181 (-0.274,-0.108)	76	-0.269 (-0.444,-0.166)	62	-0.234 (-0.349,-0.169)	96	-0.190 (-0.285,-0.104)	81	-0.123 (-0.217,-0.077)	70	-0.108 (-0.147,-0.072)
Male African-American	27	-0.160 (-0.205,-0.110)	61	-0.205 (-0.325,-0.115)	65	-0.213 (-0.369,-0.131)	66	-0.162 (-0.238,-0.096)	57	-0.147 (-0.228,-0.078)	49	-0.109 (-0.170,-0.075)
Male Other or Mixed	45	-0.122 (-0.159,-0.075)	73	-0.260 (-0.336,-0.134)	61	-0.176 (-0.254,-0.104)	65	-0.168 (-0.260,-0.104)	53	-0.117 (-0.179,-0.068)	48	-0.119 (-0.162,-0.086)
Female White	50	-0.199 (-0.272,-0.095)	75	-0.240 (-0.445,-0.143)	71	-0.181 (-0.325,-0.107)	72	-0.145 (-0.240,-0.094)	71	-0.098 (-0.140,-0.062)	64	-0.079 (-0.118,-0.050)
Female African-American	23	-0.162 (-0.320,-0.079)	58	-0.140 (-0.262,-0.086)	41	-0.170 (-0.300,-0.104)	57	-0.150 (-0.241,-0.073)	46	-0.085 (-0.133,-0.046)	23	-0.074 (-0.100,-0.050)
Female Other or Mixed	25	-0.162 (-0.227,-0.105)	58	-0.270 (-0.385,-0.122)	62	-0.151 (-0.264,-0.090)	66	-0.111 (-0.221,-0.068)	38	-0.075 (-0.097,-0.045)	32	-0.079 (-0.104,-0.046)

Supplemental Table 81A. Q wave amplitude - aVF (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	49	-0.254±0.151 (-0.607,-0.087)	71	-0.347±0.210 (-0.785,-0.087)	49	-0.234±0.208 (-0.654,-0.029)	80	-0.180±0.135 (-0.444,-0.033)	58	-0.156±0.116 (-0.432,-0.034)	60	-0.131±0.087 (-0.272,-0.029)
Male African-American	29	-0.267±0.214 (-0.874,-0.088)	49	-0.363±0.252 (-0.992,-0.051)	47	-0.296±0.222 (-0.748,-0.044)	44	-0.206±0.176 (-0.546,-0.039)	47	-0.157±0.173 (-0.436,-0.029)	30	-0.141±0.131 (-0.453,-0.027)
Male Other or Mixed	50	-0.173±0.117 (-0.346,-0.051)	68	-0.307±0.190 (-0.644,-0.073)	48	-0.280±0.292 (-1.118,-0.045)	48	-0.178±0.174 (-0.475,-0.038)	38	-0.124±0.100 (-0.344,-0.030)	43	-0.136±0.124 (-0.234,-0.027)
Female White	53	-0.258±0.139 (-0.564,-0.066)	71	-0.375±0.239 (-0.877,-0.121)	59	-0.248±0.165 (-0.559,-0.053)	63	-0.154±0.112 (-0.381,-0.035)	61	-0.119±0.080 (-0.267,-0.028)	53	-0.108±0.070 (-0.226,-0.032)
Female African-American	26	-0.283±0.333 (-0.888,-0.060)	53	-0.226±0.170 (-0.510,-0.041)	31	-0.232±0.189 (-0.641,-0.054)	40	-0.206±0.186 (-0.533,-0.040)	31	-0.105±0.078 (-0.233,-0.031)	16	-0.086±0.037 (-0.171,-0.027)
Female Other or Mixed	28	-0.240±0.167 (-0.450,-0.048)	60	-0.312±0.207 (-0.657,-0.045)	50	-0.205±0.203 (-0.704,-0.028)	50	-0.134±0.095 (-0.301,-0.032)	33	-0.098±0.072 (-0.215,-0.033)	30	-0.095±0.052 (-0.193,-0.029)

Supplemental Table 81B. Q wave amplitude - aVF (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	49	-0.228 (-0.293,-0.151)	71	-0.302 (-0.478,-0.192)	49	-0.181 (-0.316,-0.075)	80	-0.155 (-0.262,-0.069)	58	-0.132 (-0.184,-0.070)	60	-0.103 (-0.178,-0.068)
Male African-American	29	-0.213 (-0.276,-0.142)	49	-0.317 (-0.516,-0.179)	47	-0.265 (-0.410,-0.114)	44	-0.158 (-0.286,-0.072)	47	-0.110 (-0.196,-0.059)	30	-0.099 (-0.178,-0.055)
Male Other or Mixed	50	-0.143 (-0.215,-0.102)	68	-0.283 (-0.446,-0.145)	48	-0.198 (-0.305,-0.105)	48	-0.115 (-0.201,-0.081)	38	-0.110 (-0.157,-0.048)	43	-0.121 (-0.155,-0.065)
Female White	53	-0.237 (-0.333,-0.163)	71	-0.336 (-0.471,-0.205)	59	-0.209 (-0.314,-0.126)	63	-0.115 (-0.214,-0.075)	61	-0.097 (-0.161,-0.054)	53	-0.092 (-0.139,-0.056)
Female African-American	26	-0.183 (-0.340,-0.079)	53	-0.183 (-0.313,-0.080)	31	-0.224 (-0.319,-0.078)	40	-0.115 (-0.287,-0.081)	31	-0.079 (-0.134,-0.056)	16	-0.087 (-0.104,-0.062)
Female Other or Mixed	28	-0.222 (-0.312,-0.104)	60	-0.277 (-0.443,-0.153)	50	-0.115 (-0.294,-0.068)	50	-0.104 (-0.188,-0.068)	33	-0.085 (-0.111,-0.045)	30	-0.088 (-0.130,-0.043)

Supplemental Table 82A. Q wave amplitude - aVL (millivolt) by sex, race and age group, mean ± SD (N smaller than 60 are bolded).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)	N	Mean ± SD (p5,p95)
Male White	9	-0.151±0.193 (-0.482,-0.025)	17	-0.077±0.044 (-0.199,-0.029)	36	-0.124±0.090 (-0.345,-0.029)	37	-0.195±0.189 (-0.705,-0.027)	34	-0.241±0.233 (-0.699,-0.030)	24	-0.252±0.261 (-0.793,-0.031)
Male African-American	5	-0.147±0.202 (-0.505,-0.026)	22	-0.111±0.089 (-0.291,-0.029)	25	-0.143±0.138 (-0.506,-0.027)	37	-0.228±0.248 (-0.858,-0.038)	34	-0.156±0.197 (-0.690,-0.027)	31	-0.205±0.216 (-0.762,-0.028)
Male Other or Mixed	9	-0.070±0.037 (-0.144,-0.028)	17	-0.146±0.168 (-0.503,-0.029)	26	-0.144±0.129 (-0.440,-0.031)	36	-0.144±0.125 (-0.389,-0.033)	33	-0.185±0.210 (-0.725,-0.029)	24	-0.160±0.141 (-0.366,-0.031)
Female White	2	-0.349±0.260 (-0.532,-0.165)	17	-0.099±0.068 (-0.298,-0.025)	19	-0.198±0.164 (-0.564,-0.025)	28	-0.133±0.120 (-0.422,-0.028)	28	-0.238±0.224 (-0.651,-0.034)	19	-0.123±0.088 (-0.368,-0.043)
Female African-American	3	-0.046±0.006 (-0.052,-0.041)	10	-0.087±0.067 (-0.214,-0.025)	23	-0.127±0.136 (-0.467,-0.031)	22	-0.210±0.251 (-0.635,-0.030)	30	-0.131±0.135 (-0.370,-0.029)	19	-0.137±0.159 (-0.676,-0.030)
Female Other or Mixed	4	-0.131±0.130 (-0.320,-0.026)	11	-0.114±0.157 (-0.564,-0.030)	27	-0.116±0.074 (-0.232,-0.032)	28	-0.255±0.250 (-0.705,-0.052)	28	-0.120±0.141 (-0.257,-0.026)	20	-0.109±0.100 (-0.349,-0.032)

Supplemental Table 82B. Q wave amplitude - aVL (millivolt) by sex, race and age group, median (interquartile range).

