The LOGISTIC Procedure

| Model Information | | | | |
|---------------------------|------------------|------------------------|--|--|
| Data Set | WORK.FRMGHAM2 | | | |
| Response Variable | CURSMOKE | Current Cig Smoker Y/N | | |
| Number of Response Levels | 2 | | | |
| Model | binary logit | | | |
| Optimization Technique | Fisher's scoring | | | |

| Number of Observations Read | 4434 |
|-----------------------------|------|
| Number of Observations Used | 4415 |

| | Response Profile | |
|------------------|--------------------|--------------------|
| Ordered Value | CURSMOKE | Total Frequency |
| 1 | Current smoker | 2174 |
| 2 | Not current smoker | 2241 |

Probability modeled is CURSMOKE='Current smoker'.

Note: 19 observations were deleted due to missing values for the response or explanatory variables.

| Class Level Information | | | | | | |
|-------------------------|-----------|-----|------------------|----|----|--|
| Class | Value | Des | Design Variables | | | |
| SEX | Female | 0 | | | | |
| | Male | 1 | | | | |
| AGE | 0-35 | 1 | 0 | 0 | 0 | |
| | 36-45 | 0 | 1 | 0 | 0 | |
| | 46-55 | 0 | 0 | 1 | 0 | |
| | 56-65 | 0 | 0 | 0 | 1 | |
| | 66-75 | -1 | -1 | -1 | -1 | |
| ВМІ | 0-18.4 | 1 | 0 | 0 | 0 | |
| | 18.5-24.9 | 0 | 1 | 0 | 0 | |
| | 25-29.9 | 0 | 0 | 1 | 0 | |
| | 30-39.9 | 0 | 0 | 0 | 1 | |
| | 40+ | -1 | -1 | -1 | -1 | |

| Model Convergence Status |
|---|
| Convergence criterion (GCONV=1E-8) satisfied. |

The LOGISTIC Procedure

| Model Fit Statistics | | | | |
|----------------------|-------------------|--------------------------------|--|--|
| Criterion | Intercept Only | Intercept and Covariates | | |
| AIC | 6121.473 | 5653.068 | | |
| sc | 6127.866 | 5716.996 | | |
| -2 Log L | 6119.473 | 5633.068 | | |

| Testing Global Null Hypothesis: BETA=0 | | | | |
|--|------------|----|------------|--|
| Test | Chi-Square | DF | Pr > ChiSq | |
| Likelihood Ratio | 486.4047 | 9 | <.0001 | |
| Score | 464.1017 | 9 | <.0001 | |
| Wald | 422.5727 | 9 | <.0001 | |

| Type 3 Analysis of Effects | | | | | |
|---------------------------------|---|----------|--------|--|--|
| Effect DF Chi-Square Pr > ChiSc | | | | | |
| SEX | 1 | 206.6416 | <.0001 | | |
| AGE | 4 | 136.5989 | <.0001 | | |
| ВМІ | 4 | 134.5348 | <.0001 | | |

| | Analysis of Maximum Likelihood Estimates | | | | | |
|-----------|--|----|----------|-------------------|--------------------|------------|
| Parameter | | DF | Estimate | Standard Error | Wald Chi-Square | Pr > ChiSq |
| Intercept | | 1 | -0.6178 | 0.1254 | 24.2763 | <.0001 |
| SEX | Male | 1 | 0.9521 | 0.0662 | 206.6416 | <.0001 |
| AGE | 0-35 | 1 | 0.2966 | 0.2106 | 1.9827 | 0.1591 |
| AGE | 36-45 | 1 | 0.5280 | 0.0792 | 44.4788 | <.0001 |
| AGE | 46-55 | 1 | 0.1186 | 0.0790 | 2.2536 | 0.1333 |
| AGE | 56-65 | 1 | -0.4061 | 0.0836 | 23.6248 | <.0001 |
| ВМІ | 0-18.4 | 1 | 0.9732 | 0.2490 | 15.2801 | <.0001 |
| ВМІ | 18.5-24.9 | 1 | 0.4425 | 0.1151 | 14.7733 | 0.0001 |
| ВМІ | 25-29.9 | 1 | -0.2039 | 0.1165 | 3.0631 | 0.0801 |
| ВМІ | 30-39.9 | 1 | -0.4971 | 0.1314 | 14.3152 | 0.0002 |

The LOGISTIC Procedure

| Odds Ratio Estimates | | | | |
|----------------------|-------------------|-------------------------------|--------|--|
| Effect | Point Estimate | 95% Wald Confidence Limits | | |
| SEX Male vs Female | 2.591 | 2.276 | 2.950 | |
| AGE 0-35 vs 66-75 | 2.302 | 1.224 | 4.327 | |
| AGE 36-45 vs 66-75 | 2.901 | 1.958 | 4.297 | |
| AGE 46-55 vs 66-75 | 1.926 | 1.301 2.852 | | |
| AGE 56-65 vs 66-75 | 1.140 | 0.765 | 1.698 | |
| BMI 0-18.4 vs 40+ | 5.408 | 1.905 | 15.349 | |
| BMI 18.5-24.9 vs 40+ | 3.181 | 1.317 | 7.684 | |
| BMI 25-29.9 vs 40+ | 1.666 | 0.689 | 4.033 | |
| BMI 30-39.9 vs 40+ | 1.243 | 0.507 | 3.047 | |

| Association of Predicted Probabilities and Observed Responses | | | | |
|--|---------|-----------|-------|--|
| Percent Concordant | 65.8 | Somers' D | 0.374 | |
| Percent Discordant | 28.4 | Gamma | 0.397 | |
| Percent Tied | 5.8 | Tau-a | 0.187 | |
| Pairs | 4871934 | С | 0.687 | |