

## SUPPLEMENTARY MATERIAL

### Prediction of spirometry outcome in Croatian patients with chronic obstructive pulmonary disease

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**Key words:** COPD, spirometry parameters, general linear model, multiple linear regression, stepwise regression, factorial analysis.

**Table S1. Predictors of FVC.**

predictor	beta	SE	95% CI	p
<b>positive predictors</b>				
FEV1	+0.6814	0.0274	(0.6277, 0.7351)	0.000
6MWD	+0.3970	0.0352	(0.3280, 0.4660)	0.000
FEF50%	+0.3286	0.0356	(0.2588, 0.3984)	0.000
FFMI *	+0.2249	0.0490	(0.1289, 0.3209)	0.000
PO <sub>2</sub>	+0.2187	0.0369	(0.1464, 0.2910)	0.000
a–Sa(Hb)–O <sub>2</sub> %	+0.2114	0.0369	(0.1391, 0.2837)	0.000
FEV1/FVC	+0.2079	0.0375	(0.1344, 0.2814)	0.000
DLCO%	+0.1544	0.0375	(0.0809, 0.2279)	0.000
t–Sa(Hb)–O <sub>2</sub> %	+0.1389	0.0379	(0.0646, 0.2132)	0.000
<b>negative predictors</b>				
DASS	-0.1108	0.0378	(-0.1845, -0.0367)	0.003
PCO <sub>2</sub>	-0.2189	0.0360	(-0.2895, -0.1483)	0.000
SGRQ–C	-0.2252	0.0380	(-0.3000, -0.1507)	0.000
mMRC	-0.2424	0.0366	(-0.3141, -0.1707)	0.000
CAT	-0.2567	0.0365	(-0.3282, -0.1852)	0.000
Age **	-0.3640	0.0488	(-0.4596, -0.2684)	0.000
BODE	-0.4425	0.0329	(-0.5070, -0.3780)	0.000
GOLD (I–IV)	-0.5107	0.0315	(-0.5724, -0.4490)	0.000
Smoking status	-0.5445	0.0391	(-0.6211, -0.4678)	0.000
Pack–year	-0.5549	0.0401	(-0.6335, -0.4763)	0.000
Smoking years ***	-0.5661	0.0400	(-0.6445, -0.4877)	0.000
not statistically significant				
Diagnosis	-0.0729	0.0389	(-0.1491, 0.0033)	0.062
Comorbidities	-0.0700	0.0380	(-0.1445, 0.0045)	0.066
BMI	-0.0437	0.0381	(-0.1184, 0.0310)	0.252
NRS–2002	0.0438	0.0392	(-0.0030, 0.1206)	0.264
SMMI	-0.0148	0.0427	(-0.0985, 0.0689)	0.328
CCI	-0.0324	0.0501	(-0.1306, 0.0658)	0.518
PhA	-0.0091	0.0385	(-0.0846, 0.0664)	0.814
KCO%	-0.0084	0.0383	(-0.0835, 0.0667)	0.826

† positive/negative sign of beta mean that variables are positively/negatively associated

\* adjusted on height according to the formula: FFMI = FFM / Height(m)<sup>2</sup> + 6.3 x [Height – 1.8(m)]

\*\* adjusted only for sex

\*\*\* included only smokers and ex-smokers (N=510)

ABBREVIATIONS: beta—beta coefficient of the multiple linear regression model, SE—standard error of beta, 95% CI—95% confidence interval for beta, p—p-value

**Table S2. Predictors of FEV1.**

predictor	beta	SE	95% CI	p
<b>positive predictors</b>				
FVC	+0.7912	0.0318	(0.7289, 0.8535)	0.000
FEV1/FVC	+0.7093	0.0278	(0.6548, 0.7638)	0.000
FEF50%	+0.5706	0.0330	(0.5059, 0.6353)	0.000
6MWD	+0.3954	0.0386	(0.3197, 0.4711)	0.000
DLCO%	+0.3881	0.0374	(0.3148, 0.4614)	0.000
PO <sub>2</sub>	+0.3675	0.0378	(0.2934, 0.4416)	0.000
t-Sa(Hb)–O <sub>2</sub> %	+0.3258	0.0388	(0.2496, 0.4018)	0.000
FFMI *	+0.3177	0.0520	(0.2158, 0.4196)	0.000
KCO%	+0.2289	0.0401	(0.1503, 0.3075)	0.000
a-Sa(Hb)–O <sub>2</sub> %	+0.1286	0.0413	(0.1006, 0.1566)	0.000
SMMI	+0.1017	0.0458	(0.0119, 0.1915)	0.027
BMI	+0.0939	0.0409	(0.0137, 0.1741)	0.022
<b>positive predictors</b>				
DASS	-0.0995	0.0408	(-0.1795, -0.0195)	0.015
PCO <sub>2</sub>	-0.2388	0.0397	(-0.3166, -0.1610)	0.000
CAT	-0.2478	0.0413	(-0.3287, -0.1669)	0.000
Age **	-0.3203	0.0387	(-0.3962, -0.2444)	0.000
SGRQ-C	-0.3369	0.0396	(-0.4145, -0.2593)	0.000
Diagnosis	-0.3669	0.0415	(-0.4512, -0.2886)	0.000
mMRC	-0.3758	0.0376	(-0.4495, -0.3021)	0.000
Smoking years ***	-0.5263	0.0434	(-0.6114, -0.4412)	0.000
Smoking status	-0.5330	0.0421	(-0.6155, -0.4505)	0.000
Pack-year	-0.5516	0.0433	(-0.6365, -0.4667)	0.000
BODE	-0.6293	0.0307	(-0.6895, -0.5691)	0.000
GOLD (I-IV)	-0.7602	0.0251	(-0.8094, -0.7110)	0.000
not statistically significant				
NRS-2002	-0.0750	0.0421	(-0.1575, 0.0075)	0.075
PhA	+0.0574	0.0414	(-0.0237, 0.1385)	0.166
Comorbidities	-0.0241	0.0411	(-0.1047, 0.0565)	0.306
CCI	-0.0237	0.0540	(-0.1295, 0.0821)	0.661

<sup>†</sup> positive/negative sign of beta mean that variables are positively/negatively associated

\* adjusted on height according to the formula: FFMI = FFM / Height(m)<sup>2</sup> + 6.3 x [Height – 1.8(m)]

\*\* adjusted only for sex

\*\*\* included only smokers and ex-smokers (N=510)

ABBREVIATIONS: beta—beta coefficient of the multiple linear regression model, SE—standard error of beta, 95% CI—95% confidence interval for beta, p—p-value

**Table S3. Predictors of FEV1/FVC.**

predictor	beta	SE	95% CI	p
<b>positive predictors</b>				
FEV1	+0.7775	0.0305	(0.7177, 0.8373)	0.000
FEF50%	+0.5558	0.0359	(0.4854, 0.6262)	0.000
DLCO%	+0.4561	0.0381	(0.5308, 0.6262)	0.000
KCO%	+0.3662	0.0402	(0.2874, 0.4450)	0.000
t-Sa(Hb)-O <sub>2</sub> %	+0.3572	0.0404	(0.2880, 0.4464)	0.000
PO <sub>2</sub>	+0.3099	0.0409	(0.2300, 0.3901)	0.000
a-Sa(Hb)-O <sub>2</sub> %	+0.3042	0.0409	(0.2240, 0.3844)	0.000
FVC	+0.2646	0.0477	(0.1711, 0.3581)	0.000
FFMI *	+0.2393	0.0555	(0.1305, 0.3481)	0.000
6MWD	+0.2324	0.0431	(0.1479, 0.3169)	0.000
BMI	+0.2102	0.0421	(0.1277, 0.2927)	0.000
SMMI	+0.1750	0.0474	(0.0821, 0.2679)	0.000
<b>negative predictors</b>				
DASS	-0.0852	0.0429	(-0.1693, -0.0011)	0.048
PCO <sub>2</sub>	-0.1213	0.0426	(-0.2048, -0.0378)	0.005
NRS-2002	-0.1706	0.0437	(-0.2563, -0.0849)	0.000
Age **	-0.2396	0.0432	(-0.3232, -0.1549)	0.000
CAT	-0.2614	0.0416	(-0.3429, -0.1800)	0.000
SGRQ-C	-0.3303	0.0443	(-0.4171, -0.2435)	0.000
mMRC	-0.3358	0.0404	(-0.4160, -0.2576)	0.000
Diagnosis	-0.3793	0.0435	(-0.4636, -0.2930)	0.000
Pack-year	-0.5421	0.0450	(-0.6303, -0.4549)	0.000
BODE	-0.5451	0.0360	(-0.6157, -0.4745)	0.000
Smoking status	-0.5501	0.0446	(-0.6375, -0.4627)	0.000
Smoking years ****	-0.5566	0.0452	(-0.6452, -0.4680)	0.000
GOLD (I-IV)	-0.6521	0.0330	(-0.7168, -0.5874)	0.000
not statistically significant				
PhA	+0.0798	0.0432	(-0.0049, 0.1845)	0.054
Comorbidities	+0.0271	0.0431	(-0.0574, 0.1116)	0.530
CCI	+0.0080	0.0566	(-0.1030, 0.1189)	0.876

<sup>†</sup> positive/negative sign of beta mean that variables are positively/negatively associated

\* adjusted on height according to the formula: FFMI = FFM / Height(m)<sup>2</sup> + 6.3 x [Height – 1.8(m)]

\*\* adjusted only for sex

\*\*\*\* included only smokers and ex-smokers (N=510)

ABBREVIATIONS: beta—beta coefficient of the multiple linear regression model, SE—standard error of beta, 95% CI—95% confidence interval for beta, p—p-value

**Table S4. Predictors of FEF50%.**

predictor	beta <sup>†</sup>	SE	95% CI	p
<b>positive predictors</b>				
FEV1	+0.6316	0.0365	(0.5601, 0.7031)	0.000
FEV1/FVC	+0.5612	0.0362	(0.4902, 0.6322)	0.000
FVC	+0.5552	0.0457	(0.4656, 0.6448)	0.000
DLCO%	+0.2647	0.0416	(0.1832, 0.3462)	0.000
PO <sub>2</sub>	+0.2132	0.0422	(0.1305, 0.2959)	0.000
KCO%	+0.1896	0.0427	(0.1059, 0.2733)	0.000
t-Sa(Hb)–O <sub>2</sub> %	+0.1889	0.0427	(0.1052, 0.2726)	0.000
a-Sa(Hb)–O <sub>2</sub> %	+0.1783	0.0424	(0.0962, 0.2614)	0.000
6MWD	+0.1757	0.0438	(0.0899, 0.2615)	0.000
FFMI *	+0.1189	0.0564	(0.0836, 0.2294)	0.036
PhA	+0.1039	0.0434	(0.0188, 0.1890)	0.017
<b>negative predictors</b>				
NRS–2002	-0.0892	0.0443	(-0.1760, -0.0024)	0.044
PCO <sub>2</sub>	-0.1181	0.0428	(-0.2020, -0.0342)	0.000
CAT	-0.2414	0.0420	(-0.3237, -0.1591)	0.000
SGRQ–C	-0.2659	0.0444	(-0.3529, -0.1789)	0.000
mMRC	-0.2699	0.0415	(-0.3512, -0.1886)	0.000
Age **	-0.3074	0.0434	(-0.3925, -0.2223)	0.000
Diagnosis	-0.3217	0.0440	(-0.4079, -0.2355)	0.000
BODE	-0.3861	0.0399	(-0.4643, -0.3079)	0.000
GOLD (I–IV)	-0.5149	0.0375	(-0.5884, -0.4414)	0.000
Smoking status	-0.5250	0.0447	(-0.6126, -0.4374)	0.000
Smoking years ***	-0.5431	0.0454	(-0.6321, -0.4541)	0.000
Pack–year	-0.5537	0.0452	(-0.6423, -0.4651)	0.000
not statistically significant				
DASS	-0.0804	0.0430	(-0.1647, 0.0039)	0.062
SMMI	+0.0755	0.0483	(-0.0192, 0.1702)	0.119
BMI	+0.0560	0.0431	(-0.0285, 0.1405)	0.195
CCI	+0.0574	0.0568	(-0.0539, 0.1687)	0.312
Comorbidities	+0.0298	0.0432	(-0.0549, 0.1145)	0.492

<sup>†</sup> positive/negative sign of beta mean that variables are positively/negatively associated

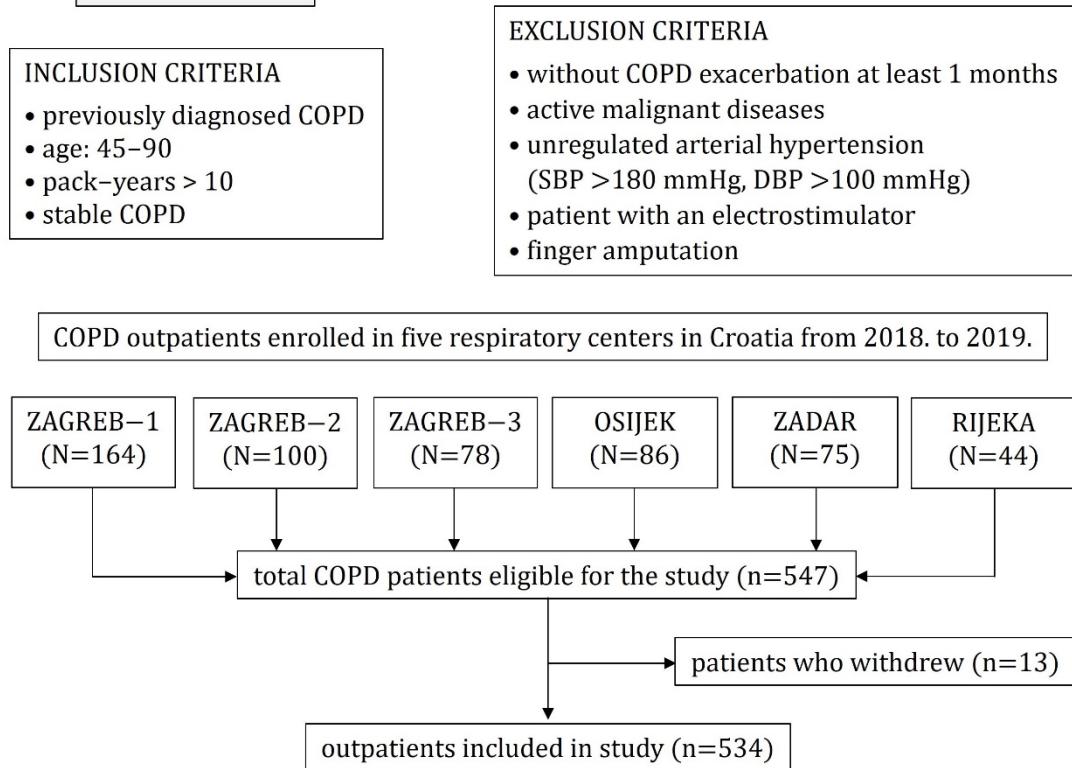
\* adjusted on height according to the formula: FFMI = FFM / Height(m)<sup>2</sup> + 6.3 x [Height – 1.8(m)]

\*\* adjusted only for sex

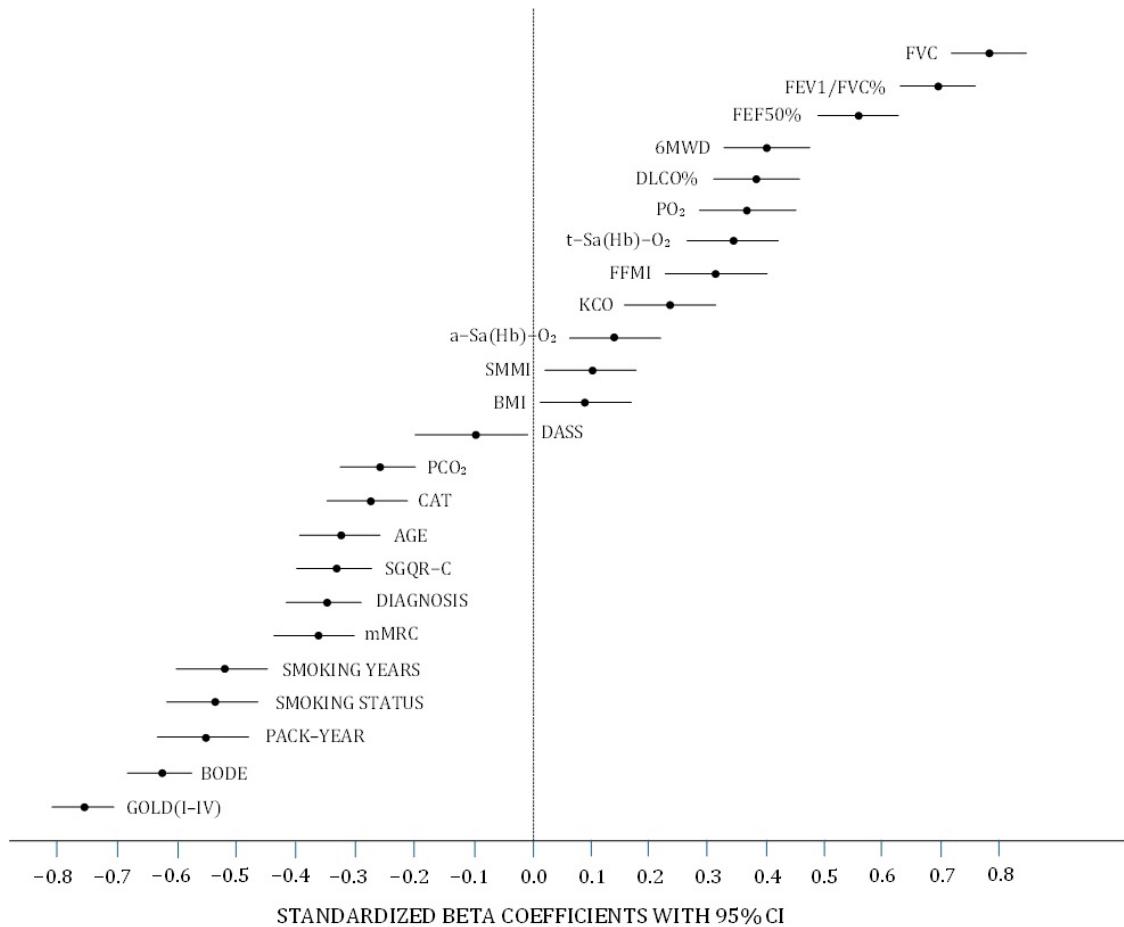
\*\*\* included only smokers and ex-smokers (N=510)

ABBREVIATIONS: beta—beta coefficient of the multiple linear regression model, SE—standard error of beta, 95% CI—95% confidence interval for beta, p—p-value