	<1 Month		[1 Month - 3 Years]		[3-6] Years		[6-12] Years		[12-16] Years		[16-18] Years	
	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)	N	Median (IQR)
Male White	9	-0.042 (-0.173,-0.031)	17	-0.066 (-0.100,-0.042)	36	-0.100 (-0.159,-0.051)	37	-0.131 (-0.233,-0.066)	34	-0.128 (-0.390,-0.059)	24	-0.124 (-0.440,-0.057)
Male African-American	5	-0.062 (-0.094,-0.046)	22	-0.077 (-0.157,-0.042)	25	-0.105 (-0.165,-0.062)	37	-0.130 (-0.249,-0.083)	34	-0.091 (-0.162,-0.040)	31	-0.134 (-0.269,-0.072)
Male Other or Mixed	9	-0.078 (-0.084,-0.038)	17	-0.053 (-0.179,-0.041)	26	-0.094 (-0.192,-0.047)	36	-0.114 (-0.165,-0.069)	33	-0.102 (-0.173,-0.068)	24	-0.099 (-0.230,-0.065)
Female White	2	-0.349 (-0.532,-0.165)	17	-0.085 (-0.112,-0.058)	19	-0.170 (-0.318,-0.047)	28	-0.100 (-0.142,-0.061)	28	-0.097 (-0.449,-0.055)	19	-0.102 (-0.145,-0.059)
Female African-American	3	-0.045 (-0.052,-0.041)	10	-0.054 (-0.108,-0.046)	23	-0.055 (-0.175,-0.040)	22	-0.106 (-0.197,-0.047)	30	-0.098 (-0.138,-0.052)	19	-0.084 (-0.155,-0.040)
Female Other or Mixed	4	-0.090 (-0.209,-0.054)	11	-0.062 (-0.093,-0.038)	27	-0.094 (-0.160,-0.050)	28	-0.160 (-0.319,-0.090)	28	-0.088 (-0.137,-0.039)	20	-0.071 (-0.129,-0.058)

Supplemental Table 83. Within age group p-values testing whether there are significant differences between sex and race. P-values that are significant at the 0.05 level are bolded on the table below.

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
Heart rate (bpm)	<1 Month	0.15	0.23	0.34
Heart rate (bpm)	[1 Month - 3 Years)	0.93	0.20	>0.99
Heart rate (bpm)	[3-6) Years	0.70	0.97	0.07
Heart rate (bpm)	[6-12) Years	0.95	0.14	<.001
Heart rate (bpm)	[12-16) Years	0.47	0.07	0.01
Heart rate (bpm)	[16-18] Years	0.76	0.61	<.001
PR interval (ms)	<1 Month	0.87	0.46	0.96
PR interval (ms)	[1 Month - 3 Years)	0.72	0.29	0.73
PR interval (ms)	[3-6) Years	0.54	0.96	0.94
PR interval (ms)	[6-12) Years	0.89	0.46	0.02
PR interval (ms)	[12-16) Years	0.62	0.001	0.26
PR interval (ms)	[16-18] Years	0.96	<.001	0.004
QRS duration (ms)	<1 Month	0.87	0.002	0.07
QRS duration (ms)	[1 Month - 3 Years)	0.87	<.001	0.12
QRS duration (ms)	[3-6) Years	0.18	<.001	0.91
QRS duration (ms)	[6-12) Years	0.77	<.001	0.01
QRS duration (ms)	[12-16) Years	0.72	0.30	0.21
QRS duration (ms)	[16-18] Years	0.98	<.001	0.03
T wave duration - GBL (ms)	<1 Month	0.55	0.10	0.81
T wave duration - GBL (ms)	[1 Month - 3 Years)	0.12	0.79	0.61
T wave duration - GBL (ms)	[3-6) Years	0.33	0.17	0.05
T wave duration - GBL (ms)	[6-12) Years	0.003	0.57	0.01
T wave duration - GBL (ms)	[12-16) Years	0.48	0.64	0.11
T wave duration - GBL (ms)	[16-18] Years	0.94	0.71	0.06
P wave duration - GBL (ms)	<1 Month	0.92	0.09	0.37
P wave duration - GBL (ms)	[1 Month - 3 Years)	>0.99	0.10	0.99
P wave duration - GBL (ms)	[3-6) Years	0.26	0.76	0.51
P wave duration - GBL (ms)	[6-12) Years	0.36	0.35	0.50
P wave duration - GBL (ms)	[12-16) Years	0.85	0.01	0.23
P wave duration - GBL (ms)	[16-18] Years	0.27	0.001	0.03
P wave duration - II (ms)	<1 Month	0.48	0.84	0.57
P wave duration - II (ms)	[1 Month - 3 Years)	0.91	0.53	0.24
P wave duration - II (ms)	[3-6) Years	>0.99	0.28	0.54
P wave duration - II (ms)	[6-12) Years	0.84	0.18	0.36

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
P wave duration - II (ms)	[12-16) Years	0.79	0.18	0.17
P wave duration - II (ms)	[16-18] Years	0.95	0.02	0.10
P wave amplitude - II (millivolt)	<1 Month	0.82	<.001	0.24
P wave amplitude - II (millivolt)	[1 Month - 3 Years)	0.26	0.30	0.24
P wave amplitude - II (millivolt)	[3-6) Years	0.77	0.55	0.30
P wave amplitude - II (millivolt)	[6-12) Years	0.57	0.04	0.003
P wave amplitude - II (millivolt)	[12-16) Years	0.86	0.36	0.61
P wave amplitude - II (millivolt)	[16-18] Years	0.35	0.63	0.54
P wave amplitude - V1 (millivolt)	<1 Month	0.70	0.31	0.47
P wave amplitude - V1 (millivolt)	[1 Month - 3 Years)	0.01	0.68	0.49
P wave amplitude - V1 (millivolt)	[3-6) Years	>0.99	0.93	0.84
P wave amplitude - V1 (millivolt)	[6-12) Years	0.57	0.26	0.11
P wave amplitude - V1 (millivolt)	[12-16) Years	0.83	>0.99	<.001
P wave amplitude - V1 (millivolt)	[16-18] Years	0.14	0.50	0.001
R' wave amplitude - V1 (millivolt)*	<1 Month	0.66	0.54	0.93
R' wave amplitude - V1 (millivolt)*	[1 Month - 3 Years)	0.10	0.91	0.49
R' wave amplitude - V1 (millivolt)*	[3-6) Years	0.15	0.61	0.83
R' wave amplitude - V1 (millivolt)*	[6-12) Years	0.45	0.01	0.44
R' wave amplitude - V1 (millivolt)*	[12-16) Years	0.28	0.19	0.01
R' wave amplitude - V1 (millivolt)*	[16-18] Years	0.05	0.18	0.01
R wave amplitude - V1 (millivolt)*	<1 Month	0.07	0.12	0.31
R wave amplitude - V1 (millivolt)*	[1 Month - 3 Years)	0.03	0.05	0.04
R wave amplitude - V1 (millivolt)*	[3-6) Years	0.30	0.14	0.04
R wave amplitude - V1 (millivolt)*	[6-12) Years	0.75	0.16	0.25
R wave amplitude - V1 (millivolt)*	[12-16) Years	0.68	0.12	<.001
R wave amplitude - V1 (millivolt)*	[16-18] Years	0.07	0.04	<.001
R wave amplitude - V2 (millivolt)*	<1 Month	0.20	0.66	0.61
R wave amplitude - V2 (millivolt)*	[1 Month - 3 Years)	0.39	0.001	0.01
R wave amplitude - V2 (millivolt)*	[3-6) Years	0.78	0.01	<.001
R wave amplitude - V2 (millivolt)*	[6-12) Years	0.27	0.13	0.002
R wave amplitude - V2 (millivolt)*	[12-16) Years	0.68	0.08	<.001
R wave amplitude - V2 (millivolt)*	[16-18] Years	0.12	0.27	<.001
R wave amplitude - V3 (millivolt)*	<1 Month	0.56	0.14	0.33
R wave amplitude - V3 (millivolt)*	[1 Month - 3 Years)	0.14	0.003	0.02
R wave amplitude - V3 (millivolt)*	[3-6) Years	0.44	0.14	<.001

