

# READING STATISTICAL OUTPUTS

## Options:

Frequencies

Descriptives

Bivariate correlations

Chi-squared test

Independent-samples t-test

Paired-samples t-test

Linear regression

Logistic regression

Poisson or negative binomial regression

- \* There are two of each output in the following pages.
- \* Know which output you're looking at by looking at it.
- \* Know how to read and interpret every output.

**STATISTICAL ANALYSIS 1:** \_\_\_\_\_

Fall risk database:

**Discharge: Cervical injury**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	588	95.6	95.6	95.6
	1	27	4.4	4.4	100.0
	Total	615	100.0	100.0	

**Cognitive Struggles (Coded: 0/1)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	463	75.3	75.3	75.3
	1	152	24.7	24.7	100.0
	Total	615	100.0	100.0	

**LightheadednessDuringAppointment**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	529	86.0	86.0	86.0
	1	86	14.0	14.0	100.0
	Total	615	100.0	100.0	

**ANTI-INFLAMMATORY NSAID: Motrin (brand)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	610	99.2	99.2	99.2
	1	5	.8	.8	100.0
	Total	615	100.0	100.0	

**Number of cognition-enhancing drugs**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	557	90.6	90.6	90.6
	1	44	7.2	7.2	97.7
	2	13	2.1	2.1	99.8
	3	1	.2	.2	100.0
	Total	615	100.0	100.0	

**STATISTICAL ANALYSIS 2:**

Fall risk database:

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.453 <sup>a</sup>	.205	.194	4977.72180

a. Predictors: (Constant), Number of cognition-enhancing drugs, Cataracts, methadone, BLOOD THINNER (Clopidogrel and Plavix Combined), LightheadednessDuringAppointment, ANTI-INFLAMMATORY NSAID: Motrin (brand), Discharge: Urinary Tract Infection / UTI, Discharge: Dementia, Alzheimer's

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.728E+9	8	465971340	18.806	.000 <sup>b</sup>
	Residual	1.445E+10	583	24777714.3		
	Total	1.817E+10	591			

a. Dependent Variable: Total Charges Billed to Patient

b. Predictors: (Constant), Number of cognition-enhancing drugs, Cataracts, methadone, BLOOD THINNER (Clopidogrel and Plavix Combined), LightheadednessDuringAppointment, ANTI-INFLAMMATORY NSAID: Motrin (brand), Discharge: Urinary Tract Infection / UTI, Discharge: Dementia, Alzheimer's

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	3211.512	245.054		13.105	.000	2730.216	3692.808
	Discharge: Dementia, Alzheimer's	-2217.192	1465.089	-.059	-1.513	.131	-5094.688	660.304
	Discharge: Urinary Tract Infection / UTI	6760.430	1256.914	.204	5.379	.000	4291.799	9229.060
	Cataracts	3808.760	925.299	.153	4.116	.000	1991.435	5626.085
	LightheadednessDuringAppointment	1703.570	599.107	.106	2.844	.005	526.900	2880.240
	methadone	23945.863	3528.301	.251	6.787	.000	17016.134	30875.592
	ANTI-INFLAMMATORY NSAID: Motrin (brand)	6948.671	2522.280	.103	2.755	.006	1994.809	11902.532
	BLOOD THINNER (Clopidogrel and Plavix Combined)	1562.389	663.321	.088	2.355	.019	259.599	2865.179
Number of cognition-enhancing drugs	2448.625	540.563	.177	4.530	.000	1386.936	3510.313	

a. Dependent Variable: Total Charges Billed to Patient





## STATISTICAL ANALYSIS 5:

Fit3D database:

### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Fat_Mass_pre	18.8380761	17	7.35996496	1.78505370
	Fat_Mass_post	20.5984694	17	11.1436233	2.70272563
Pair 2	Body_Fat_Percent_pre	24.1947	17	6.60884	1.60288
	Body_Fat_Percent_post	24.4953	17	6.38816	1.54936
Pair 3	Waist_cm_Pre	84.02953	17	11.814683	2.865482
	Waist_cm_Post	83.99929	17	11.610872	2.816050
Pair 4	SBP_Pre	122.82	17	4.586	1.112
	SBP_Post	126.71	17	6.593	1.599
Pair 5	DBP_Pre	74.59	17	4.938	1.198
	DBP_Post	76.29	17	9.299	2.255

### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Fat_Mass_pre & Fat_Mass_post	17	.697	.002
Pair 2	Body_Fat_Percent_pre & Body_Fat_Percent_post	17	.951	.000
Pair 3	Waist_cm_Pre & Waist_cm_Post	17	.992	.000
Pair 4	SBP_Pre & SBP_Post	17	.302	.239
Pair 5	DBP_Pre & DBP_Post	17	.666	.004

