APPENDIX L

Cardiovascular Evaluation

TABLE L-1.

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Age: Born ≥1942	Age: Born 1923-1941	Age: Born ≤1922	Age: p-Value	Race: Black	Race: Nonblack	Race: p-Value
Reported/Verified Essential Hypertension*		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Yes	25.5%	37.8%	55.2%	<0.001	36.3%	32.7%	0.499
Reported Heart Disease (Excluding Hypertension)		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Yes	32.6%	41.0%	58.2%	<0.001	46.9%	37.3%	0.053
Verified Heart Disease (Excluding Hypertension)		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Yes	32.4%	40.8%	58.2%	<0.001	46.9%	37.1%	0.047
Reported/Verified Myocardial Infarction*		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Yes	1.4%	6.1%	20.9%	<0.001	3.5%	4.6%	0.818
Systolic Blood Pressure		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
(continuous)		—	r=0.187	—	<0.001	$\bar{x}$=129.31	$\bar{x}$=126.81	0.143
(discrete)	Abnormal	14.2%	23.6%	41.8%	<0.001	25.7%	19.7%	0.155
Heart Sounds		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	2.7%	5.2%	13.4%	<0.001[a]	5.3%	4.3%	0.732
ECG-Overall		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	10.8%	20.1%	47.8%	<0.001	22.1%	16.6%	0.170
RBBB		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	0.2%	0.8%	3.0%	0.011	1.8%	0.5%	0.282
LBBB		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	0.0%	0.5%	0.0%	0.104[a]	0.0%	0.3%	0.999

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Age: Born ≥1942	Age: Born 1923-1941	Age: Born ≤1922	Age: p-Value	Race: Black	Race: Nonblack	Race: p-Value
Nonspecific T-Waves		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	6.7%	13.6%	26.9%	<0.001	15.0%	10.8%	0.214
Bradycardia		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	6.0%	4.9%	3.0%	0.360	3.5%	5.4%	0.536
Tachycardia		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	0.1%	0.0%	0.0%	0.531[a]	0.0%	0.1%	0.999
Arrhythmia		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	2.0%	4.5%	20.9%	<0.001	2.6%	4.0%	0.674
ECG-Other Diagnoses		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	14.6%	20.9%	34.3%	<0.001	24.8%	18.2%	0.114
Diastolic Blood Pressure		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
(continuous)		—	r=0.071	—	0.001	$\bar{x}$=76.02	$\bar{x}$=74.72	0.144
(discrete)	Abnormal	3.5%	5.4%	4.5%	0.111	4.4%	4.5%	0.999
Funduscopic Examination		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	0.2%	1.2%	0.0%	0.029	0.9%	0.7%	0.999
Carotid Bruits		(n=895)	(n=1,066)	(n=67)		(n=113)	(n=1,915)	
	Abnormal	0.3%	0.8%	1.5%	0.251	0.0%	0.7%	0.948
Radial Pulses		(n=889)	(n=1,045)	(n=61)		(n=108)	(n=1,887)	
	Abnormal	0.2%	0.9%	0.0%	0.143[a]	0.9%	0.5%	0.918

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Age: Born ≥1942	Age: Born 1923-1941	Age: Born ≤1922	Age: p-Value	Race: Black	Race: Nonblack	Race: p-Value
Femoral Pulses		(n=889)	(n=1,045)	(n=61)		(n=108)	(n=1,887)	
	Abnormal	0.4%	2.1%	4.9%	0.001	0.0%	1.5%	0.394
Popliteal Pulses		(n=889)	(n=1,044)	(n=61)		(n=108)	(n=1,886)	
	Abnormal	1.8%	3.5%	8.2%	0.003	2.8%	2.9%	0.999
Dorsalis Pedis Pulses		(n=888)	(n=1,044)	(n=61)		(n=108)	(n=1,885)	
	Abnormal	8.6%	12.4%	21.3%	0.001	7.4%	11.1%	0.294
Posterior Tibial Pulses		(n=888)	(n=1,044)	(n=61)		(n=108)	(n=1,885)	
	Abnormal	1.5%	3.6%	13.1%	<0.001	5.6%	2.8%	0.192
Leg Pulses		(n=888)	(n=1,044)	(n=61)		(n=108)	(n=1,885)	
	Abnormal	10.2%	15.4%	29.5%	<0.001	11.1%	13.7%	0.538
Peripheral Pulses		(n=888)	(n=1,044)	(n=61)		(n=108)	(n=1,885)	
	Abnormal	10.4%	15.9%	29.5%	<0.001	12.0%	14.0%	0.677
All Pulses		(n=888)	(n=1,043)	(n=60)		(n=108)	(n=1,883)	
	Abnormal	10.4%	15.9%	30.0%	<0.001	12.0%	14.0%	0.674

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Occupation			p-Value
		Officer	Enlisted Flyer	Enlisted Groundcrew	
Reported/Verified Essential Hypertension*	Yes	(n=772) 34.5%	(n=342) 35.4%	(n=914) 30.7%	0.156
Reported Heart Disease (Excluding Hypertension)	Yes	(n=772) 42.6%	(n=342) 36.6%	(n=914) 34.4%	0.002
Verified Heart Disease (Excluding Hypertension)	Yes	(n=772) 42.6%	(n=342) 36.6%	(n=914) 33.9%	0.001
Reported/Verified Myocardial Infarction*	Yes	(n=772) 4.0%	(n=342) 6.1%	(n=914) 4.4%	0.277
Systolic Blood Pressure (continuous)		(n=772) $\bar{x}$=126.94	(n=342) $\bar{x}$=127.61	(n=914) $\bar{x}$=126.72	0.729
(discrete)	Abnormal	20.3%	21.9%	19.0%	0.502
Heart Sounds	Abnormal	(n=772) 4.2%	(n=342) 4.7%	(n=914) 4.4%	0.919
ECG-Overall	Abnormal	(n=772) 18.5%	(n=342) 19.3%	(n=914) 14.7%	0.047
RBBB	Abnormal	(n=772) 0.6%	(n=342) 0.9%	(n=914) 0.4%	0.643[a]
LBBB	Abnormal	(n=772) 0.5%	(n=342) 0.3%	(n=914) 0.0%	0.100[a]