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
R wave amplitude - V3 (millivolt)*	[6-12] Years	0.34	0.47	0.001
R wave amplitude - V3 (millivolt)*	[12-16] Years	0.75	0.06	<.001
R wave amplitude - V3 (millivolt)*	[16-18] Years	0.20	0.06	<.001
R wave amplitude - V4 (millivolt)	<1 Month	0.34	0.05	0.01
R wave amplitude - V4 (millivolt)	[1 Month - 3 Years)	0.64	0.26	0.57
R wave amplitude - V4 (millivolt)	[3-6] Years	0.42	<.001	0.01
R wave amplitude - V4 (millivolt)	[6-12] Years	0.04	0.004	0.01
R wave amplitude - V4 (millivolt)	[12-16] Years	0.04	0.01	<.001
R wave amplitude - V4 (millivolt)	[16-18] Years	0.41	0.001	<.001
R wave amplitude - V5 (millivolt)	<1 Month	0.17	0.03	0.01
R wave amplitude - V5 (millivolt)	[1 Month - 3 Years)	0.67	0.75	0.72
R wave amplitude - V5 (millivolt)	[3-6] Years	0.11	<.001	0.51
R wave amplitude - V5 (millivolt)	[6-12] Years	0.08	<.001	0.02
R wave amplitude - V5 (millivolt)	[12-16] Years	0.003	<.001	<.001
R wave amplitude - V5 (millivolt)	[16-18] Years	0.48	<.001	<.001
R wave amplitude - V6 (millivolt)	<1 Month	0.07	0.17	0.07
R wave amplitude - V6 (millivolt)	[1 Month - 3 Years)	0.37	0.46	0.89
R wave amplitude - V6 (millivolt)	[3-6] Years	0.04	0.002	0.74
R wave amplitude - V6 (millivolt)	[6-12] Years	0.21	0.01	0.38
R wave amplitude - V6 (millivolt)	[12-16] Years	0.21	0.003	<.001
R wave amplitude - V6 (millivolt)	[16-18] Years	0.37	<.001	<.001
S wave amplitude - V1 (millivolt)†	<1 Month	0.87	0.002	0.92
S wave amplitude - V1 (millivolt)†	[1 Month - 3 Years)	0.30	0.02	0.20
S wave amplitude - V1 (millivolt)†	[3-6] Years	0.02	0.01	0.96
S wave amplitude - V1 (millivolt)†	[6-12] Years	0.25	0.03	0.12
S wave amplitude - V1 (millivolt)†	[12-16] Years	0.18	0.002	<.001
S wave amplitude - V1 (millivolt)†	[16-18] Years	0.22	0.03	0.001
S wave amplitude - V2 (millivolt)†	<1 Month	0.52	0.59	0.27
S wave amplitude - V2 (millivolt)†	[1 Month - 3 Years)	0.41	0.28	0.30
S wave amplitude - V2 (millivolt)†	[3-6] Years	0.33	0.60	0.41
S wave amplitude - V2 (millivolt)†	[6-12] Years	0.37	0.79	0.11
S wave amplitude - V2 (millivolt)†	[12-16] Years	0.85	0.91	<.001
S wave amplitude - V2 (millivolt)†	[16-18] Years	0.30	0.47	<.001
S wave amplitude - V3 (millivolt)†	<1 Month	0.99	0.05	0.02
S wave amplitude - V3 (millivolt)†	[1 Month - 3 Years)	0.83	0.38	0.02

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
S wave amplitude - V3 (millivolt) [†]	[3-6] Years	0.21	0.62	<.001
S wave amplitude - V3 (millivolt) [†]	[6-12] Years	0.97	0.22	<.001
S wave amplitude - V3 (millivolt) [†]	[12-16] Years	0.48	0.13	<.001
S wave amplitude - V3 (millivolt) [†]	[16-18] Years	0.55	0.98	<.001
S wave amplitude - V4 (millivolt) [†]	<1 Month	0.82	0.49	0.23
S wave amplitude - V4 (millivolt) [†]	[1 Month - 3 Years)	0.49	0.22	<.001
S wave amplitude - V4 (millivolt) [†]	[3-6] Years	0.93	0.90	<.001
S wave amplitude - V4 (millivolt) [†]	[6-12] Years	0.13	0.55	<.001
S wave amplitude - V4 (millivolt) [†]	[12-16] Years	0.48	0.27	<.001
S wave amplitude - V4 (millivolt) [†]	[16-18] Years	0.54	0.88	<.001
S wave amplitude - V5 (millivolt) [†]	<1 Month	0.96	0.30	0.21
S wave amplitude - V5 (millivolt) [†]	[1 Month - 3 Years)	0.14	0.30	<.001
S wave amplitude - V5 (millivolt) [†]	[3-6] Years	0.84	0.17	<.001
S wave amplitude - V5 (millivolt) [†]	[6-12] Years	0.25	0.39	0.01
S wave amplitude - V5 (millivolt) [†]	[12-16] Years	0.15	0.07	<.001
S wave amplitude - V5 (millivolt) [†]	[16-18] Years	0.69	0.65	<.001
S wave amplitude - V6 (millivolt) [†]	<1 Month	0.51	0.48	0.54
S wave amplitude - V6 (millivolt) [†]	[1 Month - 3 Years)	0.11	0.18	<.001
S wave amplitude - V6 (millivolt) [†]	[3-6] Years	0.95	0.04	0.05
S wave amplitude - V6 (millivolt) [†]	[6-12] Years	0.68	0.90	0.21
S wave amplitude - V6 (millivolt) [†]	[12-16] Years	0.15	0.02	<.001
S wave amplitude - V6 (millivolt) [†]	[16-18] Years	0.98	0.37	<.001
R+S amplitude in V3 +V4 (millivolt)	<1 Month	0.66	0.05	0.58
R+S amplitude in V3 +V4 (millivolt)	[1 Month - 3 Years)	0.40	0.07	0.001
R+S amplitude in V3 +V4 (millivolt)	[3-6] Years	0.24	<.001	<.001
R+S amplitude in V3 +V4 (millivolt)	[6-12] Years	0.03	0.01	<.001
R+S amplitude in V3 +V4 (millivolt)	[12-16] Years	0.11	0.39	<.001
R+S amplitude in V3 +V4 (millivolt)	[16-18] Years	0.18	0.13	<.001
R amplitude in V1 +S amplitude in V6 (millivolt)*	<1 Month	0.16	0.49	0.44
R amplitude in V1 +S amplitude in V6 (millivolt)*	[1 Month - 3 Years)	0.15	0.03	<.001
R amplitude in V1 +S amplitude in V6 (millivolt)*	[3-6] Years	0.86	0.02	0.001
R amplitude in V1 +S amplitude in V6 (millivolt)*	[6-12] Years	0.52	0.17	0.11
R amplitude in V1 +S amplitude in V6 (millivolt)*	[12-16] Years	0.59	0.01	<.001
R amplitude in V1 +S amplitude in V6 (millivolt)*	[16-18] Years	0.78	0.06	<.001

