

Wave VI Cardiovascular Measures Codebook



Acknowledgement:

Data collection and dissemination for Wave VI of Add Health was funded by cooperative agreements U01 AG071448 (PI: Robert A. Hummer) and U01 AG071450 (MPIs: Robert A. Hummer and Allison E. Aiello) from the National Institute on Aging to the University of North Carolina at Chapel Hill, with cooperative funding from five other institutes and offices at the National Institutes of Health: the Eunice Kennedy Shriver National Institute of Child Health and Human Development, the National Institute on Minority Health and Health Disparities, the National Institute on Drug Abuse, the Office of Disease Prevention, and the Office of Behavioral and Social Science Research. Waves I-V of Add Health were funded by grant P01 HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Add Health is currently directed by Robert A. Hummer at the University of North Carolina at Chapel Hill. Add Health was designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill.

Important Note: The above acknowledgement should be included in all presentations and publications using data from Wave VI of Add Health.

B Wave VI: Cardiovascular Measures

Title	Wave VI: Cardiovascular Measures
File Name	bcardio6.sas7bdat
Case Quantity	6073
Variable Count	34

■ AID - PARTICIPANT IDENTIFIER

Туре	Text
Constraints	Maximum Length: 8
AID	Participant Identifier

Valid	Invalid
6,073	0

■ H6ARM - CQ07: WHICH ARM IS MEASURED (1=R,2=L) -W6

Туре	Code
Measurement Unit	Numeric
H6ARM	Right arm preferred unless participant has cause to use the left arm CQ07. Which arm was measured?

			Frequency	% of total	% of valid
Valid	1	right	5,500	90.56%	90.7%
	2	left	564	9.29%	9.3%
		Total	6,064	99.85%	100%
Missing	-9996	refused	9	0.15%	
		Total	9	0.15%	

Valid	Invalid	Minimum	Maximum
6,064	9	1	2

■ H6ARMCIR - MEASURED ARM CIRCUMFERENCE (CM) -W6

Туре	Numeric (Double)
H6ARMCIR	CQ05. Record arm circumference to nearest 0.5 unit. [Note: All measurements in inches were converted to centimeters.]

			Frequency	% of total	% of valid
Missing	-9996	refused	9	0.15%	
	-9999	invalid data	14	0.23%	
		Total	23	0.38%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,050	23	15	61	31.21264	5.34832

■ H6ARMINS - ARM MEASURE CONVERTED FROM INCHES TO CMs -W6

Туре	Code
Measurement Unit	Numeric
H6ARMINS	FLAG indicating arm was measured in inches and was converted to
	centimeters.

			Frequency	% of total	% of valid
Valid	0	no	6,044	99.52%	99.9%
	1	yes	6	0.1%	0.1%
		Total	6,050	99.62%	100%
Missing		not applicable (no arm measurement)	23	0.38%	
		Total	23	0.38%	

Valid	Invalid	Minimum	Maximum
6,050	23	0	1

■ H6CUFFIT - ARM CIRCUMFERENCE FITS BP CUFF -W6

Туре	Code
Measurement Unit	Numeric
H6CUFFIT	FLAG indicating arm fits the AH BP unit cuff

			Frequency	% of total	% of valid
Valid	0	no	335	5.52%	5.53%
	1	yes	5,722	94.22%	94.47%
		Total	6,057	99.74%	100%
Missing		not applicable (no arm measurement)	16	0.26%	
		Total	16	0.26%	

Valid	Invalid	Minimum	Maximum
6,057	16	0	1

■ H6BPSYS1 - BPSYS1: SYSTOLIC BP #1 (MMHg) -W6

Туре	Numeric (Double)
H6BPSYS1	BPSYS1 Systolic blood pressure measure #1 (mm Hg)

		Frequency	% of total	% of valid
Missing	no measure	38	0.63%	
	Total	38	0.63%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,035	38	79	246	124.71185	17.3122

■ H6BPDIA1 - BPDIA1: DIASTOLIC BP #1 (MMHg) -W6

Туре	Numeric (Double)
H6BPDIA1	BPDIA1 Diastolic blood pressure measure #1 (mm Hg)

		Frequency	% of total	% of valid
Missing	no measure	38	0.63%	
	Total	38	0.63%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,035	38	44	170	81.08086	11.81647