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Occupation			p-Value
		Officer	Enlisted Flyer	Enlisted Groundcrew	
Nonspecific T-Waves		(n=772)	(n=342)	(n=914)	
	Abnormal	11.5%	12.3%	10.1%	0.447
Bradycardia		(n=772)	(n=342)	(n=914)	
	Abnormal	6.7%	4.7%	4.4%	0.084
Tachycardia		(n=772)	(n=342)	(n=914)	
	Abnormal	0.0%	0.0%	0.1%	0.544[a]
Arrhythmia		(n=772)	(n=342)	(n=914)	
	Abnormal	4.5%	3.5%	3.6%	0.563
ECG-Other Diagnoses		(n=772)	(n=342)	(n=914)	
	Abnormal	20.7%	19.9%	16.3%	0.053
Diastolic Blood Pressure		(n=772)	(n=342)	(n=914)	
(continuous)		$\bar{x}$=74.73	$\bar{x}$=75.16	$\bar{x}$=74.72	0.720
(discrete)	Abnormal	4.7%	5.6%	4.0%	0.509
Funduscopic Examination		(n=772)	(n=342)	(n=914)	
	Abnormal	0.8%	0.6%	0.8%	0.935
Carotid Bruits		(n=772)	(n=342)	(n=914)	
	Abnormal	0.3%	1.5%	0.7%	0.068[a]
Radial Pulses		(n=758)	(n=337)	(n=900)	
	Abnormal	0.7%	0.6%	0.4%	0.835[a]

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Occupation			p-Value
		Officer	Enlisted Flyer	Enlisted Groundcrew	
Femoral Pulses		(n=758)	(n=337)	(n=900)	
	Abnormal	1.3%	2.7%	1.1%	0.116
Popliteal Pulses		(n=758)	(n=336)	(n=900)	
	Abnormal	2.6%	3.9%	2.8%	0.510
Dorsalis Pedis Pulses		(n=758)	(n=336)	(n=899)	
	Abnormal	8.8%	16.4%	10.7%	0.001
Posterior Tibial Pulses		(n=758)	(n=336)	(n=899)	
	Abnormal	2.4%	4.8%	2.8%	0.091
Leg Pulses		(n=758)	(n=336)	(n=899)	
	Abnormal	11.1%	19.6%	13.4%	0.001
Peripheral Pulses		(n=758)	(n=336)	(n=899)	
	Abnormal	11.4%	19.9%	13.7%	0.001
All Pulses		(n=756)	(n=336)	(n=899)	
	Abnormal	11.4%	19.9%	13.7%	0.001

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Lifetime Cigarette Smoking History				Current Cigarette Smoking				
		0	>0-10	>10	p-Value	0 Non-smoker	0 Former Smoker	>0-20	>20	p-Value
Reported/Verified Essential Hypertension*	Yes	(n=570) 34.2%	(n=570) 28.4%	(n=888) 35.0%	0.024	(n=569) 34.1%	(n=789) 36.9%	(n=342) 26.0%	(n=328) 28.7%	0.001
Reported Heart Disease (Excluding Hypertension)	Yes	(n=570) 39.0%	(n=570) 38.6%	(n=888) 36.7%	0.633	(n=569) 38.8%	(n=789) 40.9%	(n=342) 36.6%	(n=328) 30.2%	0.008
Verified Heart Disease (Excluding Hypertension)	Yes	(n=570) 38.8%	(n=570) 38.4%	(n=888) 36.5%	0.618	(n=569) 38.7%	(n=789) 40.9%	(n=342) 36.6%	(n=328) 29.3%	0.003
Reported/Verified Myocardial Infarction*	Yes	(n=570) 2.3%	(n=570) 3.3%	(n=888) 6.8%	<0.001	(n=569) 2.3%	(n=789) 6.0%	(n=342) 4.7%	(n=328) 4.9%	0.015
Systolic Blood Pressure (continuous)		(n=570) —	(n=570) r=0.051	(n=888) —	0.022	(n=569) —	(n=789) r=-0.102	(n=342) —	(n=328) —	<0.001
(discrete)	Abnormal	18.2%	19.0%	21.8%	0.184	18.1%	24.2%	17.5%	15.9%	0.002
Heart Sounds	Abnormal	(n=570) 3.9%	(n=570) 3.5%	(n=888) 5.2%	0.250	(n=569) 3.9%	(n=789) 5.8%	(n=342) 4.4%	(n=328) 1.5%	0.013
ECG-Overall	Abnormal	(n=570) 14.2%	(n=570) 14.4%	(n=888) 20.3%	0.002	(n=569) 14.2%	(n=789) 20.5%	(n=342) 13.2%	(n=328) 16.8%	0.003
RBBB	Abnormal	(n=570) 0.2%	(n=570) 0.7%	(n=888) 0.8%	0.304[a]	(n=569) 0.2%	(n=789) 0.9%	(n=342) 0.6%	(n=328) 0.6%	0.416[a]

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

		Lifetime Cigarette Smoking History				Current Cigarette Smoking				
Dependent Variable	Level	0	>0-10	>10	p-Value	0 Non-smoker	0 Former Smoker	>0-20	>20	p-Value
LBBB		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
	Abnormal	0.4%	0.2%	0.2%	0.825[a]	0.4%	0.4%	0.0%	0.0%	0.478[a]
Nonspecific T-Waves		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
	Abnormal	8.8%	9.0%	13.7%	0.002	8.8%	13.8%	9.4%	9.8%	0.013
Bradycardia		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
	Abnormal	7.2%	6.5%	3.4%	0.002	7.2%	5.7%	5.3%	1.2%	0.002
Tachycardia		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
	Abnormal	0.0%	0.0%	0.1%	0.526[a]	0.0%	0.0%	0.0%	0.3%	0.159[a]
Arrhythmia		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
	Abnormal	4.0%	3.7%	4.0%	0.931	4.0%	4.2%	2.9%	4.3%	0.762
ECG-Other Diagnoses		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
	Abnormal	15.3%	17.4%	21.5%	0.008	15.3%	20.5%	17.2%	21.0%	0.051
Diastolic Blood Pressure		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
(continuous)		—	r=0.009	—	0.688	—	r=-0.062	—	—	0.005
(discrete)	Abnormal	3.7%	3.2%	6.0%	0.022	3.5%	5.3%	3.8%	5.2%	0.356
Funduscopic Examination		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
	Abnormal	0.4%	0.9%	0.9%	0.442[a]	0.4%	0.4%	1.8%	1.2%	0.039[a]
Carotid Bruits		(n=570)	(n=570)	(n=888)		(n=569)	(n=789)	(n=342)	(n=328)	
	Abnormal	0.2%	0.5%	1.0%	0.136[a]	0.2%	0.8%	1.2%	0.6%	0.306[a]

