

## ***Echo Z Data Codebook***

DATE CREATED: Aug28,2023  
Number of Observations: 3215  
Number of Variables: 122

## Echo Z Data Codebook

FileName	Variable_label	Variable_Name	Category	N_Percent	Mean_SD	Median_Q1_Q3	Range
echo_zscore_comparisons	Blind_id	Blind_id		3215(100)			
echo_zscore_comparisons	Blinded_SiteID	Blinded_SiteID		3215(100)			
echo_zscore_comparisons	2. Sex:	SEX	Female	1562(48.6)			
echo_zscore_comparisons	2. Sex:	SEX	Male	1653(51.4)			
echo_zscore_comparisons	3. Ethnicity	ETHNICITY	Hispanic or Latino/Latina	793(24.7)			
echo_zscore_comparisons	3. Ethnicity	ETHNICITY	Not Hispanic or Latino/Latina	2260(70.3)			
echo_zscore_comparisons	3. Ethnicity	ETHNICITY	Unknown	162(5)			
echo_zscore_comparisons		race	1	1117(34.7)			
echo_zscore_comparisons		race	2	1004(31.2)			
echo_zscore_comparisons		race	3	1094(34)			
echo_zscore_comparisons		age_group	1	508(15.8)			
echo_zscore_comparisons		age_group	2	525(16.3)			
echo_zscore_comparisons		age_group	3	516(16)			
echo_zscore_comparisons		age_group	4	592(18.4)			
echo_zscore_comparisons		age_group	5	579(18)			
echo_zscore_comparisons		age_group	6	495(15.4)			

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FileName	Variable_label	Variable_Name	Category	N_Percent	Mean_SD	Median_Q1_Q3	Range
echo_zscore_comparisons	B1. Proximal transverse arch diameter (cm)	AAPTAD		2555(79)	1.46(0.6)	1.5(0.9,1.9)	0.4,2.9
echo_zscore_comparisons	B2. Distal transverse arch diameter (cm)	AADTAD		3106(97)	1.27(0.5)	1.3(0.8,1.7)	0.4,2.6
echo_zscore_comparisons	C1. AoV Annulus diameter (cm)	ARAVAD		3215(100)	1.39(0.5)	1.4(1,1.8)	0.4,2.7
echo_zscore_comparisons	C2. Ao Root diameter (cm)	ARARD		3215(100)	1.92(0.7)	2(1.3,2.5)	0.7,3.9
echo_zscore_comparisons	C3. Ao Sinotubular junction diameter (cm)	ARASJD		3215(100)	1.58(0.6)	1.6(1.1,2)	0.5,3.2
echo_zscore_comparisons	C4. Ascending Ao diameter (cm)	AR_AAD		3214(100)	1.66(0.6)	1.7(1.1,2.1)	0.6,3.4
echo_zscore_comparisons	D1. Proximal right (mm)	CAPR		2912(91)	2.17(0.8)	2.1(1.5,2.7)	0.6,5.5
echo_zscore_comparisons	D2. Left anterior descending (mm)	CALAD		2508(78)	1.77(0.6)	1.8(1.3,2.2)	0.5,4
echo_zscore_comparisons	D3. Left main coronary artery (mm)	CALMCA		2893(90)	2.76(1)	2.7(2,3.4)	0.9,6.3
echo_zscore_comparisons	E1. LVSWd (cm)	LVSWD		3215(100)	0.54(0.2)	0.5(0.4,0.7)	0.2,1.2
echo_zscore_comparisons	E2. LVEDDd (cm)	LVEDDD		3215(100)	3.63(1.1)	3.8(2.6,4.5)	1.2,6.2
echo_zscore_comparisons	E3. LVPWDd (cm)	LVPWDD		3215(100)	0.53(0.2)	0.5(0.4,0.6)	0.2,1.1
echo_zscore_comparisons	E4. LVESD (cm)	LVESD		3215(100)	2.46(0.8)	2.5(1.8,3.1)	0.7,4.7
echo_zscore_comparisons	E5. LVEDA (cm <sup>2</sup> )	LVEDA		3215(100)	11.38(6.4)	11.1(5.3,16.5)	1.4,32.9
echo_zscore_comparisons	E6. LVESA (cm <sup>2</sup> )	LVESA		3215(100)	6.01(3.4)	5.7(2.8,8.6)	0.7,17.7
echo_zscore_comparisons	E7. LVEDAepi (cm <sup>2</sup> )	LVEDA_EPI		3215(100)	18.94(10.4)	18(9,27.4)	2.7,55.4