■ H6BPPULSE1 - BPPULSE1: PULSE RATE #1 (/MIN) -W6

Туре	Numeric (Double)
H6BPPULSE1	BPPULSE1 Pulse rate measure #1 (/min)

		Frequency	% of total	% of valid
Missing	no measure	38	0.63%	
	Total	38	0.63%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,035	38	40	164	76.28633	13.04976

■ H6BPSYS2 - BPSYS2: SYSTOLIC BP #2 (MMHg) -W6

Туре	Numeric (Double)
H6BPSYS2	BPSYS2 Systolic blood pressure measure #2 (mm Hg)

		Frequency	% of total	% of valid
Missing	no measure	50	0.82%	
	Total	50	0.82%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,023	50	67	230	123.28657	16.63164

d H6BPDIA2 - BPDIA2: DIASTOLIC BP #2 (MMHg) -W6

Туре	Numeric (Double)
H6BPDIA2	BPDIA2 Diastolic blood pressure measure #2 (mm Hg)

		Frequency	% of total	% of valid
Missing	no measure	50	0.82%	
	Total	50	0.82%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,023	50	43	137	80.49427	11.51121

■ H6BPPULSE2 - BPPULSE2: PULSE RATE #2 (/MIN) -W6

Туре	Numeric (Double)
H6BPPULSE2	BPPULSE2 Pulse rate measure #2 (/min)

		Frequency	% of total	% of valid
Missing	no measure	50	0.82%	
	Total	50	0.82%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,023	50	40	186	76.29836	12.835

■ H6BPSYS3 - BPSYS3: SYSTOLIC BP #3 (MMHg) -W6

Туре	Numeric (Double)
H6BPSYS3	BPSYS3 Systolic blood pressure measure #3 (mm Hg)

		Frequency	% of total	% of valid
Missing	no measure	65	1.07%	
	Total	65	1.07%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,008	65	75	216	122.73935	16.37663

■ H6BPDIA3 - BPDIA3: DIASTOLIC BP #3 (MMHg) -W6

Туре	Numeric (Double)
H6BPDIA3	BPDIA3 Diastolic blood pressure measure #3 (mm Hg)

e 65 1.079	%
65 1.079	%

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,008	65	42	141	80.26498	11.48698

■ H6BPPULSE3 - BPPULSE3: PULSE RATE #3 (/MIN) -W6

Туре	Numeric (Double)
H6BPPULSE3	BPPULSE3 Pulse rate measure #3 (/min)

		Frequency	% of total	% of valid
Missing	no measure	65	1.07%	
	Total	65	1.07%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,008	65	41	151	76.29311	12.68459

■ H6ALTBP - ALTERNATE BLOOD PRESSURE UNIT USED -W6

Туре	Code	
Measurement Unit	Numeric	
H6ALTBP	Was an alternate BP unit used for the home exam?	

			Frequency	% of total	% of valid
Valid	0	no	6,058	99.75%	99.75%
	1	yes	15	0.25%	0.25%
		Total	6,073	100%	100%

Valid	Invalid	Minimum	Maximum
6,073	0	0	1

■ H6BQ01 - BQ01: CURRENTLY PREGNANT -W6

Туре	Code
Measurement Unit	Numeric
H6BQ01	BQ01. Are you pregnant?
Logic	If EPQ20 = 2, ask BQ01. Else go to BQ02.

			Frequency	% of total	% of valid
Valid	0	no	3,520	57.96%	99.35%
	1	yes	23	0.38%	0.65%
		Total	3,543	58.34%	100%
Missing	-9995	question not asked	8	0.13%	
	-9997	legitimate skip	2,517	41.45%	
	-9998	don't know	5	0.08%	
		Total	2,530	41.66%	

Valid	Invalid	Minimum	Maximum
3,543	2,530	0	1

■ H6BQ06 - BQ06: SMOKE ANY TOBACCO PRODUCTS -W6

Туре	Code
Measurement Unit	Numeric
H6BQ06	BQ06. Do you smoke any tobacco products, like cigarettes?