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

		Lifetime Cigarette Smoking History				Current Cigarette Smoking				
Dependent Variable	Level	0	>0-10	>10	p-Value	0 Non-smoker	0 Former Smoker	>0-20	>20	p-Value
Radial Pulses		(n=562)	(n=560)	(n=873)		(n=561)	(n=775)	(n=334)	(n=325)	
	Abnormal	0.4%	0.4%	0.8%	0.412[a]	0.4%	0.5%	0.9%	0.6%	0.762[a]
Femoral Pulses		(n=562)	(n=560)	(n=873)		(n=561)	(n=775)	(n=334)	(n=325)	
	Abnormal	0.9%	1.4%	1.8%	0.345	0.9%	1.3%	2.7%	1.5%	0.173[a]
Popliteal Pulses		(n=562)	(n=560)	(n=872)		(n=561)	(n=774)	(n=334)	(n=325)	
	Abnormal	0.4%	2.5%	4.8%	<0.001	0.4%	3.5%	4.8%	4.0%	<0.001
Dorsalis Pedis Pulses		(n=561)	(n=560)	(n=872)		(n=560)	(n=774)	(n=334)	(n=325)	
	Abnormal	8.7%	10.7%	12.5%	0.082	8.8%	11.4%	14.1%	10.5%	0.096
Posterior Tibial Pulses		(n=561)	(n=560)	(n=872)		(n=560)	(n=774)	(n=334)	(n=325)	
	Abnormal	1.4%	2.5%	4.2%	0.007	1.4%	2.6%	5.4%	4.0%	0.005
Leg Pulses		(n=561)	(n=560)	(n=872)		(n=560)	(n=774)	(n=334)	(n=325)	
	Abnormal	10.5%	12.9%	15.9%	0.012	10.5%	13.7%	17.4%	14.5%	0.033
Peripheral Pulses		(n=561)	(n=560)	(n=872)		(n=560)	(n=774)	(n=334)	(n=325)	
	Abnormal	10.7%	13.0%	16.4%	0.008	10.7%	14.1%	18.0%	14.5%	0.023
All Pulses		(n=560)	(n=560)	(n=871)		(n=559)	(n=774)	(n=333)	(n=325)	
	Abnormal	10.7%	13.0%	16.4%	0.008	10.7%	14.1%	18.0%	14.5%	0.023

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

		Lifetime Alcohol History				Current Alcohol Use			
Dependent Variable	Level	0	>0-40	>40	p-Value	0-1	>1-4	>4	p-Value
Reported/Verified Essential Hypertension*	Yes	(n=177) 32.2%	(n=1,406) 29.9%	(n=432) 42.6%	<0.001	(n=1,605) 30.1%	(n=350) 44.6%	(n=67) 40.3%	<0.001
Reported Heart Disease (Excluding Hypertension)	Yes	(n=177) 38.4%	(n=1,406) 38.1%	(n=432) 37.0%	0.911	(n=1,605) 38.2%	(n=350) 37.4%	(n=67) 31.3%	0.519
Verified Heart Disease (Excluding Hypertension)	Yes	(n=177) 37.8%	(n=1,406) 38.0%	(n=432) 36.6%	0.857	(n=1,605) 37.9%	(n=350) 37.4%	(n=67) 31.3%	0.548
Reported/Verified Myocardial Infarction*	Yes	(n=177) 5.6%	(n=1,406) 4.1%	(n=432) 5.3%	0.432	(n=1,605) 4.6%	(n=350) 3.4%	(n=67) 9.0%	0.134
Systolic Blood Pressure		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
(continuous)		—	r=0.054	—	0.016	—	r=0.070	—	0.002
(discrete)	Abnormal	19.2%	18.5%	25.5%	0.006	18.7%	24.6%	28.4%	0.010
Heart Sounds	Abnormal	(n=177) 5.1%	(n=1,406) 4.0%	(n=432) 5.3%	0.436	(n=1,605) 4.2%	(n=350) 5.4%	(n=67) 3.0%	0.497
ECG-Overall	Abnormal	(n=177) 17.0%	(n=1,406) 16.2%	(n=432) 19.2%	0.348	(n=1,605) 16.2%	(n=350) 19.1%	(n=67) 22.4%	0.197
RBBB	Abnormal	(n=177) 0.6%	(n=1,406) 0.4%	(n=432) 1.4%	0.051[a]	(n=1,605) 0.4%	(n=350) 1.4%	(n=67) 0.0%	0.074[a]

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

		Lifetime Alcohol History				Current Alcohol Use			
Dependent Variable	Level	0	>0-40	>40	p-Value	0-1	>1-4	>4	p-Value
LBBB		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
	Abnormal	0.0%	0.3%	0.2%	0.771[a]	0.3%	0.0%	0.0%	0.521[a]
Nonspecific T-Waves		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
	Abnormal	12.4%	10.7%	11.3%	0.772	10.5%	12.9%	13.4%	0.349
Bradycardia		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
	Abnormal	5.1%	5.4%	5.3%	0.984	5.2%	6.6%	1.5%	0.218
Tachycardia		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
	Abnormal	0.0%	0.0%	0.2%	0.160[a]	0.0%	0.0%	1.5%	—
Arrhythmia		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
	Abnormal	5.1%	3.9%	3.7%	0.715	4.0%	3.4%	6.0%	0.614
ECG-Other Diagnoses		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
	Abnormal	17.5%	17.9%	21.1%	0.317	17.5%	23.1%	20.9%	0.044
Diastolic Blood Pressure		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
(continuous)		—	r=0.057	—	0.010	—	r=0.059	—	0.008
(discrete)	Abnormal	4.0%	4.1%	6.2%	0.166	3.6%	8.3%	9.0%	<0.001
Funduscopic Examination		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
	Abnormal	0.0%	0.6%	1.4%	0.101[a]	0.4%	2.0%	1.5%	0.006[a]
Carotid Bruits		(n=177)	(n=1,406)	(n=432)		(n=1,605)	(n=350)	(n=67)	
	Abnormal	0.0%	0.7%	0.7%	0.532[a]	0.7%	0.6%	0.0%	0.776[a]

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Lifetime Alcohol History				Current Alcohol Use			
		0	>0-40	>40	p-Value	0-1	>1-4	>4	p-Value
Radial Pulses		(n=169)	(n=1,387)	(n=426)		(n=1,577)	(n=348)	(n=64)	
	Abnormal	0.6%	0.6%	0.5%	0.964[a]	0.6%	0.3%	0.0%	0.609[a]
Femoral Pulses		(n=169)	(n=1,387)	(n=426)		(n=1,577)	(n=348)	(n=64)	
	Abnormal	0.6%	1.5%	1.6%	0.603	1.5%	1.4%	1.6%	0.997
Popliteal Pulses		(n=169)	(n=1,386)	(n=426)		(n=1,576)	(n=348)	(n=64)	
	Abnormal	0.6%	2.5%	4.7%	0.011	2.5%	4.6%	3.1%	0.118
Dorsalis Pedis Pulses		(n=169)	(n=1,385)	(n=426)		(n=1,576)	(n=347)	(n=64)	
	Abnormal	13.0%	10.3%	11.7%	0.458	10.6%	13.0%	9.4%	0.404
Posterior Tibial Pulses		(n=169)	(n=1,385)	(n=426)		(n=1,576)	(n=347)	(n=64)	
	Abnormal	1.2%	2.4%	4.9%	0.011	2.6%	4.6%	3.1%	0.136
Leg Pulses		(n=169)	(n=1,385)	(n=426)		(n=1,576)	(n=347)	(n=64)	
	Abnormal	14.8%	12.6%	15.7%	0.230	13.1%	15.8%	12.5%	0.396
Peripheral Pulses		(n=169)	(n=1,385)	(n=426)		(n=1,576)	(n=347)	(n=64)	
	Abnormal	15.4%	13.0%	15.7%	0.295	13.5%	15.8%	12.5%	0.496
All Pulses		(n=169)	(n=1,383)	(n=426)		(n=1,574)	(n=347)	(n=64)	
	Abnormal	15.4%	13.0%	15.7%	0.301	13.5%	15.8%	12.5%	0.500