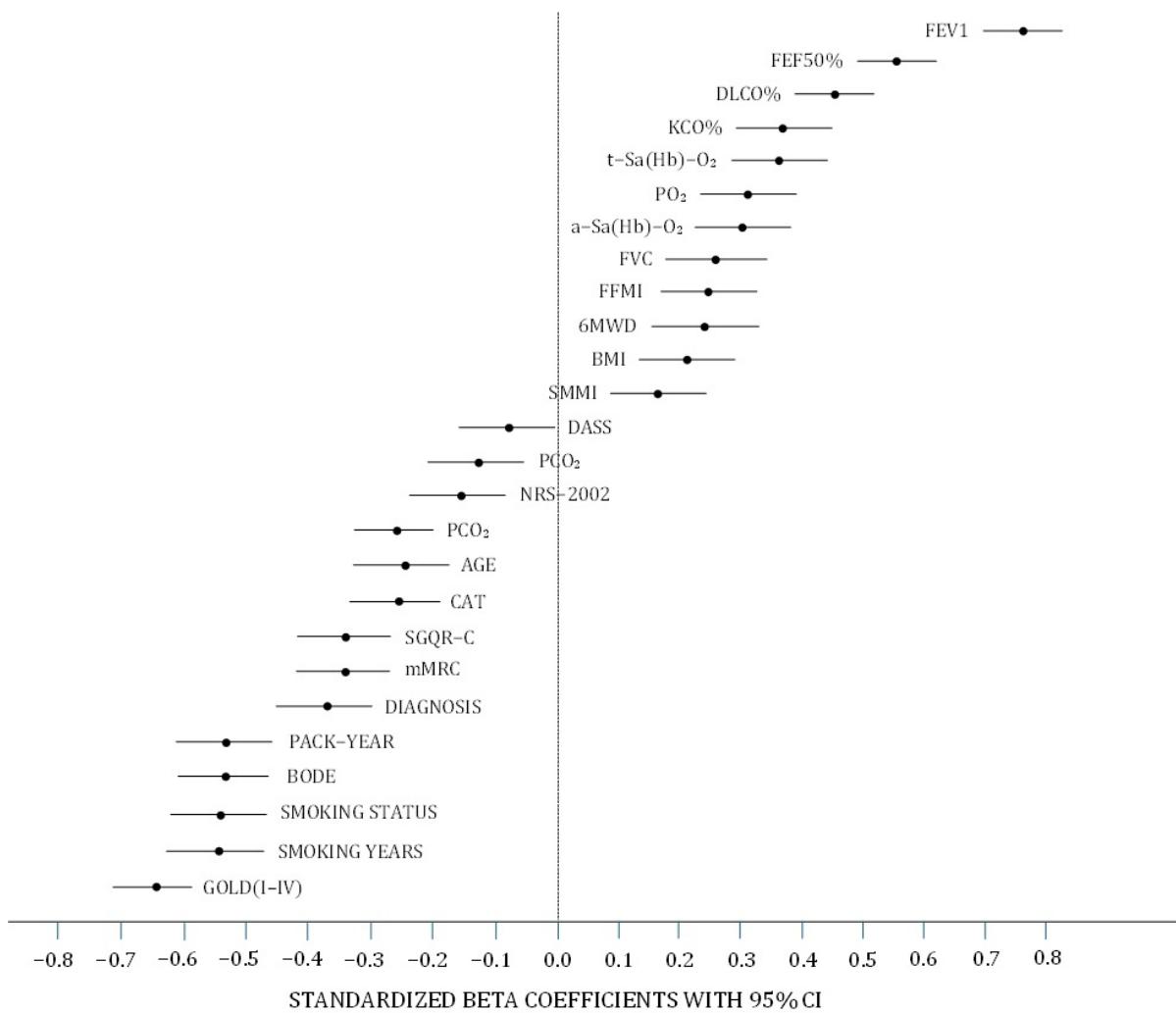
## FLOW CHART



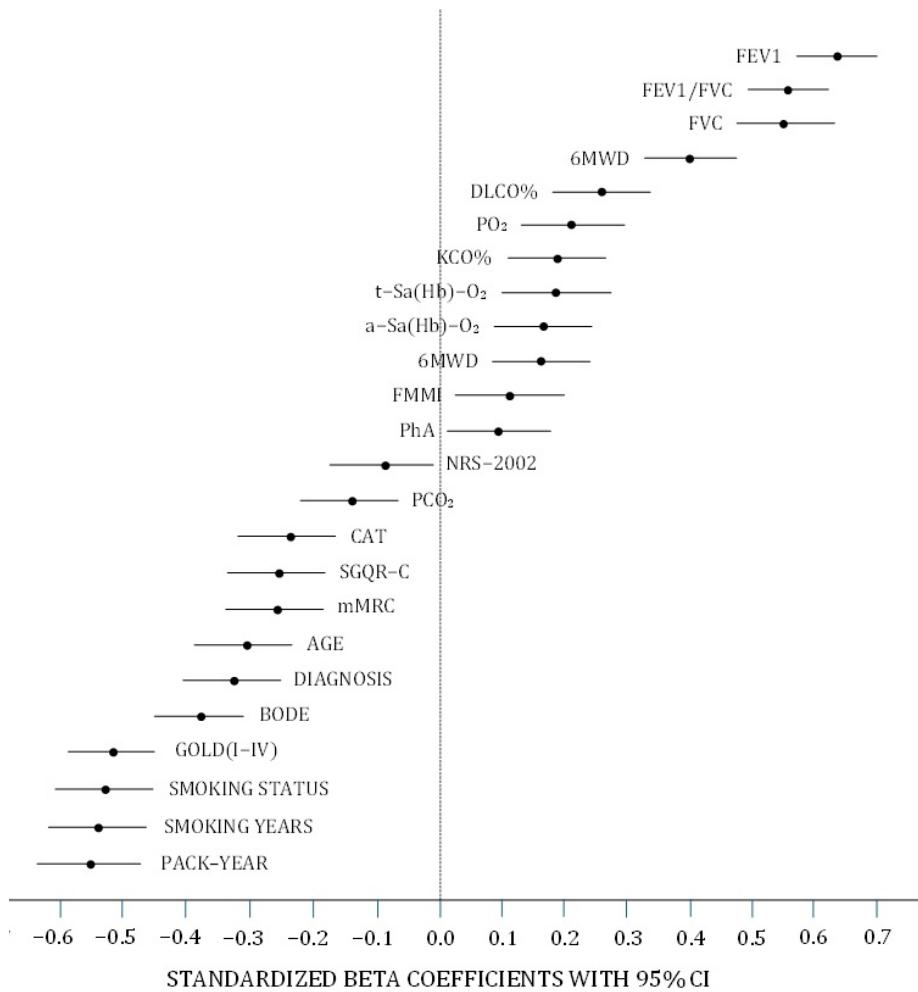
**Figure S1. Patient flow chart.**



**Figure S2. Standardized beta coefficients with 95% confidence intervals for the effect of various predictors on FEV1. Only statistically significant predictors are shown.**



**Figure S3. Standardized beta coefficients with 95% confidence intervals for the effect of various predictors on FEV1/FVC. Only statistically significant predictors are shown.**



**Figure S4. Standardized beta coefficients with 95% confidence intervals for the effect of various predictors on FEF50%. Only statistically significant predictors are shown.**

## COMPUTER OUTCOMES FOR FVC IN RELATION TO PREDICTOR, AGE AND SEX

### Regression Analysis: FVC versus AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	2	124,36	62,181	80,80	0,000
AGE	1	36,59	36,589	57,55	0,000
SEX	1	100,88	100,881	131,09	0,000
Error	531	408,64	0,770		
Lack-of-Fit	80	59,65	0,746	0,96	0,570
Pure Error	451	348,99	0,774		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,877247	23,33%	23,04%	22,47%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3512	0,0488	7,20	0,000	
AGE	-0,3640	0,0383	-6,90	0,000	1,02
SEX					
2	-0,8974	0,0784	-11,45	0,000	1,02

Regression Equation

$$\text{SEX}$$

$$1 \quad \text{FVC} = 0,3512 - 0,2640 \text{ AGE}$$

$$2 \quad \text{FVC} = -0,5462 - 0,2640 \text{ AGE}$$

### Regression Analysis: FVC versus BMI; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	125,375	41,792	54,34	0,000
BMI	1	1,013	1,013	1,32	0,252
AGE	1	36,750	36,750	47,78	0,000
SEX	1	101,765	101,765	132,32	0,000
Error	530	407,625	0,769		
Lack-of-Fit	519	400,845	0,772	1,25	0,358
Pure Error	11	6,779	0,616		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,876985	23,52%	23,09%	22,42%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3535	0,0488	7,24	0,000	
BMI	-0,0437	0,0381	-1,15	0,252	1,00
AGE	-0,2646	0,0383	-6,91	0,000	1,02
SEX					
2	-0,9032	0,0785	-11,50	0,000	1,02

Regression Equation

SEX  
1 FVC = 0,3535 - 0,0437 BMI - 0,2646 AGE  
2 FVC = -0,5497 - 0,0437 BMI - 0,2646 AGE

## Regression Analysis: FVC versus DIAGNOSIS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	125,976	41,992	54,89	0,000
DIAGNOSIS	1	2,681	2,681	3,51	0,062
AGE	1	30,427	30,427	39,77	0,000
SEX	1	100,335	100,335	131,15	0,000
Error	529	404,692	0,765		
Lack-of-Fit	403	291,313	0,723	0,80	0,942
Pure Error	126	113,379	0,900		
Total	532	530,668			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,874650	23,74%	23,31%	22,48%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3484	0,0487	7,15	0,000	
DIAGNOSIS	-0,0729	0,0389	-1,87	0,062	1,05
AGE	-0,2470	0,0392	-6,31	0,000	1,07
SEX					
2	-0,8956	0,0782	-11,45	0,000	1,02

Regression Equation

SEX  
1 FVC = 0,3484 - 0,0729 DIAGNOSIS - 0,2470 AGE  
2 FVC = -0,5472 - 0,0729 DIAGNOSIS - 0,2470 AGE

## Regression Analysis: FVC versus SMOKING STATUS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	132,569	44,190	58,49	0,000
SMOKING STATUS	1	8,206	8,206	45,86	0,000
AGE	1	25,743	25,743	34,07	0,000
SEX	1	101,334	101,334	134,12	0,000
Error	530	400,431	0,756		
Lack-of-Fit	153	105,069	0,687	0,88	0,827
Pure Error	377	295,362	0,783		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,869213	24,87%	24,45%	23,77%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3520	0,0484	7,28	0,000	
SMOKING STATUS	-0,5445	0,0391	3,30	0,000	1,08
AGE	-0,2297	0,0393	-5,84	0,000	1,09
SEX					
2	-0,8995	0,0777	-11,58	0,000	1,02

Regression Equation

SEX  
1 FVC = 0,3520 + 0,1288 SMOKING STATUS - 0,2297 AGE  
2 FVC = -0,5474 + 0,1288 SMOKING STATUS - 0,2297 AGE

## Regression Analysis: FVC versus SMOKING YEARS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	127,228	42,4094	55,01	0,000
SMOKING YEARS	1	2,944	2,9438	51,82	0,000
AGE	1	39,179	39,1791	50,82	0,000
SEX	1	84,772	84,7717	109,95	0,000
Error	523	403,229	0,7710		
Lack-of-Fit	367	275,827	0,7516	0,92	0,737
Pure Error	156	127,402	0,8167		
Total	526	530,457			

Model Summary

S R-sq R-sq(adj) R-sq(pred)  
0,878061 23,98% 23,55% 22,89%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3359	0,0500	6,72	0,000	
SMOKING YEARS	-0,5661	0,0400	1,95	0,000	1,09
AGE	-0,2761	0,0387	-7,13	0,000	1,03
SEX	2	-0,8580	0,0818	-10,49	0,000
					1,09

Regression Equation

SEX  
1 FVC = 0,3359 + 0,0782 SMOKING YEARS - 0,2761 AGE  
2 FVC = -0,5221 + 0,0782 SMOKING YEARS - 0,2761 AGE

## Regression Analysis: FVC versus PACK-YEAR; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	125,314	41,7714	54,30	0,000
PACK-YEAR	1	0,951	0,9514	51,24	0,000
AGE	1	37,252	37,2521	48,43	0,000
SEX	1	85,745	85,7446	111,47	0,000
Error	530	407,686	0,7692		
Lack-of-Fit	432	335,675	0,7770	1,06	0,376
Pure Error	98	72,011	0,7348		
Total	533	533,000			

Model Summary

S R-sq R-sq(adj) R-sq(pred)  
0,877051 23,51% 23,08% 22,39%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3402	0,0498	6,83	0,000	
PACK-YEAR	-0,5549	0,0401	1,11	0,000	1,12

AGE	-0,2671	0,0384	-6,96	0,000	1,02
SEX	2	-0,8693	0,0823	-10,56	0,000 1,12

Regression Equation

SEX	
1	FVC = 0,3402 + 0,0446 PACK-YEAR - 0,2671 AGE
2	FVC = -0,5291 + 0,0446 PACK-YEAR - 0,2671 AGE

## Regression Analysis: FVC versus FEV1; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	344,666	114,889	323,31	0,000
FEV1	1	220,303	220,303	619,96	0,000
AGE	1	4,454	4,454	12,53	0,000
SEX	1	34,719	34,719	97,70	0,000
Error	530	188,334	0,355		
Lack-of-Fit	515	184,251	0,358	1,31	0,279
Pure Error	15	4,084	0,272		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,596111	64,67%	64,47%	64,12%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2132	0,0336	6,34	0,000	
FEV1	0,6814	0,0274	24,90	0,000	1,12
AGE	-0,0952	0,0269	-3,54	0,000	1,08
SEX	2	-0,5448	0,0551	-9,88	0,000
					1,09

Regression Equation

SEX	
1	FVC = 0,2132 + 0,6814 FEV1 - 0,0952 AGE
2	FVC = -0,3316 + 0,6814 FEV1 - 0,0952 AGE

## Regression Analysis: FVC versus FEV1/FVC%; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	146,97	48,989	67,14	0,000
FEV1/FVC%	1	22,46	22,465	30,79	0,000
AGE	1	34,22	34,217	46,89	0,000
SEX	1	112,69	112,686	154,43	0,000
Error	529	386,01	0,730		
Lack-of-Fit	473	340,43	0,720	0,88	0,751
Pure Error	56	45,58	0,814		
Total	532	532,97			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,854218	27,58%	27,16%	26,50%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3759	0,0478	7,87	0,000	
FEV1/FVC%	0,2079	0,0375	5,55	0,000	1,02
AGE	-0,2556	0,0373	-6,85	0,000	1,02
SEX					
2	-0,9584	0,0771	-12,43	0,000	1,04

Regression Equation

SEX

1      FVC = 0,3759 + 0,2079 FEV1/FVC% - 0,2556 AGE

2      FVC = -0,5825 + 0,2079 FEV1/FVC% - 0,2556 AGE

## Regression Analysis: FVC versus FEF50%; AGE; SEX

Method

Categorical predictor coding (1; 0)

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	181,05	60,351	90,88	0,000
FEF50%	1	56,69	56,691	85,37	0,000
AGE	1	27,15	27,148	40,88	0,000
SEX	1	107,62	107,615	162,06	0,000
Error	530	351,95	0,664		
Lack-of-Fit	496	325,51	0,656	0,84	0,778
Pure Error	34	26,44	0,778		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,814893	33,97%	33,59%	30,63%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3631	0,0454	8,01	0,000	
FEF50%	0,3286	0,0356	9,24	0,000	1,02
AGE	-0,2287	0,0358	-6,39	0,000	1,03
SEX					
2	-0,9278	0,0729	-12,73	0,000	1,02

Regression Equation

SEX

1      FVC = 0,3631 + 0,3286 FEF50% - 0,2287 AGE

2      FVC = -0,5647 + 0,3286 FEF50% - 0,2287 AGE

## Regression Analysis: FVC versus DLCO%; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	137,05	45,682	61,15	0,000
DLCO%	1	12,68	12,684	16,98	0,000
AGE	1	34,95	34,951	46,78	0,000
SEX	1	102,34	102,345	136,99	0,000
Error	530	395,95	0,747		
Lack-of-Fit	508	367,66	0,724	0,56	0,983
Pure Error	22	28,29	1,286		

Total 533 533,00

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,864339	25,71%	25,29%	24,57%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3539	0,0481	7,36	0,000	
DLCO%	0,1544	0,0375	4,12	0,000	1,00
AGE	-0,2582	0,0378	-6,84	0,000	1,02
SEX					
2	-0,9041	0,0772	-11,70	0,000	1,02

#### Regression Equation

SEX  
1 FVC = 0,3539 + 0,1544 DLCO% - 0,2582 AGE

2 FVC = -0,5503 + 0,1544 DLCO% - 0,2582 AGE

## Regression Analysis: FVC versus KCO%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	124,400	41,467	53,79	0,000
KCO%	1	0,037	0,037	0,05	0,826
AGE	1	36,034	36,034	46,74	0,000
SEX	1	100,710	100,710	130,63	0,000
Error	530	408,600	0,771		
Lack-of-Fit	508	388,052	0,764	0,82	0,778
Pure Error	22	20,548	0,934		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,878033	23,34%	22,91%	22,16%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3517	0,0489	7,19	0,000	
KCO%	-0,0084	0,0383	-0,22	0,826	1,02
AGE	-0,2632	0,0385	-6,84	0,000	1,02
SEX					
2	-0,8985	0,0786	-11,43	0,000	1,02

#### Regression Equation

SEX  
1 FVC = 0,3517 - 0,0084 KCO% - 0,2632 AGE  
2 FVC = -0,5469 - 0,0084 KCO% - 0,2632 AGE

## Regression Analysis: FVC versus t-Sa(Hb)O2%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	134,48	44,827	59,62	0,000
t-Sa(Hb)O2%	1	10,12	10,118	13,46	0,000
AGE	1	33,05	33,051	43,96	0,000
SEX	1	105,42	105,424	140,21	0,000

Error	530	398,52	0,752		
Lack-of-Fit	338	267,95	0,793	1,17	0,119
Pure Error	192	130,57	0,680		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,867135	25,23%	24,81%	24,00%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3602	0,0483	7,46	0,000	
t-Sa(Hb)O2%	0,1389	0,0379	3,67	0,000	1,02
AGE	-0,2519	0,0380	-6,63	0,000	1,02
SEX					
2	-0,9204	0,0777	-11,84	0,000	1,02

#### Regression Equation

SEX  
1 FVC = 0,3602 + 0,1389 t-Sa(Hb)O2% - 0,2519 AGE  
2 FVC = -0,5602 + 0,1389 t-Sa(Hb)O2% - 0,2519 AGE

## Regression Analysis: FVC versus a-Sa(Hb)O2%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	148,18	49,394	68,03	0,000
a-Sa(Hb)O2%	1	23,82	23,818	32,80	0,000
AGE	1	35,89	35,890	49,43	0,000
SEX	1	100,69	100,695	138,68	0,000
Error	530	384,82	0,726		
Lack-of-Fit	455	331,15	0,728	1,02	0,478
Pure Error	75	53,67	0,716		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,852100	27,80%	27,39%	26,69%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3509	0,0474	7,40	0,000	
a-Sa(Hb)O2%	0,2114	0,0369	5,73	0,000	1,00
AGE	-0,2615	0,0372	-7,03	0,000	1,02
SEX					
2	-0,8966	0,0761	-11,78	0,000	1,02

#### Regression Equation

SEX  
1 FVC = 0,3509 + 0,2114 a-Sa(Hb)O2% - 0,2615 AGE  
2 FVC = -0,5457 + 0,2114 a-Sa(Hb)O2% - 0,2615 AGE

## Regression Analysis: FVC versus PO2; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	149,75	49,9154	69,03	0,000

PO2	1	25,38	25,3834	35,10	0,000
AGE	1	32,58	32,5750	45,05	0,000
SEX	1	97,72	97,7173	135,13	0,000
Error	530	383,25	0,7231		
Lack-of-Fit	505	363,17	0,7191	0,90	0,683
Pure Error	25	20,08	0,8034		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,850365	28,09%	27,69%	26,95%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3458	0,0473	7,31	0,000	
PO2	0,2187	0,0369	5,92	0,000	1,00
AGE	-0,2497	0,0372	-6,71	0,000	1,02
SEX	2	-0,8837	0,0760	-11,62	0,000
					1,02

#### Regression Equation

SEX  
1      FVC = 0,3458 + 0,2187 PO2 - 0,2497 AGE  
2      FVC = -0,5378 + 0,2187 PO2 - 0,2497 AGE

## Regression Analysis: FVC versus PCO2; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	166,48	55,4923	80,24	0,000
PCO2	1	42,11	42,1140	60,90	0,000
AGE	1	35,94	35,9405	51,97	0,000
SEX	1	98,18	98,1798	141,97	0,000
Error	530	366,52	0,6916		
Lack-of-Fit	487	342,58	0,7035	1,26	0,173
Pure Error	43	23,94	0,5567		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,831597	31,23%	30,84%	29,79%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3466	0,0463	7,49	0,000	
PCO2	-0,2812	0,0360	-7,80	0,000	1,00
AGE	-0,2617	0,0363	-7,21	0,000	1,02
SEX	2	-0,8855	0,0743	-11,92	0,000
					1,02

#### Regression Equation

SEX  
1      FVC = 0,3466 - 0,2812 PCO2 - 0,2617 AGE  
2      FVC = -0,5389 - 0,2812 PCO2 - 0,2617 AGE

## Regression Analysis: FVC versus 6-MWD; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	203,43	67,8088	109,05	0,000
6-MWD	1	79,06	79,0636	127,15	0,000
AGE	1	13,77	13,7677	22,14	0,000
SEX	1	94,36	94,3640	151,75	0,000
Error	530	329,57	0,6218		
Lack-of-Fit	517	314,46	0,6082	0,52	0,973
Pure Error	13	15,12	1,1628		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,788566	38,17%	37,82%	37,25%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3399	0,0439	7,75	0,000	
6-MWD	0,3970	0,0352	11,28	0,000	1,06
AGE	-0,1669	0,0355	-4,71	0,000	1,08
SEX	2	-0,8685	0,0705	-12,32	0,000
					1,02

#### Regression Equation

SEX  
1      FVC = 0,3399 + 0,3970 6-MWD - 0,1669 AGE  
2      FVC = -0,5286 + 0,3970 6-MWD - 0,1669 AGE

## Regression Analysis: FVC versus COMORBIDITIES; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	126,957	42,319	55,24	0,000
COMORBIDITIES	1	2,594	2,594	3,39	0,066
AGE	1	35,360	35,360	46,15	0,000
SEX	1	102,243	102,243	133,46	0,000
Error	530	406,043	0,766		
Lack-of-Fit	248	188,779	0,761	0,99	0,538
Pure Error	282	217,264	0,770		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,875282	23,82%	23,39%	22,70%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3540	0,0487	7,27	0,000	
COMORBIDITIES	-0,0700	0,0380	-1,84	0,066	1,01
AGE	-0,2600	0,0383	-6,79	0,000	1,02
SEX	2	-0,9046	0,0783	-11,55	0,000
					1,02