### Paired Samples Test

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Fat_Mass_pre - Fat_Mass_post	-1.7603932	8.00341276	1.94111272	-5.8753684	2.35458190	-.907	16	.378
Pair 2	Body_Fat_Percent_pre - Body_Fat_Percent_post	-.30059	2.05627	.49872	-1.35782	.75665	-.603	16	.555
Pair 3	Waist_cm_Pre - Waist_cm_Post	.030235	1.531746	.371503	-.757316	.817786	.081	16	.936
Pair 4	SBP_Pre - SBP_Post	-3.882	6.800	1.649	-7.378	-.386	-2.354	16	.032
Pair 5	DBP_Pre - DBP_Post	-1.706	7.051	1.710	-5.331	1.920	-.997	16	.333

## STATISTICAL ANALYSIS 6:

### CT Study:

#### Myocardial\_Infarction \* Sex

**Crosstab**

		Sex			Total
		Male	Female		
Myocardial_Infarction	0	Count	1261	998	2259
		% within Sex	97.7%	98.3%	98.0%
	1	Count	30	17	47
		% within Sex	2.3%	1.7%	2.0%
Total		Count	1291	1015	2306
		% within Sex	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.198 <sup>a</sup>	1	.274		
Continuity Correction <sup>b</sup>	.895	1	.344		
Likelihood Ratio	1.219	1	.270		
Fisher's Exact Test				.301	.172
Linear-by-Linear Association	1.198	1	.274		
N of Valid Cases	2306				

#### Diabetes\_mellitus \* Sex

**Crosstab**

		Sex			Total
		Male	Female		
Diabetes_mellitus	0	Count	1126	851	1977
		% within Sex	87.2%	83.8%	85.7%
	1	Count	165	164	329
		% within Sex	12.8%	16.2%	14.3%
Total		Count	1291	1015	2306
		% within Sex	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.298 <sup>a</sup>	1	.021		
Continuity Correction <sup>b</sup>	5.025	1	.025		
Likelihood Ratio	5.267	1	.022		
Fisher's Exact Test				.023	.013
Linear-by-Linear Association	5.295	1	.021		
N of Valid Cases	2306				

#### Depression \* Sex

**Crosstab**

		Sex			Total
		Male	Female		
Depression	0	Count	1281	1000	2281
		% within Sex	99.2%	98.5%	98.9%
	1	Count	10	15	25
		% within Sex	0.8%	1.5%	1.1%
Total		Count	1291	1015	2306
		% within Sex	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.621 <sup>a</sup>	1	.105		
Continuity Correction <sup>b</sup>	2.006	1	.157		
Likelihood Ratio	2.599	1	.107		
Fisher's Exact Test				.110	.079
Linear-by-Linear Association	2.619	1	.106		
N of Valid Cases	2306				

## STATISTICAL ANALYSIS 7:

### Kidney Disease Database:

#### Group Statistics

	Sex	N	Mean	Std. Deviation	Std. Error Mean
Admission_HR	Male	164	88.68	22.389	1.748
	Female	158	88.07	21.317	1.696
Systolic_BP	Male	164	136.63	37.846	2.955
	Female	157	132.33	36.542	2.916
Diastolic_BP	Male	164	75.29	20.126	1.572
	Female	157	70.13	16.139	1.288
Glomerular_Filtration_Rate_mL_min	Male	162	28.41	12.800	1.006
	Female	156	24.54	11.566	.926
Hemoglobin_g_dL	Male	162	12.051	2.7091	.2128
	Female	153	11.146	2.3641	.1911
Serum_Albumin_g_dL	Male	117	3.201	.7538	.0697
	Female	108	3.123	.8349	.0803
Serum_Creatinine_mg_dL	Male	163	2.9342	1.59219	.12471
	Female	156	2.6379	1.38541	.11092
Blood_pH	Male	32	7.3656	.08919	.01577
	Female	41	7.3102	.47432	.07408
Lactate_mmol_L	Male	62	2.0610	1.29041	.16388
	Female	63	1.8511	1.06920	.13471

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Admission_HR	Equal variances assumed	1.176	.279	.249	320	.803	.607	2.438	-4.189	5.404
	Equal variances not assumed			.249	319.956	.803	.607	2.436	-4.185	5.399
Systolic_BP	Equal variances assumed	.009	.925	1.034	319	.302	4.297	4.155	-3.878	12.472
	Equal variances not assumed			1.035	318.976	.302	4.297	4.152	-3.872	12.466
Diastolic_BP	Equal variances assumed	4.851	.028	2.524	319	.012	5.153	2.042	1.136	9.170
	Equal variances not assumed			2.536	309.577	.012	5.153	2.032	1.155	9.151
Glomerular_Filtration_Rate_mL_min	Equal variances assumed	1.641	.201	2.825	316	.005	3.869	1.370	1.174	6.564
	Equal variances not assumed			2.830	314.738	.005	3.869	1.367	1.179	6.559
Hemoglobin_g_dL	Equal variances assumed	6.427	.012	3.151	313	.002	.9048	.2872	.3398	1.4699
	Equal variances not assumed			3.163	311.082	.002	.9048	.2861	.3420	1.4677
Serum_Albumin_g_dL	Equal variances assumed	1.862	.174	.734	223	.464	.0777	.1059	-.1310	.2864
	Equal variances not assumed			.731	215.863	.466	.0777	.1064	-.1319	.2873
Serum_Creatinine_mg_dL	Equal variances assumed	.343	.559	1.770	317	.078	-.29635	.16741	-.03303	.62572
	Equal variances not assumed			1.776	314.190	.077	-.29635	.16690	-.03204	.62473
Blood_pH	Equal variances assumed	1.645	.204	.651	71	.517	.05538	.08512	-.11434	.22511
	Equal variances not assumed			.731	43.591	.469	.05538	.07574	-.09729	.20806
Lactate_mmol_L	Equal variances assumed	1.293	.258	.991	123	.324	-.20986	.21182	-.20943	.62915
	Equal variances not assumed			.989	118.191	.325	-.20986	.21214	-.21023	.62994