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Cholesterol				HDL				Cholesterol-HDL Ratio			
		≤200	>200-230	>230	p-Value	≤40	>40-50	>50	p-Value	≤4.2	>4.2-5.5	>5.5	p-Value
Reported/Verified Essential Hypertension*	Yes	(n=699) 27.8%	(n=639) 34.3%	(n=673) 37.0%	0.001	(n=589) 34.0%	(n=744) 33.6%	(n=678) 31.3%	0.527	(n=716) 29.2%	(n=721) 33.4%	(n=574) 36.9%	0.012
Reported Heart Disease (Excluding Hypertension)	Yes	(n=699) 39.9%	(n=639) 35.8%	(n=673) 37.6%	0.303	(n=589) 36.7%	(n=744) 39.5%	(n=678) 37.0%	0.491	(n=716) 39.7%	(n=721) 35.8%	(n=574) 38.2%	0.311
Verified Heart Disease (Excluding Hypertension)	Yes	(n=699) 39.5%	(n=639) 35.8%	(n=673) 37.4%	0.385	(n=589) 36.3%	(n=744) 39.5%	(n=678) 36.7%	0.409	(n=716) 39.4%	(n=721) 35.6%	(n=574) 38.0%	0.336
Reported/Verified Myocardial Infarction*	Yes	(n=699) 3.0%	(n=639) 4.2%	(n=673) 6.5%	0.007	(n=589) 8.2%	(n=744) 3.5%	(n=678) 2.6%	<0.001	(n=716) 2.9%	(n=721) 3.5%	(n=574) 8.0%	<0.001
Systolic Blood Pressure (continuous)		(n=699) —	(n=639) r=0.097	(n=673) —	<0.001	(n=589) —	(n=744) r=0.002	(n=678) —	0.917	(n=716) —	(n=721) r=0.060	(n=574) —	0.007
(discrete)	Abnormal	16.9%	19.7%	23.8%	0.006	20.4%	19.8%	20.2%	0.958	19.3%	18.9%	22.6%	0.191
Heart Sounds	Abnormal	(n=699) 4.3%	(n=639) 3.8%	(n=673) 4.9%	0.593	(n=589) 5.4%	(n=744) 3.4%	(n=678) 4.4%	0.179	(n=716) 4.6%	(n=721) 2.8%	(n=574) 5.9%	0.020
ECG-Overall	Abnormal	(n=699) 15.2%	(n=639) 16.0%	(n=673) 19.9%	0.045	(n=589) 18.7%	(n=744) 15.7%	(n=678) 17.0%	0.363	(n=716) 16.9%	(n=721) 15.0%	(n=574) 19.7%	0.081
RBBB	Abnormal	(n=699) 0.9%	(n=639) 0.6%	(n=673) 0.3%	0.400[a]	(n=589) 0.9%	(n=744) 0.4%	(n=678) 0.6%	0.576[a]	(n=716) 0.7%	(n=721) 0.4%	(n=574) 0.7%	0.734[a]

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Cholesterol				HDL				Cholesterol-HDL Ratio			
		≤200	>200-230	>230	p-Value	≤40	>40-50	>50	p-Value	≤4.2	>4.2-5.5	>5.5	p-Value
LBBB		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
	Abnormal	0.3%	0.2%	0.3%	0.851[a]	0.0%	0.5%	0.2%	0.119[a]	0.3%	0.1%	0.4%	0.737[a]
Nonspecific T-Waves		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
	Abnormal	9.0%	11.1%	13.2%	0.046	12.6%	9.7%	11.4%	0.240	10.3%	10.5%	12.7%	0.337
Bradycardia		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
	Abnormal	6.3%	5.5%	4.3%	0.262	2.7%	5.9%	7.1%	0.002	8.5%	4.3%	2.8%	<0.001
Tachycardia		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
	Abnormal	0.0%	0.0%	0.2%	0.370[a]	0.0%	0.0%	0.2%	0.374[a]	0.1%	0.0%	0.0%	0.405[a]
Arrhythmia		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
	Abnormal	4.3%	3.0%	4.6%	0.277	4.8%	3.2%	4.1%	0.355	4.2%	3.0%	4.9%	0.232
ECG-Other Diagnoses		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
	Abnormal	17.3%	18.5%	20.1%	0.423	19.9%	18.0%	18.1%	0.642	17.6%	19.1%	19.2%	0.693
Diastolic Blood Pressure		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
(continuous)		—	r=0.111	—	<0.001	—	r=0.002	—	0.915	—	r=0.077	—	<0.001
(discrete)	Abnormal	3.9%	4.4%	5.4%	0.407	3.4%	4.4%	5.6%	0.167	5.7%	3.5%	4.4%	0.117
Funduscopic Examination		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
	Abnormal	0.9%	0.5%	0.9%	0.615	0.3%	0.7%	1.2%	0.213	1.0%	0.8%	0.4%	0.403
Carotid Bruits		(n=699)	(n=639)	(n=673)		(n=589)	(n=744)	(n=678)		(n=716)	(n=721)	(n=574)	
	Abnormal	0.7%	0.8%	0.4%	0.720[a]	1.0%	0.8%	0.2%	0.123[a]	0.3%	0.8%	0.9%	0.310[a]