#### Regression Equation

SEX  
1      FVC = 0,3540 - 0,0700 COMORBIDITIES - 0,2600 AGE  
2      FVC = -0,5505 - 0,0700 COMORBIDITIES - 0,2600 AGE

## Regression Analysis: FVC versus FFMI; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	139,985	46,6617	62,93	0,000
FFMI	1	15,622	15,6223	21,07	0,000
AGE	1	27,460	27,4605	37,03	0,000
SEX	1	26,038	26,0379	35,11	0,000
Error	530	393,015	0,7415		
Lack-of-Fit	521	389,854	0,7483	2,13	0,105
Pure Error	9	3,161	0,3512		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,861126	26,26%	25,85%	25,15%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2340	0,0543	4,31	0,000	
FFMI	0,2249	0,0490	4,59	0,000	1,73
AGE	-0,2325	0,0382	-6,09	0,000	1,05
SEX					
2	-0,598	0,101	-5,93	0,000	1,75

Regression Equation

SEX

$$1 \quad FVC = 0,2340 + 0,2249 \text{ FFMI} - 0,2325 \text{ AGE}$$

$$2 \quad FVC = -0,3639 + 0,2249 \text{ FFMI} - 0,2325 \text{ AGE}$$

## Regression Analysis: FVC versus PhA; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	124,406	41,4685	53,79	0,000
PhA	1	0,043	0,0427	0,06	0,814
AGE	1	36,447	36,4471	47,28	0,000
SEX	1	99,852	99,8523	129,52	0,000
Error	530	408,594	0,7709		
Lack-of-Fit	472	371,518	0,7871	1,23	0,164
Pure Error	58	37,076	0,6392		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,878028	23,34%	22,91%	22,32%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3521	0,0490	7,19	0,000	
PhA	-0,0091	0,0385	-0,24	0,814	1,02
AGE	-0,2650	0,0385	-6,88	0,000	1,03
SEX					
2	-0,8997	0,0791	-11,38	0,000	1,03

Regression Equation

SEX

$$1 \quad FVC = 0,3521 - 0,0091 \text{ PhA} - 0,2650 \text{ AGE}$$

2 FVC = -0,5476 - 0,0091 PhA - 0,2650 AGE

## Regression Analysis: FVC versus GOLD(I-IV); AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	259,87	86,625	168,09	0,000
GOLD(I-IV)	1	135,51	135,511	262,96	0,000
AGE	1	38,41	38,413	74,54	0,000
SEX	1	138,27	138,271	268,32	0,000
Error	530	273,13	0,515		
Lack-of-Fit	214	127,59	0,596	1,29	0,019
Pure Error	316	145,53	0,461		
Total	533	533,00			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,717866	48,76%	48,47%	47,94%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,4165	0,0401	10,37	0,000	
GOLD(I-IV)	-0,5107	0,0315	-16,22	0,000	1,03
AGE	-0,2706	0,0313	-8,63	0,000	1,02
SEX					
2	-1,0640	0,0650	-16,38	0,000	1,04

### Regression Equation

SEX  
1 FVC = 0,4165 - 0,5107 GOLD(I-IV) - 0,2706 AGE  
2 FVC = -0,6476 - 0,5107 GOLD(I-IV) - 0,2706 AGE

## Regression Analysis: FVC versus SMMI; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	125,289	41,7631	54,21	0,000
SMMI	1	0,740	0,7397	0,96	0,328
AGE	1	37,122	37,1223	48,19	0,000
SEX	1	87,740	87,7403	113,89	0,000
Error	529	407,536	0,7704		
Lack-of-Fit	522	403,541	0,7731	1,35	0,360
Pure Error	7	3,995	0,5707		
Total	532	532,825			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,877718	23,51%	23,08%	22,34%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3682	0,0513	7,18	0,000	
SMMI	-0,0418	0,0427	-0,98	0,328	1,26
AGE	-0,2680	0,0386	-6,94	0,000	1,03
SEX					
2	-0,9379	0,0879	-10,67	0,000	1,27

### Regression Equation

SEX  
1 FVC = 0,3682 - 0,0418 SMMI - 0,2680 AGE  
2 FVC = -0,5697 - 0,0418 SMMI - 0,2680 AGE

## Regression Analysis: FVC versus mMRC; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	155,67	51,8895	72,88	0,000
mMRC	1	31,31	31,3055	43,97	0,000
AGE	1	36,36	36,3609	51,07	0,000
SEX	1	98,69	98,6901	138,62	0,000
Error	530	377,33	0,7119		
Lack-of-Fit	213	145,98	0,6854	0,94	0,689
Pure Error	317	231,35	0,7298		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,843769	29,21%	28,81%	28,11%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3475	0,0469	7,40	0,000	
mMRC	-0,2424	0,0366	-6,63	0,000	1,00
AGE	-0,2632	0,0368	-7,15	0,000	1,02
SEX					
2	-0,8878	0,0754	-11,77	0,000	1,02

Regression Equation

SEX  
1 FVC = 0,3475 - 0,2424 mMRC - 0,2632 AGE  
2 FVC = -0,5403 - 0,2424 mMRC - 0,2632 AGE

## Regression Analysis: FVC versus CAT; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	159,26	53,086	75,28	0,000
CAT	1	34,89	34,894	49,48	0,000
AGE	1	42,14	42,138	59,76	0,000
SEX	1	100,08	100,077	141,92	0,000
Error	530	373,74	0,705		
Lack-of-Fit	441	305,20	0,692	0,90	0,756
Pure Error	89	68,55	0,770		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,839747	29,88%	29,48%	28,83%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3498	0,0467	7,49	0,000	
CAT	-0,2567	0,0365	-7,03	0,000	1,01
AGE	-0,2842	0,0368	-7,73	0,000	1,02
SEX					

2 -0,8939 0,0750 -11,91 0,000 1,02

Regression Equation

SEX  
1 FVC = 0,3498 - 0,2567 CAT - 0,2842 AGE

2 FVC = -0,5440 - 0,2567 CAT - 0,2842 AGE

## Regression Analysis: FVC versus DASS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	130,896	43,632	57,51	0,000
DASS	1	6,533	6,533	8,61	0,003
AGE	1	37,890	37,890	49,94	0,000
SEX	1	100,841	100,841	132,92	0,000
Error	530	402,104	0,759		
Lack-of-Fit	457	340,537	0,745	0,88	0,773
Pure Error	73	61,567	0,843		
Total	533	533,000			

Model Summary

S R-sq R-sq(adj) R-sq(pred)  
0,871026 24,56% 24,13% 23,45%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3512	0,0485	7,25	0,000	
DASS	-0,1108	0,0378	-2,93	0,003	1,00
AGE	-0,2689	0,0381	-7,07	0,000	1,02
SEX	2 -0,8972	0,0778	-11,53	0,000	1,02

Regression Equation

SEX  
1 FVC = 0,3512 - 0,1108 DASS - 0,2689 AGE

2 FVC = -0,5461 - 0,1108 DASS - 0,2689 AGE

## Regression Analysis: FVC versus SGRQ-C; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	127,25	42,4154	61,66	0,000
SGRQ-C	1	24,15	24,1488	35,10	0,000
AGE	1	32,82	32,8244	47,71	0,000
SEX	1	86,49	86,4938	125,73	0,000
Error	474	326,08	0,6879		
Total	477	453,32			

Model Summary

S R-sq R-sq(adj) R-sq(pred)  
0,829415 28,07% 27,61% 26,82%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3485	0,0493	7,06	0,000	
SGRQ-C	-0,2252	0,0380	-5,92	0,000	1,00
AGE	-0,2626	0,0380	-6,91	0,000	1,02

SEX  
2 -0,8753 0,0781 -11,21 0,000 1,02

Regression Equation

SEX  
1 FVC = 0,3485 - 0,2252 SGRQ-C - 0,2626 AGE  
2 FVC = -0,5268 - 0,2252 SGRQ-C - 0,2626 AGE

## Regression Analysis: FVC versus NRS-2002; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	125,324	41,775	54,31	0,000
NRS-2002	1	0,961	0,961	1,25	0,264
AGE	1	37,285	37,285	48,47	0,000
SEX	1	101,457	101,457	131,90	0,000
Error	530	407,676	0,769		
Lack-of-Fit	199	137,296	0,690	0,84	0,905
Pure Error	331	270,380	0,817		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,877040	23,51%	23,08%	22,39%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3525	0,0488	7,22	0,000	
NRS-2002	0,0438	0,0392	1,12	0,264	1,06
AGE	-0,2747	0,0395	-6,96	0,000	1,08
SEX					
2	-0,9006	0,0784	-11,48	0,000	1,02

Regression Equation

SEX  
1 FVC = 0,3525 + 0,0438 NRS-2002 - 0,2747 AGE  
2 FVC = -0,5481 + 0,0438 NRS-2002 - 0,2747 AGE

## Regression Analysis: FVC versus BODE; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	228,12	76,038	132,18	0,000
BODE	1	103,75	103,752	180,36	0,000
AGE	1	29,61	29,606	51,47	0,000
SEX	1	109,52	109,516	190,38	0,000
Error	530	304,88	0,575		
Lack-of-Fit	314	176,62	0,562	0,95	0,671
Pure Error	216	128,27	0,594		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,758455	42,80%	42,47%	41,92%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
------	------	---------	---------	---------	-----

Constant	0,3663	0,0422	8,68	0,000	
BODE	-0,4425	0,0329	-13,43	0,000	1,01
AGE	-0,2379	0,0332	-7,17	0,000	1,02
SEX					
2	-0,9359	0,0678	-13,80	0,000	1,02

Regression Equation

SEX  
1      FVC = 0,3663 - 0,4425 BODE - 0,2379 AGE  
2      FVC = -0,5696 - 0,4425 BODE - 0,2379 AGE

## Regression Analysis: FVC versus CCI; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	124,686	41,562	53,95	0,000
CCI	1	0,323	0,323	0,42	0,518
AGE	1	18,080	18,080	23,47	0,000
SEX	1	101,193	101,193	131,35	0,000
Error	530	408,314	0,770		
Lack-of-Fit	196	141,125	0,720	0,90	0,791
Pure Error	334	267,189	0,800		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,877727	23,39%	22,96%	22,30%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,3522	0,0489	7,21	0,000	
CCI	-0,0324	0,0501	-0,65	0,518	1,74
AGE	-0,2431	0,0502	-4,84	0,000	1,74
SEX					
2	-0,8998	0,0785	-11,46	0,000	1,02

Regression Equation

SEX  
1      FVC = 0,3522 - 0,0324 CCI - 0,2431 AGE  
2      FVC = -0,5476 - 0,0324 CCI - 0,2431 AGE

## COMPUTER OUTCOMES FOR FEV1 IN RELATION TO PREDICTOR, AGE AND SEX

### Regression Analysis: FEV1 versus AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	2	58,55	29,2729	32,76	0,000
AGE	1	32,22	32,2227	36,06	0,000
SEX	1	33,55	33,5502	37,55	0,000
Error	531	474,45	0,8935		
Lack-of-Fit	80	73,57	0,9196	1,03	0,406
Pure Error	451	400,89	0,8889		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,945257	10,98%	10,65%	9,94%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2026	0,0526	3,85	0,000	
AGE	-0,3203	0,0413	-6,01	0,000	1,02
SEX					
2	-0,5175	0,0845	-6,13	0,000	1,02

Regression Equation

SEX  
1       $FEV1 = 0,2026 - 0,2478 \text{ AGE}$   
2       $FEV1 = -0,3150 - 0,2478 \text{ AGE}$

### Regression Analysis: FEV1 versus BMI; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	63,230	21,0767	23,78	0,000
BMI	1	4,684	4,6842	5,28	0,022
AGE	1	31,880	31,8797	35,97	0,000
SEX	1	31,823	31,8227	35,90	0,000
Error	530	469,770	0,8864		
Lack-of-Fit	519	460,414	0,8871	1,04	0,517
Pure Error	11	9,356	0,8506		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,941466	11,86%	11,36%	10,47%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1977	0,0524	3,77	0,000	
BMI	0,0939	0,0409	2,30	0,022	1,00
AGE	-0,2465	0,0411	-6,00	0,000	1,02
SEX					
2	-0,5051	0,0843	-5,99	0,000	1,02

Regression Equation

SEX  
1 FEV1 = 0,1977 + 0,0939 BMI - 0,2465 AGE  
2 FEV1 = -0,3074 + 0,0939 BMI - 0,2465 AGE

## Regression Analysis: FEV1 versus DIAGNOSIS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	71,90	23,9679	27,64	0,000
DIAGNOSIS	1	14,06	14,0623	26,22	0,000
AGE	1	21,90	21,8988	25,25	0,000
SEX	1	33,52	33,5152	38,65	0,000
Error	529	458,76	0,8672		
Lack-of-Fit	403	332,58	0,8253	0,82	0,917
Pure Error	126	126,18	1,0014		
Total	532	530,66			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,931243	13,55%	13,06%	11,59%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2002	0,0519	3,86	0,000	
DIAGNOSIS	-0,3669	0,0415	-4,03	0,000	1,05
AGE	-0,2096	0,0417	-5,03	0,000	1,07
SEX					
2	-0,5176	0,0833	-6,22	0,000	1,02

Regression Equation

SEX  
1 FEV1 = 0,2002 - 0,1669 DIAGNOSIS - 0,2096 AGE  
2 FEV1 = -0,3175 - 0,1669 DIAGNOSIS - 0,2096 AGE

## Regression Analysis: FEV1 versus AGE; SMOKING STATUS (NO0-EX1-YES2); SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	4	73,09	18,2734	21,02	0,000
AGE	1	20,44	20,4439	23,52	0,000
SMOKING STATUS (NO0-EX1-YES2)	2	14,55	7,2739	24,37	0,000
SEX	1	36,47	36,4726	41,95	0,000
Error	529	459,91	0,8694		
Lack-of-Fit	152	119,49	0,7861	0,87	0,839
Pure Error	377	340,41	0,9030		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,932410	13,71%	13,06%	12,17%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2034	0,0521	3,90	0,000	
SMOKING STATUS	-0,5330	0,0421	3,30	0,000	1,08
AGE	-0,2108	0,0424	-4,97	0,000	1,09
SEX					
2	-0,5197	0,0837	-6,21	0,000	1,02

### Regression Equation

SMOKING STATUS  
 (NO0-EX1-YES2) SEX

0	1	FEV1 = 0,264 - 0,2050 AGE
0	2	FEV1 = -0,279 - 0,2050 AGE
1	1	FEV1 = 0,0709 - 0,2050 AGE
1	2	FEV1 = -0,4725 - 0,2050 AGE
2	1	FEV1 = 0,4299 - 0,2050 AGE
2	2	FEV1 = -0,1135 - 0,2050 AGE

## Regression Analysis: FEV1 versus SMOKING YEARS; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	58,979	19,6596	21,74	0,000
SMOKING YEARS	1	0,332	0,3324	20,37	0,000
AGE	1	32,195	32,1954	35,60	0,000
SEX	1	30,054	30,0537	33,23	0,000
Error	523	473,044	0,9045		
Lack-of-Fit	367	317,257	0,8645	0,87	0,863
Pure Error	156	155,787	0,9986		
Total	526	532,023			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,951043	11,09%	10,58%	9,80%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2002	0,0541	3,70	0,000	
SMOKING YEARS	-0,5263	0,0434	0,61	0,000	1,09
AGE	-0,2503	0,0419	-5,97	0,000	1,03
SEX	2	-0,5109	0,0886	-5,76	0,000
					1,09

### Regression Equation

SEX

1	FEV1 = 0,2002 + 0,0263 SMOKING YEARS - 0,2503 AGE
2	FEV1 = -0,3106 + 0,0263 SMOKING YEARS - 0,2503 AGE

## Regression Analysis: FEV1 versus PACK-YEAR; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	59,816	19,9386	22,33	0,000
PACK-YEAR	1	1,270	1,2698	21,42	0,000
AGE	1	31,143	31,1427	34,88	0,000
SEX	1	34,323	34,3226	38,44	0,000
Error	530	473,184	0,8928		
Lack-of-Fit	432	381,101	0,8822	0,94	0,668
Pure Error	98	92,083	0,9396		
Total	533	533,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,944881	11,22%	10,72%	9,89%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2153	0,0536	4,01	0,000	
PACK-YEAR	-0,5516	0,0433	-1,19	0,000	1,12
AGE	-0,2442	0,0414	-5,91	0,000	1,02
SEX					
2	-0,5500	0,0887	-6,20	0,000	1,12

#### Regression Equation

SEX

$$1 \quad \text{FEV1} = 0,2153 - 0,0516 \text{ PACK-YEAR} - 0,2442 \text{ AGE}$$

$$2 \quad \text{FEV1} = -0,3347 - 0,0516 \text{ PACK-YEAR} - 0,2442 \text{ AGE}$$

## Regression Analysis: FEV1 versus FVC; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	314,332	104,777	253,96	0,000
FVC	1	255,786	255,786	619,96	0,000
AGE	1	0,728	0,728	1,77	0,185
SEX	1	3,722	3,722	9,02	0,003
Error	530	218,668	0,413		
Lack-of-Fit	519	215,120	0,414	1,29	0,338
Pure Error	11	3,548	0,323		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,642325	58,97%	58,74%	58,29%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0753	0,0374	-2,01	0,045	
FVC	0,7912	0,0318	24,90	0,000	1,30
AGE	-0,0389	0,0293	-1,33	0,185	1,11
SEX					
2	0,1925	0,0641	3,00	0,003	1,27

#### Regression Equation

SEX

$$1 \quad \text{FEV1} = -0,0753 + 0,7912 \text{ FVC} - 0,0389 \text{ AGE}$$

$$2 \quad \text{FEV1} = 0,1171 + 0,7912 \text{ FVC} - 0,0389 \text{ AGE}$$

## Regression Analysis: FEV1 versus FEV1/FVC%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	320,17	106,723	265,38	0,000
FEV1/FVC%	1	261,55	261,550	650,37	0,000
AGE	1	25,23	25,226	62,73	0,000
SEX	1	64,07	64,065	159,30	0,000
Error	529	212,74	0,402		
Lack-of-Fit	473	191,24	0,404	1,05	0,419
Pure Error	56	21,50	0,384		

Total 532 532,91

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,634158	60,08%	59,85%	59,47%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2838	0,0355	8,00	0,000	
FEV1/FVC%	0,7093	0,0278	25,50	0,000	1,02
AGE	-0,2194	0,0277	-7,92	0,000	1,02
SEX					
2	-0,7226	0,0573	-12,62	0,000	1,04

#### Regression Equation

SEX  
1 FEV1 = 0,2838 + 0,7093 FEV1/FVC% - 0,2194 AGE

2 FEV1 = -0,4389 + 0,7093 FEV1/FVC% - 0,2194 AGE

## Regression Analysis: FEV1 versus FEF50%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	229,534	76,511	133,63	0,000
FEF50%	1	170,988	170,988	298,63	0,000
AGE	1	18,044	18,044	31,51	0,000
SEX	1	40,666	40,666	71,02	0,000
Error	530	303,466	0,573		
Lack-of-Fit	496	294,794	0,594	2,33	0,002
Pure Error	34	8,673	0,255		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,756689	43,06%	42,74%	34,87%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2232	0,0421	5,30	0,000	
FEF50%	0,5706	0,0330	17,28	0,000	1,02
AGE	-0,1865	0,0332	-5,61	0,000	1,03
SEX					
2	-0,5704	0,0677	-8,43	0,000	1,02

#### Regression Equation

SEX  
1 FEV1 = 0,2232 + 0,5706 FEF50% - 0,1865 AGE

2 FEV1 = -0,3471 + 0,5706 FEF50% - 0,1865 AGE

## Regression Analysis: FEV1 versus DLCO%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	138,68	46,2276	62,13	0,000
DLCO%	1	80,14	80,1368	107,71	0,000
AGE	1	28,50	28,5039	38,31	0,000
SEX	1	35,75	35,7487	48,05	0,000

Error	530	394,32	0,7440		
Lack-of-Fit	508	367,90	0,7242	0,60	0,969
Pure Error	22	26,42	1,2009		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,862551	26,02%	25,60%	24,76%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2091	0,0480	4,36	0,000	
DLCO%	0,3881	0,0374	10,38	0,000	1,00
AGE	-0,2332	0,0377	-6,19	0,000	1,02
SEX					
2	-0,5343	0,0771	-6,93	0,000	1,02

