

**Supplementary table 1: Summary of the categorical variables (factors) associated with FLG-II.**

Factor	Sub Category	FLG-II n (%)	FLG-0, I n (%)	Chi-Square	P-value
Parity	nulliparous	16 (9.0)	162 (91.0)	5.59	0.018
	multiparous	74 (16.3)	380 (83.7)		
Family history of diabetes mellitus	Yes	24 (16.2)	124 (83.8)	0.46	0.490
	No	66 (14.0)	407 (86.0)		
Family history of Stroke	Yes	5 (12.8)	34 (87.2)	0.09	0.759
	No	85 (14.6)	497 (85.4)		
Family history of Hypertension	Yes	31 (15.2)	173 (84.0)	0.12	0.728
	No	59 (14.1)	358 (85.9)		
Family history of Liver disease	Yes	4 (26.7)	11 (73.3)	1.83	0.175
	No	86 (14.2)	520 (85.8)		
Family history of Dyslipidaemia	Yes	21 (16.4)	107 (83.6)	0.55	0.457
	No	68 (13.8)	424 (86.2)		
Family history of Non-ischemic Heart Diseases	Yes	0 (0.0)	12 (100)	2.07	0.149
	No	90 (14.8)	518 (85.2)		
Family history of ischaemic Heart Diseases	Yes	7 (12.1)	51 (87.9)	0.27	0.602
	No	82 (14.6)	480 (85.4)		
Family history of psychiatric diseases	Yes	1 (14.3)	6 (85.7)	0.00	0.986
	No	89 (14.5)	524 (85.5)		

Family history of kidney diseases	Yes	11 (16.7)	55 (83.3)	0.27	0.600
	No	79 (14.3)	475 (85.7)		
Number of family members	<4	62 (15.1)	348 (84.9)	0.44	0.506
	4<	28 (13.1)	185 (86.9)		
Having a mobile Phone	Yes	89 (14.5)	525 (85.5)	1.35	0.245
	No	0 (0.0)	8 (100)		
Having a Vehicle	Yes	85 (14.6)	497 (85.4)	1.31	0.251
	No	3 (7.9)	35 (92.1)		
	No	84 (14.7)	488 (85.3)		

**Supplementary table 2: Results of the prediction model for FLG-II using all the significant factors in supplementary table 1 and table 2 (Model 1)**

Model Summary	Category	Variable	Coefficient	Ad: OR	95% CI
<b>Cases included in the analysis</b> FLG-II – 54 FLG-0,1 – 277 Missing-303	Selected	Constant	-2.1	0.12	-
		Gamma GT	0.74	2.11	1.49-2.99
		W/H Ratio	0.35	1.42	0.96-2.11
		BMI	0.55	1.73	1.16-2.58
		Min SBP	0.30	1.36	0.95-1.95
		Age	0.48	1.62	1.14-2.30
<b>Chi-Square Statistic</b> 73.2	Non-selected	HDL	-0.24	0.79	0.55-1.12
		ALT	0.28	1.32	0.91-1.93
		Triglyceride	0.23	1.26	0.92-1.73
<b>P-value</b>					

<p>&lt;0.0001</p> <p><b>Hosmer and Lemeshow test</b></p> <p>P= 0.75</p>	Hemoglobin	0.19	1.22	0.90-1.65
	Creatinine	0.20	1.22	0.86-1.72
	2nd hour PG value of OGTT	0.13	1.14	0.82-1.59
	AST	0.14	1.15	0.63-2.08
	FPG	-0.09	0.91	0.58-1.45
	Total Cholesterol	0.09	1.09	0.67-1.79
	Parity	-0.30	0.74	0.26-2.11
	Min DBP	0.06	1.06	0.65-1.72

FLG- fatty liver grade, Gamma GT-gamma glutamyl transferase, W/H Ratio-waist to hip ratio, BMI- body mass index, Min SBP- minimum systolic blood pressure, HDL- high-density lipoprotein, ALT- aspartate aminotransferase, 2nd hour PG value of OGTT- second-hour plasma glucose value of oral glucose tolerance test, AST- aspartate aminotransferase, FPG-fasting plasma glucose, Min DBP- minimum diastolic blood pressure

**Supplementary table 3: Results of the prediction model for FLG-II using all the non-invasive significant factors identified via bivariate analysis (Model 2)**

Model Summary	Category	Variable	Coefficient	Adj: OR	95% CI
<b>Cases included in the analysis</b>  FLG2 – 81 FLG0,1 – 456 Missing-97	Selected	Constant	-2.19	0.11	-
		W/H Ratio	0.46	1.58	1.20-2.10
		BMI	0.71	2.03	1.50-2.76
		Min SBP	0.29	1.34	1.02-1.77
		Age	0.31	1.37	1.03-1.81
	Non-selected	Min DBP	0.01	1.01	0.73-1.42
		Parity	0.10	1.10	0.52-2.34
<b>Chi-Square</b>  86.1					
<b>P-value</b>  <0.0001					
<b>Hosmer and Lemeshow test</b>  P= 0.08					

FLG: fatty liver grade, Adj.OR-adjusted odds ratio, CI: confidence interval, W/H ratio: waist to hip ratio, BMI: body mass index, Min SBP: minimum systolic blood pressure, Min DBP: minimum diastolic blood pressure