			Frequency	% of total	% of valid
Valid	0	no	4,749	78.2%	78.22%
	1	yes	1,322	21.77%	21.78%
		Total	6,071	99.97%	100%
Missing	-9996	refused	2	0.03%	
		Total	2	0.03%	

Valid	Invalid	Minimum	Maximum
6,071	2	0	1

Type Code Measurement Unit Numeric H6CQ47A CQ47A: EVER DX WITH HIGH BLOOD PRESSURE -W6 CQ47. Has a doctor, nurse or health care provider ever told you that you have ANY of the following?

a. High blood pressure or hypertension (if female, when you were NOT

2

0.03%

						-
				Frequency	% of total	% of valid
Valid	0	no		4,439	73.09%	73.12%
	1	yes		1,632	26.87%	26.88%
		Total		6,071	99.97%	100%
Missing	-9996	refused		2	0.03%	

pregnant)

Valid	Invalid	Minimum	Maximum
6,071	2	0	1

Total

■ H6CQ47B - CQ47B: EVER DX WITH HIGH BLOOD SUGAR/DIABETES -W6

Туре	Code
Measurement Unit	Numeric
H6CQ47B	CQ47. Has a doctor, nurse or health care provider ever told you that you have ANY of the following? b. High blood sugar or diabetes (if female, when you were NOT pregnant)

			Frequency	% of total	% of valid
Valid	0	no	5,422	89.28%	89.31%
	1	yes	649	10.69%	10.69%
		Total	6,071	99.97%	100%
Missing	-9996	refused	2	0.03%	
		Total	2	0.03%	

Valid	Invalid	Minimum	Maximum
6,071	2	0	1

■ H6CQ47C - CQ47C: EVER DX WITH HEART ATTACK/SURGERY -W6

Туре	Code
Measurement Unit	Numeric
H6CQ47C	CQ47. Has a doctor, nurse or health care provider ever told you that you have ANY of the following? c. Heart attack or heart surgery for clogged coronary arteries (including bypass, angioplasty or stent)

			Frequency	% of total	% of valid
Valid	0	no	5,972	98.34%	98.37%
	1	yes	99	1.63%	1.63%

		Total	6,071	99.97%	100%
Missing	-9996	refused	2	0.03%	
		Total	2	0.03%	

Valid	Invalid	Minimum	Maximum
6,071	2	0	1

■ H6CQ47D - CQ47D: EVER DX WITH KIDNEY DISEASE/FAILURE -W6

Туре	Code
Measurement Unit	Numeric
H6CQ47D	CQ47. Has a doctor, nurse or health care provider ever told you that you have ANY of the following? d. Chronic kidney disease or failure

			Frequency	% of total	% of valid
Valid	0	no	5,980	98.47%	98.5%
	1	yes	91	1.5%	1.5%
		Total	6,071	99.97%	100%
Missing	-9996	refused	2	0.03%	
		Total	2	0.03%	

Valid	Invalid	Minimum	Maximum
6,071	2	0	1

■ H6CQ47E - CQ47E: EVER DX WITH STROKE/CLOGGED ARTERY -W6

Туре	Code
Measurement Unit	Numeric
H6CQ47E	CQ47. Has a doctor, nurse or health care provider ever told you that you have ANY of the following? e. Stroke, mini-stroke, or surgery for clogged neck arteries (including endarterectomy, bypass, angioplasty or stent)

			Frequency	% of total	% of valid
Valid	0	no	5,970	98.3%	98.34%
	1	yes	101	1.66%	1.66%
		Total	6,071	99.97%	100%
Missing	-9996	refused	2	0.03%	
		Total	2	0.03%	

Valid	Invalid	Minimum	Maximum
6,071	2	0	1

■ H6CQ47F - CQ47F: EVER DX WITH HIGH CHOLESTEROL/TRIG/LIPIDS -W6

Туре	Code
Measurement Unit	Numeric

H6CQ47F	CQ47. Has a doctor, nurse or health care provider ever told you that you have
	ANY of the following?
	f. High cholesterol, triglycerides or lipids

			Frequency	% of total	% of valid
Valid	0	no	4,769	78.53%	78.55%
	1	yes	1,302	21.44%	21.45%
		Total	6,071	99.97%	100%
Missing	-9996	refused	2	0.03%	
		Total	2	0.03%	

Valid	Invalid	Minimum	Maximum
6,071	2	0	1

■ H6BPFLG - # BPs/PRs USED FOR SINGLE MEASURE -W6

Туре	Code
Measurement Unit	Numeric
H6BPFLG	Number of measures used to generate the final blood pressure and pulse variables