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
R amplitude in V6+ S amplitude in V1 (millivolt)	<1 Month	0.36	0.07	0.29
R amplitude in V6+ S amplitude in V1 (millivolt)	[1 Month - 3 Years)	0.16	0.91	0.53
R amplitude in V6+ S amplitude in V1 (millivolt)	[3-6) Years	0.01	<.001	0.90
R amplitude in V6+ S amplitude in V1 (millivolt)	[6-12) Years	0.90	<.001	0.66
R amplitude in V6+ S amplitude in V1 (millivolt)	[12-16) Years	0.01	<.001	<.001
R amplitude in V6+ S amplitude in V1 (millivolt)	[16-18] Years	0.43	<.001	<.001
QT interval - GBL (ms)	<1 Month	0.12	0.06	0.99
QT interval - GBL (ms)	[1 Month - 3 Years)	0.38	0.77	0.43
QT interval - GBL (ms)	[3-6) Years	0.90	0.28	0.95
QT interval - GBL (ms)	[6-12) Years	>0.99	0.02	<.001
QT interval - GBL (ms)	[12-16) Years	0.37	0.02	0.66
QT interval - GBL (ms)	[16-18] Years	0.66	0.02	0.22
QT interval - II (ms)	<1 Month	0.10	0.008	0.55
QT interval - II (ms)	[1 Month - 3 Years)	0.27	0.31	0.33
QT interval - II (ms)	[3-6) Years	0.84	0.37	0.56
QT interval - II (ms)	[6-12) Years	>0.99	0.01	<.001
QT interval - II (ms)	[12-16) Years	0.29	0.01	0.25
QT interval - II (ms)	[16-18] Years	0.52	0.03	0.03
QT interval - V5 (ms)	<1 Month	0.04	0.07	0.62
QT interval - V5 (ms)	[1 Month - 3 Years)	0.57	0.77	0.21
QT interval - V5 (ms)	[3-6) Years	0.92	0.17	0.55
QT interval - V5 (ms)	[6-12) Years	>0.99	0.01	<.001
QT interval - V5 (ms)	[12-16) Years	0.26	0.01	0.62
QT interval - V5 (ms)	[16-18] Years	0.89	0.19	0.64
QT interval - V6 (ms)	<1 Month	0.30	0.03	0.60
QT interval - V6 (ms)	[1 Month - 3 Years)	0.42	0.83	0.30
QT interval - V6 (ms)	[3-6) Years	0.92	0.13	0.95
QT interval - V6 (ms)	[6-12) Years	0.97	0.004	<.001
QT interval - V6 (ms)	[12-16) Years	0.28	0.003	0.39
QT interval - V6 (ms)	[16-18] Years	0.81	0.07	0.12
Bazett's corrected QT interval - GBL (ms)	<1 Month	0.20	0.17	0.54
Bazett's corrected QT interval - GBL (ms)	[1 Month - 3 Years)	0.42	0.19	0.22
Bazett's corrected QT interval - GBL (ms)	[3-6) Years	0.85	0.20	0.02
Bazett's corrected QT interval - GBL (ms)	[6-12) Years	0.92	0.27	0.16
Bazett's corrected QT interval - GBL (ms)	[12-16) Years	0.32	0.03	<.001

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
Bazett's corrected QT interval - GBL (ms)	[16-18] Years	0.77	0.02	<.001
Bazett's corrected QT interval - II (ms)	<1 Month	0.29	0.03	0.11
Bazett's corrected QT interval - II (ms)	[1 Month - 3 Years)	0.38	0.74	0.11
Bazett's corrected QT interval - II (ms)	[3-6) Years	0.96	0.29	0.01
Bazett's corrected QT interval - II (ms)	[6-12) Years	0.84	0.10	0.03
Bazett's corrected QT interval - II (ms)	[12-16) Years	0.44	0.002	0.03
Bazett's corrected QT interval - II (ms)	[16-18] Years	0.17	0.05	<.001
Bazett's corrected QT interval - V5 (ms)	<1 Month	0.04	0.38	0.13
Bazett's corrected QT interval - V5 (ms)	[1 Month - 3 Years)	0.88	0.42	0.04
Bazett's corrected QT interval - V5 (ms)	[3-6) Years	0.67	0.12	0.002
Bazett's corrected QT interval - V5 (ms)	[6-12) Years	0.82	0.38	0.05
Bazett's corrected QT interval - V5 (ms)	[12-16) Years	0.25	0.03	<.001
Bazett's corrected QT interval - V5 (ms)	[16-18] Years	0.68	0.41	<.001
Bazett's corrected QT interval - V6 (ms)	<1 Month	0.39	0.23	0.17
Bazett's corrected QT interval - V6 (ms)	[1 Month - 3 Years)	0.55	0.31	0.13
Bazett's corrected QT interval - V6 (ms)	[3-6) Years	0.62	0.08	0.01
Bazett's corrected QT interval - V6 (ms)	[6-12) Years	0.93	0.10	0.13
Bazett's corrected QT interval - V6 (ms)	[12-16) Years	0.21	0.01	0.01
Bazett's corrected QT interval - V6 (ms)	[16-18] Years	0.72	0.08	<.001
Fridericia corrected QT interval - GBL (ms)	<1 Month	0.15	0.09	0.69
Fridericia corrected QT interval - GBL (ms)	[1 Month - 3 Years)	0.30	0.63	0.23
Fridericia corrected QT interval - GBL (ms)	[3-6) Years	0.98	0.13	0.12
Fridericia corrected QT interval - GBL (ms)	[6-12) Years	0.96	0.06	0.18
Fridericia corrected QT interval - GBL (ms)	[12-16) Years	0.26	0.01	<.001
Fridericia corrected QT interval - GBL (ms)	[16-18] Years	0.64	0.004	<.001
Fridericia corrected QT interval - II (ms)	<1 Month	0.18	0.01	0.19
Fridericia corrected QT interval - II (ms)	[1 Month - 3 Years)	0.24	0.56	0.12
Fridericia corrected QT interval - II (ms)	[3-6) Years	>0.99	0.23	0.04
Fridericia corrected QT interval - II (ms)	[6-12) Years	0.91	0.01	0.63
Fridericia corrected QT interval - II (ms)	[12-16) Years	0.27	0.001	0.34
Fridericia corrected QT interval - II (ms)	[16-18] Years	0.19	0.01	0.10
Fridericia corrected QT interval - V5 (ms)	<1 Month	0.03	0.17	0.22
Fridericia corrected QT interval - V5 (ms)	[1 Month - 3 Years)	0.70	0.86	0.05
Fridericia corrected QT interval - V5 (ms)	[3-6) Years	0.83	0.07	0.01
Fridericia corrected QT interval - V5 (ms)	[6-12) Years	0.89	0.05	0.56