**Supplementary table 4: Results of the prediction model for FLG-II using low-cost parameters (Model 3)**

Model Summary	Category	Variable	Coefficient	Adj: OR	95% CI
<b>Cases included in the analysis</b> FLG-II – 77 FLG-0,1 – 422 Missing-135	Selected	Constant	-2.19	0.11	-
		Creatinine	0.25	1.29	0.98-1.70
		W/H Ratio	0.41	1.51	1.13-2.00
		BMI	0.72	2.04	1.49-2.80
		Min SBP	0.30	1.35	1.01-1.79
		<b>Chi-Square Statistic</b> 84.20		2nd hour PG value of OGTT	0.36
<b>P-value</b> <0.0001 <b>Hosmer and Lemeshow test</b> P= 0.31	Non-selected	Age	0.20	1.23	0.91-1.65
		Hemoglobin	0.18	1.20	0.93-1.55
		FPG	0.17	1.19	0.86-1.64
		Parity	0.04	1.04	0.47-2.28
		Min DBP	0.01	1.01	0.71-1.45

FLG- fatty liver grade, Adj. OR- adjusted odds ratio, CI-confidence interval, W/H Ratio- waist-hip ratio, BMI- body mass index, Min SBP- minimum systolic blood pressure, 2nd hour PG value of OGTT- second-hour plasma glucose value of oral glucose tolerance test, FPG- fasting plasma glucose, Min DBP- minimum diastolic blood pressure

**Supplementary Table 5: Results of the prediction model for FLG-II using all the significant factors except AST, ALT and GGT (Model 4)**

Model Summary	Category	Variable	Coefficient	Ad: OR	95% CI	
<b>Cases included in the analysis</b> FLG-II – 72 FLG-0,1 – 392 Missing-170 <b>Chi-Square Statistic</b> 88.70 <b>P-value</b> <0.0001 <b>Hosmer and Lemeshow test</b> P= 0.44	Selected	Constant	-2.24	0.11	-	
		Creatinine	0.32	1.38	1.02-1.86	
		W/H Ratio	0.40	1.50	1.08-2.09	
		BMI	0.58	1.87	1.27-2.49	
		Min SBP	0.30	1.35	0.99-1.84	
		HDL	-0.54	0.58	0.41-0.83	
		2nd hour PG value of OGTT	0.35	1.42	1.09-1.86	
		T. Cholesterol	0.36	1.43	1.02-2.01	
		Non-selected	Age	0.12	1.13	0.83-1.53
			Triglyceride	0.06	1.06	0.78-1.45
Hemoglobin	0.15		1.16	0.89-1.51		
FPG	0.99		1.10	0.78-1.56		
Parity	-0.14		0.87	0.38-1.99		
Min DBP	-0.13	0.88	0.60-1.27			

FLG- fatty liver grade, Adj. OR- adjusted odds ratio, CI-confidence interval, W/H Ratio- waist to hip ratio, BMI- body mass index, Min SBP- minimum systolic blood pressure, HDL- high-density lipoprotein, 2nd hour PG value of OGTT-second hour plasma glucose value of oral glucose tolerance test, T. Cholesterol- total cholesterol, FPG- fasting plasma glucose, Min DBP- minimum diastolic blood pressure

**Supplementary Table 6: Results of the prediction model for FLG-II using anthropometric and liver enzyme parameters (Model 5)**

Model Summary	Category	Variable	Coefficient	Adj. OR	95% CI
<b>Cases included in the analysis</b> FLG-II – 62 FLG-0,1 – 324 Missing-248	Selected	Constant	-2.25	0.11	-
		W/H Ratio	0.34	1.40	0.99-1.99
		BMI	0.58	1.79	1.23-2.59
		Age	0.50	1.64	1.17-2.31
		Min SBP	0.36	1.44	1.01-2.04
		GGT	0.61	1.83	1.33-2.52
		<b>Chi-Square Statistic</b> 85.94	Non-selected	ALT	0.27
<b>P-value</b> <0.0001	AST	0.13		1.14	0.66-1.97
	Parity	-0.13		0.88	0.33-2.32
	Min DBP	0.15		1.16	0.77-1.75
	<b>Hosmer and Lemeshow test</b> P= 0.94				

FLG-fatty liver grade, Adj. OR- adjusted odds ratio, CI-confidence interval, W/H Ratio- waist to hip ratio, BMI- body mass index, Min SBP- minimum systolic blood pressure, GGT- gamma glutamyl transferase, ALT- Alanine aminotransferase, AST- Aspartate aminotransferase, Min DBP- minimum diastolic blood pressure

**Supplementary Table 7: Results of the prediction model for FLG-II using anthropometric and lipid profile parameters (Model 6)**

Model Summary	Category	Variable	Coefficient	Ad: OR	95% CI	
<b>Cases included in the analysis</b> FLG-II – 74 FLG-0,1 – 417 Missing-143 <b>Chi-Square Statistic</b> 80.02 <b>P-value</b> <0.0001 <b>Hosmer and Lemeshow test</b> P= 0.27	Selected	Constant	-2.18	0.11	-	
		W/H Ratio	0.48	1.62	1.17-2.23	
		BMI	0.59	1.81	1.30-2.51	
		total				
		Cholesterol	0.36	1.44	1.06-1.96	
		Min SBP	0.29	1.33	0.99-1.80	
		Non-selected	Age	0.24	1.24	0.95-1.70
			Triglyceride	0.14	1.15	0.86-1.54
			Parity	-0.08	0.93	0.42-2.04
			Min DBP	-0.16	0.85	0.60-1.22

FLG-fatty liver grade, Adj. OR- adjusted odds ratio, CI-confidence interval, W/H Ratio- waist to hip ratio, BMI- body mass index, Min SBP- minimum systolic blood pressure, HDL- high-density lipoprotein