			Frequency	% of total	% of valid
Valid	1	measures 2 & 3	6,006	98.9%	98.9%
	2	measure 3 only	2	0.03%	0.03%
	3	measure 2 only	17	0.28%	0.28%
	4	measure 1 only	12	0.2%	0.2%
	5	no measures	36	0.59%	0.59%
		Total	6,073	100%	100%

Valid	Invalid	Minimum	Maximum
6,073	0	1	5

H6SBP - AVERAGE SYSTOLIC BP (MMHg) -W6

Туре	Numeric (Double)
H6SBP	Systolic blood pressure (mm Hg) based on BPSYS1, BPSYS2, BPSYS3
Logic	If $(CQ09 = (missing, 1) \text{ and } H6CUFFIT = 0 \text{ and } BPSYS1 = missing) \text{ or } (CQ01 = 2), \\ then H6SBP = 9997.$

			Frequency	% of total	% of valid
Missing	-9996	refused	14	0.23%	
	-9997	legitimate skip	16	0.26%	
	-9999	invalid measurements	6	0.1%	
		Total	36	0.59%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,037	36	78	217	123.06816	16.06002

■ H6DBP - AVERAGE DIASTOLIC BP (MMHg) -W6

Туре	Numeric (Double)
H6DBP	Diastolic blood pressure (mm Hg) based on BPDIA1, BPDIA2, BPDIA3
Logic	If (CQ09 = (missing, 1) and H6CUFFIT = 0 and BPSYS1 = missing) or (CQ01 = 2), then H6DBP = 9997.

			Frequency	% of total	% of valid
Missing	-9996	refused	14	0.23%	
	-9997	legitimate skip	16	0.26%	
	-9999	invalid measurements	6	0.1%	
		Total	36	0.59%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,037	36	47.5	139	80.40567	11.15877

■ H6PR - AVERAGE PULSE RATE (/MIN) -W6

Туре	Numeric (Double)
H6PR	Pulse rate (/min) based on BPPULSE1, BPPULSE2, BPPULSE3
Logic	If $(CQ09 = (missing, 1) \text{ and } H6CUFFIT = 0 \text{ and } BPSYS1 = missing) \text{ or } (CQ01 = 2),$ then $H6PR = 9997$.

			Frequency	% of total	% of valid
Missing	-9996	refused	14	0.23%	
	-9997	legitimate skip	16	0.26%	
	-9999	invalid measurements	6	0.1%	
		Total	36	0.59%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,037	36	40.5	145	76.31464	12.33829

■ H6PP - PULSE PRESSURE (MMHg) -W6

Туре	Numeric (Double)
Н6РР	Pulse pressure (mm Hg) - the difference between systolic and diastolic blood pressures
Logic	If $(CQ09 = (missing, 1) \text{ and } H6CUFFIT = 0 \text{ and } BPSYS1 = missing) \text{ or } (CQ01 = 2),$ then $H6PP = 9997$.

			Frequency	% of total	% of valid
Missing	-9996	refused	14	0.23%	
	-9997	legitimate skip	16	0.26%	
	-9999	invalid measurements	6	0.1%	
		Total	36	0.59%	

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,037	36	14	100	42.6625	9.34524

Type Numeric (Double) H6MAP Mean arterial pressure (mm Hg) - which is conventionally approximated as the weighted sum of systolic and diastolic blood pressure measures Logic If (CQ09 = (missing, 1) and H6CUFFIT = 0 and BPSYS1 = missing) or (CQ01 = 2),

			Frequency	% of total	% of valid
Missing	-9996	refused	14	0.23%	
	-9997	legitimate skip	16	0.26%	
	-9999	invalid measurements	6	0.1%	
		Total	36	0.59%	

then H6MAP = 9997.