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

		Cholesterol				HDL				Cholesterol-HDL Ratio			
Dependent Variable	Level	≤200	>200-230	>230	p-Value	≤40	>40-50	>50	p-Value	≤4.2	>4.2-5.5	>5.5	p-Value
Radial Pulses		(n=686)	(n=629)	(n=664)		(n=582)	(n=730)	(n=667)		(n=704)	(n=709)	(n=566)	
	Abnormal	0.6%	0.5%	0.6%	0.948	0.9%	0.6%	0.3%	0.415[a]	0.3%	0.6%	0.9%	0.361[a]
Femoral Pulses		(n=686)	(n=629)	(n=664)		(n=582)	(n=730)	(n=667)		(n=704)	(n=709)	(n=566)	
	Abnormal	1.2%	1.8%	1.5%	0.676	1.9%	1.6%	0.9%	0.306	0.6%	2.5%	1.2%	0.007
Popliteal Pulses		(n=686)	(n=628)	(n=664)		(n=581)	(n=730)	(n=667)		(n=704)	(n=709)	(n=565)	
	Abnormal	2.2%	2.9%	3.8%	0.227	3.1%	3.4%	2.2%	0.412	2.1%	3.2%	3.5%	0.277
Dorsalis Pedis Pulses		(n=686)	(n=627)	(n=664)		(n=580)	(n=730)	(n=667)		(n=704)	(n=708)	(n=565)	
	Abnormal	10.1%	9.9%	13.0%	0.135	11.2%	11.6%	10.0%	0.620	9.8%	10.4%	13.1%	0.150
Posterior Tibial Pulses		(n=686)	(n=627)	(n=664)		(n=580)	(n=730)	(n=667)		(n=704)	(n=708)	(n=565)	
	Abnormal	2.0%	3.8%	3.2%	0.155	2.9%	3.4%	2.6%	0.628	2.4%	3.5%	3.0%	0.467
Leg Pulses		(n=686)	(n=627)	(n=664)		(n=580)	(n=730)	(n=667)		(n=704)	(n=708)	(n=565)	
	Abnormal	11.7%	13.1%	16.1%	0.052	14.1%	14.7%	12.0%	0.317	11.1%	14.6%	15.6%	0.045
Peripheral Pulses		(n=686)	(n=627)	(n=664)		(n=580)	(n=730)	(n=667)		(n=704)	(n=708)	(n=565)	
	Abnormal	12.2%	13.2%	16.3%	0.086	14.5%	14.9%	2.3%	0.325	11.4%	14.8%	15.9%	0.044
All Pulses		(n=685)	(n=627)	(n=663)		(n=578)	(n=730)	(n=667)		(n=704)	(n=708)	(n=563)	
	Abnormal	12.3%	13.2%	16.3%	0.085	14.5%	14.9%	12.3%	0.320	11.4%	14.8%	16.0%	0.042

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Percent Body Fat				Personality Type		
		<10	10-25	>25	p-Value	A	B	p-Value
Reported/Verified Essential Hypertension*		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Yes	0.0%	28.2%	55.3%	<0.001	32.6%	34.7%	0.348
Reported Heart Disease (Excluding Hypertension)		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Yes	25.0%	38.4%	35.6%	0.456	39.8%	37.5%	0.337
Verified Heart Disease (Excluding Hypertension)		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Yes	25.0%	38.2%	35.6%	0.499	39.7%	37.2%	0.302
Reported/Verified Myocardial Infarction*		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Yes	0.0%	4.4%	5.2%	0.664	4.2%	4.9%	0.604
Systolic Blood Pressure		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
(continuous)		—	r=0.234	—	<0.001	—	r=-0.045	0.047
(discrete)	Abnormal	12.5%	17.3%	32.6%	<0.001	18.2%	22.4%	0.026
Heart Sounds		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	0.0%	4.2%	4.9%	0.698	4.5%	4.2%	0.848
ECG-Overall		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	25.0%	15.8%	21.6%	0.023	16.8%	17.7%	0.618
RBBB		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	0.0%	0.7%	0.3%	0.662[a]	0.7%	0.6%	0.898
LBBB		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	0.0%	0.2%	0.6%	0.437[a]	0.0%	0.5%	0.108

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Percent Body Fat				Personality Type		
		<10	10-25	>25	p-Value	A	B	p-Value
Nonspecific T-Waves		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	25.0%	9.6%	17.0%	<0.001	10.7%	11.8%	0.530
Bradycardia		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	0.0%	5.9%	3.0%	0.072	5.6%	5.2%	0.834
Tachycardia		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	0.0%	0.1%	0.0%	0.893[a]	0.1%	0.0%	0.884
Arrhythmia		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	0.0%	3.9%	4.4%	0.763	3.9%	4.2%	0.830
ECG-Other Diagnoses		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	62.5%	18.2%	19.4%	0.005	20.1%	18.1%	0.304
Diastolic Blood Pressure		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
(continuous)		—	r=0.196	—	<0.001	r=0.004		0.861
(discrete)	Abnormal	0.0%	4.0%	7.1%	0.028	4.1%	4.9%	0.519
Funduscopic Examination		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	0.0%	0.8%	0.6%	0.865[a]	0.6%	0.8%	0.712
Carotid Bruits		(n=8)	(n=1,655)	(n=365)		(n=847)	(n=1,071)	
	Abnormal	0.0%	0.6%	0.8%	0.872[a]	0.6%	0.8%	0.893
Radial Pulses		(n=7)	(n=1,636)	(n=352)		(n=835)	(n=1,051)	
	Abnormal	0.0%	0.6%	0.3%	0.739[a]	0.6%	0.6%	0.999

TABLE L-1. (continued)

Dependent Variable-Covariate Associations for Cardiovascular Evaluation

Dependent Variable	Level	Percent Body Fat				Personality Type		
		<10	10-25	>25	p-Value	A	B	p-Value
Femoral Pulses		(n=7)	(n=1,636)	(n=352)		(n=835)	(n=1,051)	
	Abnormal	0.0%	1.2%	2.6%	0.157	0.6%	2.2%	0.008
Popliteal Pulses		(n=7)	(n=1,635)	(n=352)		(n=834)	(n=1,051)	
	Abnormal	28.6%	2.6%	3.7%	<0.001	1.7%	4.1%	0.004
Dorsalis Pedis Pulses		(n=7)	(n=1,634)	(n=352)		(n=834)	(n=1,050)	
	Abnormal	14.3%	11.0%	10.5%	0.925	9.6%	12.4%	0.066
Posterior Tibial Pulses		(n=7)	(n=1,634)	(n=352)		(n=834)	(n=1,050)	
	Abnormal	14.3%	3.4%	0.8%	0.009	2.0%	3.9%	0.028
Leg Pulses		(n=7)	(n=1,634)	(n=352)		(n=834)	(n=1,050)	
	Abnormal	28.6%	13.3%	14.5%	0.424	11.4%	15.8%	0.007
Peripheral Pulses		(n=7)	(n=1,634)	(n=352)		(n=834)	(n=1,050)	
	Abnormal	28.6%	13.6%	14.5%	0.485	11.8%	16.1%	0.009
All Pulses		(n=7)	(n=1,634)	(n=350)		(n=833)	(n=1,049)	
	Abnormal	28.6%	13.6%	14.6%	0.477	11.8%	16.1%	0.009

TABLE L-1. (continued)