**STATISTICAL ANALYSIS 8:** \_\_\_\_\_

Thoracic trauma database:

**Variables in the Equation**

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-2.669	.112	572.687	1	.000	.069

**Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	577.637 <sup>a</sup>	.044	.114

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

**Classification Table<sup>a</sup>**

Observed		Predicted		Percentage Correct
		MORTALITY Survived	MORTALITY Died	
Step 1	MORTALITY Survived	1239	1	99.9
	MORTALITY Died	84	2	2.3
Overall Percentage				93.6

a. The cut value is .500

**Variables in the Equation**

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	Age_years	.013	.006	4.430	1	.035	1.013
	Number_of_Fractured_Ribs	.139	.031	20.397	1	.000	1.149
	Pulmonary_Contusion	.744	.268	7.688	1	.006	2.105
	Hemothorax	.633	.340	3.458	1	.063	1.883
	Smoking	-1.026	.386	7.066	1	.008	.358
	Constant	-4.185	.453	85.468	1	.000	.015

a. Variable(s) entered on step 1: Age\_years, Number\_of\_Fractured\_Ribs, Pulmonary\_Contusion, Hemothorax, Smoking.

## STATISTICAL ANALYSIS 9:

### Fall risk database:

#### Continuous Variable Information

Dependent Variable		N	Minimum	Maximum	Mean	Std. Deviation
Total_Previous_and_Return_Falls		593	0	20	2.44	2.093
Covariate	Admission_Month	593	1	12	6.50	3.919
	Age	593	65	101	79.95	9.082
	Cognitive Struggles (Coded: 0/1)	593	0	1	.25	.431
	SelfReport_PoorBalance_NotAsked	593	0	1	.03	.167
	DIABETES: Rapid-acting insulin (glulisine, aspart, humalog, novolog) (no=0; yes=1)	593	0	1	.04	.205
	LightheadednessDuringAppointment	593	0	1	.13	.342
	Dementia	593	0	1	.12	.325

#### Goodness of Fit<sup>a</sup>

	Value	df	Value/df
Deviance	650.240	585	1.112
Scaled Deviance	650.240	585	
Pearson Chi-Square	770.738	585	1.318
Scaled Pearson Chi-Square	770.738	585	
Log Likelihood <sup>b</sup>	-1084.297		
Akaike's Information Criterion (AIC)	2184.593		
Finite Sample Corrected AIC (AICC)	2184.840		
Bayesian Information Criterion (BIC)	2219.675		
Consistent AIC (CAIC)	2227.675		

Dependent Variable: Total\_Previous\_and\_Return\_Falls  
 Model: (Intercept), Admission\_Month, Age, Cognitive Struggles (Coded: 0/1), SelfReport\_PoorBalance\_NotAsked, DIABETES: Rapid-acting insulin (glulisine, aspart, humalog, novolog) (no=0; yes=1), LightheadednessDuringAppointment, Dementia

- Information criteria are in smaller-is-better form.
- The full log likelihood function is displayed and used in computing information criteria.

#### Omnibus Test<sup>a</sup>

Likelihood Ratio Chi-Square	df	Sig.
175.367	7	.000

Dependent Variable: Total\_Previous\_and\_Return\_Falls  
 Model: (Intercept), Admission\_Month, Age, Cognitive Struggles (Coded: 0/1), SelfReport\_PoorBalance\_NotAsked, DIABETES: Rapid-acting insulin (glulisine, aspart, humalog, novolog) (no=0; yes=1), LightheadednessDuringAppointment, Dementia

- Compares the fitted model against the intercept-only model.