Valid	Invalid	Minimum	Maximum	Mean	StdDev
6,037	36	57.7	164.2	94.62662	12.22996

■ H6BPCLS4 - BLOOD PRESSURE CLASSIFICATION (JNC7) -W6

Туре	Code
Measurement Unit	Numeric
H6BPCLS4	Blood pressure classification based on guidelines from the Seventh Report of the Joint National Committee on Prevention Detection, Evaluation, and Treatment of High Blood Pressure (JNC7)

			Frequency	% of total	% of valid
Valid	1	normal (systolic BP: < 120 and diastolic BP: < 80)	2,289	37.69%	37.92%
	2	pre-hypertension (systolic BP: 120-139 or diastolic BP: 80-89)	2,443	40.23%	40.47%
	3	Hypertension Stage 1 (systolic BP: 140-159 or diastolic BP: 90-99)	960	15.81%	15.9%
	4	Hypertension Stage 2 (systolic BP: >= 160 or diastolic BP: >= 100)	345	5.68%	5.71%
		Total	6,037	99.41%	100%
Missing		not applicable (no BP measure)	36	0.59%	
		Total	36	0.59%	

Valid	Invalid	Minimum	Maximum
6,037	36	1	4

■ H6BPCLS5 - BLOOD PRESSURE CLASSIFICATION (AHA/ACC) -W6

Туре	Code
Measurement Unit	Numeric

H6BPCLS5	Blood pressure classification based on the Guideline for the Prevention,
	Detection, Evaluation, and Management of High Blood Pressure in Adults
	from the American Heart Association/American College of Cardiology Task
	Force (AHA/ACC)

			Frequency	% of total	% of valid
Valid	1	normal (systolic BP: < 120 and diastolic BP: < 80)	2,289	37.69%	37.92%
	2	elevated (systolic BP: 120-129 and diastolic BP: < 80)	593	9.76%	9.82%
	3	Hypertension Stage 1 (systolic BP: 130-139 or diastolic BP: 80-89)	1,850	30.46%	30.64%
	4	Hypertension Stage 2 (systolic BP: 140-180 or diastolic BP: 90-120)	1,263	20.8%	20.92%
	5	Hypertension Crisis (systolic BP: > 180 or diastolic BP: > 120)	42	0.69%	0.7%
		Total	6,037	99.41%	100%
Missing		not applicable (no BP measure)	36	0.59%	
		Total	36	0.59%	

Valid	Invalid	Minimum	Maximum
6,037	36	1	5

Type Code Measurement Unit Numeric H6EAHT FLAG indicating participant took an antihypertensive medication in the past 4 weeks

			Frequency	% of total	% of valid
Valid	0	no	4,718	77.69%	78.44%
	1	yes	1,297	21.36%	21.56%
		Total	6,015	99.04%	100%
Missing	-9994	exam stopped prior to medication questions	44	0.72%	
	-9996	refused	2	0.03%	
	-9998	medication could not be classified	1	0.02%	
	-9999	participant reported taking prescription medication(s), but specific medication(s) not reported	11	0.18%	
		Total	58	0.96%	

Valid	Invalid	Minimum	Maximum
6,015	58	0	1

Type Code Measurement Unit Numeric H6HTENJC FLAG indicating participant has EITHER a blood pressure measure classified as hypertension stage 1 or 2 based on JNC7 (H6BPCLS4=3 or 4) OR took an antihypertensive medication in the past 4 weeks (H6EAHT=1) OR has ever been diagnosed with high blood pressure or hypertension (H6CQ47A=1)

			Frequency	% of total	% of valid
Valid	0	no evidence of hypertension	3,586	59.05%	59.07%
	1	evidence of hypertension	2,485	40.92%	40.93%
		Total	6,071	99.97%	100%
Missing		missing on all components of joint classification	2	0.03%	
		Total	2	0.03%	

Valid	Invalid	Minimum	Maximum
6,071	2	0	1

■ H6HTENJC2 - JOINT CLASSIFICATION HYPERTENSION (AHA/ACC) -W6

Туре	Code
Measurement Unit	Numeric
H6HTENJC2	FLAG indicating participant has EITHER a blood pressure measure classified as hypertension stage 1 or 2 or hypertension crisis based on AHA/ACC (H6BPCLS5=3, 4 or 5) OR took an antihypertensive medication in the past 4 weeks (H6EAHT=1) OR has ever been diagnosed with high blood pressure or hypertension (H6CQ47A=1)

			Frequency	% of total	% of valid
Valid	0	no evidence of hypertension	2,348	38.66%	38.68%
	1	evidence of hypertension	3,723	61.3%	61.32%
		Total	6,071	99.97%	100%
Missing		missing on all components of joint classification	2	0.03%	
		Total	2	0.03%	

Valid	Invalid	Minimum	Maximum
6,071	2	0	1