Dependent Variable-Covariate Association for Cardiovascular Evaluation

Dependent Variable	Level	Differential Cortisol				Family History of Heart Disease			Family History of Heart Disease <50		
		≤0.6	>0.6-4.0	>4.0	p-Value	Yes	No	p-Value	Yes	No	p-Value
Reported/Verified Essential Hypertension*	Yes	(n=635) 35.8%	(n=659) 33.5%	(n=618) 32.0%	0.376	(n=449) 39.4%	(n=1,579) 31.1%	0.001	(n=58) 43.1%	(n=1,970) 32.6%	0.126
Reported Heart Disease (Excluding Hypertension)	Yes	(n=635) 37.5%	(n=659) 38.7%	(n=618) 39.3%	0.793	(n=449) 42.5%	(n=1,579) 36.5%	0.024	(n=58) 39.7%	(n=1,970) 37.8%	0.883
Verified Heart Disease (Excluding Hypertension)	Yes	(n=635) 37.5%	(n=659) 38.5%	(n=618) 38.8%	0.873	(n=449) 42.1%	(n=1,579) 36.4%	0.033	(n=58) 39.7%	(n=1,970) 37.6%	0.858
Reported/Verified Myocardial Infarction*	Yes	(n=635) 4.4%	(n=659) 3.8%	(n=618) 5.7%	0.270	(n=449) 7.8%	(n=1,579) 3.6%	<0.001	(n=58) 6.9%	(n=1,970) 4.5%	0.534
Systolic Blood Pressure (continuous)		(n=635) —	(n=659) r=-0.036	(n=618) —	0.118	(n=449) $\bar{x}$=128.32	(n=1,579) $\bar{x}$=126.56	0.062	(n=58) $\bar{x}$=130.22	(n=1,970) $\bar{x}$=126.86	0.151
(discrete)	Abnormal	21.3%	20.8%	19.7%	0.794	23.2%	19.1%	0.072	29.3%	19.8%	0.112
Heart Sounds	Abnormal	(n=635) 4.1%	(n=659) 4.1%	(n=618) 4.7%	0.834[a]	(n=449) 6.7%	(n=1,579) 3.7%	0.009	(n=58) 8.6%	(n=1,970) 4.2%	0.208
ECG-Overall	Abnormal	(n=635) 16.8%	(n=659) 17.8%	(n=618) 17.0%	0.898	(n=449) 18.5%	(n=1,579) 16.5%	0.348	(n=58) 13.8%	(n=1,970) 17.0%	0.664
RBBB	Abnormal	(n=635) 0.2%	(n=659) 0.9%	(n=618) 0.8%	0.181[a]	(n=449) 0.2%	(n=1,579) 0.7%	0.436	(n=58) 0.0%	(n=1,970) 0.6%	0.999
LBBB	Abnormal	(n=635) 0.5%	(n=659) 0.2%	(n=618) 0.2%	0.444[a]	(n=449) 0.4%	(n=1,579) 0.2%	0.614	(n=58) 0.0%	(n=1,970) 0.2%	0.999

TABLE L-1. (continued)

Dependent Variable-Covariate Association for Cardiovascular Evaluation

Dependent Variable	Level	Differential Cortisol				Family History of Heart Disease			Family History of Heart Disease<50		
		≤0.6	>0.6-4.0	>4.0	p-Value	Yes	No	p-Value	Yes	No	p-Value
Nonspecific T-Waves		(n=635)	(n=659)	(n=618)		(n=449)	(n=1,579)		(n=58)	(n=1,970)	
	Abnormal	12.0%	10.6%	10.8%	0.714	12.9%	10.4%	0.168	12.1%	11.0%	0.916
Bradycardia		(n=635)	(n=659)	(n=618)		(n=449)	(n=1,579)		(n=58)	(n=1,970)	
	Abnormal	6.6%	4.4%	5.0%	0.190	3.3%	5.9%	0.038	1.7%	5.4%	0.348
Tachycardia		(n=635)	(n=659)	(n=618)		(n=449)	(n=1,579)		(n=58)	(n=1,970)	
	Abnormal	0.2%	0.0%	0.0%	0.366[a]	0.0%	0.1%	0.999	0.0%	0.1%	0.999
Arrhythmia		(n=635)	(n=659)	(n=618)		(n=449)	(n=1,579)		(n=58)	(n=1,970)	
	Abnormal	3.5%	3.2%	5.3%	0.104	6.0%	3.4%	0.020	5.2%	3.9%	0.806
EOG-Other Diagnoses		(n=635)	(n=659)	(n=618)		(n=449)	(n=1,579)		(n=58)	(n=1,970)	
	Abnormal	18.6%	19.7%	18.4%	0.812	19.2%	18.4%	0.774	27.6%	18.3%	0.116
Diastolic Blood Pressure		(n=635)	(n=659)	(n=618)		(n=449)	(n=1,579)		(n=58)	(n=1,970)	
(continuous)		—	r=-0.057	—	0.012	$\bar{x}$=75.22	$\bar{x}$=74.68	0.269	$\bar{x}$=75.74	$\bar{x}$=74.68	0.424
(discrete)	Abnormal	4.7%	3.8%	5.3%	0.413	6.2%	4.0%	0.067	10.3%	4.4%	0.090
Funduscopic Examination		(n=635)	(n=659)	(n=618)		(n=449)	(n=1,579)		(n=58)	(n=1,970)	
	Abnormal	0.8%	0.8%	0.6%	0.954[a]	1.3%	0.6%	0.184	0.0%	0.8%	0.999
Carotid Bruits		(n=635)	(n=659)	(n=618)		(n=449)	(n=1,579)		(n=58)	(n=1,970)	
	Abnormal	0.3%	0.8%	1.0%	0.352[a]	0.9%	0.6%	0.677	1.7%	0.6%	0.620

TABLE L-1. (continued)

Dependent Variable-Covariate Association for Cardiovascular Evaluation

Dependent Variable	Level	Differential Cortisol				Family History of Heart Disease			Family History of Heart Disease <50		
		≤0.6	>0.6-4.0	>4.0	p-Value	Yes	No	p-Value	Yes	No	p-Value
Radial Pulses		(n=628)	(n=649)	(n=604)		(n=437)	(n=1,558)		(n=54)	(n=1,941)	
	Abnormal	0.5%	0.5%	0.8%	0.636[a]	0.7%	0.5%	0.892	0.0%	0.6%	0.999
Femoral Pulses		(n=628)	(n=649)	(n=604)		(n=437)	(n=1,558)		(n=54)	(n=1,941)	
	Abnormal	2.1%	1.1%	1.3%	0.316	2.1%	1.3%	0.331	0.0%	1.5%	0.898
Popliteal Pulses		(n=628)	(n=649)	(n=603)		(n=437)	(n=1,557)		(n=54)	(n=1,940)	
	Abnormal	2.9%	2.5%	3.6%	0.460	2.8%	3.0%	0.946	1.8%	2.9%	0.999
Dorsalis Pedis Pulses		(n=628)	(n=648)	(n=603)		(n=436)	(n=1,557)		(n=54)	(n=1,939)	
	Abnormal	11.9%	11.4%	10.0%	0.516	12.2%	10.6%	0.404	16.7%	10.8%	0.252
Posterior Tibial Pulses		(n=628)	(n=648)	(n=603)		(n=436)	(n=1,557)		(n=54)	(n=1,939)	
	Abnormal	3.0%	3.1%	3.2%	0.992	3.4%	2.8%	0.611	1.8%	3.0%	0.999
Leg Pulses		(n=628)	(n=648)	(n=603)		(n=436)	(n=1,557)		(n=54)	(n=1,939)	
	Abnormal	14.6%	13.6%	13.3%	0.760	14.2%	13.4%	0.700	18.5%	13.4%	0.379
Peripheral Pulses		(n=628)	(n=648)	(n=603)		(n=436)	(n=1,557)		(n=54)	(n=1,939)	
	Abnormal	15.1%	13.9%	13.4%	0.675	14.7%	13.6%	0.624	18.5%	13.7%	0.419
All Pulses		(n=627)	(n=647)	(n=603)		(n=435)	(n=1,556)		(n=54)	(n=1,937)	
	Abnormal	15.2%	13.9%	13.4%	0.670	14.7%	13.6%	0.616	18.5%	13.7%	0.421

