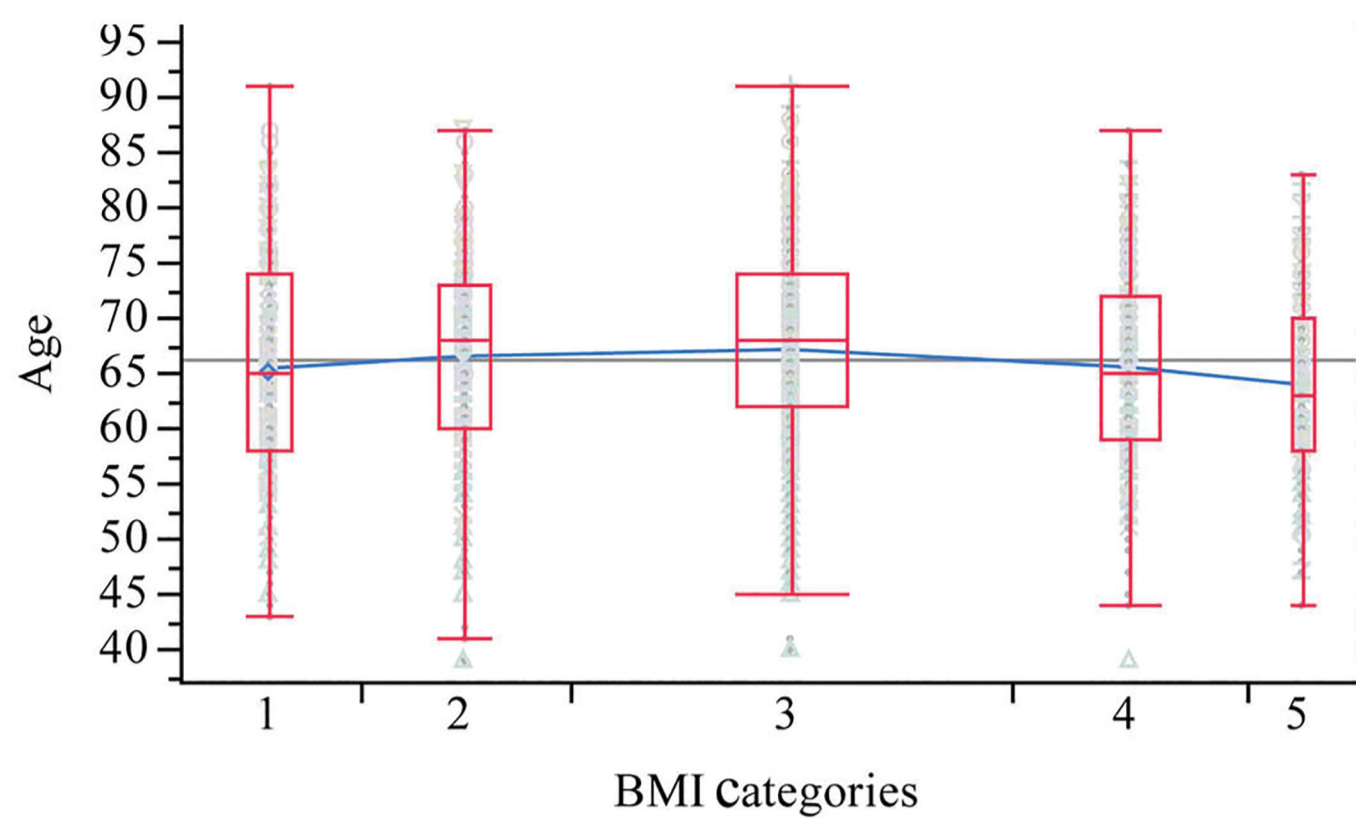


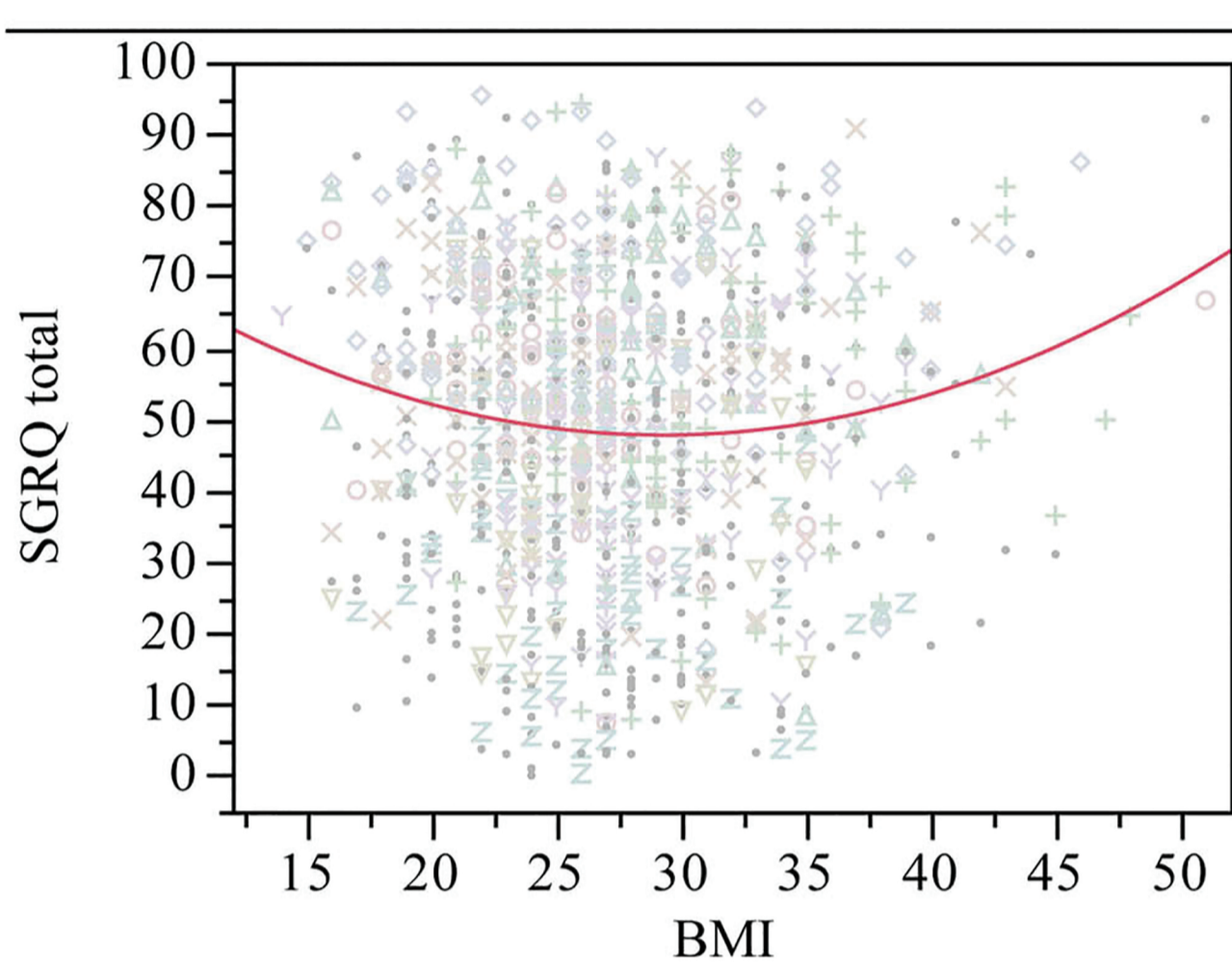
e-Figure 1. Graphic Plots Comparing Demographic, Anthropometric, and Physiologic Variables in the 5 BMI Groups.