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
Fridericia corrected QT interval - V5 (ms)	[12-16) Years	0.16	0.01	<.001
Fridericia corrected QT interval - V5 (ms)	[16-18] Years	0.72	0.27	<.001
Fridericia corrected QT interval - V6 (ms)	<1 Month	0.34	0.07	0.25
Fridericia corrected QT interval - V6 (ms)	[1 Month - 3 Years)	0.40	0.80	0.12
Fridericia corrected QT interval - V6 (ms)	[3-6) Years	0.81	0.04	0.08
Fridericia corrected QT interval - V6 (ms)	[6-12) Years	0.96	0.01	0.26
Fridericia corrected QT interval - V6 (ms)	[12-16) Years	0.15	0.001	0.14
Fridericia corrected QT interval - V6 (ms)	[16-18] Years	0.75	0.04	0.01
Mean frontal plane QRS axis (degree)	<1 Month	0.67	0.30	0.02
Mean frontal plane QRS axis (degree)	[1 Month - 3 Years)	0.87	0.42	0.70
Mean frontal plane QRS axis (degree)	[3-6) Years	0.21	0.12	0.86
Mean frontal plane QRS axis (degree)	[6-12) Years	0.25	0.20	0.86
Mean frontal plane QRS axis (degree)	[12-16) Years	0.04	0.001	0.01
Mean frontal plane QRS axis (degree)	[16-18] Years	0.31	0.03	0.04
Mean frontal plane P wave axis (degree)	<1 Month	0.14	0.08	0.41
Mean frontal plane P wave axis (degree)	[1 Month - 3 Years)	0.31	0.19	0.21
Mean frontal plane P wave axis (degree)	[3-6) Years	0.67	0.42	0.07
Mean frontal plane P wave axis (degree)	[6-12) Years	0.89	0.38	0.64
Mean frontal plane P wave axis (degree)	[12-16) Years	0.79	0.78	0.67
Mean frontal plane P wave axis (degree)	[16-18] Years	0.17	0.21	0.54
Mean frontal plane T wave axis (degree)	<1 Month	0.89	0.11	0.75
Mean frontal plane T wave axis (degree)	[1 Month - 3 Years)	0.36	0.005	0.51
Mean frontal plane T wave axis (degree)	[3-6) Years	0.36	0.02	0.34
Mean frontal plane T wave axis (degree)	[6-12) Years	0.06	0.03	0.02
Mean frontal plane T wave axis (degree)	[12-16) Years	0.17	0.14	0.06
Mean frontal plane T wave axis (degree)	[16-18] Years	0.61	0.46	0.18
Q wave amplitude - I (millivolt) [†]	<1 Month	0.47	0.03	0.16
Q wave amplitude - I (millivolt) [†]	[1 Month - 3 Years)	0.74	0.32	0.31
Q wave amplitude - I (millivolt) [†]	[3-6) Years	0.39	0.09	0.28
Q wave amplitude - I (millivolt) [†]	[6-12) Years	0.67	0.55	0.01
Q wave amplitude - I (millivolt) [†]	[12-16) Years	0.59	0.68	0.77
Q wave amplitude - I (millivolt) [†]	[16-18] Years	0.18	0.29	0.88
Q wave amplitude - II (millivolt) [†]	<1 Month	0.13	0.02	0.59
Q wave amplitude - II (millivolt) [†]	[1 Month - 3 Years)	0.04	0.06	0.06
Q wave amplitude - II (millivolt) [†]	[3-6) Years	0.47	0.38	0.11

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
Q wave amplitude - II (millivolt) [†]	[6-12) Years	0.64	0.10	0.25
Q wave amplitude - II (millivolt) [†]	[12-16) Years	0.98	0.001	0.01
Q wave amplitude - II (millivolt) [†]	[16-18] Years	0.83	0.59	0.02
Q wave amplitude - III (millivolt) [†]	<1 Month	0.24	0.04	0.09
Q wave amplitude - III (millivolt) [†]	[1 Month - 3 Years)	0.01	0.37	0.36
Q wave amplitude - III (millivolt) [†]	[3-6) Years	0.37	0.54	0.23
Q wave amplitude - III (millivolt) [†]	[6-12) Years	0.89	0.02	0.06
Q wave amplitude - III (millivolt) [†]	[12-16) Years	0.58	0.10	0.02
Q wave amplitude - III (millivolt) [†]	[16-18] Years	0.35	0.95	0.01
Q wave amplitude - V1 (millivolt) [†]	<1 Month	0.40	0.67	0.46
Q wave amplitude - V1 (millivolt) [†]	[1 Month - 3 Years)	0.60	0.10	0.74
Q wave amplitude - V1 (millivolt) [†]	[3-6) Years	0.44	0.53	0.94
Q wave amplitude - V1 (millivolt) [†]	[6-12) Years	0.64	0.90	0.94
Q wave amplitude - V1 (millivolt) [†]	[12-16) Years	0.52	0.35	0.30
Q wave amplitude - V1 (millivolt) [†]	[16-18] Years	0.20	0.15	0.81
Q wave amplitude - V6 (millivolt) [†]	<1 Month	0.25	0.07	0.37
Q wave amplitude - V6 (millivolt) [†]	[1 Month - 3 Years)	0.11	<.001	0.34
Q wave amplitude - V6 (millivolt) [†]	[3-6) Years	0.91	0.22	0.01
Q wave amplitude - V6 (millivolt) [†]	[6-12) Years	0.49	0.19	0.001
Q wave amplitude - V6 (millivolt) [†]	[12-16) Years	0.54	0.06	<.001
Q wave amplitude - V6 (millivolt) [†]	[16-18] Years	0.46	0.89	<.001
Q wave amplitude - aVF (millivolt) [†]	<1 Month	0.20	0.01	0.46
Q wave amplitude - aVF (millivolt) [†]	[1 Month - 3 Years)	0.005	0.001	0.17
Q wave amplitude - aVF (millivolt) [†]	[3-6) Years	0.03	0.28	0.25
Q wave amplitude - aVF (millivolt) [†]	[6-12) Years	0.68	0.16	0.16
Q wave amplitude - aVF (millivolt) [†]	[12-16) Years	0.96	0.19	0.01
Q wave amplitude - aVF (millivolt) [†]	[16-18] Years	0.91	0.79	0.02
Q wave amplitude - aVL (millivolt) [†]	<1 Month	0.17	0.53	0.36
Q wave amplitude - aVL (millivolt) [†]	[1 Month - 3 Years)	0.58	0.93	0.81
Q wave amplitude - aVL (millivolt) [†]	[3-6) Years	0.32	0.64	0.94
Q wave amplitude - aVL (millivolt) [†]	[6-12) Years	0.04	0.45	0.92
Q wave amplitude - aVL (millivolt) [†]	[12-16) Years	0.50	0.03	0.33
Q wave amplitude - aVL (millivolt) [†]	[16-18] Years	0.96	0.57	0.02