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FileName	Variable_label	Variable_Name	Category	N_Percent	Mean_SD	Median_Q1_Q3	Range
echo_zscore_comparisons	F1. LVEDL (cm)	LVEDL		3215(100)	5.91(1.9)	6(4.2,7.5)	2.3,10.1
echo_zscore_comparisons	F2. LVEDLepi (cm)	LVEDL_EPI		3215(100)	6.42(2)	6.5(4.6,8.1)	2.6,11
echo_zscore_comparisons	F3. LVESL (cm)	LVESL		3215(100)	4.63(1.5)	4.6(3.3,5.9)	1.6,8.7
echo_zscore_comparisons	G1. MV Anteroposterior valve diameter (cm)	MVAVD		3215(100)	2.14(0.7)	2.2(1.5,2.7)	0.7,4
echo_zscore_comparisons	G2. MV Lateral annulus diameter (cm)	MVLAD		3214(100)	2.06(0.7)	2.1(1.5,2.6)	0.7,3.9
echo_zscore_comparisons	H1. Main pulmonary artery (cm)	MPA		3006(93)	1.66(0.6)	1.7(1.1,2.1)	0.5,3.3
echo_zscore_comparisons	H2. Right pulmonary artery (cm)	RPA		2983(93)	0.99(0.4)	1(0.7,1.3)	0.2,2.1
echo_zscore_comparisons	H3. Left pulmonary artery (cm)	LPA		2868(89)	1.01(0.4)	1.1(0.7,1.3)	0.3,2.1
echo_zscore_comparisons	J1. TV Anteroposterior valve diameter (cm)	TVAVD		3215(100)	2.21(0.8)	2.2(1.5,2.8)	0.7,4.5
echo_zscore_comparisons	J2. TV Lateral annulus diameter (cm)	TVLAD		3214(100)	2.17(0.7)	2.2(1.6,2.7)	0.7,4.4
echo_zscore_comparisons	I1. Pulmonary valve annulus diameter (cm) - short axis	PVAD_SHORT		2289(71)	1.68(0.6)	1.7(1,2.2)	0.6,3.5
echo_zscore_comparisons	I2. Pulmonary valve annulus diameter (cm) - long axis	PVAD_LONG		2882(90)	1.91(0.8)	1.9(1.2,2.5)	0.5,4.1
echo_zscore_comparisons	4. Age at echo in years	ECHO_AGE		3215(99)	7.83(6.3)	6.89(1.16,14.1)	0.01,17.99
echo_zscore_comparisons	5. Height/Length (cm)	ECHO_HT		3215(100)	117.12(44.8)	120(72.15,160)	43.2,207.2
echo_zscore_comparisons	6. Weight (kg)	ECHO_WT		3215(100)	30.21(23.5)	22.6(8.75,51.3)	2,122.6
echo_zscore_comparisons	body mass index	BMI		3215(100)	17.39(3.6)	16.64(14.88,19.71)	6.92,29.05

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echo_zscore_comparisons	body surface area, method=DuBois	BSA_DuBois		3215(100)	0.96(0.6)	0.86(0.4,1.52)	0.15,2.65
echo_zscore_comparisons	body surface area, method=DreyerRay	BSA_DreyerRay		3215(100)	0.9(0.5)	0.8(0.42,1.38)	0.16,2.47
echo_zscore_comparisons	body surface area, method=Boyd_1	BSA_Boyd_1		3215(100)	0.37(0.2)	0.36(0.22,0.54)	0.1,0.81
echo_zscore_comparisons	body surface area, method=Boyd_2	BSA_Boyd_2		3215(100)	0.31(0.1)	0.3(0.18,0.43)	0.09,0.61
echo_zscore_comparisons	body surface area, method=Haycock	BSA_Haycock		3215(100)	0.97(0.6)	0.86(0.43,1.51)	0.16,2.67
echo_zscore_comparisons	body surface area, method=GehanGeorge	BSA_GehanGeorge		3215(100)	0.98(0.6)	0.88(0.44,1.52)	0.17,2.66
echo_zscore_comparisons	body surface area, method=Mosteller	BSA_Mosteller		3215(100)	0.96(0.6)	0.86(0.42,1.51)	0.16,2.66
echo_zscore_comparisons	Left ventricular shortening fraction	lvsfr		3215(100)	0.32(0.1)	0.32(0.28,0.37)	0.11,0.58
echo_zscore_comparisons	Left ventricular end-diastolic volume (LVEDV)	LVEDV		3215(100)	65.3(49.2)	55.55(18.48,102.7)	2.8,255.87
echo_zscore_comparisons	Left ventricular end-diastolic epicardial volume (LVEDVepi)	LVEDVepi		3215(100)	117.94(88.4)	98(34.69,186.68)	6.08,461.67
echo_zscore_comparisons	Left ventricular end-systolic volume (LVESV)	LVESV		3215(100)	27.19(21.4)	22.1(7.29,42.26)	1.2,104.4
echo_zscore_comparisons	Left ventricular ejection fraction	lvef		3215(100)	0.58(0.1)	0.58(0.54,0.62)	0.2,0.76
echo_zscore_comparisons	Left ventricular mass	lvmass		3215(100)	55.27(42)	44.7(17.04,87.33)	0.84,217.03
echo_zscore_comparisons	mitral annular area	MVA		3214(100)	3.83(2.3)	3.61(1.76,5.51)	0.49,11.04
echo_zscore_comparisons	tricuspid annular area	TVA		3214(100)	4.16(2.5)	3.8(1.77,5.94)	0.44,13.82
echo_zscore_comparisons	LV thickness-to-dimension ratio	TTDR		3215(100)	0.15(0)	0.15(0.13,0.17)	0.07,0.31