#### Parameter Estimates

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			95% Wald Confidence Interval for Exp(B)		
			Lower	Upper	Wald Chi-Square	df	Sig.	Exp(B)	Lower	Upper
(Intercept)	.161	.2520	-.333	.654	.406	1	.524	1.174	.716	1.924
Admission_Month	-.028	.0070	-.042	-.014	15.990	1	.000	.972	.959	.986
Age	.009	.0031	.003	.015	7.634	1	.006	1.009	1.003	1.015
Cognitive Struggles (Coded: 0/1)	.332	.0761	.183	.481	19.092	1	.000	1.394	1.201	1.618
SelfReport_PoorBalance_NotAsked	.313	.1211	.075	.550	6.672	1	.010	1.367	1.078	1.734
DIABETES: Rapid-acting insulin (glulisine, aspart, humalog, novolog) (no=0; yes=1)	.351	.1103	.135	.567	10.127	1	.001	1.420	1.144	1.763
LightheadednessDuringAppointment	.198	.0725	.056	.340	7.439	1	.006	1.219	1.057	1.404
Dementia	.257	.0897	.081	.433	8.219	1	.004	1.293	1.085	1.542
(Scale)	1 <sup>a</sup>									

Dependent Variable: Total\_Previous\_and\_Return\_Falls  
 Model: (Intercept), Admission\_Month, Age, Cognitive Struggles (Coded: 0/1), SelfReport\_PoorBalance\_NotAsked, DIABETES: Rapid-acting insulin (glulisine, aspart, humalog, novolog) (no=0; yes=1), LightheadednessDuringAppointment, Dementia

- Fixed at the displayed value.

# STATISTICAL ANALYSIS 10:

## Kidney Disease Database:

### Sex \* Current\_Smoker

**Crosstab**

		Current_Smoker		Total	
		0	1		
Sex	Male	Count	134	25	159
		% within Current_Smoker	49.3%	65.8%	51.3%
	Female	Count	138	13	151
		% within Current_Smoker	50.7%	34.2%	48.7%
Total		Count	272	38	310
		% within Current_Smoker	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.644 <sup>a</sup>	1	.056		
Continuity Correction <sup>b</sup>	3.013	1	.083		
Likelihood Ratio	3.707	1	.054		
Fisher's Exact Test				.059	.041
Linear-by-Linear Association	3.633	1	.057		
N of Valid Cases	310				

### BMI\_Obesity\_over30 \* Current\_Smoker

**Crosstab**

		Current_Smoker		Total	
		0	1		
BMI_Obesity_over30	Not obese	Count	143	27	170
		% within Current_Smoker	54.4%	73.0%	56.7%
	Obese (BMI > 30)	Count	120	10	130
		% within Current_Smoker	45.6%	27.0%	43.3%
Total		Count	263	37	300
		% within Current_Smoker	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.570 <sup>a</sup>	1	.033		
Continuity Correction <sup>b</sup>	3.844	1	.050		
Likelihood Ratio	4.777	1	.029		
Fisher's Exact Test				.035	.023
Linear-by-Linear Association	4.555	1	.033		
N of Valid Cases	300				

### Current\_Drinker \* Current\_Smoker

**Crosstab**

		Current_Smoker		Total	
		0	1		
Current_Drinker	0	Count	220	23	243
		% within Current_Smoker	80.9%	60.5%	78.4%
	1	Count	52	15	67
		% within Current_Smoker	19.1%	39.5%	21.6%
Total		Count	272	38	310
		% within Current_Smoker	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.155 <sup>a</sup>	1	.004		
Continuity Correction <sup>b</sup>	6.998	1	.008		
Likelihood Ratio	7.205	1	.007		
Fisher's Exact Test				.010	.006
Linear-by-Linear Association	8.129	1	.004		
N of Valid Cases	310				

### Cancer (Composite) \* Current\_Smoker

**Crosstab**

		Current_Smoker		Total	
		0	1		
Cancer (Composite)	0	Count	133	20	153
		% within Current_Smoker	85.8%	87.0%	86.0%
	1	Count	22	3	25
		% within Current_Smoker	14.2%	13.0%	14.0%
Total		Count	155	23	178
		% within Current_Smoker	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.022 <sup>a</sup>	1	.882		
Continuity Correction <sup>b</sup>	.000	1	1.000		
Likelihood Ratio	.022	1	.881		
Fisher's Exact Test				1.000	.591
Linear-by-Linear Association	.022	1	.883		
N of Valid Cases	178				

### Diabetes\_Composite \* Current\_Smoker

**Crosstab**

		Current_Smoker		Total	
		0	1		
Diabetes_Composite	0	Count	77	13	90
		% within Current_Smoker	49.7%	56.5%	50.6%
	1	Count	78	10	88
		% within Current_Smoker	50.3%	43.5%	49.4%
Total		Count	155	23	178
		% within Current_Smoker	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.375 <sup>a</sup>	1	.540		
Continuity Correction <sup>b</sup>	.151	1	.697		
Likelihood Ratio	.376	1	.540		
Fisher's Exact Test				.656	.349
Linear-by-Linear Association	.373	1	.541		
N of Valid Cases	178				