*No conditions reported that were not verified; therefore, reported and verified analyses are the same.

[a]Small cell size may affect validity of p-value.

Note: Correlations (r) are based on total sample and are not category specific.

TABLE L-2.

Summary of Group-by-Covariate Interactions for Cardiovascular Variables

Variable	Interaction	Stratification	Statistic	Group: Ranch Hand		Group: Comparison		Adj. Relative Risk (95% C.I.)	p-Value
Reported/ Verified Myocardial Infarction*	Group-by- Family History of Heart Disease	Yes	n	201		241			
			Number%						
			Yes	19	9.4%	16	6.6%	1.50 (0.72,3.14)	0.278
			No	182	90.6%	225	93.4%		
		No	n	671		898			
			Number%						
			Yes	20	3.0%	37	4.1%	0.64 (0.36,1.15)	0.130
			No	651	97.0%	861	95.9%		
Systolic Blood Pressure	Group-by- Cholesterol-HDL Ratio	≤4.2	n	289		393			
			Number%						
			Abnormal	49	17.0%	85	21.6%	0.80 (0.53,1.19)	0.266
			Normal	240	83.0%	308	78.4%		
		>4.2-5.5	n	299		379			
			Number%						
			Abnormal	52	17.4%	79	20.8%	0.76 (0.51,1.14)	0.188
			Normal	247	82.6%	300	79.2%		
		>5.5	n	246		292			
			Number%						
			Abnormal	65	26.4%	62	21.2%	1.40 (0.93,2.11)	0.111
			Normal	181	73.6%	230	78.8%		

TABLE L-2. (continued)

Summary of Group-by-Covariate Interactions for Cardiovascular Variables

Variable	Interaction	Stratification	Statistic	Group: Ranch Hand		Group: Comparison		Adj. Relative Risk (95% C.I.)	p-Value
Nonspecific T-Waves	Group-by-Lifetime Cigarette Smoking History	0	n	247		323			
			Number%						
			Abnormal	16	6.5%	34	10.5%	0.54 (0.29,1.02)	0.052
			Normal	231	93.5%	289	89.5%		
		>0-10	n	242		328			
			Number%						
			Abnormal	17	7.0%	34	10.4%	0.66 (0.36,1.22)	0.177
			Normal	225	93.0%	294	89.6%		
		>10	n	389		499			
			Number%						
			Abnormal	60	15.4%	62	12.4%	1.37 (0.92,2.03)	0.118
			Normal	329	84.6%	437	87.6%		
Diastolic Blood Pressure (continous)	Group-by-Age	Born ≥1942	n	354		483			
			Adj. Mean	74.91		73.56		—	0.026
			95% C.I.	(74.01,75.81)		(72.78,74.33)			
		Born 1923-1941	n	457		546			
			Adj. Mean	75.42		75.24		—	0.760
			95% C.I.	(74.57,76.26)		(74.46,76.01)			
		Born ≤1922	n	26		40			
			Adj. Mean	75.71		75.72		—	0.996
			95% C.I.	(72.15,79.26)		(72.86,78.57)			

TABLE L-2. (continued)

Summary of Group-by-Covariate Interactions for Cardiovascular Variables

Variable	Interaction	Stratification	Statistic	Group: Ranch Hand		Group: Comparison		Adj. Relative Risk (95% C.I.)	p-Value
Diastolic Blood Pressure (discrete)	Group-by-Family History of Heart Disease Before Age 50	Yes	n	26		30			
			Number%						
			Abnormal	5	19.2%	1	3.3%	6.59 (0.71,61.56)	0.057[a]
			Normal	21	80.8%	29	96.7%		
		No	n	846		1,109			
			Number%						
			Abnormal	37	4.4%	48	4.3%	1.01 (0.65,1.57)	0.999
			Normal	809	95.6%	1,061	95.7%		
Posterior Tibial Pulse	Group-by-Differential Cortisol	≤0.6	n	272		355			
			Number%						
			Abnormal	9	3.3%	10	2.8%	1.09 (0.43,2.77)	0.861
			Normal	263	96.7%	345	97.2%		
		>0.6–4.0	n	301		344			
			Number%						
			Abnormal	14	4.6%	6	1.7%	3.04 (1.06,8.68)[b]	0.030[b]
			Normal	287	95.4%	338	98.3%		
		>4.0	n	251		349			
			Number%						
			Abnormal	6	2.4%	13	3.7%	0.61 (0.22,1.68)	0.330
			Normal	245	97.6%	336	96.3%		

TABLE L-2. (continued)

Summary of Group-by-Covariate Interactions for Cardiovascular Variables

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*No conditions reported that were not verified; therefore, reported and verified analyses are the same.

[a]Sparse cell size (p-value from Fisher's exact test [unadjusted]=0.136).

[b]Due to convergence problems, adjusted only for AGE, CSMOK, %BFAT, and PERS (i.e., RACE omitted) (reference: Table 15-8).

Note: Refer to Tables 15-4, 15-6, and 15-8 for specification of adjusted models.

TABLE L-3.