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echo_zscore_comparisons	LV mass-to-volume ratio	MTVR		3215(100)	0.88(0.2)	0.86(0.77,0.98)	0.1,1.57
echo_zscore_comparisons	LV sphericity index	SI		3215(100)	1.63(0.2)	1.62(1.51,1.74)	1.08,2.46
echo_zscore_comparisons	body surface area	bsa		3215(100)	0.97(0.6)	0.86(0.43,1.51)	0.16,2.67
echo_zscore_comparisons	Detroit z-score	LVESD_detroit_z		3168(99)	0.67(1)	0.73(0.05,1.37)	-3.57,4.02
echo_zscore_comparisons	Detroit z-score	ARAVAD_detroit_z		3168(99)	-0.17(0.9)	-0.12(-0.76,0.46)	-4.93,2.62
echo_zscore_comparisons	Detroit z-score	ARARD_detroit_z		3168(99)	-0.03(0.8)	-0.04(-0.59,0.51)	-2.87,3.05
echo_zscore_comparisons	Detroit z-score	ARASJD_detroit_z		3168(99)	0.19(0.7)	0.21(-0.29,0.66)	-4.03,2.91
echo_zscore_comparisons	Detroit z-score	AAPTAD_detroit_z		2517(78)	-0.36(1.2)	-0.31(-1.21,0.51)	-5.17,3.11
echo_zscore_comparisons	Detroit z-score	AADTAD_detroit_z		3061(95)	0.7(1)	0.77(0.05,1.43)	-3.56,3.89
echo_zscore_comparisons	Detroit z-score	AAAID_detroit_z		3082(96)	0.34(0.9)	0.38(-0.25,0.94)	-3.62,3.12
echo_zscore_comparisons	Detroit z-score	PVAD_LONG_detroit_z		2841(88)	0.63(0.9)	0.68(0.09,1.23)	-3.32,3.9
echo_zscore_comparisons	Detroit z-score	MPA_detroit_z		2963(92)	-0.06(0.8)	-0.04(-0.59,0.51)	-3.36,2.54
echo_zscore_comparisons	Detroit z-score	RPA_detroit_z		2941(91)	-0.47(1)	-0.41(-1.12,0.2)	-5.1,3.57