**STATISTICAL ANALYSIS 11:** \_\_\_\_\_

**Thoracic trauma database:**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.308 <sup>a</sup>	.095	.091	125780.661

a. Predictors: (Constant), Number\_of\_Fractured\_Ribs, Age\_years, BMI

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.357E+12	3	4.524E+11	28.594	.000 <sup>b</sup>
	Residual	1.297E+13	820	1.582E+10		
	Total	1.433E+13	823			

a. Dependent Variable: Total\_Patient\_Charges\_\_sept2016

b. Predictors: (Constant), Number\_of\_Fractured\_Ribs, Age\_years, BMI

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	55979.562	23896.117		2.343	.019	9074.801	102884.324
	BMI	2097.606	669.387	.105	3.134	.002	783.692	3411.520
	Age_years	-1109.498	218.126	-.169	-5.087	.000	-1537.650	-681.347
	Number_of_Fractured_Ribs	9992.602	1500.014	.222	6.662	.000	7048.283	12936.921

a. Dependent Variable: Total\_Patient\_Charges\_\_sept2016

## STATISTICAL ANALYSIS 12:

### CT Study:

		Sex	Obese	Diabetes_mellitus	Oximetry	Temperature	ETOH_BAC_only_if_tested	Systolic_BP	Diastolic_BP
Sex	Pearson Correlation	1	.000	.048*	-.049*	-.021	-.081**	.025	-.122**
	Sig. (2-tailed)		.994	.021	.020	.324	.008	.235	.000
	N	2306	2306	2306	2240	2184	1084	2264	2264
Obese	Pearson Correlation	.000	1	.148**	-.044*	.006	-.071*	.057**	.016
	Sig. (2-tailed)	.994		.000	.037	.778	.020	.006	.460
	N	2306	2306	2306	2240	2184	1084	2264	2264
Diabetes_mellitus	Pearson Correlation	.048*	.148**	1	-.140**	.021	-.065*	.125**	-.028
	Sig. (2-tailed)	.021	.000		.000	.323	.031	.000	.183
	N	2306	2306	2306	2240	2184	1084	2264	2264
Oximetry	Pearson Correlation	-.049*	-.044*	-.140**	1	-.013	-.079**	-.005	.102**
	Sig. (2-tailed)	.020	.037	.000		.555	.009	.808	.000
	N	2240	2240	2240	2240	2142	1067	2216	2216
Temperature	Pearson Correlation	-.021	.006	.021	-.013	1	-.082**	.027	.009
	Sig. (2-tailed)	.324	.778	.323	.555		.008	.213	.671
	N	2184	2184	2184	2142	2184	1028	2164	2164
ETOH_BAC_only_if_tested	Pearson Correlation	-.081**	-.071*	-.065*	-.079**	-.082**	1	-.116**	-.030
	Sig. (2-tailed)	.008	.020	.031	.009	.008		.000	.334
	N	1084	1084	1084	1067	1028	1084	1070	1070
Systolic_BP	Pearson Correlation	.025	.057**	.125**	-.005	.027	-.116**	1	.602**
	Sig. (2-tailed)	.235	.006	.000	.808	.213	.000		.000
	N	2264	2264	2264	2216	2164	1070	2264	2264
Diastolic_BP	Pearson Correlation	-.122**	.016	-.028	.102**	.009	-.030	.602**	1
	Sig. (2-tailed)	.000	.460	.183	.000	.671	.334	.000	
	N	2264	2264	2264	2216	2164	1070	2264	2264

### Kidney Disease Database:

		Physical_Activity_Coded	BMI	Admission_HR	Systolic_BP	Diastolic_BP	Glomerular_Filtration_Rate_ml_min	Hemoglobin_g_dL	Serum_Albumin_g_dL	Serum_Creatinine_mg_dL	Blood_pH	Lactate_mmol_L
Physical_Activity_Coded	Pearson Correlation	1	-.154	.068	-.064	.140	.214	.248*	.294*	-.004	-.178	-.077
	Sig. (2-tailed)		.214	.584	.604	.254	.080	.041	.036	.972	.452	.664
	N	68	67	68	68	68	68	68	51	68	20	34
BMI	Pearson Correlation	-.154	1	.045	.112*	.096	-.021	.024	-.029	.067	-.237	.011
	Sig. (2-tailed)	.214		.432	.050	.090	.712	.677	.673	.243	.052	.905
	N	67	311	311	310	310	307	304	217	308	68	119
Admission_HR	Pearson Correlation	.068	.045	1	-.109	.010	.085	.172**	.093	.014	.133	.086
	Sig. (2-tailed)	.584	.432		.052	.852	.129	.002	.166	.808	.261	.338
	N	68	311	322	321	321	318	315	225	319	73	125
Systolic_BP	Pearson Correlation	-.064	.112*	-.109	1	.787**	.122*	.041	.112	-.048	.000	-.147
	Sig. (2-tailed)	.604	.050	.052		.000	.030	.469	.094	.393	.998	.102
	N	68	310	321	321	321	317	314	224	318	73	125
Diastolic_BP	Pearson Correlation	.140	.096	.010	.787**	1	.181**	.225**	.214**	-.001	.115	-.090
	Sig. (2-tailed)	.254	.090	.852	.000		.001	.000	.001	.986	.334	.318
	N	68	310	321	321	321	317	314	224	318	73	125
Glomerular_Filtration_Rate_ml_min	Pearson Correlation	.214	-.021	.085	.122*	.181**	1	.320**	.181**	-.729**	.128	.137
	Sig. (2-tailed)	.080	.712	.129	.030	.001		.000	.007	.000	.285	.130
	N	68	307	318	317	317	318	313	224	318	72	124
Hemoglobin_g_dL	Pearson Correlation	.248*	.024	.172**	.041	.225**	.320**	1	.555**	-.182**	.169	.269**
	Sig. (2-tailed)	.041	.677	.002	.469	.000	.000		.000	.001	.154	.002
	N	68	304	315	314	314	313	315	222	314	73	125
Serum_Albumin_g_dL	Pearson Correlation	.294*	-.029	.093	.112	.214**	.181**	.555**	1	-.066	.119	-.050
	Sig. (2-tailed)	.036	.673	.166	.094	.001	.007	.000		.323	.356	.608
	N	51	217	225	224	224	224	222	225	225	62	107
Serum_Creatinine_mg_dL	Pearson Correlation	-.004	.067	.014	-.048	-.001	-.729**	-.182**	-.066	1	-.098	-.094
	Sig. (2-tailed)	.972	.243	.808	.393	.986	.000	.001	.323		.411	.296
	N	68	308	319	318	318	318	314	225	319	73	125
Blood_pH	Pearson Correlation	-.178	-.237	.133	.000	.115	.128	.169	.119	-.098	1	.090
	Sig. (2-tailed)	.452	.052	.261	.998	.334	.285	.154	.356	.411		.459
	N	20	68	73	73	73	72	73	62	73	73	70
Lactate_mmol_L	Pearson Correlation	-.077	.011	.086	-.147	-.090	.137	.269**	-.050	-.094	.090	1
	Sig. (2-tailed)	.664	.905	.338	.102	.318	.130	.002	.608	.296	.459	
	N	34	119	125	125	125	124	125	107	125	70	125