#### Regression Equation

SEX  
1 FEV1 = 0,2091 + 0,3881 DLCO% - 0,2332 AGE  
2 FEV1 = -0,3252 + 0,3881 DLCO% - 0,2332 AGE

## Regression Analysis: FEV1 versus KCO%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	86,06	28,6871	34,02	0,000
KCO%	1	27,52	27,5153	32,63	0,000
AGE	1	37,84	37,8362	44,87	0,000
SEX	1	29,60	29,6002	35,10	0,000
Error	530	446,94	0,8433		
Lack-of-Fit	508	417,69	0,8222	0,62	0,962
Pure Error	22	29,25	1,3295		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,918303	16,15%	15,67%	14,90%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1907	0,0511	3,73	0,000	
KCO%	0,2289	0,0401	5,71	0,000	1,02
AGE	-0,2697	0,0403	-6,70	0,000	1,02
SEX					
2	-0,4871	0,0822	-5,92	0,000	1,02

#### Regression Equation

SEX  
1 FEV1 = 0,1907 + 0,2289 KCO% - 0,2697 AGE  
2 FEV1 = -0,2965 + 0,2289 KCO% - 0,2697 AGE

## Regression Analysis: FEV1 versus t-Sa(Hb)O2%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	114,24	38,0795	48,19	0,000

t-Sa(Hb) O2%	1	55,69	55,6927	70,49	0,000
AGE	1	25,05	25,0526	31,71	0,000
SEX	1	40,64	40,6370	51,43	0,000
Error	530	418,76	0,7901		
Lack-of-Fit	338	274,22	0,8113	1,08	0,284
Pure Error	192	144,54	0,7528		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,888885	21,43%	20,99%	20,19%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2237	0,0495	4,52	0,000	
t-Sa(Hb) O2%	0,3258	0,0388	8,40	0,000	1,02
AGE	-0,2193	0,0389	-5,63	0,000	1,02
SEX	2	-0,5714	0,0797	-7,17	0,000
					1,02

#### Regression Equation

SEX  
1 FEV1 = 0,2237 + 0,3258 t-Sa(Hb) O2% - 0,2193 AGE  
2 FEV1 = -0,3478 + 0,3258 t-Sa(Hb) O2% - 0,2193 AGE

### Regression Analysis: FEV1 versus a-Sa(Hb)O2%-normal; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	121,37	40,4560	52,09	0,000
a-Sa(Hb) O2%-normal	1	62,82	62,8221	80,89	0,000
AGE	1	31,16	31,1650	40,13	0,000
SEX	1	33,38	33,3762	42,97	0,000
Error	530	411,63	0,7767		
Lack-of-Fit	455	345,13	0,7585	0,86	0,827
Pure Error	75	66,50	0,8866		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,881285	22,77%	22,33%	21,60%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-11,90	1,35	-8,84	0,000	
a-Sa(Hb) O2%-normal	0,1286	0,0143	8,99	0,000	1,00
AGE	-0,2437	0,0385	-6,33	0,000	1,02
SEX	2	-0,5162	0,0787	-6,56	0,000
					1,02

#### Regression Equation

SEX  
1 FEV1 = -11,90 + 0,1286 a-Sa(Hb) O2%-normal - 0,2437 AGE  
2 FEV1 = -12,42 + 0,1286 a-Sa(Hb) O2%-normal - 0,2437 AGE

### Regression Analysis: FEV1 versus PO2; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	130,18	43,3925	57,09	0,000
PO2	1	71,63	71,6317	94,25	0,000
AGE	1	26,14	26,1375	34,39	0,000
SEX	1	30,59	30,5892	40,25	0,000
Error	530	402,82	0,7600		
Lack-of-Fit	505	382,63	0,7577	0,94	0,621
Pure Error	25	20,19	0,8076		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,871804	24,42%	24,00%	23,20%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1935	0,0485	3,99	0,000	
PO2	0,3675	0,0379	9,71	0,000	1,00
AGE	-0,2236	0,0381	-5,86	0,000	1,02
SEX	2	-0,4944	0,0779	-6,34	0,000
					1,02

#### Regression Equation

SEX  
1 FEV1 = 0,1935 + 0,3675 PO2 - 0,2236 AGE  
2 FEV1 = -0,3009 + 0,3675 PO2 - 0,2236 AGE

### Regression Analysis: FEV1 versus PCO2; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	88,92	29,6413	35,38	0,000
PCO2	1	30,38	30,3780	36,26	0,000
AGE	1	31,71	31,7054	37,84	0,000
SEX	1	32,24	32,2379	38,48	0,000
Error	530	444,08	0,8379		
Lack-of-Fit	487	407,22	0,8362	0,98	0,569
Pure Error	43	36,85	0,8571		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,915358	16,68%	16,21%	14,99%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1986	0,0509	3,90	0,000	
PCO2	-0,2388	0,0397	-6,02	0,000	1,00
AGE	-0,2458	0,0400	-6,15	0,000	1,02
SEX	2	-0,5074	0,0818	-6,20	0,000
					1,02

#### Regression Equation

SEX  
1 FEV1 = 0,1986 - 0,2388 PCO2 - 0,2458 AGE  
2 FEV1 = -0,3088 - 0,2388 PCO2 - 0,2458 AGE

## Regression Analysis: FEV1 versus 6-MWD; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	136,97	45,6560	61,10	0,000
6-MWD	1	78,42	78,4221	104,95	0,000
AGE	1	11,28	11,2762	15,09	0,000
SEX	1	29,88	29,8830	39,99	0,000
Error	530	396,03	0,7472		
Lack-of-Fit	517	374,46	0,7243	0,44	0,994
Pure Error	13	21,57	1,6591		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,864425	25,70%	25,28%	24,61%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1913	0,0481	3,98	0,000	
6-MWD	0,3954	0,0386	10,24	0,000	1,06
AGE	-0,1511	0,0389	-3,88	0,000	1,08
SEX	2	-0,4888	0,0773	-6,32	0,000
					1,02

Regression Equation

SEX  
1     FEV1 = 0,1913 + 0,3954 6-MWD - 0,1511 AGE  
2     FEV1 = -0,2975 + 0,3954 6-MWD - 0,1511 AGE

## Regression Analysis: FEV1 versus COMORBIDITIES; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	59,484	19,8281	22,19	0,000
COMORBIDITIES	1	0,939	0,9385	1,05	0,306
AGE	1	31,489	31,4892	35,25	0,000
SEX	1	34,026	34,0262	38,09	0,000
Error	530	473,516	0,8934		
Lack-of-Fit	248	234,895	0,9472	1,12	0,179
Pure Error	282	238,621	0,8462		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,945212	11,16%	10,66%	9,79%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2042	0,0526	3,88	0,000	
COMORBIDITIES	-0,0421	0,0411	-1,02	0,306	1,01
AGE	-0,2453	0,0413	-5,94	0,000	1,02
SEX	2	-0,5218	0,0846	-6,17	0,000
					1,02

Regression Equation

SEX  
1     FEV1 = 0,2042 - 0,0421 COMORBIDITIES - 0,2453 AGE

2 FEV1 = -0,3176 - 0,0421 COMORBIDITIES - 0,2453 AGE

## Regression Analysis: FEV1 versus FFMI; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	89,727	29,9090	35,76	0,000
FFMI	1	31,181	31,1810	37,28	0,000
AGE	1	20,984	20,9838	25,09	0,000
SEX	1	0,648	0,6481	0,77	0,379
Error	530	443,273	0,8364		
Lack-of-Fit	521	436,951	0,8387	1,19	0,418
Pure Error	9	6,322	0,7024		
Total	533	533,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,914530	16,83%	16,36%	15,50%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,0369	0,0577	0,64	0,522	
FFMI	0,3177	0,0520	6,11	0,000	1,73
AGE	-0,2033	0,0406	-5,01	0,000	1,05
SEX					
2	-0,094	0,107	-0,88	0,379	1,75

### Regression Equation

SEX  
1 FEV1 = 0,0369 + 0,3177 FFMI - 0,2033 AGE  
2 FEV1 = -0,0574 + 0,3177 FFMI - 0,2033 AGE

## Regression Analysis: FEV1 versus PhA; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	60,264	20,0880	22,52	0,000
PhA	1	1,718	1,7181	1,93	0,166
AGE	1	30,331	30,3314	34,01	0,000
SEX	1	31,204	31,2040	34,98	0,000
Error	530	472,736	0,8920		
Lack-of-Fit	472	425,445	0,9014	1,11	0,326
Pure Error	58	47,291	0,8154		
Total	533	533,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,944434	11,31%	10,80%	9,99%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1969	0,0527	3,73	0,000	
PhA	0,0574	0,0414	1,39	0,166	1,02
AGE	-0,2417	0,0415	-5,83	0,000	1,03
SEX					
2	-0,5030	0,0850	-5,91	0,000	1,03

### Regression Equation

SEX  
1 FEV1 = 0,1969 + 0,0574 PhA - 0,2417 AGE  
2 FEV1 = -0,3061 + 0,0574 PhA - 0,2417 AGE

## Regression Analysis: FEV1 versus SMMI; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	62,927	20,9756	23,61	0,000
SMMI	1	4,372	4,3725	4,92	0,027
AGE	1	28,905	28,9048	32,53	0,000
SEX	1	17,892	17,8925	20,14	0,000
Error	529	470,068	0,8886		
Lack-of-Fit	522	461,965	0,8850	0,76	0,756
Pure Error	7	8,103	1,1576		
Total	532	532,995			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,942654	11,81%	11,31%	10,45%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1659	0,0551	3,01	0,003	
SMMI	0,1017	0,0458	2,22	0,027	1,26
AGE	-0,2365	0,0415	-5,70	0,000	1,03
SEX					
2	-0,4235	0,0944	-4,49	0,000	1,27

Regression Equation

SEX  
1 FEV1 = 0,1659 + 0,1017 SMMI - 0,2365 AGE  
2 FEV1 = -0,2576 + 0,1017 SMMI - 0,2365 AGE

## Regression Analysis: FEV1 versus GOLD(I-IV); AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	358,81	119,603	363,91	0,000
GOLD(I-IV)	1	300,26	300,264	913,60	0,000
AGE	1	34,79	34,792	105,86	0,000
SEX	1	71,58	71,577	217,78	0,000
Error	530	174,19	0,329		
Lack-of-Fit	214	99,46	0,465	1,97	0,000
Pure Error	316	74,73	0,236		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,573289	67,32%	67,13%	66,69%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2996	0,0321	9,35	0,000	
GOLD(I-IV)	-0,7602	0,0251	-30,23	0,000	1,03
AGE	-0,2575	0,0250	-10,29	0,000	1,02
SEX					

2 -0,7656 0,0519 -14,76 0,000 1,04

#### Regression Equation

SEX  
1 FEV1 = 0,2996 - 0,7602 GOLD(I-IV) - 0,2575 AGE  
2 FEV1 = -0,4659 - 0,7602 GOLD(I-IV) - 0,2575 AGE

## Regression Analysis: FEV1 versus mMRC; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	133,81	44,6017	59,22	0,000
mMRC	1	75,26	75,2592	99,92	0,000
AGE	1	31,89	31,8913	42,34	0,000
SEX	1	31,63	31,6297	41,99	0,000
Error	530	399,19	0,7532		
Lack-of-Fit	213	159,66	0,7496	0,99	0,522
Pure Error	317	239,54	0,7556		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,867870	25,10%	24,68%	23,96%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1967	0,0483	4,07	0,000	
mMRC	-0,3758	0,0376	-10,00	0,000	1,00
AGE	-0,2465	0,0379	-6,51	0,000	1,02
SEX	2	-0,5026	0,0776	-6,48	0,000
					1,02

#### Regression Equation

SEX  
1 FEV1 = 0,1967 - 0,3758 mMRC - 0,2465 AGE  
2 FEV1 = -0,3059 - 0,3758 mMRC - 0,2465 AGE

## Regression Analysis: FEV1 versus CAT; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	112,89	37,6299	47,47	0,000
CAT	1	54,34	54,3437	68,56	0,000
AGE	1	38,87	38,8681	49,04	0,000
SEX	1	32,97	32,9748	41,60	0,000
Error	530	420,11	0,7927		
Lack-of-Fit	441	348,39	0,7900	0,98	0,563
Pure Error	89	71,72	0,8058		
Total	533	533,00			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,890315	21,18%	20,73%	19,92%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2008	0,0495	4,05	0,000	

CAT	-0,2478	0,0387	-8,28	0,000	1,01
AGE	-0,2730	0,0390	-7,00	0,000	1,02
SEX					
2	-0,5131	0,0796	-6,45	0,000	1,02

Regression Equation

SEX  
1 FEV1 = 0,2008 - 0,3203 CAT - 0,2730 AGE  
2 FEV1 = -0,3123 - 0,3203 CAT - 0,2730 AGE

## Regression Analysis: FEV1 versus DASS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	63,813	21,2711	24,03	0,000
DASS	1	5,267	5,2674	5,95	0,015
AGE	1	33,315	33,3154	37,63	0,000
SEX	1	33,529	33,5294	37,88	0,000
Error	530	469,187	0,8853		
Lack-of-Fit	457	400,153	0,8756	0,93	0,684
Pure Error	73	69,033	0,9457		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,940881	11,97%	11,47%	10,52%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2025	0,0523	3,87	0,000	
DASS	-0,0995	0,0408	-2,44	0,015	1,00
AGE	-0,2522	0,0411	-6,13	0,000	1,02
SEX					
2	-0,5174	0,0841	-6,15	0,000	1,02

Regression Equation

SEX  
1 FEV1 = 0,2025 - 0,0995 DASS - 0,2522 AGE  
2 FEV1 = -0,3149 - 0,0995 DASS - 0,2522 AGE

## Regression Analysis: FEV1 versus SGRQ-C; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	100,45	33,4824	44,78	0,000
SGRQ-C	1	54,04	54,0432	72,28	0,000
AGE	1	30,35	30,3507	40,59	0,000
SEX	1	27,08	27,0831	36,22	0,000
Error	474	354,42	0,7477		
Total	477	454,87			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,864715	22,08%	21,59%	20,66%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
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Constant	0,1790	0,0514	3,48	0,001	
SGRQ-C	-0,3369	0,0396	-8,50	0,000	1,00
AGE	-0,2525	0,0396	-6,37	0,000	1,02
SEX					
2	-0,4898	0,0814	-6,02	0,000	1,02

Regression Equation

SEX  
1 FEV1 = 0,1790 - 0,3369 SGRQ-C - 0,2525 AGE  
2 FEV1 = -0,3108 - 0,3369 SGRQ-C - 0,2525 AGE

## Regression Analysis: FEV1 versus NRS-2002; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	61,370	20,4568	22,99	0,000
NRS-2002	1	2,825	2,8245	3,17	0,075
AGE	1	26,011	26,0107	29,23	0,000
SEX	1	32,816	32,8162	36,88	0,000
Error	530	471,630	0,8899		
Lack-of-Fit	199	181,322	0,9112	1,04	0,378
Pure Error	331	290,308	0,8771		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,943328	11,51%	11,01%	10,17%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2005	0,0525	3,82	0,000	
NRS-2002	-0,0750	0,0421	-1,78	0,075	1,06
AGE	-0,2295	0,0424	-5,41	0,000	1,08
SEX					
2	-0,5122	0,0843	-6,07	0,000	1,02

Regression Equation

SEX  
1 FEV1 = 0,2005 - 0,0750 NRS-2002 - 0,2295 AGE  
2 FEV1 = -0,3117 - 0,0750 NRS-2002 - 0,2295 AGE

## Regression Analysis: FEV1 versus BODE; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	268,35	89,451	179,14	0,000
BODE	1	209,81	209,806	420,17	0,000
AGE	1	23,21	23,206	46,47	0,000
SEX	1	40,94	40,941	81,99	0,000
Error	530	264,65	0,499		
Lack-of-Fit	314	146,90	0,468	0,86	0,892
Pure Error	216	117,75	0,545		
Total	533	533,00			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,706637	50,35%	50,07%	49,57%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2240	0,0393	5,69	0,000	
BODE	-0,6293	0,0307	-20,50	0,000	1,01
AGE	-0,2106	0,0309	-6,82	0,000	1,02
SEX					
2	-0,5722	0,0632	-9,05	0,000	1,02

### Regression Equation

SEX

$$1 \quad \text{FEV1} = 0,2240 - 0,6293 \text{ BODE} - 0,2106 \text{ AGE}$$

$$2 \quad \text{FEV1} = -0,3483 - 0,6293 \text{ BODE} - 0,2106 \text{ AGE}$$

## Regression Analysis: FEV1 versus CCI; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	58,718	19,5726	21,87	0,000
CCI	1	0,172	0,1720	0,19	0,661
AGE	1	16,539	16,5387	18,48	0,000
SEX	1	33,701	33,7009	37,66	0,000
Error	530	474,282	0,8949		
Lack-of-Fit	196	157,642	0,8043	0,85	0,898
Pure Error	334	316,640	0,9480		
Total	533	533,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,945977	11,02%	10,51%	9,73%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2032	0,0527	3,86	0,000	
CCI	-0,0237	0,0540	-0,44	0,661	1,74
AGE	-0,2325	0,0541	-4,30	0,000	1,74
SEX					
2	-0,5193	0,0846	-6,14	0,000	1,02

### Regression Equation

SEX

$$1 \quad \text{FEV1} = 0,2032 - 0,0237 \text{ CCI} - 0,2325 \text{ AGE}$$

$$2 \quad \text{FEV1} = -0,3160 - 0,0237 \text{ CCI} - 0,2325 \text{ AGE}$$

## COMPUTER OUTCOMES FOR FEV1/FVC IN RELATION TO PREDICTOR, AGE AND SEX

### Regression Analysis: FEV1/FVC versus AGE; SEX 1

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	2	12,067	6,0337	6,15	0,002
AGE	1	0,825	0,8249	7,84	0,000
SEX	1	10,342	10,3418	10,54	0,001
Error	530	519,933	0,9810		
Lack-of-Fit	80	96,359	1,2045	1,28	0,065
Pure Error	450	423,573	0,9413		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,990457	2,27%	1,90%	1,04%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1128	0,0552	-2,04	0,042	
AGE	-0,2396	0,0432	-0,92	0,000	1,02
SEX	2	0,2875	0,0885	3,25	0,001
					1,02

Regression Equation

SEX  
1       $FEV1/FVC\% = -0,1128 - 0,0396 \text{ AGE}$   
2       $FEV1/FVC\% = 0,1747 - 0,0396 \text{ AGE}$

### Regression Analysis: FEV1/FVC versus BMI; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	35,490	11,8299	12,60	0,000
BMI	1	23,422	23,4221	24,95	0,000
AGE	1	0,713	0,7125	0,76	0,384
SEX	1	12,436	12,4355	13,25	0,000
Error	529	496,510	0,9386		
Lack-of-Fit	518	482,864	0,9322	0,75	0,797
Pure Error	11	13,647	1,2406		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,968805	6,67%	6,14%	5,02%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1243	0,0540	-2,30	0,022	
BMI	0,2102	0,0421	5,00	0,000	1,00
AGE	-0,0369	0,0423	-0,87	0,384	1,02
SEX	2	0,3159	0,0868	3,64	0,000
					1,02

Regression Equation

SEX  
1 FEV1/FVC% = -0,1243 + 0,2102 BMI - 0,0369 AGE  
2 FEV1/FVC% = 0,1917 + 0,2102 BMI - 0,0369 AGE

## Regression Analysis: FEV1/FVC versus DIAGNOSIS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	28,357	9,4522	9,91	0,000
DIAGNOSIS	1	16,196	16,1961	21,98	0,000
AGE	1	0,000	0,0005	0,00	0,982
SEX	1	10,082	10,0824	10,57	0,001
Error	528	503,492	0,9536		
Lack-of-Fit	403	408,545	1,0138	1,33	0,028
Pure Error	125	94,948	0,7596		
Total	531	531,849			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,976516	5,33%	4,79%	3,26%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1121	0,0545	-2,06	0,040	
DIAGNOSIS	-0,3793	0,0435	-4,12	0,000	1,05
AGE	0,0010	0,0437	0,02	0,982	1,07
SEX	2	0,2841	0,0874	3,25	0,001
					1,02

Regression Equation

SEX  
1 FEV1/FVC% = -0,1121 - 0,1793 DIAGNOSIS + 0,0010 AGE  
2 FEV1/FVC% = 0,1720 - 0,1793 DIAGNOSIS + 0,0010 AGE

## Regression Analysis: FEV1/FVC versus SMOKING STATUS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	13,306	4,4354	4,52	0,004
SMOKING STATUS	1	1,239	1,2387	3,26	0,000
AGE	1	0,336	0,3357	0,34	0,559
SEX	1	10,270	10,2697	10,47	0,001
Error	529	518,694	0,9805		
Lack-of-Fit	153	158,895	1,0385	1,09	0,266
Pure Error	376	359,798	0,9569		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,990211	2,50%	1,95%	0,88%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1122	0,0552	-2,03	0,042	
SMOKING STATUS	-0,5501	0,0446	1,12	0,000	1,08
AGE	-0,0262	0,0448	-0,59	0,559	1,09
SEX	2	0,2865	0,0885	3,24	0,001
					1,02