BMI categories are denoted as (1) for BMI ≤ 21 kg/m², (2) for BMI >21 and <25 kg/m², (3) for BMI ≥ 25 and <30 kg/m², (4) for BMI ≥ 30 and <35 kg/m² and (5) for BMI ≥ 35 kg/m².

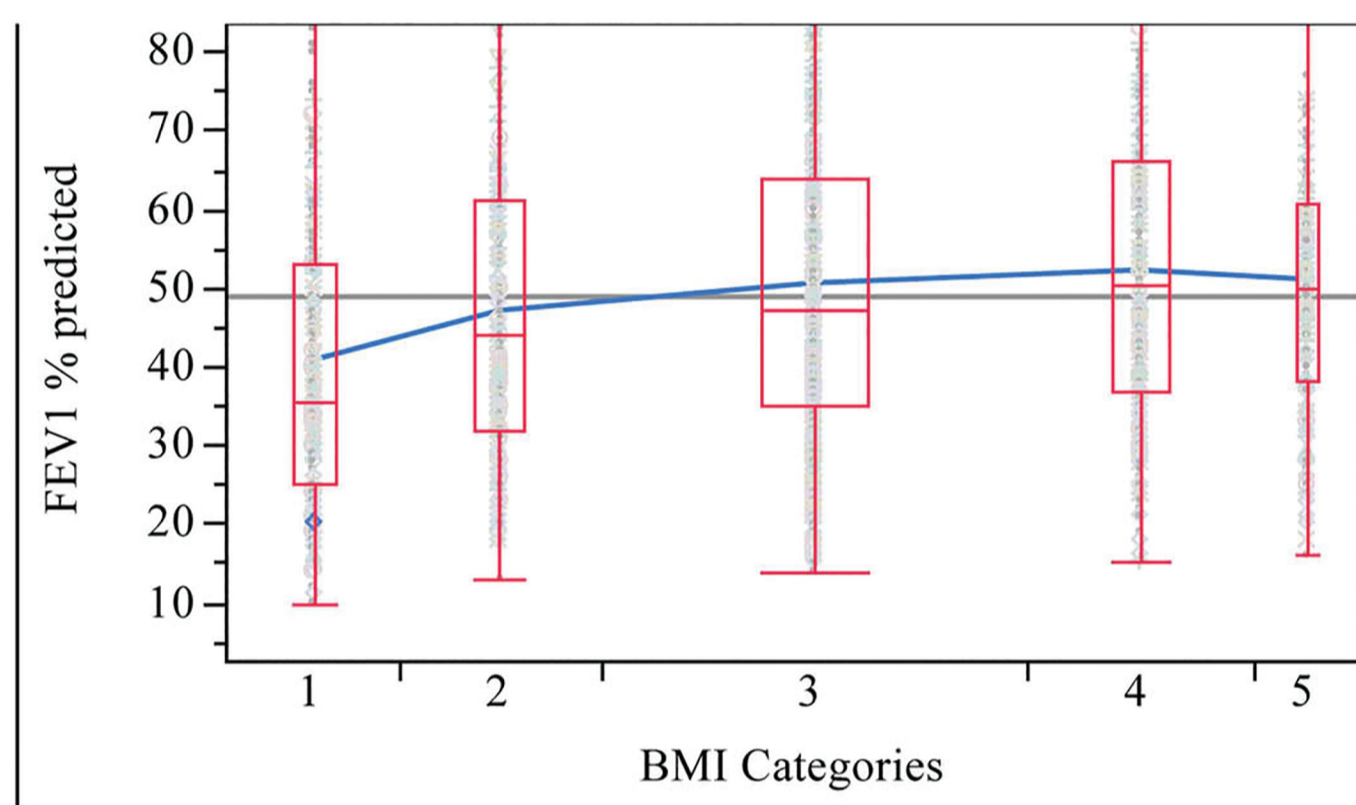
A. Age Distribution



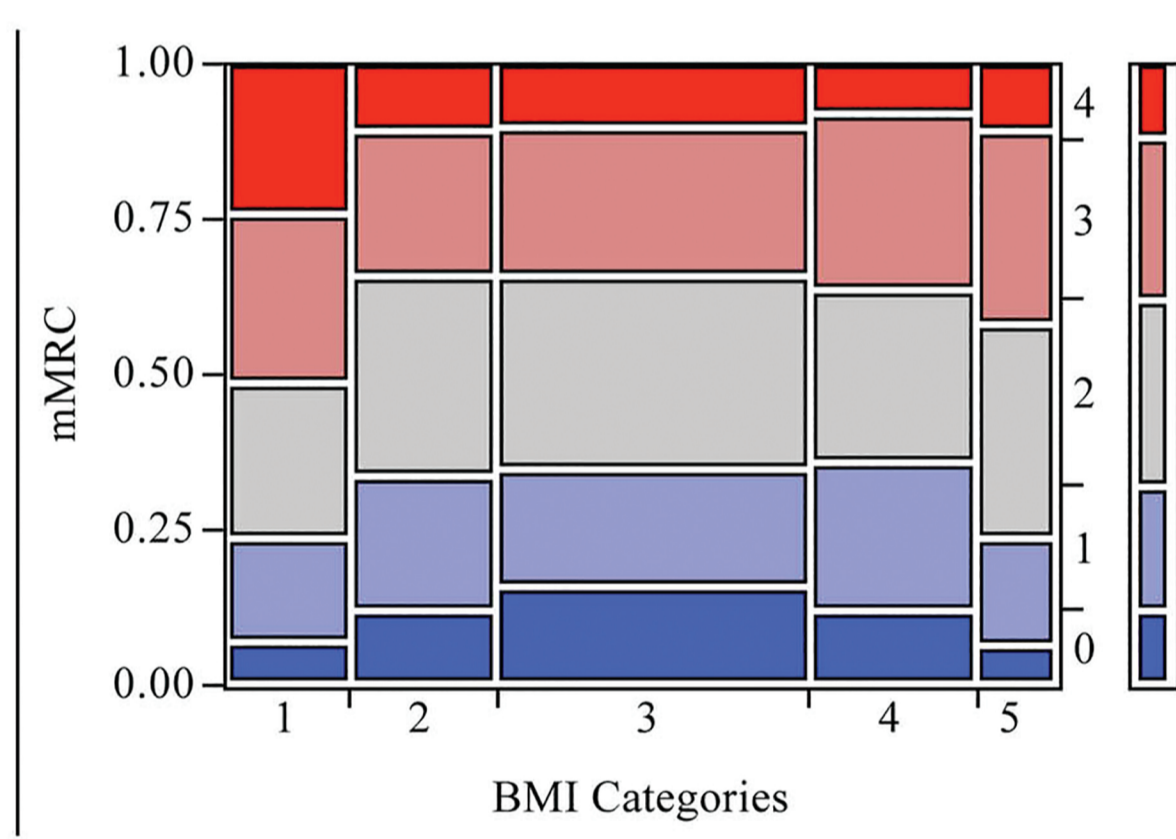
B. St. George's Respiratory