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
T wave amplitude - GBL (millivolt)	<1 Month	0.17	0.46	0.56
T wave amplitude - GBL (millivolt)	[1 Month - 3 Years)	0.67	0.001	0.05
T wave amplitude - GBL (millivolt)	[3-6) Years	0.40	0.005	<.001
T wave amplitude - GBL (millivolt)	[6-12) Years	0.01	0.54	<.001
T wave amplitude - GBL (millivolt)	[12-16) Years	0.78	0.43	<.001
T wave amplitude - GBL (millivolt)	[16-18] Years	0.86	0.002	<.001
T wave amplitude - I (millivolt)	<1 Month	0.85	0.97	0.68
T wave amplitude - I (millivolt)	[1 Month - 3 Years)	0.21	<.001	0.17
T wave amplitude - I (millivolt)	[3-6) Years	0.31	0.004	0.25
T wave amplitude - I (millivolt)	[6-12) Years	0.67	0.01	0.005
T wave amplitude - I (millivolt)	[12-16) Years	0.97	0.02	0.001
T wave amplitude - I (millivolt)	[16-18] Years	0.54	0.36	0.002
T wave amplitude - II (millivolt)	<1 Month	0.11	0.20	0.35
T wave amplitude - II (millivolt)	[1 Month - 3 Years)	0.60	0.10	0.41
T wave amplitude - II (millivolt)	[3-6) Years	0.42	0.01	0.002
T wave amplitude - II (millivolt)	[6-12) Years	0.01	0.95	<.001
T wave amplitude - II (millivolt)	[12-16) Years	0.96	0.27	<.001
T wave amplitude - II (millivolt)	[16-18] Years	0.26	0.05	<.001
T wave amplitude - III (millivolt)	<1 Month	0.10	0.05	0.47
T wave amplitude - III (millivolt)	[1 Month - 3 Years)	0.50	0.15	0.86
T wave amplitude - III (millivolt)	[3-6) Years	0.93	0.002	0.01
T wave amplitude - III (millivolt)	[6-12) Years	0.01	0.06	0.001
T wave amplitude - III (millivolt)	[12-16) Years	0.89	0.14	<.001
T wave amplitude - III (millivolt)	[16-18] Years	0.20	0.05	0.02
T wave amplitude - V1 (millivolt)	<1 Month	0.69	0.16	0.32
T wave amplitude - V1 (millivolt)	[1 Month - 3 Years)	0.06	<.001	0.54
T wave amplitude - V1 (millivolt)	[3-6) Years	0.34	0.01	0.30
T wave amplitude - V1 (millivolt)	[6-12) Years	0.11	0.05	0.14
T wave amplitude - V1 (millivolt)	[12-16) Years	0.57	0.10	0.004
T wave amplitude - V1 (millivolt)	[16-18] Years	0.37	0.13	<.001
T wave amplitude - V2 (millivolt)	<1 Month	0.84	0.64	0.05
T wave amplitude - V2 (millivolt)	[1 Month - 3 Years)	0.15	0.28	0.19
T wave amplitude - V2 (millivolt)	[3-6) Years	0.14	0.02	0.54
T wave amplitude - V2 (millivolt)	[6-12) Years	0.77	0.002	0.03
T wave amplitude - V2 (millivolt)	[12-16) Years	0.78	0.02	<.001

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
T wave amplitude - V2 (millivolt)	[16-18] Years	0.10	0.60	<.001
T wave amplitude - V3 (millivolt)	<1 Month	0.36	0.53	0.14
T wave amplitude - V3 (millivolt)	[1 Month - 3 Years)	0.36	0.16	0.01
T wave amplitude - V3 (millivolt)	[3-6) Years	0.20	0.04	0.05
T wave amplitude - V3 (millivolt)	[6-12) Years	0.85	<.001	0.002
T wave amplitude - V3 (millivolt)	[12-16) Years	0.22	0.01	<.001
T wave amplitude - V3 (millivolt)	[16-18] Years	0.50	<.001	<.001
T wave amplitude - V4 (millivolt)	<1 Month	0.16	0.33	0.15
T wave amplitude - V4 (millivolt)	[1 Month - 3 Years)	0.76	0.07	0.55
T wave amplitude - V4 (millivolt)	[3-6) Years	0.20	0.71	<.001
T wave amplitude - V4 (millivolt)	[6-12) Years	0.03	0.12	<.001
T wave amplitude - V4 (millivolt)	[12-16) Years	0.43	0.06	<.001
T wave amplitude - V4 (millivolt)	[16-18] Years	0.75	<.001	<.001
T wave amplitude - V5 (millivolt)	<1 Month	0.12	0.49	0.19
T wave amplitude - V5 (millivolt)	[1 Month - 3 Years)	0.43	0.05	0.39
T wave amplitude - V5 (millivolt)	[3-6) Years	0.59	0.03	<.001
T wave amplitude - V5 (millivolt)	[6-12) Years	0.01	0.84	<.001
T wave amplitude - V5 (millivolt)	[12-16) Years	0.93	0.85	<.001
T wave amplitude - V5 (millivolt)	[16-18] Years	0.86	0.02	<.001
T wave amplitude - V6 (millivolt)	<1 Month	0.38	0.87	0.84
T wave amplitude - V6 (millivolt)	[1 Month - 3 Years)	0.40	0.02	0.58
T wave amplitude - V6 (millivolt)	[3-6) Years	0.81	0.003	0.002
T wave amplitude - V6 (millivolt)	[6-12) Years	0.02	0.88	0.001
T wave amplitude - V6 (millivolt)	[12-16) Years	0.69	0.83	<.001
T wave amplitude - V6 (millivolt)	[16-18] Years	0.59	0.13	<.001
T wave amplitude - aVF (millivolt)	<1 Month	0.16	0.10	0.64
T wave amplitude - aVF (millivolt)	[1 Month - 3 Years)	0.65	0.47	0.72
T wave amplitude - aVF (millivolt)	[3-6) Years	0.66	0.002	0.002
T wave amplitude - aVF (millivolt)	[6-12) Years	0.004	0.36	<.001
T wave amplitude - aVF (millivolt)	[12-16) Years	0.92	0.27	<.001
T wave amplitude - aVF (millivolt)	[16-18] Years	0.22	0.04	0.001
T wave amplitude - aVL (millivolt)	<1 Month	0.43	0.14	0.72
T wave amplitude - aVL (millivolt)	[1 Month - 3 Years)	0.24	0.002	0.33
T wave amplitude - aVL (millivolt)	[3-6) Years	0.95	0.003	0.20
T wave amplitude - aVL (millivolt)	[6-12) Years	0.07	0.01	0.17