Regression Equation

SEX  
1 FEV1/FVC% = -0,1122 + 0,0501 SMOKING STATUS - 0,0262 AGE  
2 FEV1/FVC% = 0,1743 + 0,0501 SMOKING STATUS - 0,0262 AGE

## Regression Analysis: FEV1/FVC versus SMOKING YEARS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	12,999	4,3330	4,41	0,004
SMOKING YEARS	1	2,132	2,1319	4,17	0,000
AGE	1	0,447	0,4468	0,45	0,500
SEX	1	6,634	6,6336	6,75	0,010
Error	522	512,637	0,9821		
Lack-of-Fit	367	361,832	0,9859	1,01	0,468
Pure Error	155	150,805	0,9729		
Total	525	525,636			

Model Summary

S R-sq R-sq(adj) R-sq(pred)  
0,990991 2,47% 1,91% 0,89%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0962	0,0564	-1,71	0,089	
SMOKING YEARS	-0,5666	0,0452	-1,47	0,000	1,09
AGE	-0,0295	0,0437	-0,67	0,500	1,03
SEX	2	0,2401	0,0924	2,60	0,010
					1,09

Regression Equation

SEX  
1 FEV1/FVC% = -0,0962 - 0,0666 SMOKING YEARS - 0,0295 AGE  
2 FEV1/FVC% = 0,1438 - 0,0666 SMOKING YEARS - 0,0295 AGE

## Regression Analysis: FEV1/FVC versus PACK-YEAR; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	21,700	7,2333	7,50	0,000
PACK-YEAR	1	9,632	9,6323	9,99	0,000
AGE	1	0,465	0,4653	0,48	0,488
SEX	1	4,444	4,4444	4,61	0,032
Error	529	510,300	0,9647		
Lack-of-Fit	432	398,940	0,9235	0,80	0,924
Pure Error	97	111,360	1,1480		
Total	532	532,000			

Model Summary

S R-sq R-sq(adj) R-sq(pred)  
0,982166 4,08% 3,53% 2,52%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0777	0,0558	-1,39	0,165	
PACK-YEAR	-0,5421	0,0450	-3,16	0,000	1,12

AGE	-0,0299	0,0430	-0,69	0,488	1,02
SEX					
2	0,1980	0,0923	2,15	0,032	1,12

Regression Equation

SEX					
1	FEV1/FVC%	= -0,0777 - 0,1421 PACK-YEAR - 0,0299 AGE			
2	FEV1/FVC%	= 0,1203 - 0,1421 PACK-YEAR - 0,0299 AGE			

## Regression Analysis: FEV1/FVC versus FVC; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	40,662	13,5542	14,59	0,000
FVC	1	28,595	28,5950	30,79	0,000
AGE	1	0,438	0,4378	0,47	0,493
SEX	1	27,675	27,6752	29,80	0,000
Error	529	491,338	0,9288		
Lack-of-Fit	518	480,604	0,9278	0,95	0,601
Pure Error	11	10,734	0,9758		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,963745	7,64%	7,12%	6,13%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,2060	0,0563	-3,66	0,000	
FVC	0,2646	0,0477	5,55	0,000	1,30
AGE	0,0301	0,0439	0,69	0,493	1,11
SEX	2	0,5253	0,0962	5,46	0,000
					1,27

Regression Equation

SEX					
1	FEV1/FVC%	= -0,2060 + 0,2646 FVC + 0,0301 AGE			
2	FEV1/FVC%	= 0,3192 + 0,2646 FVC + 0,0301 AGE			

## Regression Analysis: FEV1/FVC versus FEV1; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	298,787	99,596	225,91	0,000
FEV1	1	286,719	286,719	650,37	0,000
AGE	1	11,477	11,477	26,03	0,000
SEX	1	55,753	55,753	126,47	0,000
Error	529	233,213	0,441		
Lack-of-Fit	514	227,734	0,443	1,21	0,350
Pure Error	15	5,479	0,365		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,663971	56,16%	55,91%	55,33%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,2712	0,0375	-7,23	0,000	
FEV1	0,7775	0,0305	25,50	0,000	1,12
AGE	0,1528	0,0300	5,10	0,000	1,08
SEX					
2	0,6908	0,0614	11,25	0,000	1,09

Regression Equation

SEX

$$1 \quad \text{FEV1/FVC\%} = -0,2712 + 0,7775 \text{ FEV1} + 0,1528 \text{ AGE}$$

$$2 \quad \text{FEV1/FVC\%} = 0,4196 + 0,7775 \text{ FEV1} + 0,1528 \text{ AGE}$$

## Regression Analysis: FEV1/FVC versus FEF50%; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	174,230	58,077	85,87	0,000
FEF50%	1	162,162	162,162	239,77	0,000
AGE	1	0,206	0,206	0,30	0,581
SEX	1	6,999	6,999	10,35	0,001
Error	529	357,770	0,676		
Lack-of-Fit	495	351,099	0,709	3,62	0,000
Pure Error	34	6,671	0,196		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,822383	32,75%	32,37%	24,83%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0933	0,0458	-2,04	0,042	
FEF50%	0,5558	0,0359	15,48	0,000	1,01
AGE	0,0199	0,0361	0,55	0,581	1,03
SEX					
2	0,2367	0,0736	3,22	0,001	1,02

Regression Equation

SEX

$$1 \quad \text{FEV1/FVC\%} = -0,0933 + 0,5558 \text{ FEF50\%} + 0,0199 \text{ AGE}$$

$$2 \quad \text{FEV1/FVC\%} = 0,1434 + 0,5558 \text{ FEF50\%} + 0,0199 \text{ AGE}$$

## Regression Analysis: FEV1/FVC versus DLCO%; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	122,678	40,893	52,85	0,000
DLCO%	1	110,611	110,611	142,95	0,000
AGE	1	0,268	0,268	0,35	0,556
SEX	1	9,000	9,000	11,63	0,001
Error	529	409,322	0,774		
Lack-of-Fit	507	386,530	0,762	0,74	0,872
Pure Error	22	22,792	1,036		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,879639	23,06%	22,62%	21,68%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1056	0,0490	-2,15	0,032	
DLCO%	0,4561	0,0381	11,96	0,000	1,00
AGE	-0,0226	0,0384	-0,59	0,556	1,02
SEX					
2	0,2683	0,0787	3,41	0,001	1,02

### Regression Equation

SEX

$$1 \quad \text{FEV1/FVC\%} = -0,1056 + 0,4561 \text{ DLCO\%} - 0,0226 \text{ AGE}$$

$$2 \quad \text{FEV1/FVC\%} = 0,1627 + 0,4561 \text{ DLCO\%} - 0,0226 \text{ AGE}$$

## Regression Analysis: FEV1/FVC versus KCO%; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	82,456	27,4852	32,34	0,000
KCO%	1	70,388	70,3881	82,83	0,000
AGE	1	2,909	2,9091	3,42	0,065
SEX	1	14,096	14,0957	16,59	0,000
Error	529	449,544	0,8498		
Lack-of-Fit	507	415,100	0,8187	0,52	0,992
Pure Error	22	34,444	1,5656		
Total	532	532,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,921846	15,50%	15,02%	14,20%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1320	0,0514	-2,57	0,010	
KCO%	0,3662	0,0402	9,10	0,000	1,02
AGE	-0,0748	0,0404	-1,85	0,065	1,02
SEX					
2	0,3363	0,0826	4,07	0,000	1,02

### Regression Equation

SEX

$$1 \quad \text{FEV1/FVC\%} = -0,1320 + 0,3662 \text{ KCO\%} - 0,0748 \text{ AGE}$$

$$2 \quad \text{FEV1/FVC\%} = 0,2043 + 0,3662 \text{ KCO\%} - 0,0748 \text{ AGE}$$

## Regression Analysis: FEV1/FVC versus t-Sa(Hb)O2%; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	78,971	26,3236	30,74	0,000
t-Sa (Hb) O2%	1	66,903	66,9032	78,12	0,000
AGE	1	0,037	0,0366	0,04	0,836
SEX	1	6,469	6,4689	7,55	0,006
Error	529	453,029	0,8564		
Lack-of-Fit	338	295,401	0,8740	1,06	0,332
Pure Error	191	157,628	0,8253		
Total	532	532,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,925412	14,84%	14,36%	13,45%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0893	0,0516	-1,73	0,084	
t-Sa(Hb)O2%	0,3572	0,0404	8,84	0,000	1,02
AGE	-0,0084	0,0406	-0,21	0,836	1,02
SEX					
2	0,2281	0,0830	2,75	0,006	1,0

### Regression Equation

SEX

$$1 \quad \text{FEV1/FVC\%} = -0,0893 + 0,3572 \text{ t-Sa(Hb)O2\%} - 0,0084 \text{ AGE}$$

$$2 \quad \text{FEV1/FVC\%} = 0,1388 + 0,3572 \text{ t-Sa(Hb)O2\%} - 0,0084 \text{ AGE}$$

## Regression Analysis: FEV1/FVC versus a-Sa(Hb)O2%; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	61,345	20,4484	22,98	0,000
a-Sa(Hb)O2%	1	49,278	49,2777	55,39	0,000
AGE	1	0,677	0,6768	0,76	0,384
SEX	1	10,385	10,3855	11,67	0,001
Error	529	470,655	0,8897		
Lack-of-Fit	454	407,194	0,8969	1,06	0,388
Pure Error	75	63,461	0,8461		
Total	532	532,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,943243	11,53%	11,03%	10,17%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1126	0,0526	-2,14	0,033	
a-Sa(Hb)O2%	0,3042	0,0409	7,44	0,000	1,00
AGE	-0,0359	0,0412	-0,87	0,384	1,02
SEX					
2	0,2881	0,0843	3,42	0,001	1,02

### Regression Equation

SEX

$$1 \quad \text{FEV1/FVC\%} = -0,1126 + 0,3042 \text{ a-Sa(Hb)O2\%} - 0,0359 \text{ AGE}$$

$$2 \quad \text{FEV1/FVC\%} = 0,1755 + 0,3042 \text{ a-Sa(Hb)O2\%} - 0,0359 \text{ AGE}$$

## Regression Analysis: FEV1/FVC versus PO2; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	62,976	20,9921	23,68	0,000
PO2	1	50,909	50,9088	57,42	0,000
AGE	1	0,193	0,1928	0,22	0,641
SEX	1	11,751	11,7506	13,25	0,000
Error	529	469,024	0,8866		
Lack-of-Fit	504	452,964	0,8987	1,40	0,156

Pure Error	25	16,060	0,6424
Total	532	532,000	

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,941607	11,84%	11,34%	10,42%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1200	0,0525	-2,29	0,023	
PO2	0,3099	0,0409	7,58	0,000	1,00
AGE	-0,0192	0,0412	-0,47	0,641	1,02
SEX					
2	0,3066	0,0842	3,64	0,000	1,02

#### Regression Equation

SEX  
1 FEV1/FVC% = -0,1200 + 0,3099 PO2 - 0,0192 AGE  
2 FEV1/FVC% = 0,1866 + 0,3099 PO2 - 0,0192 AGE

## Regression Analysis: FEV1/FVC versus PCO2; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	19,917	6,6389	6,86	0,000
PCO2	1	7,849	7,8491	8,11	0,005
AGE	1	0,783	0,7831	0,81	0,369
SEX	1	10,709	10,7087	11,06	0,001
Error	529	512,083	0,9680		
Lack-of-Fit	487	481,302	0,9883	1,35	0,116
Pure Error	42	30,782	0,7329		
Total	532	532,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,983881	3,74%	3,20%	2,09%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1147	0,0548	-2,09	0,037	
PCO2	-0,1214	0,0426	-2,85	0,005	1,00
AGE	-0,0386	0,0430	-0,90	0,369	1,02
SEX					
2	0,2926	0,0880	3,33	0,001	1,02

#### Regression Equation

SEX  
1 FEV1/FVC% = -0,1147 - 0,1214 PCO2 - 0,0386 AGE  
2 FEV1/FVC% = 0,1779 - 0,1214 PCO2 - 0,0386 AGE

## Regression Analysis: FEV1/FVC versus 6-MWD; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	39,150	13,0501	14,01	0,000
6-MWD	1	27,083	27,0830	29,07	0,000
AGE	1	0,145	0,1449	0,16	0,693

SEX	1	11,597	11,5970	12,45	0,000
Error	529	492,850	0,9317		
Lack-of-Fit	516	474,646	0,9199	0,66	0,895
Pure Error	13	18,203	1,4002		
Total	532	532,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,965227	7,36%	6,83%	5,88%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1196	0,0538	-2,22	0,027	
6-MWD	0,2324	0,0431	5,39	0,000	1,06
AGE	0,0171	0,0434	0,39	0,693	1,08
SEX	2	0,3046	0,0863	3,53	0,000
					1,02

#### Regression Equation

SEX  
1 FEV1/FVC% = -0,1196 + 0,2324 6-MWD + 0,0171 AGE

2 FEV1/FVC% = 0,1850 + 0,2324 6-MWD + 0,0171 AGE

## Regression Analysis: FEV1/FVC versus COMORBIDITIES; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	12,455	4,1515	4,23	0,006
COMORBIDITIES	1	0,387	0,3871	0,39	0,530
AGE	1	0,889	0,8890	0,91	0,342
SEX	1	10,521	10,5208	10,71	0,001
Error	529	519,545	0,9821		
Lack-of-Fit	248	258,421	1,0420	1,12	0,176
Pure Error	281	261,124	0,9293		
Total	532	532,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,991023	2,34%	1,79%	0,70%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1139	0,0553	-2,06	0,040	
COMORBIDITIES	0,0271	0,0431	0,63	0,530	1,01
AGE	-0,0412	0,0433	-0,95	0,342	1,02
SEX	2	0,2904	0,0887	3,27	0,001
					1,02

#### Regression Equation

SEX  
1 FEV1/FVC% = -0,1139 + 0,0271 COMORBIDITIES - 0,0412 AGE

2 FEV1/FVC% = 0,1764 + 0,0271 COMORBIDITIES - 0,0412 AGE

## Regression Analysis: FEV1/FVC versus FFMI; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	12,455	4,1515	4,23	0,006
FFMI	1	0,387	0,3871	0,39	0,530
AGE	1	0,889	0,8890	0,91	0,342
SEX	2	0,2904	0,0887	3,27	0,001
					1,02

Regression	3	29,709	9,9029	10,43	0,000
FFMI	1	17,641	17,6412	18,58	0,000
AGE	1	0,020	0,0198	0,02	0,885
SEX	1	26,736	26,7365	28,16	0,000
Error	529	502,291	0,9495		
Lack-of-Fit	520	494,125	0,9502	1,05	0,523
Pure Error	9	8,166	0,9073		
Total	532	532,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,974429	5,58%	5,05%	4,03%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,2381	0,0616	-3,87	0,000	
FFMI	0,2393	0,0555	4,31	0,000	1,73
AGE	-0,0062	0,0432	-0,14	0,885	1,05
SEX	2	0,607	0,114	5,31	0,000
					1,75

#### Regression Equation

SEX  
1 FEV1/FVC% = -0,2381 + 0,2393 FFMI - 0,0062 AGE  
2 FEV1/FVC% = 0,3687 + 0,2393 FFMI - 0,0062 AGE

## Regression Analysis: FEV1/FVC versus PhA; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	18,341	6,1135	6,30	0,000
PhA	1	6,273	6,2730	4,46	0,054
AGE	1	0,411	0,4107	0,42	0,516
SEX	1	12,265	12,2654	12,63	0,000
Error	529	513,659	0,9710		
Lack-of-Fit	471	459,466	0,9755	1,04	0,434
Pure Error	58	54,194	0,9344		
Total	532	532,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,985394	3,45%	2,90%	1,88%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1239	0,0551	-2,25	0,025	
PhA	0,0798	0,0432	2,54	0,054	1,02
AGE	-0,0281	0,0433	-0,65	0,516	1,03
SEX	2	0,3155	0,0888	3,55	0,000
					1,03

#### Regression Equation

SEX  
1 FEV1/FVC% = -0,1239 + 0,1098 PhA - 0,0281 AGE  
2 FEV1/FVC% = 0,1917 + 0,1098 PhA - 0,0281 AGE

## Regression Analysis: FEV1/FVC versus SMMI; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	25,121	8,3737	8,73	0,000
SMMI	1	12,927	12,9266	13,47	0,000
AGE	1	0,229	0,2292	0,24	0,625
SEX	1	20,305	20,3052	21,16	0,000
Error	528	506,728	0,9597		
Lack-of-Fit	521	495,711	0,9515	0,60	0,882
Pure Error	7	11,016	1,5737		
Total	531	531,849			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,979649	4,72%	4,18%	3,20

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1784	0,0574	-3,11	0,002	
SMMI	0,1750	0,0477	3,67	0,000	1,26
AGE	-0,0211	0,0431	-0,49	0,625	1,03
SEX	2	0,4517	0,0982	4,60	0,000
					1,28

#### Regression Equation

SEX  
1 FEV1/FVC% = -0,1784 + 0,1750 SMMI - 0,0211 AGE  
2 FEV1/FVC% = 0,2733 + 0,1750 SMMI - 0,0211 AGE

### Regression Analysis: FEV1/FVC versus GOLD(I-IV); AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	232,915	77,638	137,32	0,000
GOLD(I-IV)	1	220,848	220,848	390,62	0,000
AGE	1	1,219	1,219	2,16	0,143
SEX	1	0,701	0,701	1,24	0,266
Error	529	299,085	0,565		
Lack-of-Fit	214	167,745	0,784	1,88	0,000
Pure Error	315	131,340	0,417		
Total	532	532,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,751916	43,78%	43,46%	42,69%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0306	0,0421	-0,73	0,468	
GOLD(I-IV)	-0,6521	0,0330	-19,76	0,000	1,03
AGE	-0,0482	0,0328	-1,47	0,143	1,02
SEX	2	0,0758	0,0681	1,11	0,266
					1,04

#### Regression Equation

SEX  
1 FEV1/FVC% = -0,0306 - 0,6521 GOLD(I-IV) - 0,0482 AGE  
2 FEV1/FVC% = 0,0452 - 0,6521 GOLD(I-IV) - 0,0482 AGE

## Regression Analysis: FEV1/FVC versus mMRC; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	72,084	24,0279	27,64	0,000
mMRC	1	60,016	60,0161	69,03	0,000
AGE	1	0,772	0,7725	0,89	0,346
SEX	1	11,267	11,2666	12,96	0,000
Error	529	459,916	0,8694		
Lack-of-Fit	213	185,293	0,8699	1,00	0,494
Pure Error	316	274,624	0,8691		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,932420	13,55%	13,06%	12,20%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1172	0,0520	-2,26	0,024	
mMRC	-0,3358	0,0404	-8,31	0,000	1,00
AGE	-0,0384	0,0407	-0,94	0,346	1,02
SEX	2	0,3001	0,0834	3,60	0,000
					1,02

Regression Equation

SEX  
1      FEV1/FVC% = -0,1172 - 0,3358 mMRC - 0,0384 AGE  
2      FEV1/FVC% = 0,1829 - 0,3358 mMRC - 0,0384 AGE

## Regression Analysis: FEV1/FVC versus CAT; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	48,215	16,0718	17,57	0,000
CAT	1	36,148	36,1480	39,53	0,000
AGE	1	1,883	1,8825	2,06	0,152
SEX	1	10,557	10,5570	11,54	0,001
Error	529	483,785	0,9145		
Lack-of-Fit	441	415,333	0,9418	1,21	0,137
Pure Error	88	68,452	0,7779		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,956309	9,06%	8,55%	7,52%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1135	0,0533	-2,13	0,034	
CAT	-0,2614	0,0416	-6,29	0,000	1,01
AGE	-0,0601	0,0419	-1,43	0,152	1,02
SEX	2	0,2905	0,0855	3,40	0,001
					1,02

Regression Equation

SEX  
1      FEV1/FVC% = -0,1135 - 0,2614 CAT - 0,0601 AGE

2 FEV1/FVC% = 0,1770 - 0,2614 CAT - 0,0601 AGE

## Regression Analysis: FEV1/FVC versus DASS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	15,832	5,2772	5,41	0,001
DASS	1	3,764	3,7641	3,86	0,048
AGE	1	0,984	0,9835	1,01	0,316
SEX	1	10,335	10,3348	10,59	0,001
Error	529	516,168	0,9757		
Lack-of-Fit	457	457,378	1,0008	1,23	0,144
Pure Error	72	58,790	0,8165		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,987797	2,98%	2,43%	1,36%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1126	0,0550	-2,05	0,041	
DASS	-0,0852	0,0429	-1,96	0,048	1,00
AGE	-0,0433	0,0432	-1,00	0,316	1,02
SEX					
2	0,2874	0,0883	3,25	0,001	1,02