Questionnaire (total score)



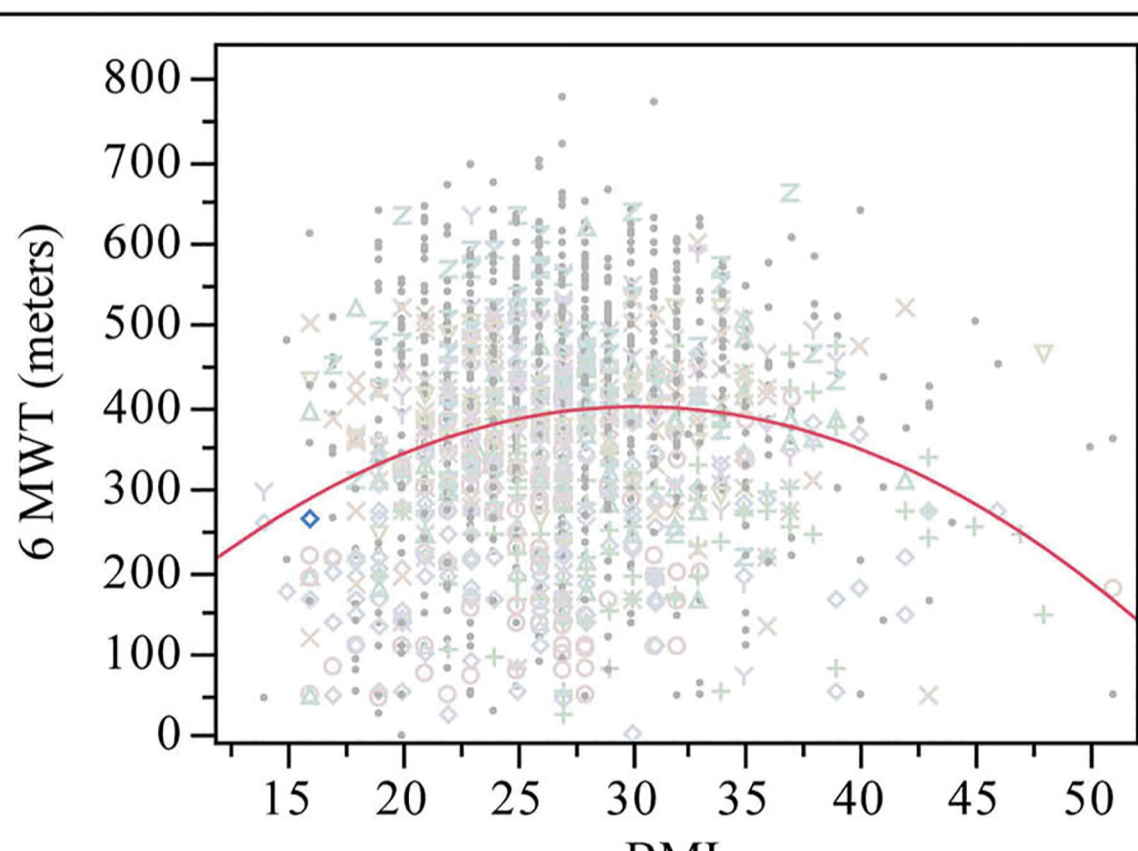
C. FEV₁ % Predicted



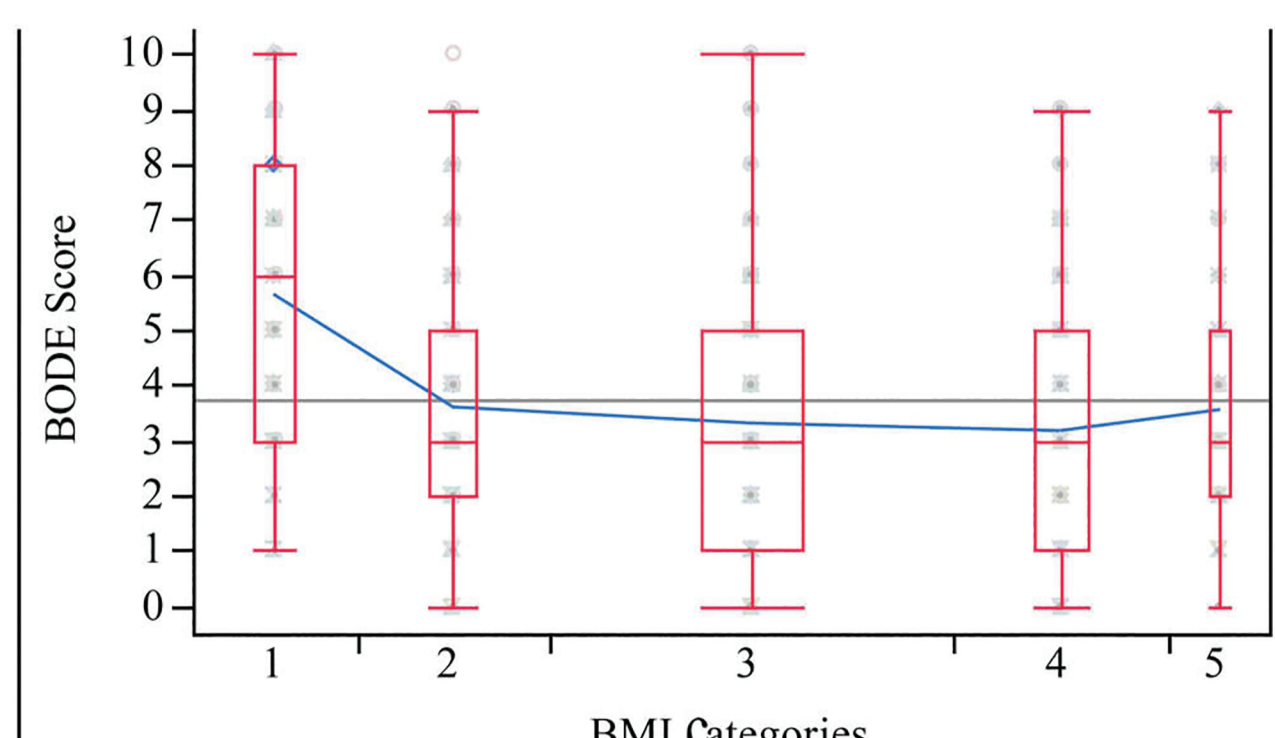
D. mMRC Dyspnea Score