**STATISTICAL ANALYSIS 13:** \_\_\_\_\_

Thoracic trauma database:

**BMI\_categorical**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BMI under 18.5	23	1.7	2.8	2.8
	BMI between 18.5 and 24.9	239	17.8	28.9	31.6
	BMI between 25.0 and 29.9	258	19.2	31.2	62.8
	BMI between 30.0 and 34.9	173	12.9	20.9	83.7
	BMI over 35.0	135	10.0	16.3	100.0
	Total	828	61.6	100.0	
Missing	System	516	38.4		
Total		1344	100.0		

**BMI\_obese\_n\_y**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not obese	520	38.7	62.8	62.8
	Obese	308	22.9	37.2	100.0
	Total	828	61.6	100.0	
Missing	System	516	38.4		
Total		1344	100.0		

**MD documented obesity at consultation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not obese	1151	85.6	85.6	85.6
	Obese	193	14.4	14.4	100.0
	Total	1344	100.0	100.0	

**BMI\_overweight\_or\_obese\_y\_n**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BMI less than 25.0	262	19.5	31.6	31.6
	BMI of at least 25	566	42.1	68.4	100.0
	Total	828	61.6	100.0	
Missing	System	516	38.4		
Total		1344	100.0		

**STATISTICAL ANALYSIS 14:**

Thoracic trauma database:

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Height	28	149.8	187.9	172.461	10.0063
Weight	27	46.1	136.0	89.444	24.1144
BMI	828	15.0	56.0	28.326	6.5941
Age_years	1343	15	98	55.48	20.288
Number_of_Fractured_Ribs	1327	1	24	4.00	3.003
Pulse_hospital	1299	0	180	89.14	21.805
SBP_hospital	1298	0	250	132.78	30.392
DBP_hospital	1267	8	218	80.68	16.957
Temperature_hospital	1149	55.5	101.0	97.967	1.6050
Oximetry_hospital	1260	0	100	96.03	6.131
Number_of_Surgical_Visits	355	1	8	1.62	1.039
Total_Patient_Charges__sept2016	1344	\$2,448.00	1487194.31	89209.3043	123094.582
Actual_Variable_Hospital_Costs__sept2016	1344	\$60.80	985079.54	13610.8294	43806.6598
Total_Payment_on_Account__sept2016	1342	\$0.00	399984.53	30630.1423	50590.9318
Charge_to_Cost_Ratio__sept2016	1344	.51	92.38	11.0919	6.22878
Hospital_LOS_Number_Nights	1340	0	83	7.67	8.931
Valid N (listwise)	0				

**STATISTICAL ANALYSIS 15:** \_\_\_\_\_

CT Study:

**Variables in the Equation**

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-3.876	.149	676.936	1	.000	.021

**Omnibus Tests of Model Coefficients**

		Chi-square	df	Sig.
Step 1	Step	65.010	4	.000
	Block	65.010	4	.000
	Model	65.010	4	.000

**Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	384.504 <sup>a</sup>	.028	.157

a. Estimation terminated at iteration number 8 because parameter estimates changed by less than .001.