Regression Equation

SEX  
1 FEV1/FVC% = -0,1126 - 0,0842 DASS - 0,0433 AGE  
2 FEV1/FVC% = 0,1748 - 0,0842 DASS - 0,0433 AGE

## Regression Analysis: FEV1/FVC versus SGRQ-C; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	65,184	21,7280	23,20	0,000
SGRQ-C	1	51,954	51,9536	55,48	0,000
AGE	1	1,483	1,4826	1,58	0,209
SEX	1	9,862	9,8619	10,53	0,001
Error	474	443,910	0,9365		
Total	477	509,094			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,967739	12,80%	12,25%	11,21%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1314	0,0576	-2,28	0,023	
SGRQ-C	-0,3303	0,0443	-7,45	0,000	1,00
AGE	-0,0558	0,0444	-1,26	0,209	1,02
SEX					
2	0,2956	0,0911	3,25	0,001	1,02

Regression Equation

SEX

1 FEV1/FVC% = -0,1314 - 0,3303 SGRQ-C - 0,0558 AGE  
 2 FEV1/FVC% = 0,1642 - 0,3303 SGRQ-C - 0,0558 AGE

## Regression Analysis: FEV1/FVC versus NRS-2002; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	26,630	8,8766	9,29	0,000
NRS-2002	1	14,562	14,5622	15,24	0,000
AGE	1	0,002	0,0022	0,00	0,962
SEX	1	11,185	11,1847	11,71	0,001
Error	529	505,370	0,9553		
Lack-of-Fit	199	205,460	1,0325	1,14	0,154
Pure Error	330	299,910	0,9088		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,977411	5,01%	4,47%	3,50%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF	
Constant	-0,1170	0,0545	-2,15	0,032		
NRS-2002	-0,1706	0,0437	-3,90	0,000	1,06	
AGE	0,0021	0,0440	0,05	0,962	1,08	
SEX	2	0,2992	0,0874	3,42	0,001	1,02

Regression Equation

SEX  
 1 FEV1/FVC% = -0,1170 - 0,1706 NRS-2002 + 0,0021 AGE  
 2 FEV1/FVC% = 0,1822 - 0,1706 NRS-2002 + 0,0021 AGE

## Regression Analysis: FEV1/FVC versus BODE; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	169,480	56,493	82,44	0,000
BODE	1	157,412	157,412	229,70	0,000
AGE	1	0,028	0,028	0,04	0,839
SEX	1	7,163	7,163	10,45	0,001
Error	529	362,520	0,685		
Lack-of-Fit	314	219,611	0,699	1,05	0,345
Pure Error	215	142,909	0,665		
Total	532	532,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,827825	31,86%	31,47%	30,80%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF	
Constant	-0,0936	0,0461	-2,03	0,043		
BODE	-0,5451	0,0360	-15,16	0,000	1,01	
AGE	-0,0073	0,0362	-0,20	0,839	1,02	
SEX	2	0,2395	0,0741	3,23	0,001	1,02

### Regression Equation

SEX  
 1 FEV1/FVC% = -0,0936 - 0,5451 BODE - 0,0073 AGE  
 2 FEV1/FVC% = 0,1459 - 0,5451 BODE - 0,0073 AGE

## Regression Analysis: FEV1/FVC versus CCI; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	12,092	4,0305	4,10	0,007
CCI	1	0,024	0,0240	0,02	0,876
AGE	1	0,630	0,6298	0,64	0,424
SEX	1	10,366	10,3658	10,55	0,001
Error	529	519,908	0,9828		
Lack-of-Fit	196	177,043	0,9033	0,88	0,844
Pure Error	333	342,865	1,0296		
Total	532	532,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,991370	2,27%	1,72%	0,76%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1130	0,0553	-2,05	0,041	
CCI	0,0088	0,0566	0,16	0,876	1,74
AGE	-0,0454	0,0567	-0,80	0,424	1,74
SEX					
2	0,2881	0,0887	3,25	0,001	1,02

### Regression Equation

SEX  
 1 FEV1/FVC% = -0,1130 + 0,0088 CCI - 0,0454 AGE  
 2 FEV1/FVC% = 0,1751 + 0,0088 CCI - 0,0454 AGE

## COMPUTER OUTCOMES FOR FEF50% IN RELATION TO PREDICTOR, AGE AND SEX

### Regression Analysis: FEF50% versus AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	2	7,879	3,9396	3,98	0,019
AGE	1	6,056	6,0560	8,12	0,000
SEX	1	1,073	1,0735	1,09	0,298
Error	531	525,121	0,9889		
Lack-of-Fit	80	88,858	1,1107	1,15	0,196
Pure Error	451	436,262	0,9673		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,994449	1,48%	1,11%	0,19%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0362	0,0553	-0,65	0,513	
AGE	-0,3074	0,0434	-2,47	0,000	1,02
SEX					
2	0,0926	0,0889	1,04	0,298	1,02

Regression Equation

SEX  
1      FEF50% = -0,0362 - 0,1074 AGE  
2      FEF50% = 0,0563 - 0,1074 AGE

### Regression Analysis: FEF50% versus BMI; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	9,542	3,1806	3,22	0,022
BMI	1	1,663	1,6626	1,68	0,195
AGE	1	5,968	5,9680	6,04	0,014
SEX	1	1,247	1,2473	1,26	0,262
Error	530	523,458	0,9877		
Lack-of-Fit	519	514,025	0,9904	1,15	0,426
Pure Error	11	9,433	0,8576		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,993809	1,79%	1,23%	0,21%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0391	0,0553	-0,71	0,480	
BMI	0,0560	0,0431	1,30	0,195	1,00
AGE	-0,1066	0,0434	-2,46	0,014	1,02
SEX					
2	0,1000	0,0890	1,12	0,262	1,02

Regression Equation

SEX  
1 FEF50% = -0,0391 + 0,0560 BMI - 0,1066 AGE  
2 FEF50% = 0,0609 + 0,0560 BMI - 0,1066 AGE

## Regression Analysis: FEF50% versus DIAGNOSIS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	15,365	5,1216	5,24	0,001
DIAGNOSIS	1	7,474	7,4739	11,64	0,000
AGE	1	3,181	3,1809	3,25	0,072
SEX	1	1,030	1,0297	1,05	0,305
Error	529	517,498	0,9783		
Lack-of-Fit	403	411,376	1,0208	1,21	0,100
Pure Error	126	106,122	0,8422		
Total	532	532,863			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,989069	2,88%	2,33%	0,05%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0362	0,0551	-0,66	0,511	
DIAGNOSIS	-0,3217	0,0440	-2,76	0,000	1,05
AGE	-0,0799	0,0443	-1,80	0,072	1,07
SEX	2	0,0907	0,0884	1,03	0,305
					1,02

Regression Equation

SEX  
1 FEF50% = -0,0362 - 0,1217 DIAGNOSIS - 0,0799 AGE  
2 FEF50% = 0,0545 - 0,1217 DIAGNOSIS - 0,0799 AGE

## Regression Analysis: FEF50% versus SMOKING STATUS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	8,190	2,7299	2,76	0,042
SMOKING STATUS	1	0,310	0,3103	7,31	0,000
AGE	1	4,952	4,9523	5,00	0,026
SEX	1	1,064	1,0642	1,07	0,300
Error	530	524,810	0,9902		
Lack-of-Fit	153	172,359	1,1265	1,20	0,079
Pure Error	377	352,451	0,9349		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,995092	1,54%	0,98%	0,00%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0361	0,0554	-0,65	0,515	
SMOKING STATUS	0,5250	0,0447	0,56	0,000	1,08
AGE	-0,1007	0,0450	-2,24	0,026	1,09
SEX	2	0,0922	0,0889	1,04	0,300
					1,02

Regression Equation

SEX  
1 FEF50% = -0,0361 + 0,0250 SMOKING STATUS - 0,1007 AGE  
2 FEF50% = 0,0561 + 0,0250 SMOKING STATUS - 0,1007 AGE

### Regression Analysis: FEF50% versus SMOKING YEARS; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	10,971	3,6569	3,68	0,012
SMOKING YEARS	1	3,320	3,3198	8,34	0,000
AGE	1	5,180	5,1796	5,22	0,023
SEX	1	0,162	0,1624	0,16	0,686
Error	523	519,224	0,9928		
Lack-of-Fit	367	411,366	1,1209	1,62	0,000
Pure Error	156	107,859	0,6914		
Total	526	530,195			

Model Summary

S R-sq R-sq(adj) R-sq(pred)  
0,996384 2,07% 1,51% 0,33%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0129	0,0567	-0,23	0,821	
SMOKING YEARS	-0,5431	0,0454	-1,83	0,000	1,09
AGE	-0,1004	0,0439	-2,28	0,023	1,03
SEX	2	0,0375	0,0929	0,40	0,686
					1,09

Regression Equation

SEX  
1 FEF50% = -0,0129 - 0,0831 SMOKING YEARS - 0,1004 AGE  
2 FEF50% = 0,0247 - 0,0831 SMOKING YEARS - 0,1004 AGE

### Regression Analysis: FEF50% versus PACK-YEAR; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	16,415	5,47169	5,61	0,001
PACK-YEAR	1	8,536	8,53582	11,76	0,000
AGE	1	5,036	5,03556	5,17	0,023
SEX	1	0,008	0,00799	0,01	0,928
Error	530	516,585	0,97469		
Lack-of-Fit	432	449,475	1,04045	1,52	0,006
Pure Error	98	67,110	0,68480		
Total	533	533,000			

Model Summary

S R-sq R-sq(adj) R-sq(pred)  
0,987263 3,08% 2,53% 1,49%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0033	0,0560	-0,06	0,953	
PACK-YEAR	-0,5337	0,0452	-2,96	0,000	1,12

AGE	-0,0982	0,0432	-2,27	0,023	1,02
SEX 2	0,0084	0,0927	0,09	0,928	1,12

Regression Equation

SEX  
1 FEF50% = -0,0033 - 0,1337 PACK-YEAR - 0,0982 AGE  
2 FEF50% = 0,0051 - 0,1337 PACK-YEAR - 0,0982 AGE

## Regression Analysis: FEF50% versus FVC; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	80,730	26,9099	31,53	0,000
FVC	1	72,850	72,8504	85,37	0,000
AGE	1	0,008	0,0080	0,01	0,923
SEX	1	22,333	22,3326	26,17	0,000
Error	530	452,270	0,8533		
Lack-of-Fit	519	449,551	0,8662	3,50	0,012
Pure Error	11	2,719	0,2472		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,923764	15,15%	14,67%	13,75%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1845	0,0538	-3,43	0,001	
FVC	0,5222	0,0457	9,24	0,000	1,30
AGE	0,0041	0,0421	0,10	0,923	1,11
SEX 2	0,4715	0,0922	5,12	0,000	1,27

Regression Equation

SEX  
1 FEF50% = -0,1845 + 0,4222 FVC + 0,0041 AGE  
2 FEF50% = 0,2870 + 0,4222 FVC + 0,0041 AGE

## Regression Analysis: FEF50% versus FEV1; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	197,127	65,709	103,69	0,000
FEV1	1	189,247	189,247	298,63	0,000
AGE	1	1,183	1,183	1,87	0,172
SEX	1	20,581	20,581	32,48	0,000
Error	530	335,873	0,634		
Lack-of-Fit	515	264,216	0,513	0,11	1,000
Pure Error	15	71,658	4,777		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,796067	36,98%	36,63%	35,94%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1642	0,0449	-3,66	0,000	
FEV1	0,6316	0,0365	17,28	0,000	1,12
AGE	0,0491	0,0359	1,37	0,172	1,08
SEX					
2	0,4194	0,0736	5,70	0,000	1,09

Regression Equation

SEX

$$1 \quad \text{FEF50\%} = -0,1642 + 0,6316 \text{ FEV1} + 0,0491 \text{ AGE}$$

$$2 \quad \text{FEF50\%} = 0,2553 + 0,6316 \text{ FEV1} + 0,0491 \text{ AGE}$$

## Regression Analysis: FEF50% versus FEV1/FVC%; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	171,527	57,176	83,73	0,000
FEV1/FVC%	1	163,722	163,722	239,77	0,000
AGE	1	3,778	3,778	5,53	0,019
SEX	1	0,601	0,601	0,88	0,348
Error	529	361,212	0,683		
Lack-of-Fit	473	344,511	0,728	2,44	0,000
Pure Error	56	16,701	0,298		
Total	532	532,740			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,826330	32,20%	31,81%	31,01%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,0283	0,0462	0,61	0,540	
FEV1/FVC%	0,5612	0,0362	15,48	0,000	1,02
AGE	-0,0849	0,0361	-2,35	0,019	1,02
SEX					
2	-0,0700	0,0746	-0,94	0,348	1,04

Regression Equation

SEX

$$1 \quad \text{FEF50\%} = 0,0283 + 0,5612 \text{ FEV1/FVC\%} - 0,0849 \text{ AGE}$$

$$2 \quad \text{FEF50\%} = -0,0417 + 0,5612 \text{ FEV1/FVC\%} - 0,0849 \text{ AGE}$$

## Regression Analysis: FEF50% versus DLCO%; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	45,138	15,0460	16,35	0,000
DLCO%	1	37,259	37,2586	40,48	0,000
AGE	1	4,980	4,9804	5,41	0,020
SEX	1	0,824	0,8238	0,89	0,345
Error	530	487,862	0,9205		
Lack-of-Fit	508	469,614	0,9244	1,11	0,401
Pure Error	22	18,249	0,8295		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,959424	8,47%	7,95%	6,92%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0317	0,0534	-0,59	0,552	
DLCO%	0,2647	0,0416	6,36	0,000	1,00
AGE	-0,0975	0,0419	-2,33	0,020	1,02
SEX					
2	0,0811	0,0857	0,95	0,345	1,02

### Regression Equation

SEX  
1 FEF50% = -0,0317 + 0,2647 DLCO% - 0,0975 AGE  
2 FEF50% = 0,0494 + 0,2647 DLCO% - 0,0975 AGE

## Regression Analysis: FEF50% versus KCO%; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	26,759	8,9198	9,34	0,000
KCO%	1	18,880	18,8801	19,77	0,000
AGE	1	8,204	8,2040	8,59	0,004
SEX	1	1,730	1,7296	1,81	0,179
Error	530	506,241	0,9552		
Lack-of-Fit	508	480,855	0,9466	0,82	0,775
Pure Error	22	25,385	1,1539		
Total	533	533,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,977329	5,02%	4,48%	3,57%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0461	0,0544	-0,85	0,397	
KCO%	0,1896	0,0427	4,45	0,000	1,02
AGE	-0,1256	0,0429	-2,93	0,004	1,02
SEX					
2	0,1178	0,0875	1,35	0,179	1,02

### Regression Equation

SEX  
1 FEF50% = -0,0461 + 0,1896 KCO% - 0,1256 AGE  
2 FEF50% = 0,0717 + 0,1896 KCO% - 0,1256 AGE

## Regression Analysis: FEF50% versus t-Sa(Hb)O2%; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	26,599	8,8663	9,28	0,000
t-Sa (Hb) O2%	1	18,720	18,7198	19,59	0,000
AGE	1	4,305	4,3051	4,51	0,034
SEX	1	0,468	0,4680	0,49	0,484
Error	530	506,401	0,9555		
Lack-of-Fit	338	409,714	1,2122	2,41	0,000
Pure Error	192	96,687	0,5036		
Total	533	533,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,977483	4,99%	4,45%	2,43%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0240	0,0545	-0,44	0,660	
t-Sa(Hb)O2%	0,1889	0,0427	4,43	0,000	1,02
AGE	-0,0909	0,0428	-2,12	0,034	1,02
SEX					
2	0,0613	0,0876	0,70	0,484	1,02

#### Regression Equation

SEX

$$1 \quad \text{FEF50\%} = -0,0240 + 0,1889 \text{ t-Sa(Hb)O2\%} - 0,0909 \text{ AGE}$$

$$2 \quad \text{FEF50\%} = 0,0373 + 0,1889 \text{ t-Sa(Hb)O2\%} - 0,0909 \text{ AGE}$$

## Regression Analysis: FEF50% versus a-Sa(Hb)O2%; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	24,830	8,2765	8,63	0,000
a-Sa(Hb)O2%	1	16,950	16,9503	17,68	0,000
AGE	1	5,818	5,8184	6,07	0,014
SEX	1	1,090	1,0897	1,14	0,287
Error	530	508,170	0,9588		
Lack-of-Fit	455	394,914	0,8679	0,57	1,000
Pure Error	75	113,256	1,5101		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,979190	4,66%	4,12%	3,03%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0365	0,0545	-0,67	0,503	
a-Sa(Hb)O2%	0,1783	0,0424	4,20	0,000	1,00
AGE	-0,1053	0,0427	-2,46	0,014	1,02
SEX					
2	0,0933	0,0875	1,07	0,287	1,02

#### Regression Equation

SEX

$$1 \quad \text{FEF50\%} = -0,0365 + 0,1783 \text{ a-Sa(Hb)O2\%} - 0,1053 \text{ AGE}$$

$$2 \quad \text{FEF50\%} = 0,0568 + 0,1783 \text{ a-Sa(Hb)O2\%} - 0,1053 \text{ AGE}$$

## Regression Analysis: FEF50% versus PO2; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	31,983	10,6611	11,28	0,000
PO2	1	24,104	24,1042	25,50	0,000
AGE	1	4,560	4,5603	4,82	0,028
SEX	1	1,406	1,4059	1,49	0,223
Error	530	501,017	0,9453		
Lack-of-Fit	505	482,391	0,9552	1,28	0,231
Pure Error	25	18,625	0,7450		

Total 533 533,000

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,972273	6,00%	5,47%	4,15%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0415	0,0541	-0,77	0,444	
PO2	0,2132	0,0422	5,05	0,000	1,00
AGE	-0,0934	0,0425	-2,20	0,028	1,02
SEX					
2	0,1060	0,0869	1,22	0,223	1,02

#### Regression Equation

SEX  
1 FEF50% = -0,0415 + 0,2132 PO2 - 0,0934 AGE

2 FEF50% = 0,0645 + 0,2132 PO2 - 0,0934 AGE

## Regression Analysis: FEF50% versus PCO2; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	15,311	5,1036	5,22	0,001
PCO2	1	7,432	7,4315	7,61	0,006
AGE	1	5,945	5,9452	6,09	0,014
SEX	1	1,192	1,1921	1,22	0,270
Error	530	517,689	0,9768		
Lack-of-Fit	487	489,768	1,0057	1,55	0,039
Pure Error	43	27,921	0,6493		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,988318	2,87%	2,32%	1,02%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0382	0,0550	-0,69	0,488	
PCO2	-0,1181	0,0428	-2,76	0,006	1,00
AGE	-0,1064	0,0431	-2,47	0,014	1,02
SEX					
2	0,0976	0,0883	1,10	0,270	1,02

#### Regression Equation

SEX  
1 FEF50% = -0,0382 - 0,1181 PCO2 - 0,1064 AGE  
2 FEF50% = 0,0594 - 0,1181 PCO2 - 0,1064 AGE

## Regression Analysis: FEF50% versus 6-MWD; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	23,359	7,7863	8,10	0,000
6-MWD	1	15,480	15,4797	16,10	0,000
AGE	1	2,052	2,0525	2,13	0,145

SEX	1	1,389	1,3886	1,44	0,230
Error	530	509,641	0,9616		
Lack-of-Fit	517	503,422	0,9737	2,04	0,070
Pure Error	13	6,219	0,4784		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,980605	4,38%	3,84%	2,58%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0412	0,0546	-0,76	0,450	
6-MWD	0,1757	0,0438	4,01	0,000	1,06
AGE	-0,0645	0,0441	-1,46	0,145	1,08
SEX					
2	0,1054	0,0877	1,20	0,230	1,02

#### Regression Equation

SEX  
1 FEF50% = -0,0412 + 0,1757 6-MWD - 0,0645 AGE

2 FEF50% = 0,0641 + 0,1757 6-MWD - 0,0645 AGE

## Regression Analysis: FEF50% versus COMORBIDITIES; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	8,348	2,7827	2,81	0,039
COMORBIDITIES	1	0,469	0,4689	0,47	0,492
AGE	1	6,231	6,2308	6,29	0,012
SEX	1	1,142	1,1423	1,15	0,283
Error	530	524,652	0,9899		
Lack-of-Fit	248	332,039	1,3389	1,96	0,000
Pure Error	282	192,613	0,6830		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,994942	1,57%	1,01%	0,00%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0374	0,0554	-0,68	0,500	
COMORBIDITIES	0,0298	0,0432	0,69	0,492	1,01
AGE	-0,1091	0,0435	-2,51	0,012	1,02
SEX					
2	0,0956	0,0890	1,07	0,283	1,02