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echo_zscore_comparisons	Detroit z-score	LPA_detroit_z		2827(88)	0.57(0.9)	0.65(0.01,1.19)	-2.84,5.12
echo_zscore_comparisons	Detroit z-score	LVEDDD_detroit_z		3168(99)	-0.01(0.8)	0.02(-0.57,0.57)	-3.93,3.28
echo_zscore_comparisons	Detroit z-score	LVPWDD_detroit_z		3168(99)	0.11(0.9)	0.12(-0.4,0.61)	-2.93,3.15
echo_zscore_comparisons	Detroit z-score	LVSWD_detroit_z		3168(99)	-0.4(0.7)	-0.36(-0.94,0.14)	-3.2,2.02
echo_zscore_comparisons	Detroit z-score	MVLAD_detroit_z		3167(99)	-0.59(0.7)	-0.57(-1.04,-0.12)	-3.23,1.68
echo_zscore_comparisons	Detroit z-score	TVLAD_detroit_z		3167(99)	-0.51(0.6)	-0.51(-0.92,-0.09)	-3.07,1.69
echo_zscore_comparisons	Italy z-score	MVLAD_italy_z		3214(100)	-0.79(1.1)	-0.74(-1.49,-0.03)	-5.4,2.91
echo_zscore_comparisons	Italy z-score	TVLAD_italy_z		3214(100)	-0.29(0.9)	-0.26(-0.84,0.29)	-3.64,2.25
echo_zscore_comparisons	Italy z-score	ARAVAD_italy_z		3215(100)	-0.6(1)	-0.54(-1.27,0.1)	-5.77,2.82
echo_zscore_comparisons	Italy z-score	ARARD_italy_z		3215(100)	-0.35(1)	-0.35(-0.99,0.29)	-3.81,3.19
echo_zscore_comparisons	Italy z-score	ARASJD_italy_z		3215(100)	0.3(1)	0.33(-0.33,0.93)	-5.7,3.87
echo_zscore_comparisons	Italy z-score	AR_AAD_italy_z		3214(100)	-0.77(1.1)	-0.74(-1.46,-0.07)	-5.35,3.24

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echo_zscore_comparisons	Italy z-score	AAPTAD_italy_z		2555(79)	-0.19(1.2)	-0.08(-0.98,0.7)	-5.66,4.5
echo_zscore_comparisons	Italy z-score	AADTAD_italy_z		3106(97)	0.24(1.1)	0.34(-0.42,1.04)	-5.56,4.32
echo_zscore_comparisons	Italy z-score	AAAID_italy_z		3128(97)	1.19(1.1)	1.23(0.5,1.95)	-4.1,4.65
echo_zscore_comparisons	Italy z-score	PVAD_LONG_italy_z		2882(90)	0.84(1.2)	0.92(0.1,1.68)	-4.73,5.05
echo_zscore_comparisons	Italy z-score	MPA_italy_z		3006(93)	-0.49(1.2)	-0.41(-1.24,0.29)	-5,3.11
echo_zscore_comparisons	Italy z-score	RPA_italy_z		2983(93)	-0.16(1.1)	-0.11(-0.94,0.65)	-5.6,4.29
echo_zscore_comparisons	Italy z-score	LPA_italy_z		2868(89)	0.17(1)	0.24(-0.53,0.86)	-3.21,5.13
echo_zscore_comparisons	Boston z-score	LVEDV_bos_olid_z		3215(100)	-0.51(1.1)	-0.52(-1.27,0.24)	-6.09,4.24
echo_zscore_comparisons	Boston z-score	lvmass_bos_olid_z		3215(100)	-0.63(0.9)	-0.65(-1.24,-0.04)	-7.46,4.36
echo_zscore_comparisons	Boston z-score	lvesv_bos_z		3215(100)	0.34(1.1)	0.39(-0.32,1.05)	-4.02,3.84
echo_zscore_comparisons	Boston z-score	lvesd_bos_z		3215(100)	0.46(1.5)	0.44(-0.56,1.52)	-4.65,5.65
echo_zscore_comparisons	Boston z-score	MVAVD_boston_z		3215(100)	0.58(1.2)	0.55(-0.18,1.32)	-3.19,6.25



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FileName	Variable_label	Variable_Name	Category	N_Percent	Mean_SD	Median_Q1_Q3	Range
echo_zscore_comparisons	Boston z-score	MVLAD_boston_z		3214(100)	0.12(1.1)	0.1(-0.58,0.82)	-3.49,4.44
echo_zscore_comparisons	Boston z-score	MVA_boston_z		3214(100)	0.41(1.2)	0.36(-0.43,1.16)	-3.14,8.37
echo_zscore_comparisons	Boston z-score	TVAVD_boston_z		3215(100)	0.15(1)	0.15(-0.52,0.8)	-3.24,4.25
echo_zscore_comparisons	Boston z-score	TVLAD_boston_z		3214(100)	0.17(1.1)	0.18(-0.53,0.86)	-3.14,4.21
echo_zscore_comparisons	Boston z-score	TVA_boston_z		3214(100)	0.24(1)	0.2(-0.47,0.91)	-2.7,4.97
echo_zscore_comparisons	Boston z-score	ARAVAD_boston_z		3215(100)	-0.53(1.1)	-0.51(-1.28,0.21)	-5.2,3.67
echo_zscore_comparisons	Boston z-score	ARARD_boston_z		3215(100)	-0.3(0.9)	-0.35(-0.93,0.32)	-3.05,3.53
echo_zscore_comparisons	Boston z-score	ARASJD_boston_z		3215(100)	-0.26(1)	-0.28(-0.91,0.34)	-4.81,4.02
echo_zscore_comparisons	Boston z-score	AR_AAD_boston_z		3214(100)	-0.88(1.1)	-0.9(-1.6,-0.22)	-4.66,4.17
echo_zscore_comparisons	Boston z-score	AADTAD_boston_z		3106(97)	-0.32(1.1)	-0.29(-1.04,0.43)	-4.38,4.69
echo_zscore_comparisons	Boston z-score	AAAID_boston_z		3128(97)	0.13(1.1)	0.09(-0.61,0.86)	-3.72,4.34
echo_zscore_comparisons	Boston z-score	CALMCA_boston_z		2893(90)	-0.06(0.7)	-0.11(-0.53,0.34)	-1.89,3.64