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
T wave amplitude - aVL (millivolt)	[12-16) Years	0.88	0.03	0.16
T wave amplitude - aVL (millivolt)	[16-18] Years	0.26	0.16	0.72
T wave amplitude - aVR (millivolt)	<1 Month	0.45	0.60	0.68
T wave amplitude - aVR (millivolt)	[1 Month - 3 Years)	0.41	0.002	0.20
T wave amplitude - aVR (millivolt)	[3-6) Years	0.32	0.01	0.01
T wave amplitude - aVR (millivolt)	[6-12) Years	0.06	0.38	<.001
T wave amplitude - aVR (millivolt)	[12-16) Years	>0.99	0.12	<.001
T wave amplitude - aVR (millivolt)	[16-18] Years	0.51	0.11	<.001
ST segment elevation - GBL (millivolt)	<1 Month	1.00	0.39	0.48
ST segment elevation - GBL (millivolt)	[1 Month - 3 Years)	0.17	0.12	0.01
ST segment elevation - GBL (millivolt)	[3-6) Years	0.12	<.001	<.001
ST segment elevation - GBL (millivolt)	[6-12) Years	0.58	<.001	<.001
ST segment elevation - GBL (millivolt)	[12-16) Years	0.001	<.001	<.001
ST segment elevation - GBL (millivolt)	[16-18] Years	0.03	<.001	<.001
ST segment elevation - I (millivolt)	<1 Month	0.87	0.70	0.33
ST segment elevation - I (millivolt)	[1 Month - 3 Years)	0.15	0.01	0.12
ST segment elevation - I (millivolt)	[3-6) Years	0.03	0.004	0.24
ST segment elevation - I (millivolt)	[6-12) Years	0.08	<.001	0.30
ST segment elevation - I (millivolt)	[12-16) Years	0.60	<.001	<.001
ST segment elevation - I (millivolt)	[16-18] Years	0.75	<.001	<.001
ST segment elevation - II (millivolt)	<1 Month	0.44	0.51	0.08
ST segment elevation - II (millivolt)	[1 Month - 3 Years)	0.65	0.001	0.02
ST segment elevation - II (millivolt)	[3-6) Years	0.16	0.001	0.02
ST segment elevation - II (millivolt)	[6-12) Years	0.41	0.01	0.002
ST segment elevation - II (millivolt)	[12-16) Years	0.29	0.002	<.001
ST segment elevation - II (millivolt)	[16-18] Years	0.53	0.06	<.001
ST segment elevation - III (millivolt)	<1 Month	0.24	0.02	0.15
ST segment elevation - III (millivolt)	[1 Month - 3 Years)	0.16	0.01	0.31
ST segment elevation - III (millivolt)	[3-6) Years	0.39	0.30	0.11
ST segment elevation - III (millivolt)	[6-12) Years	0.51	0.84	0.001
ST segment elevation - III (millivolt)	[12-16) Years	0.36	0.50	0.01
ST segment elevation - III (millivolt)	[16-18] Years	0.20	0.86	0.03
ST segment elevation - V1 (millivolt)	<1 Month	0.93	0.04	0.05
ST segment elevation - V1 (millivolt)	[1 Month - 3 Years)	0.15	0.56	0.88
ST segment elevation - V1 (millivolt)	[3-6) Years	0.32	0.01	0.66

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
ST segment elevation - V1 (millivolt)	[6-12] Years	0.38	0.01	0.38
ST segment elevation - V1 (millivolt)	[12-16] Years	0.05	<.001	<.001
ST segment elevation - V1 (millivolt)	[16-18] Years	0.03	<.001	<.001
ST segment elevation - V2 (millivolt)	<1 Month	0.59	0.39	0.05
ST segment elevation - V2 (millivolt)	[1 Month - 3 Years)	0.36	0.18	0.27
ST segment elevation - V2 (millivolt)	[3-6] Years	0.83	<.001	0.28
ST segment elevation - V2 (millivolt)	[6-12] Years	0.98	<.001	0.004
ST segment elevation - V2 (millivolt)	[12-16] Years	0.18	<.001	<.001
ST segment elevation - V2 (millivolt)	[16-18] Years	0.06	0.01	<.001
ST segment elevation - V3 (millivolt)	<1 Month	0.27	0.12	0.06
ST segment elevation - V3 (millivolt)	[1 Month - 3 Years)	0.19	0.02	0.03
ST segment elevation - V3 (millivolt)	[3-6] Years	0.23	0.003	<.001
ST segment elevation - V3 (millivolt)	[6-12] Years	0.27	<.001	<.001
ST segment elevation - V3 (millivolt)	[12-16] Years	0.22	0.001	<.001
ST segment elevation - V3 (millivolt)	[16-18] Years	0.17	0.003	<.001
ST segment elevation - V4 (millivolt)	<1 Month	0.52	0.09	0.24
ST segment elevation - V4 (millivolt)	[1 Month - 3 Years)	0.67	0.003	0.08
ST segment elevation - V4 (millivolt)	[3-6] Years	0.47	<.001	<.001
ST segment elevation - V4 (millivolt)	[6-12] Years	0.09	<.001	0.001
ST segment elevation - V4 (millivolt)	[12-16] Years	0.07	<.001	<.001
ST segment elevation - V4 (millivolt)	[16-18] Years	0.40	0.003	<.001
ST segment elevation - V5 (millivolt)	<1 Month	0.44	0.03	0.35
ST segment elevation - V5 (millivolt)	[1 Month - 3 Years)	0.93	0.04	0.04
ST segment elevation - V5 (millivolt)	[3-6] Years	0.85	<.001	0.01
ST segment elevation - V5 (millivolt)	[6-12] Years	0.13	0.001	0.05
ST segment elevation - V5 (millivolt)	[12-16] Years	0.18	<.001	<.001
ST segment elevation - V5 (millivolt)	[16-18] Years	0.62	<.001	<.001
ST segment elevation - V6 (millivolt)	<1 Month	0.99	0.28	0.94
ST segment elevation - V6 (millivolt)	[1 Month - 3 Years)	0.88	0.01	0.10
ST segment elevation - V6 (millivolt)	[3-6] Years	0.68	<.001	0.01
ST segment elevation - V6 (millivolt)	[6-12] Years	0.13	0.002	0.51
ST segment elevation - V6 (millivolt)	[12-16] Years	0.08	<.001	<.001
ST segment elevation - V6 (millivolt)	[16-18] Years	0.97	0.001	<.001
ST segment elevation - aVF (millivolt)	<1 Month	0.30	0.12	0.08
ST segment elevation - aVF (millivolt)	[1 Month - 3 Years)	0.42	0.001	0.07

Variable	Age	P-value Interaction Race*Sex	P-value Race	P-value Sex
ST segment elevation - aVF (millivolt)	[3-6) Years	0.34	0.01	0.02
ST segment elevation - aVF (millivolt)	[6-12) Years	0.58	0.17	0.001
ST segment elevation - aVF (millivolt)	[12-16) Years	0.27	0.24	<.001
ST segment elevation - aVF (millivolt)	[16-18] Years	0.19	0.54	<.001
ST segment elevation - aVL (millivolt)	<1 Month	0.47	0.05	0.98
ST segment elevation - aVL (millivolt)	[1 Month - 3 Years)	0.04	0.43	0.85
ST segment elevation - aVL (millivolt)	[3-6) Years	0.18	0.47	0.80
ST segment elevation - aVL (millivolt)	[6-12) Years	0.47	0.15	0.03
ST segment elevation - aVL (millivolt)	[12-16) Years	0.61	<.001	0.79
ST segment elevation - aVL (millivolt)	[16-18] Years	0.42	0.35	0.84
ST segment elevation - aVR (millivolt)	<1 Month	0.80	0.77	0.25
ST segment elevation - aVR (millivolt)	[1 Month - 3 Years)	0.57	0.003	0.03
ST segment elevation - aVR (millivolt)	[3-6) Years	0.04	<.001	0.04
ST segment elevation - aVR (millivolt)	[6-12) Years	0.10	<.001	0.01
ST segment elevation - aVR (millivolt)	[12-16) Years	0.36	<.001	<.001
ST segment elevation - aVR (millivolt)	[16-18] Years	0.96	0.001	<.001
Net T wave amplitude - V1+V5+V6 (millivolt)	<1 Month	0.44	0.06	0.20
Net T wave amplitude - V1+V5+V6 (millivolt)	[1 Month - 3 Years)	0.29	0.87	0.50
Net T wave amplitude - V1+V5+V6 (millivolt)	[3-6) Years	0.37	0.13	0.002
Net T wave amplitude - V1+V5+V6 (millivolt)	[6-12) Years	0.02	0.87	<.001
Net T wave amplitude - V1+V5+V6 (millivolt)	[12-16) Years	0.88	0.30	<.001
Net T wave amplitude - V1+V5+V6 (millivolt)	[16-18] Years	0.72	0.17	<.001

*values were log transformed prior to use in analyses

†the log transformation was applied to the absolute values prior to use in analyses

Supplemental Table 84. P-values testing whether there are significant differences between 12-16 and 16-18 year age groups. P-values that are significant at the 0.05 level are bolded in the table below.