**Classification Table<sup>a</sup>**

Observed		Predicted		Percentage Correct
		Myocardial_Infarction 0	1	
Step 1	Myocardial_Infarction 0	2218	0	100.0
	1	46	0	.0
Overall Percentage				98.0

a. The cut value is .500

**Variables in the Equation**

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 <sup>a</sup>	Age_years	.051	.009	28.696	1	.000	1.052	1.033	1.072
	Diabetes_mellitus	1.125	.310	13.202	1	.000	3.079	1.679	5.648
	Mean_Arterial_BP	.018	.009	4.099	1	.043	1.018	1.001	1.035
	Sex	-.859	.329	6.823	1	.009	.424	.222	.807
	Constant	-8.880	1.148	59.870	1	.000	.000		

a. Variable(s) entered on step 1: Age\_years, Diabetes\_mellitus, Mean\_Arterial\_BP, Sex.



## STATISTICAL ANALYSIS 16:

### Thoracic trauma database:

#### Group Statistics

	NoInsurance0__Insurance1	N	Mean	Std. Deviation	Std. Error Mean
BMI	No Insurance	166	27.922	6.9246	.5375
	Insurance	659	28.446	6.4947	.2530
Age_years	No Insurance	269	41.44	13.024	.794
	Insurance	1070	59.00	20.267	.620
Number_of_Fractured_Ribs	No Insurance	264	4.00	3.005	.185
	Insurance	1059	4.00	3.006	.092
SBP_hospital	No Insurance	266	123.63	32.799	2.011
	Insurance	1028	135.13	29.335	.915
DBP_hospital	No Insurance	253	79.09	16.488	1.037
	Insurance	1010	81.07	17.087	.538
Number_of_Surgical_Visits	No Insurance	88	1.49	.788	.084
	Insurance	266	1.66	1.108	.068
Total_Patient_Charges__sept2016	No Insurance	269	104242.291	128862.245	7856.86972
	Insurance	1071	85188.3889	121006.997	3697.56440
Actual_Variable_Hospital_Costs__sept2016	No Insurance	269	13685.3797	20315.2955	1238.64543
	Insurance	1071	13569.7936	47986.1221	1466.29353
Total_Payment_on_Account__sept2016	No Insurance	269	22461.8283	51765.7708	3156.21475
	Insurance	1069	32700.6317	50170.4903	1534.47385
Charge_to_Cost_Ratio__sept2016	No Insurance	269	10.9948	5.32502	.32467
	Insurance	1071	11.1208	6.44780	.19702
Charges_per_LOS__sept2016	No Insurance	264	14296.1481	11614.8446	\$714.84427
	Insurance	1055	11563.2092	8306.97672	\$255.75066
Hospital_LOS_Number_Nights	No Insurance	269	8.31	10.191	.621
	Insurance	1067	7.48	8.511	.261

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
BMI	Equal variances assumed	.267	.605	-.917	823	.359	-.5244	.5717	-1.6466	.5977
	Equal variances not assumed			-.883	243.231	.378	-.5244	.5940	-1.6945	.6456
Age_years	Equal variances assumed	54.758	.000	-13.521	1337	.000	-17.557	1.298	-20.104	-15.009
	Equal variances not assumed			-17.431	634.632	.000	-17.557	1.007	-19.535	-15.579
Number_of_Fractured_Ribs	Equal variances assumed	.009	.926	-.014	1321	.989	-.003	.207	-.409	.403
	Equal variances not assumed			-.014	404.365	.989	-.003	.207	-.409	.404
SBP_hospital	Equal variances assumed	1.373	.241	-5.560	1292	.000	-11.504	2.069	-15.563	-7.444
	Equal variances not assumed			-5.207	381.832	.000	-11.504	2.209	-15.848	-7.159
DBP_hospital	Equal variances assumed	.156	.693	-1.659	1261	.097	-1.979	1.193	-4.319	.361
	Equal variances not assumed			-1.695	398.610	.091	-1.979	1.168	-4.275	.317
Number_of_Surgical_Visits	Equal variances assumed	4.439	.036	-1.355	352	.176	-.173	.128	-.424	.078
	Equal variances not assumed			-1.602	208.861	.111	-.173	.108	-.386	.040
Total_Patient_Charges__sept2016	Equal variances assumed	7.237	.007	2.278	1338	.023	19053.9020	8362.67710	2648.51584	35459.2881
	Equal variances not assumed			2.194	395.006	.029	19053.9020	8683.45463	1982.33631	36125.4676
Actual_Variable_Hospital_Costs__sept2016	Equal variances assumed	.202	.653	.039	1338	.969	\$115.58607	2991.55264	-\$573.0581	5984.23024
	Equal variances not assumed			.060	1035.899	.952	\$115.58607	1919.44243	-\$3650.8526	3882.02479
Total_Payment_on_Account__sept2016	Equal variances assumed	.037	.848	-2.973	1336	.003	-10238.803	3444.35185	-16995.730	-3481.8764
	Equal variances not assumed			-2.917	404.001	.004	-10238.803	3509.45887	-17137.885	-3339.7223
Charge_to_Cost_Ratio__sept2016	Equal variances assumed	.073	.788	-.296	1338	.767	-.12609	.42550	-.96082	.70864
	Equal variances not assumed			-.332	485.244	.740	-.12609	.37978	-.87230	.62012
Charges_per_LOS__sept2016	Equal variances assumed	5.861	.016	4.381	1317	.000	2732.93891	\$623.79116	1509.20607	3956.67174
	Equal variances not assumed			3.600	333.275	.000	2732.93891	\$759.21718	1239.47706	4226.40075
Hospital_LOS_Number_Nights	Equal variances assumed	12.303	.000	1.383	1334	.167	.837	.605	-.351	2.025
	Equal variances not assumed			1.242	367.696	.215	.837	.674	-.488	2.162