Association Between Central and Peripheral Abnormalities and Verified Heart Disease in the Combined Ranch Hand and Comparison Groups

Variable	Stratification	Total	Essential Hypertension		Heart Disease*		Myocardial Infarction	
			Percent Abnormal	p-Value	Percent Abnormal	p-Value	Percent Abnormal	p-Value
Systolic Blood Pressure	<140	1,622	23.1%	<0.001	37.1%	0.274	3.8%	0.003
	≥140	406	72.2%		40.2%		7.4%	
Diastolic Blood Pressure	<90	1,936	29.9%	<0.001	37.6%	0.999	4.4%	0.240
	≥90	92	97.8%		38.0%		7.6%	
ECG	Normal	1,685	30.6%	<0.001	31.8%	<0.001	1.5%	<0.001
	Abnormal	343	44.3%		66.8%		19.2%	
Heart Sounds	Normal	1,940	31.9%	<0.001	35.2%	<0.001	3.4%	<0.001
	Abnormal	88	55.7%		93.2%		29.6%	
Funduscopic Examination	Normal	2,013	32.6%	<0.001	37.7%	0.936	4.5%	0.292
	Abnormal	15	80.0%		33.3%		13.3%	
Carotid Bruits	Normal	2,015	32.8%	0.064	37.4%	0.010	4.4%	0.004
	Abnormal	13	61.5%		76.9%		30.8%	
Peripheral Pulses	Normal	1,717	30.9%	0.001	37.6%	0.401	3.7%	0.002
	Abnormal	276	41.3%		34.8%		8.0%	

*Excluding hypertension.

TABLE L-4.

Exposure Index-by-Covariate Interactions for Cardiovascular Variables

Variable	Interaction (Occupation)	Stratification	Statistic	Exposure Index: Low		Exposure Index: Medium		Exposure Index: High		Contrast	Adj. Relative Risk (95% C.I.)	p-Value
Bradycardia	Exposure Index-by-Cholesterol-HDL Ratio (Officer)	≤4.2	n	42		45		38		Overall		0.046[a]
			Number/%									
			Abnormal	6	14.3%	1	2.2%	1	2.6%	M vs. L	0.14 (0.02,1.18)	0.070
			Normal	36	85.7%	44	97.8%	37	97.4%	H vs. L	0.16 (0.02,1.41)	0.099
		>4.2-5.5	n	38		45		33		Overall		0.057[a]
			Number/%									
			Abnormal	4	10.5%	0	0.0%	1	3.0%	M vs. L	—	0.080
			Normal	34	89.5%	45	100.0%	32	97.0%	H vs. L	0.27 (0.03,2.51)	0.246
		>5.5	n	32		21		33		Overall		0.315[a]
			Number/%									
			Abnormal	1	3.1%	3	14.3%	2	6.1%	M vs. L	5.17 (0.50,53.44)	0.168
			Normal	31	96.9%	18	85.7%	31	93.9%	H vs. L	2.00 (0.17,23.22)	0.582

TABLE L-4. (continued)

Exposure Index-by-Covariate Interactions for Cardiovascular Variables

Variable	Interaction (Occupation)	Stratification	Statistic	Exposure Index: Low		Exposure Index: Medium		Exposure Index: High		Contrast	Adj. Relative Risk (95% C.I.)	p-Value
ECG-Other Diagnoses	Exposure Index-by-Age (Officer)	Born ≥1942	n	43		20		11		Overall		0.628
			Number/%									
			Abnormal	10	23.3%	3	15.0%	1	9.1%	M vs. L	0.58 (0.13,2.57)	0.472
			Normal	33	76.7%	17	85.0%	10	90.9%	H vs. L	0.43 (0.04,4.24)	0.465
		Born 1923-1941	n	64		82		91		Overall		0.654
			Number/%									
			Abnormal	15	23.4%	19	23.2%	16	17.6%	M vs. L	1.14 (0.50,2.59)	0.749
			Normal	49	76.6%	63	76.8%	75	82.4%	H vs. L	0.81 (0.35,1.82)	0.589
		Born ≤1922	n	5		9		2		Overall		0.126[a]
			Number/%									
			Abnormal	0	0.0%	4	44.4%	0	0.0%	M vs. L	—	0.252
			Normal	5	100.0%	5	55.6%	2	100.0%	H vs. L	—	—

TABLE L-4. (continued)

Exposure Index-by-Covariate Interactions for Cardiovascular Variables

Variable	Interaction (Occupation)	Stratification	Statistic	Exposure Index Low	Medium	High	Contrast	Adj. Relative Risk (95% C.I.)	p-Value
Diastolic Blood Pressure	Exposure Index-by-Personality Type (Enlisted Groundcrew)	Type A	n	50	56	44	Overall		0.412
			Adj. Mean	79.08	76.86	78.35	M vs. L	—	0.193
			95% C.I.	(75.71, 82.44)	(73.30, 80.44)	(74.87, 81.84)	H vs. L	—	0.679
		Type B	n	78	76	67	Overall		0.020
			Adj. Mean	76.90	80.52	76.80	M vs. L	—	0.014
			95% C.I.	(74.04, 79.77)	(77.63, 83.41)	(73.78, 79.83)	H vs. L	—	0.949

[a]Small cell size may affect validity of p-value.

—Adjusted relative risk/confidence interval not given due to cells with zero frequency; relative risk not applicable for continuous analysis of a variable.

TABLE L-5.

Cardiovascular Morbidity-Mortality Analysis
(Ranch Hands and Comparisons*)

Endpoint	Status	Ranch Hands (n=1,254) Event Yes	Ranch Hands (n=1,254) Event No	Ranch Hands (n=1,254) Event Total	Comparisons* (n=1,249) Event Yes	Comparisons* (n=1,249) Event No	Comparisons* (n=1,249) Event Total
Death (Any Cause) or Verified Heart Disease	Dead	85	0	85	92	0	92
	Living, Fully Compliant[a]	420	644	1,064	375	577	952
	Living, Not Fully Compliant[b]	41.4[c]	63.6[c]	105	80.8[c]	124.2[c]	205
	Estimated Percent Events[b]	43.6%			43.9%		
Death (Any Cause) or Verified Myocardial Infarction	Dead	85	0	85	92	0	92
	Living, Fully Compliant[a]	37	1,027	1,064	39	913	952
	Living, Not Fully Compliant[b]	3.7[c]	101.3[c]	105	8.4[c]	196.6[c]	205
	Estimated Percent Events	10.0%			11.2%		
Fatal or Nonfatal Verified Heart Disease	Dead	42	43	85	41	51	92
	Living, Fully Compliant[a]	420	644	1,064	375	577	952
	Living, Not Fully Compliant[b]	41.4[c]	63.6[c]	105	80.8[c]	124.2[c]	205
	Estimated Percent Events	40.1%			39.8%		
Fatal or Nonfatal Verified Myocardial Infarction or Fatal Heart Disease	Dead	33	52	85	29	63	92
	Living, Fully Compliant[a]	37	1,027	1,064	39	913	952
	Living, Not Fully Compliant[b]	3.7[c]	101.3[c]	105	8.4[c]	196.6[c]	205
	Estimated Percent Events	5.9%			6.1%		

*Comparison: first Comparison of the randomly ordered set matched to the Ranch Hands.
[a]Fully compliant at Baseline, third-year followup, or fifth-year followup examination.
[b]Not fully compliant at Baseline, third-year followup, and fifth-year followup examinations.
[c]Estimated using event rate in living, fully compliants.