#### Regression Equation

SEX  
1 FEF50% = -0,0374 + 0,0298 COMORBIDITIES - 0,1091 AGE

2 FEF50% = 0,0582 + 0,0298 COMORBIDITIES - 0,1091 AGE

## Regression Analysis: FEF50% versus FFM; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value

Regression	3	12,244	4,0815	4,15	0,006
FFM	1	4,365	4,3651	4,44	0,036
AGE	1	4,184	4,1839	4,26	0,040
SEX	1	4,586	4,5865	4,67	0,031
Error	530	520,756	0,9826		
Lack-of-Fit	521	513,656	0,9859	1,25	0,384
Pure Error	9	7,100	0,7889		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,991241	2,30%	1,74%	0,73%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0982	0,0625	-1,57	0,117	
FFM	0,1189	0,0564	2,11	0,036	1,73
AGE	-0,0908	0,0440	-2,06	0,040	1,05
SEX	2	0,251	0,116	2,16	0,031
					1,75

#### Regression Equation

SEX  
1 FEF50% = -0,0982 + 0,1189 FFM - 0,0908 AGE  
2 FEF50% = 0,1527 + 0,1189 FFM - 0,0908 AGE

## Regression Analysis: FEF50% versus PhA; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	13,499	4,4997	4,59	0,003
PhA	1	5,620	5,6197	5,73	0,017
AGE	1	4,832	4,8323	4,93	0,027
SEX	1	1,745	1,7448	1,78	0,183
Error	530	519,501	0,9802		
Lack-of-Fit	472	485,538	1,0287	1,76	0,005
Pure Error	58	33,963	0,5856		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,990046	2,53%	1,98%	0,52%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0465	0,0553	-0,84	0,400	
PhA	0,1039	0,0434	2,39	0,017	1,02
AGE	-0,0965	0,0435	-2,22	0,027	1,03
SEX	2	0,1189	0,0891	1,33	0,183
					1,03

#### Regression Equation

SEX  
1 FEF50% = -0,0465 + 0,1039 PhA - 0,0965 AGE  
2 FEF50% = 0,0724 + 0,1039 PhA - 0,0965 AGE

## Regression Analysis: FEF50% versus SMMI; AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	10,239	3,4130	3,45	0,016
SMMI	1	2,410	2,4104	2,44	0,119
AGE	1	5,058	5,0584	5,12	0,024
SEX	1	2,620	2,6199	2,65	0,104
Error	529	522,674	0,9880		
Lack-of-Fit	522	517,760	0,9919	1,41	0,335
Pure Error	7	4,915	0,7021		
Total	532	532,913			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,994003	1,92%	1,37%	0,39%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0631	0,0581	-1,09	0,278	
SMMI	0,0755	0,0483	1,56	0,119	1,26
AGE	-0,0989	0,0437	-2,26	0,024	1,03
SEX	2	0,1621	0,0995	1,63	0,104
					1,27

#### Regression Equation

SEX  
1 FEF50% = -0,0631 + 0,0755 SMMI - 0,0989 AGE  
2 FEF50% = 0,0990 + 0,0755 SMMI - 0,0989 AGE

### Regression Analysis: FEF50% versus GOLD(I-IV); AGE; SEX

#### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	145,658	48,553	66,43	0,000
GOLD(I-IV)	1	137,779	137,779	188,52	0,000
AGE	1	6,819	6,819	9,33	0,002
SEX	1	0,695	0,695	0,95	0,330
Error	530	387,342	0,731		
Lack-of-Fit	214	174,732	0,817	1,21	0,059
Pure Error	316	212,610	0,673		
Total	533	533,000			

#### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,854888	27,33%	26,92%	26,09%

#### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,0295	0,0478	0,62	0,537	
GOLD(I-IV)	-0,5149	0,0375	-13,73	0,000	1,03
AGE	-0,1140	0,0373	-3,05	0,002	1,02
SEX	2	-0,0754	0,0774	-0,98	0,330
					1,0

#### Regression Equation

SEX  
1 FEF50% = 0,0295 - 0,5149 GOLD(I-IV) - 0,1140 AGE  
2 FEF50% = -0,0459 - 0,5149 GOLD(I-IV) - 0,1140 AGE

## Regression Analysis: FEF50% versus mMRC; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	46,705	15,5685	16,97	0,000
mMRC	1	38,826	38,8261	42,32	0,000
AGE	1	5,953	5,9531	6,49	0,011
SEX	1	1,336	1,3362	1,46	0,228
Error	530	486,295	0,9175		
Lack-of-Fit	213	202,488	0,9506	1,06	0,313
Pure Error	317	283,806	0,8953		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,957882	8,76%	8,25%	7,27%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0404	0,0533	-0,76	0,448	
mMRC	-0,2699	0,0415	-6,51	0,000	1,00
AGE	-0,1065	0,0418	-2,55	0,011	1,02
SEX	2	0,1033	0,0856	1,21	0,228
					1,02

Regression Equation

SEX

$$1 \quad \text{FEF50\%} = -0,0404 - 0,2699 \text{ mMRC} - 0,1065 \text{ AGE}$$

$$2 \quad \text{FEF50\%} = 0,0629 - 0,2699 \text{ mMRC} - 0,1065 \text{ AGE}$$

## Regression Analysis: FEF50% versus CAT; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	38,733	12,9112	13,84	0,000
CAT	1	30,854	30,8542	33,08	0,000
AGE	1	8,334	8,3338	8,94	0,003
SEX	1	1,153	1,1525	1,24	0,267
Error	530	494,267	0,9326		
Lack-of-Fit	441	449,461	1,0192	2,02	0,000
Pure Error	89	44,806	0,5034		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,965701	7,27%	6,74%	5,75%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0375	0,0537	-0,70	0,485	
CAT	-0,2414	0,0420	-5,75	0,000	1,01
AGE	-0,1264	0,0423	-2,99	0,003	1,02
SEX	2	0,0959	0,0863	1,11	0,267
					1,02

Regression Equation

SEX

$$1 \quad \text{FEF50\%} = -0,0375 - 0,2414 \text{ CAT} - 0,1264 \text{ AGE}$$

2 FEF50% = 0,0584 - 0,2414 CAT - 0,1264 AGE

## Regression Analysis: FEF50% versus DASS; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	11,322	3,7739	3,83	0,010
DASS	1	3,442	3,4424	3,50	0,062
AGE	1	6,452	6,4522	6,56	0,011
SEX	1	1,076	1,0765	1,09	0,296
Error	530	521,678	0,9843		
Lack-of-Fit	457	478,060	1,0461	1,75	0,002
Pure Error	73	43,618	0,5975		
Total	533	533,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,992118	2,12%	1,57%	0,33%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0363	0,0552	-0,66	0,511	
DASS	-0,0804	0,0430	-1,87	0,062	1,00
AGE	-0,1110	0,0433	-2,56	0,011	1,02
SEX					
2	0,0927	0,0886	1,05	0,296	1,02

### Regression Equation

SEX  
1 FEF50% = -0,0363 - 0,0804 DASS - 0,1110 AGE  
2 FEF50% = 0,0564 - 0,0804 DASS - 0,1110 AGE

## Regression Analysis: FEF50% versus SGRQ-C; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	40,655	13,5516	14,47	0,000
SGRQ-C	1	33,670	33,6705	35,95	0,000
AGE	1	6,296	6,2955	6,72	0,010
SEX	1	0,639	0,6392	0,68	0,409
Error	474	443,987	0,9367		
Total	477	484,642			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,967823	8,39%	7,81%	6,74%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0365	0,0576	-0,63	0,527	
SGRQ-C	-0,2659	0,0444	-6,00	0,000	1,00
AGE	-0,1150	0,0444	-2,59	0,010	1,02
SEX					
2	0,0752	0,0911	0,83	0,409	1,02

### Regression Equation

SEX

1 FEF50% = -0,0365 - 0,2659 SGRQ-C - 0,1150 AGE

2 FEF50% = 0,0388 - 0,2659 SGRQ-C - 0,1150 AGE

## Regression Analysis: FEF50% versus NRS-2002; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	11,870	3,9567	4,02	0,008
NRS-2002	1	3,991	3,9907	4,06	0,044
AGE	1	3,623	3,6232	3,68	0,055
SEX	1	1,225	1,2249	1,25	0,265
Error	530	521,130	0,9833		
Lack-of-Fit	199	227,157	1,1415	1,29	0,022
Pure Error	331	293,973	0,8881		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,991597	2,23%	1,67%	0,71%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0387	0,0552	-0,70	0,483	
NRS-2002	-0,0892	0,0443	-2,01	0,044	1,06
AGE	-0,0856	0,0446	-1,92	0,055	1,08
SEX					
2	0,0990	0,0887	1,12	0,265	1,02

Regression Equation

SEX

1 FEF50% = -0,0387 - 0,0892 NRS-2002 - 0,0856 AGE

2 FEF50% = 0,0602 - 0,0892 NRS-2002 - 0,0856 AGE

## Regression Analysis: FEF50% versus BODE; AGE; SEX

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	86,871	28,9570	34,40	0,000
BODE	1	78,992	78,9917	93,84	0,000
AGE	1	3,746	3,7459	4,45	0,035
SEX	1	0,436	0,4356	0,52	0,472
Error	530	446,129	0,8418		
Lack-of-Fit	314	256,060	0,8155	0,93	0,731
Pure Error	216	190,069	0,8799		
Total	533	533,000			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,917471	16,30%	15,82%	14,95%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0231	0,0511	-0,45	0,651	
BODE	-0,3861	0,0399	-9,69	0,000	1,01
AGE	-0,0846	0,0401	-2,11	0,035	1,02
SEX					
2	0,0590	0,0820	0,72	0,472	1,02

### Regression Equation

SEX  
 1 FEF50% = -0,0231 - 0,3861 BODE - 0,0846 AGE  
 2 FEF50% = 0,0359 - 0,3861 BODE - 0,0846 AGE

## Regression Analysis: FEF50% versus CCI; AGE; SEX

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	3	8,891	2,9637	3,00	0,030
CCI	1	1,012	1,0119	1,02	0,312
AGE	1	6,394	6,3942	6,47	0,011
SEX	1	1,170	1,1698	1,18	0,277
Error	530	524,109	0,9889		
Lack-of-Fit	196	281,536	1,4364	1,98	0,000
Pure Error	334	242,573	0,7263		
Total	533	533,000			

### Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,994427	1,67%	1,11%	0,00%

### Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0379	0,0554	-0,68	0,494	
CCI	0,0574	0,0568	1,01	0,312	1,74
AGE	-0,1445	0,0568	-2,54	0,011	1,74
SEX					
2	0,0967	0,0889	1,09	0,277	1,02

### Regression Equation

SEX  
 1 FEF50% = -0,0379 + 0,0574 CCI - 0,1445 AGE  
 2 FEF50% = 0,0589 + 0,0574 CCI - 0,1445 AGE

## COMPUTER OUTCOMES FOR STEPWISE REGRESSION (FVC)

### Regression Analysis: FVC versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STANDARDIZED VARIABLES

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,692928	72,55%	70,87%	66,13%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,1976	0,0503	3,93	0,000	
AGE	-0,1628	0,0472	-3,45	0,001	2,23
BMI	-0,0864	0,0545	-0,12	0,107	2,86
SMOKING STATUS	-0,5120	0,0368	-3,04	0,000	1,33
SMOKING YEARS	-0,5010	0,0463	-3,02	0,000	2,21
PACK-YEAR	-0,1482	0,0436	1,10	0,070	1,82
DIAGNOSIS	-0,2005	0,0351	-3,71	0,000	1,26
mMRC	-0,0364	0,0465	-0,78	0,434	2,19
CAT	-0,1029	0,0460	-2,24	0,026	2,02
DLCO%	0,1552	0,0540	2,87	0,004	2,96
KCO%	-0,2283	0,0531	-4,30	0,000	2,85
t-Sa (Hb) O2%	-0,0338	0,0403	-0,84	0,401	1,58
a-Sa (Hb) O2%	0,0790	0,0545	1,45	0,148	3,03
PO2	0,0095	0,0560	0,17	0,866	3,05
PCO2	-0,1728	0,0336	-5,15	0,000	1,15
6-MWD	0,2700	0,0395	6,83	0,000	1,56
DASS	0,0265	0,0445	0,60	0,551	1,91
SGRQ-C	-0,0481	0,0446	-1,08	0,281	1,95
IOS	-0,0100	0,0403	-0,25	0,803	1,58
NRS-2002	0,0419	0,0398	1,05	0,292	1,57
CCI	0,0017	0,0444	0,04	0,970	2,01
FFMI	0,3589	0,0627	5,72	0,000	3,81
SMMI	-0,1652	0,0612	-2,70	0,007	3,72
PhA	-0,0322	0,0327	-0,99	0,325	1,14
COMORBIDITIES	0,0483	0,0383	1,26	0,208	1,47
SEX					
2	-0,5173	0,0991	-5,22	0,000	2,31

### Regression Analysis: FVC versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STEPWISE – STANDARDIZED VARIABLES

Stepwise Selection of Terms

$\alpha$  to enter = 0,15;  $\alpha$  to remove = 0,15

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,688541	68,77%	67,50%	61,51%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,2106	0,0471	4,47	0,000	
AGE	-0,1471	0,0363	-4,05	0,000	1,33
SMOKING YEARS	0,5584	0,0342	6,71	0,000	1,17
CAT	-0,1224	0,0358	-3,42	0,001	1,24
DLCO%	0,1453	0,0517	2,81	0,005	2,74
PO2	+0,2118	0,0512	-4,13	0,000	2,69
a-Sa (Hb) O2%	0,0788	0,0339	2,33	0,020	1,18
PCO2	-0,1681	0,0326	-5,15	0,000	1,10
6-MWD	0,2799	0,0365	7,67	0,000	1,35

mMRC	-0,1160	0,0345	3,36	0,001	1,19
FFMI	0,3584	0,0596	6,01	0,000	3,48
SMMI	-0,1665	0,0517	-3,22	0,001	2,69
SEX					
2	-0,5517	0,0869	-6,35	0,000	1,80

## Regression Analysis: FVC versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STEPWISE – UNSTANDARDIZED VARIABLES

Stepwise Selection of Terms

$\alpha$  to enter = 0,15;  $\alpha$  to remove = 0,15

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,648359	68,77%	67,50%	61,51%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	1,26	1,24	1,02	0,309	
AGE	-0,11655	0,00408	-4,05	0,000	1,33
SMOKING YEARS	-0,1288	0,0578	5,71	0,000	1,17
CAT	-0,01564	0,00457	-3,42	0,001	1,24
DLCO%	0,00656	0,00233	2,81	0,005	2,74
PO2	0,00859	0,00208	-4,13	0,000	2,69
a-Sa (Hb) O2%	0,0278	0,0120	2,33	0,020	1,18
PCO2	-0,02758	0,00535	-5,15	0,000	1,10
6-MWD	0,002380	0,000310	7,67	0,000	1,35
mMRC	-0,1080	0,0322	3,36	0,001	1,19
FFMI	0,02777	0,00462	6,01	0,000	3,48
SMMI	-0,1124	0,0349	-3,22	0,001	2,69
SEX					
2	-0,5195	0,0818	-6,35	0,000	1,80

## COMPUTER OUTCOMES FOR STEPWISE REGRESSION (FEV1)

### Regression Analysis: FEV1 versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STANDARDIZED VARIABLES

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,711837	73,28%	70,48%	66,98%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,0823	0,0517	1,59	0,112	
AGE	-0,1235	0,0485	-2,55	0,011	2,23
BMI	0,1525	0,0560	1,65	0,019	2,86
SMOKING STATUS	-0,3873	0,0409	-5,14	0,000	1,57
SMOKING YEARS	-0,4154	0,0475	-5,32	0,000	2,21
PACK-YEAR	-0,0976	0,0448	-0,84	0,012	1,82
DIAGNOSIS	-0,1157	0,0361	-1,27	0,016	1,26
mMRC	-0,1080	0,0478	-2,05	0,021	2,19
CAT	-0,1008	0,0473	-2,13	0,033	2,02
DLCO%	0,2041	0,0555	3,68	0,000	2,96
KCO%	-0,0951	0,0545	-1,74	0,082	2,85
t-Sa (Hb) O2%	0,0960	0,0414	2,32	0,021	1,58
a-Sa (Hb) O2%	0,0667	0,0560	1,19	0,234	3,03
PO2	0,0782	0,0576	1,36	0,175	3,05
PCO2	-0,1178	0,0345	-3,42	0,001	1,15
6-MWD	0,1895	0,0406	4,67	0,000	1,56
DASS	0,1397	0,0457	3,06	0,002	1,91
SGRQ-C	-0,0904	0,0458	-1,97	0,049	1,95
IOS	0,0188	0,0414	0,45	0,649	1,58
NRS-2002	0,0510	0,0378	1,35	0,178	1,33
CCI	0,0109	0,0457	0,24	0,812	2,01
FFMI	0,2399	0,0645	3,72	0,000	3,81
SMMI	-0,0848	0,0629	-1,35	0,178	3,72
PhA	-0,0004	0,0336	-0,01	0,989	1,14
COMORBIDITIES	-0,0012	0,0393	-0,03	0,975	1,47
SEX					
2	-0,253	0,102	-2,48	0,013	2,31

### Regression Analysis: FEV1 versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STEPWISE – STANDARDIZED VARIABLES

Stepwise Selection of Terms

$\alpha$  to enter = 0,15;  $\alpha$  to remove = 0,15

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,709922	69,32%	67,76%	65,39%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,0524	0,0484	1,08	0,280	
AGE	-0,1145	0,0367	-3,12	0,002	1,28
SMOKING YEARS	-0,3871	0,0355	5,45	0,015	1,19
mMRC	-0,0952	0,0464	-2,05	0,041	2,07
CAT	-0,1131	0,0457	-2,48	0,014	1,90
6-MWD	0,2157	0,0538	4,01	0,000	2,79
BMI	0,1036	0,0531	1,76	0,014	2,72
DIAGNOSIS	0,0931	0,0394	2,36	0,018	1,44
a-Sa (Hb) O2%	0,1336	0,0379	3,53	0,000	1,40

PCO2	-0,1337	0,0337	-3,97	0,000	1,11
DLCO%	0,1750	0,0390	4,49	0,000	1,45
SGRQ-C	0,1455	0,0389	3,74	0,000	1,39
DASS	-0,1045	0,0451	-1,87	0,042	1,90
FFMI	0,2428	0,0455	5,33	0,000	1,91
SEX					
2	-0,1648	0,0897	-1,84	0,067	1,81

### Regression Analysis: FEV1 versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STEPWISE – UNSTANDARDIZED VARIABLES

Stepwise Selection of Terms

$\alpha$  to enter = 0,15;  $\alpha$  to remove = 0,15

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,469745	69,32%	67,76%	65,39%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-3,73	1,04	-3,57	0,000	
AGE	-0,00905	0,00290	-3,12	0,002	1,28
SMOKING YEARS	-0,3035	0,0422	5,45	0,000	1,19
mMRC	-0,0694	0,0338	-2,05	0,041	2,07
CAT	-0,01015	0,00410	-2,48	0,014	1,90
DLCO%	0,00684	0,00171	4,01	0,000	2,79
BMI	-0,02233	0,00945	3,36	0,018	1,44
DIAGNOSIS	-0,0931	0,0394	2,36	0,021	1,44
a-Sa (Hb) O2%	0,03314	0,00940	3,53	0,000	1,40
PCO2	-0,01540	0,00388	-3,97	0,000	1,11
6-MWD	0,001045	0,000233	4,49	0,000	1,45
SGRQ-C	-0,00861	0,00230	3,74	0,000	1,39
FFMI	0,01323	0,00248	5,33	0,000	1,91
SEX					
2	-0,1091	0,0594	-1,84	0,067	1,81