## STATISTICAL ANALYSIS 17:

### Fibromyalgia database:

#### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Test1_PEAK_VO2_per_kg	22.837	38	7.1277	1.1563
	Test2_PEAK_VO2_per_kg	21.200	38	6.9563	1.1285
Pair 2	Test1_PEAK_WL	119.05	40	32.769	5.181
	Test2_PEAK_WL	112.45	40	33.409	5.282
Pair 3	Test1_PEAK_HR	160.60	40	20.739	3.279
	Test2_PEAK_HR	156.13	40	22.808	3.606
Pair 4	Test1_PEAK_SBP	176.20	40	27.470	4.343
	Test2_PEAK_SBP	173.23	40	31.623	5.000
Pair 5	Test1_PEAK_DBP	80.58	31	13.606	2.444
	Test2_PEAK_DBP	80.13	31	13.564	2.436

#### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Test1_PEAK_VO2_per_kg & Test2_PEAK_VO2_per_kg	38	.942	.000
Pair 2	Test1_PEAK_WL & Test2_PEAK_WL	40	.920	.000
Pair 3	Test1_PEAK_HR & Test2_PEAK_HR	40	.699	.000
Pair 4	Test1_PEAK_SBP & Test2_PEAK_SBP	40	.904	.000
Pair 5	Test1_PEAK_DBP & Test2_PEAK_DBP	31	.820	.000

#### Paired Samples Test

		Mean	Std. Deviation	Std. Error Mean	Paired Differences		t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Test1_PEAK_VO2_per_kg - Test2_PEAK_VO2_per_kg	1.6368	2.4058	.3903	.8461	2.4276	4.194	37	.000
Pair 2	Test1_PEAK_WL - Test2_PEAK_WL	6.600	13.253	2.095	2.362	10.838	3.150	39	.003
Pair 3	Test1_PEAK_HR - Test2_PEAK_HR	4.475	17.013	2.690	-.966	9.916	1.664	39	.104
Pair 4	Test1_PEAK_SBP - Test2_PEAK_SBP	2.975	13.564	2.145	-1.363	7.313	1.387	39	.173
Pair 5	Test1_PEAK_DBP - Test2_PEAK_DBP	.452	8.144	1.463	-2.536	3.439	.309	30	.760

## STATISTICAL ANALYSIS 18:

### Fall risk database:

#### Goodness of Fit<sup>a</sup>

	Value	df	Value/df
Deviance	400.583	593	.676
Scaled Deviance	400.583	593	
Pearson Chi-Square	423.254	593	.714
Scaled Pearson Chi-Square	423.254	593	
Log Likelihood <sup>b</sup>	-525.413		
Akaike's Information Criterion (AIC)	1056.827		
Finite Sample Corrected AIC (AICC)	1056.867		
Bayesian Information Criterion (BIC)	1069.998		
Consistent AIC (CAIC)	1072.998		

Dependent Variable: Num\_Return\_ER\_Visits  
 Model: (Intercept), Num\_of\_Previous\_Falls, Taking a drug on the Beers list

- Information criteria are in smaller-is-better form.
- The full log likelihood function is displayed and used in computing information criteria.

#### Omnibus Test<sup>a</sup>

Likelihood Ratio Chi-Square	df	Sig.
113.311	2	.000

Dependent Variable:  
 Num\_Return\_ER\_Visits  
 Model: (Intercept),  
 Num\_of\_Previous\_Falls, Taking a  
 drug on the Beers list

- Compares the fitted model against the intercept-only model.

#### Parameter Estimates

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test			Exp(B)	95% Wald Confidence Interval for Exp(B)	
			Lower	Upper	Wald Chi-Square	df	Sig.		Lower	Upper
(Intercept)	-1.561	.0813	-1.720	-1.402	368.999	1	.000	.210	.179	.246
Num_of_Previous_Falls	.119	.0076	.105	.134	247.955	1	.000	1.127	1.110	1.144
Taking a drug on the Beers list	.225	.0974	.034	.416	5.348	1	.021	1.253	1.035	1.516
(Scale)	1 <sup>a</sup>									
(Negative binomial)	1 <sup>a</sup>									

Dependent Variable: Num\_Return\_ER\_Visits  
 Model: (Intercept), Num\_of\_Previous\_Falls, Taking a drug on the Beers list

- Fixed at the displayed value.