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echo_zscore_comparisons	Boston z-score	CALAD_boston_z		2508(78)	-0.86(0.6)	-0.89(-1.26,-0.48)	-2.37,1.35
echo_zscore_comparisons	Boston z-score	CAPR_boston_z		2912(91)	-0.3(0.9)	-0.39(-0.92,0.24)	-2.62,4.1
echo_zscore_comparisons	Boston z-score	PVAD_LONG_boston_z		2882(90)	0.46(1.1)	0.37(-0.33,1.18)	-2.8,7.05
echo_zscore_comparisons	Boston z-score	MPA_boston_z		3006(93)	-0.42(1)	-0.43(-1.13,0.27)	-3.65,3.36
echo_zscore_comparisons	Boston z-score	RPA_boston_z		2983(93)	-0.15(1.1)	-0.2(-0.97,0.62)	-3.84,6.11
echo_zscore_comparisons	Boston z-score	LPA_boston_z		2868(89)	0.01(1.1)	0(-0.77,0.69)	-2.82,7.93
echo_zscore_comparisons	Boston z-score	LVEDDD_boston_z		3215(100)	-0.25(0.5)	-0.25(-0.56,0.06)	-2.13,1.73
echo_zscore_comparisons	Boston z-score	LVPWDD_boston_z		3215(100)	-0.53(0.8)	-0.6(-1.02,-0.1)	-2.68,2.72
echo_zscore_comparisons	Boston z-score	LVSWD_boston_z		3215(100)	-0.9(1.2)	-1.03(-1.68,-0.14)	-4.27,3.5
echo_zscore_comparisons	Boston z-score	LVEDL_boston_z		3215(100)	-0.12(0.4)	-0.12(-0.38,0.14)	-1.71,1.65
echo_zscore_comparisons	Boston z-score	LVEDL_EPI_boston_z		3215(100)	-0.17(1.1)	-0.2(-0.9,0.57)	-4.19,5.48
echo_zscore_comparisons	Boston z-score	LVEDA_boston_z		3215(100)	-0.42(0.5)	-0.36(-0.87,-0.01)	-1.57,1.31

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FileName	Variable_label	Variable_Name	Category	N_Percent	Mean_SD	Median_Q1_Q3	Range
echo_zscore_comparison	Boston z-score	LVEDA_EPI_boston_z		3215(100)	-0.8(1.1)	-0.83(-1.56,-0.12)	-4.54,7.45
echo_zscore_comparison	Boston z-score	LVEDV_boston_z		3215(100)	-0.76(1.1)	-0.82(-1.57,-0.01)	-4.37,8.84
echo_zscore_comparison	Boston z-score	LVEDVepi_boston_z		3215(100)	-0.83(1.1)	-0.88(-1.57,-0.15)	-4.56,9.92
echo_zscore_comparison	Boston z-score	lvmass_boston_z		3215(100)	-0.59(1)	-0.66(-1.31,0.05)	-6.08,9.78
echo_zscore_comparison	Boston z-score	MTVR_boston_z		3215(100)	0.29(1.4)	0.08(-0.66,1.08)	-6.21,5.98
echo_zscore_comparison	Boston z-score	TTDR_boston_z		3215(99)	-0.55(1.5)	-0.71(-1.59,0.33)	-4.34,7.38
echo_zscore_comparison	Boston z-score	SI_boston_z		3215(100)	0(0.1)	-0.01(-0.08,0.06)	-0.34,0.5