## COMPUTER OUTCOMES FOR STEPWISE REGRESSION (FEV1/FVC)

### Regression Analysis: FEV1/FVC versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STANDARDIZED VARIABLES

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,838794	71,96%	69,46%	65,44%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1013	0,0609	-1,66	0,097	
AGE	-0,2393	0,0572	-4,69	0,000	2,23
BMI	0,1991	0,0660	3,02	0,003	2,86
SMOKING STATUS	-0,3587	0,0482	-4,22	0,000	1,57
SMOKING YEARS	-0,3115	0,0560	-4,20	0,000	2,21
PACK-YEAR	-0,2091	0,0528	-3,07	0,009	1,82
DIAGNOSIS	-0,1214	0,0425	-1,91	0,006	1,26
mMRC	-0,0644	0,0563	-1,14	0,254	2,19
CAT	-0,0752	0,0557	-1,35	0,177	2,02
FFMI	0,1933	0,0654	2,96	0,003	2,96
KCO%	0,0432	0,0643	0,67	0,501	2,85
a-Sa (Hb) O2%	0,1778	0,0488	3,65	0,000	1,58
t-Sa (Hb) O2%	0,0594	0,0659	0,90	0,368	3,03
PO2	0,0638	0,0678	0,94	0,347	3,05
PCO2	-0,0365	0,0406	-0,90	0,369	1,15
6-MWD	0,1559	0,0478	4,17	0,003	1,56
DASS	0,1605	0,0539	2,98	0,003	1,91
SGRQ-C	-0,1143	0,0539	-2,12	0,035	1,95
IOS	-0,0063	0,0488	-0,13	0,897	1,58
NRS-2002	-0,0436	0,0446	-0,98	0,329	1,33
CCI	0,0067	0,0538	0,12	0,901	2,01
DLCO\$	0,1286	0,0760	2,38	0,026	3,81
SMMI	-0,0188	0,0741	-0,25	0,799	3,72
PhA	0,0382	0,0396	0,96	0,335	1,14
COMORBIDITIES	-0,0102	0,0463	-0,22	0,826	1,47
SEX					
2	0,209	0,120	1,74	0,082	2,31

### Regression Analysis: FEV1/FVC versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STEPWISE – STANDARDIZED VARIABLES

Stepwise Selection of Terms

$\alpha$  to enter = 0,15;  $\alpha$  to remove = 0,15

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,832962	66,89%	65,37%	63,03%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,1101	0,0512	-2,15	0,032	
AGE	-0,2393	0,0572	-4,69	0,000	2,23
BMI	0,1675	0,0432	3,88	0,000	1,24
SMOKING Y	-0,2882	0,0419	-4,10	0,000	1,16
DIAGNOSIS	-0,0846	0,0393	-2,15	0,032	1,10
mMRC	-0,0873	0,0537	-1,63	0,105	2,02
6MWD	0,1790	0,0533	3,48	0,007	1,88
FFMI	0,2334	0,0466	5,01	0,000	1,52
t-Sa (Hb) O2%	0,1985	0,0459	4,32	0,000	1,43

a-Sa (Hb) O2%	0,1118	0,0435	2,57	0,010	1,34
DASS	-0,1525	0,0459	3,32	0,001	1,41
SGRQ-C	-0,1324	0,0527	-2,51	0,012	1,88
DLCO%	0,1222	0,0760	2,38	0,027	3,81
SEX					
2	0,2312	0,0836	2,76	0,006	1,14

## Regression Analysis: FEV1/FVC versus AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; ... – STEPWISE – UNSTANDARDIZED VARIABLES

Stepwise Selection of Terms

$\alpha$  to enter = 0,15;  $\alpha$  to remove = 0,15

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,128752	66,89%	65,37%	63,03%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-1,291	0,263	-4,91	0,000	
AGE	-0,00393	0,0572	-4,69	0,000	2,23
BMI	0,00474	0,00122	3,88	0,000	1,24
SMOKING Y	-0,00470	0,000223	-4,10	0,000	1,16
DIAGNOSIS	-0,00217	0,00101	-2,15	0,032	1,10
mMRC	-0,01486	0,00914	-1,63	0,105	2,02
6MWD	0,00166	0,00112	3,48	0,010	1,88
FFMI	0,001729	0,000345	5,01	0,000	1,52
t-Sa (Hb) O2%	0,01112	0,00257	4,32	0,000	1,43
a-Sa (Hb) O2%	0,00648	0,00252	2,57	0,010	1,34
DASS	-0,002107	0,000635	3,32	0,001	1,41
SGRQ-C	-0,000968	0,000385	-2,51	0,012	1,88
DLCO%	0,001222	0,0760	2,38	0,022	3,81
SEX					
2	0,0357	0,0129	2,76	0,006	1,14

## COMPUTER OUTCOMES FOR MULTIPLE LINEAR REGRESSION FOLLOWING FACTORIAL ANALYSIS

### **Regression Analysis: FVC versus FACTOR 2; FACTOR 3; FACTOR 4; FACTOR 5; SEX**

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,831798	61,46%	60,81%	59,94%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,6428	0,0835	7,70	0,000	
FACTOR 2	-0,1447	0,0106	-4,24	0,000	1,10
FACTOR 3	0,1302	0,0152	2,67	0,014	1,28
FACTOR 4	-0,1377	0,0118	-3,18	0,002	1,11
FACTOR 5	-0,2418	0,0179	-7,92	0,000	1,09
SEX					
2	-0,7979	0,0867	-9,20	0,000	1,38

### **Regression Analysis: FEV1 versus FACTOR 2; FACTOR 3; FACTOR 4; FACTOR 5; SEX**

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,870395	60,95%	59,24%	58,28%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	0,4330	0,0874	4,96	0,000	
FACTOR 2	-0,1740	0,0110	-6,70	0,000	1,10
FACTOR 3	0,1570	0,0159	3,58	0,000	1,28
FACTOR 4	-0,1259	0,0124	2,09	0,037	1,11
FACTOR 5	-0,2198	0,0187	-6,40	0,000	1,09
SEX					
2	-0,3201	0,0908	-3,53	0,000	1,38

### **Regression Analysis: FEV1/FVC versus FACTOR 2; FACTOR 3; FACTOR 4; FACTOR 5; SEX**

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
0,922840	55,64%	54,84%	53,61%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0,0260	0,0928	-0,28	0,779	
FACTOR 2	-0,1822	0,0117	-7,00	0,000	1,10
FACTOR 3	0,1698	0,0169	4,13	0,000	1,28
FACTOR 4	-0,1230	0,0199	-0,66	0,042	1,09
FACTOR 5	-0,2074	0,0131	-0,57	0,000	1,11
SEX					
2	0,4498	0,0963	4,67	0,000	1,38

## FACTOR ANALYSIS RESULTS

### Factor Analysis: AGE; BMI; SMOKING STAT; SMOKING YEAR; PACK-YEAR; DIAGNOSIS; mMRC; CAT; GOLD(...

Principal Component Factor Analysis of the Correlation Matrix

#### Unrotated Factor Loadings and Communalities

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Communality
AGE	-0,162	-0,117	0,274	-0,532	-0,572	0,725
BMI	-0,227	-0,807	-0,025	0,079	0,030	0,710
SMOKING STATUS	-0,119	0,361	-0,440	0,310	-0,062	0,438
SMOKING YEARS	-0,120	0,177	-0,507	0,152	-0,596	0,681
PACK-YEAR	-0,155	0,057	-0,464	0,164	-0,574	0,599
DIAGNOSIS	-0,272	-0,073	0,066	-0,338	-0,059	0,202
mMRC	-0,686	-0,147	-0,346	-0,112	0,161	0,651
CAT	-0,551	-0,128	-0,381	-0,211	0,335	0,622
GOLD(I-IV)	-0,743	-0,119	0,108	0,193	-0,054	0,618
FVC	0,536	0,090	-0,412	0,259	-0,232	0,586
FEV1	0,809	0,018	-0,371	0,042	0,007	0,795
FEV1/FVC	0,702	-0,046	-0,064	-0,230	0,220	0,600
FEF50%	0,560	-0,004	-0,080	-0,081	0,181	0,359
DLCO%	0,631	-0,333	0,115	-0,198	0,129	0,578
KCO%	0,484	-0,464	0,208	-0,282	0,044	0,574
t-Sa(Hb) O2%	0,487	0,224	-0,150	-0,237	0,092	0,374
a-Sa(Hb) O2%	0,438	0,213	-0,299	-0,527	-0,053	0,608
PO2	0,458	0,198	-0,324	-0,473	-0,020	0,578
PCO2	-0,269	-0,206	0,139	0,120	0,100	0,158
6-MWD	0,590	0,246	0,021	0,219	0,053	0,460
DASS	-0,356	-0,014	-0,526	-0,289	0,302	0,578
SGRQ-C	-0,619	-0,136	-0,371	-0,078	0,219	0,594
IOS	-0,182	-0,043	-0,443	-0,208	0,381	0,421
NRS-2002	-0,278	0,149	-0,168	-0,363	-0,252	0,323
BODE	-0,841	-0,042	-0,054	-0,023	0,010	0,712
CCI	-0,115	-0,197	0,183	-0,515	-0,523	0,624
FFMI	-0,281	-0,647	-0,315	0,297	-0,255	0,750
SMMI	0,205	-0,789	-0,215	0,205	-0,086	0,760
PhA	-0,116	-0,281	-0,182	0,087	0,037	0,135
COMORBIDITIES	-0,086	-0,545	-0,225	-0,207	-0,062	0,401
Variance	6,4526	2,9614	2,5395	2,2221	2,0374	16,2130
% Var	0,235	0,119	0,105	0,094	0,088	0,640

#### Factor Score Coefficients

Variable	Factor1	Factor2	Factor3	Factor4	Factor5
AGE	0,025	-0,096	-0,008	0,371	0,045
BMI	-0,043	0,004	0,265	0,008	-0,069
SMOKING STATUS	0,030	0,026	-0,039	-0,152	0,199
SMOKING YEARS	0,007	-0,030	0,029	0,062	0,358
PACK-YEAR	-0,014	-0,032	0,060	0,065	0,332
DIAGNOSIS	0,022	0,048	-0,016	0,149	-0,043
mMRC	-0,020	0,198	0,037	-0,002	0,014
CAT	0,031	0,251	0,025	-0,027	-0,048
GOLD(I-IV)	-0,156	-0,009	0,014	-0,005	0,016
FVC	0,061	-0,037	0,063	-0,083	0,211
FEV1	0,139	0,023	0,065	-0,079	0,084
FEV1/FVC	0,148	0,050	0,021	-0,012	-0,100
FEF50%	0,103	0,031	0,017	-0,050	-0,059
DLCO%	0,085	-0,007	0,096	0,039	-0,135
KCO%	0,060	-0,021	0,120	0,112	-0,150
t-Sa(Hb) O2%	0,149	0,052	-0,057	0,008	-0,011
a-Sa(Hb) O2%	0,216	0,107	-0,055	0,134	0,036
PO2	0,211	0,111	-0,045	0,105	0,037

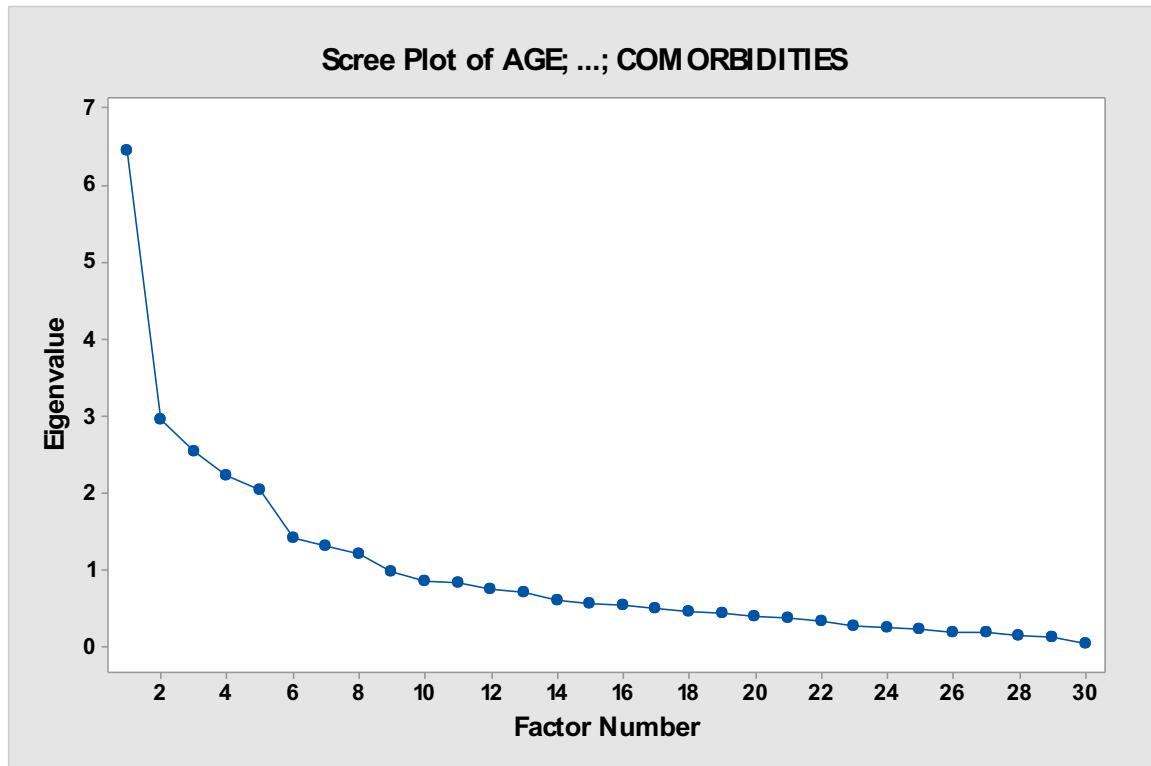
PCO2	-0,087	-0,004	0,043	-0,032	-0,067
6-MWD	0,043	-0,081	-0,042	-0,123	0,019
DASS	0,097	0,274	0,007	-0,019	-0,004
SGRQ-C	-0,012	0,207	0,038	-0,035	0,005
IOS	0,092	0,246	0,017	-0,065	-0,045
NRS-2002	0,065	0,060	-0,055	0,176	0,095
BODE	-0,093	0,086	-0,017	0,033	0,015
CCI	0,035	-0,067	0,026	0,348	0,046
FFMI	-0,045	-0,033	0,275	-0,024	0,138
SMMI	-0,052	0,005	0,292	-0,019	0,035
PhA	0,000	0,038	0,114	-0,041	0,017
COMORBIDITIES	0,020	0,096	0,175	0,105	0,002

#### Rotated Factor Loadings and Communalities

##### Varimax Rotation

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Communality
AGE	-0,026	-0,133	-0,017	0,852	0,046	0,747
BMI	-0,007	-0,038	0,844	0,012	-0,140	0,733
SMOKING STATUS	-0,162	0,034	-0,129	-0,411	0,533	0,497
SMOKING YEARS	-0,023	0,033	-0,009	0,084	0,782	0,743
PACK-YEAR	-0,096	0,044	0,078	0,122	0,856	0,644
DIAGNOSIS	-0,109	0,194	-0,100	0,384	-0,131	0,224
mmRC	-0,390	0,694	0,007	0,108	0,076	0,652
CAT	-0,215	0,757	0,008	0,030	-0,038	0,621
GOLD(I-IV)	-0,776	0,206	-0,087	0,087	0,045	0,661
FVC	0,520	-0,115	0,084	-0,261	0,390	0,450
FEV1	0,834	-0,172	0,093	-0,090	-0,050	0,745
FEV1/FVC	0,714	-0,114	0,200	-0,106	-0,219	0,621
FEF50%	0,539	-0,116	0,101	-0,172	-0,157	0,369
DLCO%	0,496	-0,218	0,445	0,017	-0,287	0,575
KCO%	0,345	-0,203	0,482	0,207	-0,344	0,544
t-Sa(Hb) O2%	0,577	-0,060	-0,054	-0,095	0,030	0,348
a-Sa(Hb) O2%	0,705	0,117	-0,073	0,188	0,121	0,566
PO2	0,699	0,118	-0,048	0,122	0,120	0,534
PCO2	-0,339	0,066	0,131	-0,016	-0,113	0,149
6-MWD	0,371	-0,389	-0,068	-0,407	0,017	0,459
DASS	-0,045	0,758	-0,055	0,017	0,056	0,583
SGRQ-C	-0,338	0,690	0,006	0,027	0,062	0,596
NRS-2002	-0,128	0,634	0,041	-0,107	-0,018	0,431
BODE	-0,659	0,469	-0,182	0,201	0,054	0,730
CCI	0,006	-0,099	0,043	0,776	0,046	0,617
FFMI	-0,048	-0,115	0,869	0,004	0,039	0,759
SMMI	-0,047	0,002	0,868	-0,039	0,064	0,761
PhA	0,054	0,065	0,353	-0,115	0,078	0,151
COMORBIDITIES	-0,013	0,265	-0,518	-0,246	0,040	0,401
Variance	4,9106	3,3852	3,1307	2,4399	2,3466	16,2130
% Var	0,184	0,133	0,124	0,091	0,088	0,616

## SCREE PLOT



## **REGRESSION EQUATIONS**

### **Regression equation (1):**

men:  $FVC = 1.26 - 0.11655 \text{ Age} - 0.1288 \text{ Smoking years} - 0.01564 \text{ CAT}$   
+ 0.00656 DLCO% + 0.00859 pO<sub>2</sub> + 0.0278 a-Sa(Hb)-O<sub>2</sub>% – 0.02758 pCO<sub>2</sub>  
+ 0.002380 6MWD – 0.1080 mMRC + 0.02777 FFMI – 0.1124 SMMI

women:  $FVC = 0.74 - 0.11655 \text{ Age} - 0.1288 \text{ Smoking years} - 0.01564 \text{ CAT}$   
+ 0.00656 DLCO% + 0.00859 pO<sub>2</sub> + 0.0278 a-Sa(Hb)-O<sub>2</sub>% – 0.02758 pCO<sub>2</sub>  
+ 0.002380 6MWD – 0.1080 mMRC + 0.02777 FFMI – 0.1124 SMMI

### **Regression Equation (2):**

men:  $FEV1 = -3.73 - 0.00905 \text{ Age} - 0.3035 \text{ Smoking years} - 0.0694 \text{ mMRC}$   
– 0.01015 CAT + 0.00684 DLCO% – 0.02233 BMI – 0.01285 Diagnosis + 0.03314 a-Sa(Hb)-O<sub>2</sub>% – 0.01540 pCO<sub>2</sub> + 0.001045 6MWD – 0.00264 SGRQ-C + 0.01323 FFMI

women:  $FEV1 = -3.83 - 0.00905 \text{ Age} - 0.3035 \text{ Smoking years} - 0.0694 \text{ mMRC}$   
– 0.01015 CAT + 0.00684 DLCO% – 0.02233 BMI – 0.01285 Diagnosis + 0.03314 a-Sa(Hb)-O<sub>2</sub>% – 0.01540 pCO<sub>2</sub> + 0.001045 6MWD – 0.00264 SGRQ-C + 0.01323 FFMI

### **Regression Equation (3):**

men:  $FEV1/FVC = -1.291 - 0.00393 \text{ Age} + 0.00474 \text{ BMI} - 0.000470 \text{ Smoking years}$   
– 0.00217 Diagnosis + 0.001222 DLCO% + 0.01112 t-Sa(Hb)-O<sub>2</sub>% + 0.00648 a-Sa(Hb)-O<sub>2</sub>% + 0.00166 6MWD – 0.002107 DASS – 0.000968 SGRQ-C + 0.001729 FFMI

women:  $FEV1/FVC = -1.256 - 0.00393 \text{ Age} + 0.00474 \text{ BMI} - 0.000470 \text{ Smoking years}$   
– 0.00217 Diagnosis + 0.001222 DLCO% + 0.01112 t-Sa(Hb)-O<sub>2</sub>% + 0.00648 a-Sa(Hb)-O<sub>2</sub>% + 0.00166 6MWD – 0.002107 DASS – 0.000968 SGRQ-C + 0.001729 FFMI

### **Regression Equation (4):**

men:  $FVC = 0.6428 - 0.0447 \text{ Factor 2} + 0.0302 \text{ Factor 3} - 0.0377 \text{ Factor 4}$   
– 0.1418 Factor 5

women:  $FVC = -0.1552 - 0.0447 \text{ Factor 2} + 0.0302 \text{ Factor 3} - 0.0377 \text{ Factor 4}$   
– 0.1418 Factor 5

### **Regression Equation (5):**

men:  $FEV1 = 0.4330 - 0.0740 \text{ Factor 2} + 0.0570 \text{ Factor 3} - 0.0259 \text{ Factor 4}$   
– 0.1198 Factor 5

women:  $FEV1 = 0.1129 - 0.0740 \text{ Factor 2} + 0.0570 \text{ Factor 3} - 0.0259 \text{ Factor 4}$   
– 0.1198 Factor 5

### **Regression Equation (6):**

men:  $FEV1/FVC = -0.0260 - 0.0130 \text{ Factor 2} + 0.0698 \text{ Factor 3} - 0.0074 \text{ Factor 4}$   
 $- 0.0822 \text{ Factor 5}$

women:  $FEV1/FVC = 0.4238 - 0.0130 \text{ Factor 2} + 0.0698 \text{ Factor 3} - 0.0074 \text{ Factor 4}$   
 $- 0.0822 \text{ Factor 5}$