Variable	P-value
Heart rate (bpm)	<.001
PR interval (ms)	<.001
QRS duration (ms)	0.001
T wave duration - GBL (ms)	0.99
P wave duration - GBL (ms)	0.02
P wave duration - II (ms)	0.01
P wave amplitude - II (millivolt)	0.42
P wave amplitude - V1 (millivolt)	0.92
R' wave amplitude - V1 (millivolt)*	0.83
R wave amplitude - V1 (millivolt)*	0.30
R wave amplitude - V2 (millivolt)*	0.02
R wave amplitude - V3 (millivolt)*	0.02
R wave amplitude - V4 (millivolt)	0.02
R wave amplitude - V5 (millivolt)	0.07
R wave amplitude - V6 (millivolt)	0.15
S wave amplitude - V1 (millivolt) [†]	0.39
S wave amplitude - V2 (millivolt) [†]	0.56
S wave amplitude - V3 (millivolt) [†]	0.36
S wave amplitude - V4 (millivolt) [†]	0.93
S wave amplitude - V5 (millivolt) [†]	0.43
S wave amplitude - V6 (millivolt) [†]	0.26
R+S amplitude in V3 +V4 (millivolt)	0.16
R amplitude in V1 +S amplitude in V6 (millivolt)*	0.21
R amplitude in V6+ S amplitude in V1 (millivolt)	0.61
QT interval - GBL (ms)	0.39
QT interval - II (ms)	0.01
QT interval - V5 (ms)	0.06
QT interval - V6 (ms)	0.01
Bazett's corrected QT interval - GBL (ms)	<.001
Bazett's corrected QT interval - II (ms)	0.04
Bazett's corrected QT interval - V5 (ms)	0.004
Bazett's corrected QT interval - V6 (ms)	0.02
Fridericia corrected QT interval - GBL (ms)	0.005
Fridericia corrected QT interval - II (ms)	0.79
Fridericia corrected QT interval - V5 (ms)	0.20
Fridericia corrected QT interval - V6 (ms)	0.60

Variable	P-value
Mean frontal plane QRS axis (degree)	0.05
Mean frontal plane P wave axis (degree)	0.52
Mean frontal plane T wave axis (degree)	0.03
Q wave amplitude - I (millivolt) [†]	0.98
Q wave amplitude - II (millivolt) [†]	0.98
Q wave amplitude - III (millivolt) [†]	0.22
Q wave amplitude - V1 (millivolt) [†]	0.01
Q wave amplitude - V6 (millivolt) [†]	0.15
Q wave amplitude - aVF (millivolt) [†]	0.51
Q wave amplitude - aVL (millivolt) [†]	0.76
T wave amplitude - GBL (millivolt)	0.05
T wave amplitude - I (millivolt)	0.31
T wave amplitude - II (millivolt)	0.06
T wave amplitude - III (millivolt)	0.005
T wave amplitude - V1 (millivolt)	0.002
T wave amplitude - V2 (millivolt)	<.001
T wave amplitude - V3 (millivolt)	<.001
T wave amplitude - V4 (millivolt)	0.06
T wave amplitude - V5 (millivolt)	0.97
T wave amplitude - V6 (millivolt)	0.25
T wave amplitude - aVF (millivolt)	0.01
T wave amplitude - aVL (millivolt)	0.01
T wave amplitude - aVR (millivolt)	0.42
ST segment elevation - GBL (millivolt)	<.001
ST segment elevation - I (millivolt)	0.08
ST segment elevation - II (millivolt)	0.27
ST segment elevation - III (millivolt)	0.86
ST segment elevation - V1 (millivolt)	0.48
ST segment elevation - V2 (millivolt)	0.04
ST segment elevation - V3 (millivolt)	<.001
ST segment elevation - V4 (millivolt)	<.001
ST segment elevation - V5 (millivolt)	0.01
ST segment elevation - V6 (millivolt)	0.11
ST segment elevation - aVF (millivolt)	0.34
ST segment elevation - aVL (millivolt)	0.59
ST segment elevation - aVR (millivolt)	0.07
Net T wave amplitude - V1+V5+V6 (millivolt)	0.48

Supplemental Table 85: Fridericia corrected QT interval - II (ms) for the 6 Primary Age Categories by Race and Sex.

Fridericia corrected QT interval - II (ms)												
	Male		Female		White		African-American		Other/Mixed		P-value Sex	P-value Race
	N	Mean ± SD Median (2 nd , 98 th)	N	Mean ± SD Median (2 nd , 98 th)	N	Mean ± SD Median (2 nd , 98 th)	N	Mean ± SD Median (2 nd , 98 th)	N	Mean ± SD Median (2 nd , 98 th)		
<1 Month*	138	340±25 341 (272, 402)	111	344±23 339 (302,402)	104	344±25 344 (297, 408)	61	333±25 333 (293, 391)	84	344±21 343 (295, 398)	0.1	0.01
1 Month - <3 Years*	229	344±23 341 (298, 402)	205	347±23 344 (304, 400)	156	347±23 343 (310, 400)	130	344±24 342 (297, 402)	148	345±22 342 (298, 408)	0.12	0.56
3 - <6 Years*	211	358±19 358 (322, 399)	191	362±22 362 (327, 420)	143	363±21 363 (327, 410)	115	360±18 359 (334, 413)	144	359±21 357 (320, 408)	0.04	0.23
6 - <12 Years*	254	375±20 375 (341, 422)	223	374±22 372 (336, 424)	185	378±21 378 (344, 426)	141	372±18 371 (335, 411)	151	373±21 371 (336, 424)	0.63	0.01
12 - <16 Years*	231	382±22 379 (340, 437)	222	384±22 383 (338, 431)	173	388±23 387 (338, 437)	136	379±22 377 (341, 431)	144	380±21 378 (335, 428)	0.34	0.001
16 - 18 Years*	202	380±25 377 (336, 444)	168	385±20 386 (339, 422)	152	386±21 387 (342, 429)	105	378±24 378 (338, 433)	113	381±24 379 (339, 422)	0.10	0.01

*interaction between sex and race was not statistically significant

Supplemental Table 86: Number (N) of Children included in the Age and Sex Categories used by Davignon et al, 1979 ⁴.

Group	Age	Male	Female	Total
1	0 to 24 hours	6	3	9
2	1 to 3 days	0	0	0
3	3 to 7 days	27	24	51
4	1 to 4 weeks	98	71	169
5	1 to 3 months	93	76	169
6	3 to 6 months	43	32	75
7	6 to 12 months	29	26	55
8	1 to 3 years	78	87	165
9	3 to 5 years	131	125	256
10	5 to 8 years	163	140	303
11	8 to 12 years	173	151	324
12	12 to 16 years	231	222	453
13	Above 16 years	203	168	371
Total		1275	1125	2400