E. 6-Minute Walk Test

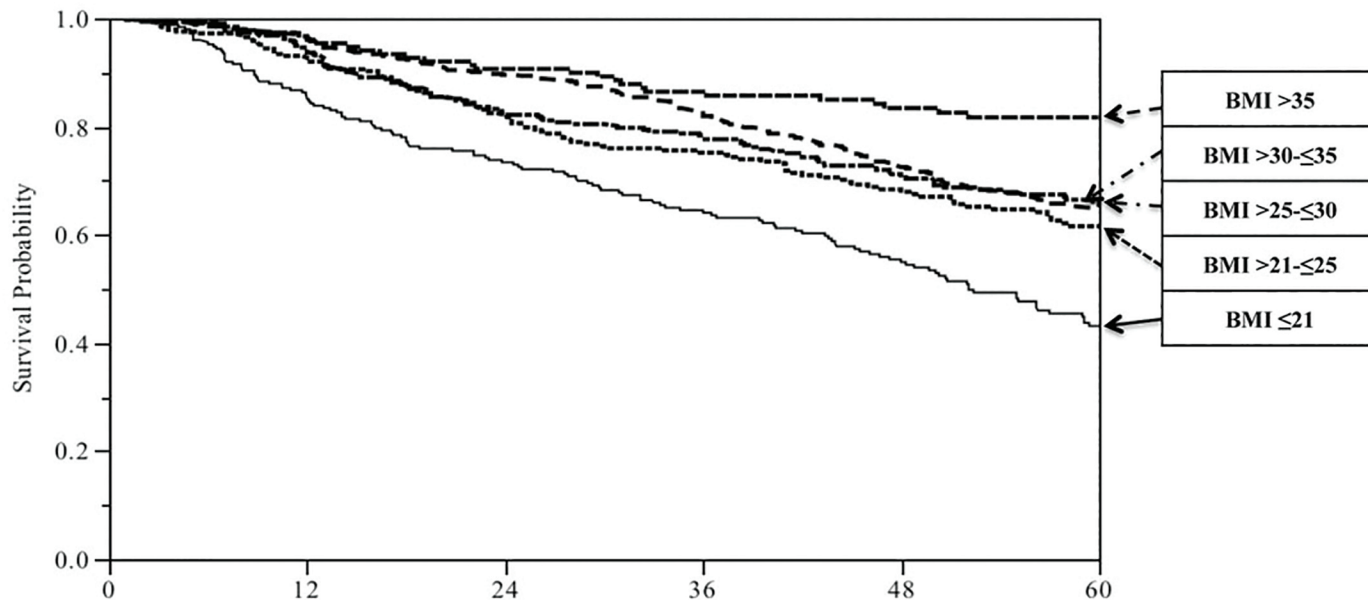


E. BODE Score



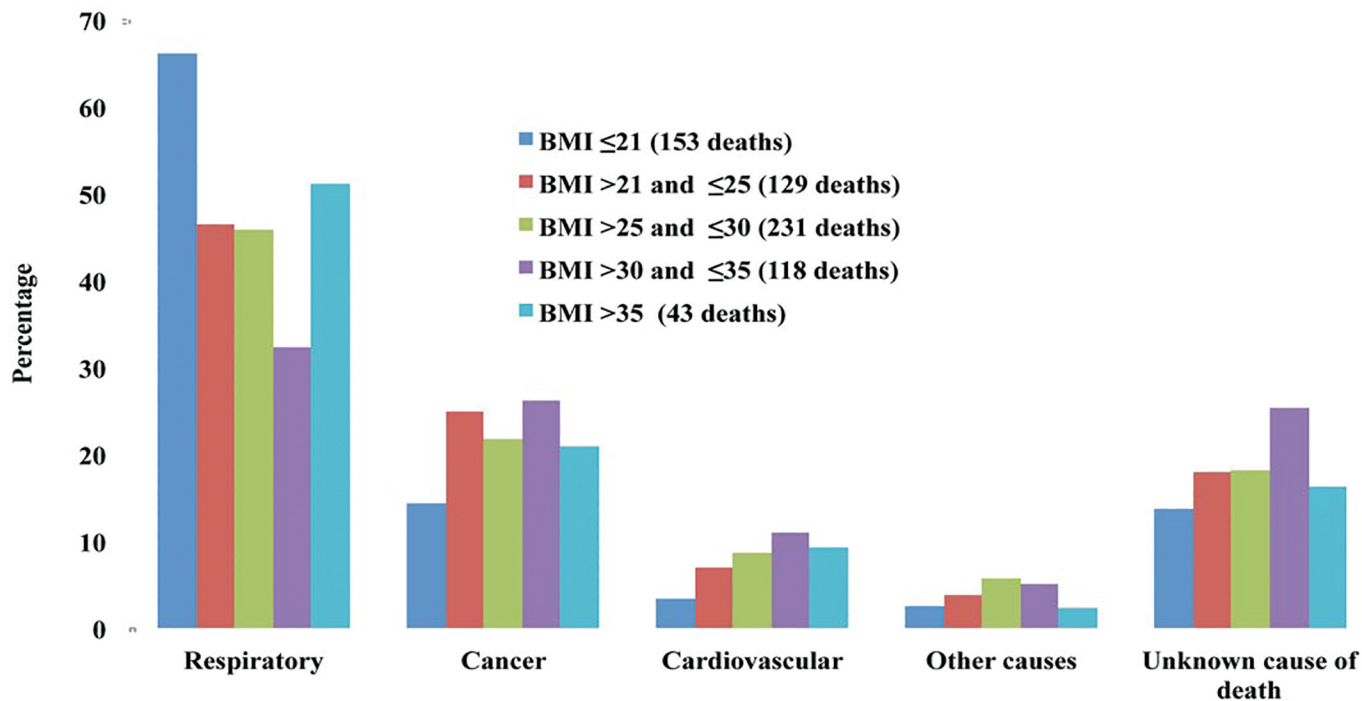
e-Figure 2. Kaplan-Meier Curve Comparing Survival Probability Between BMI Categories.

Kaplan-Meier Survival Curve



| Group | Median Time | Lower 95% | Upper 95% | 25% Failures | 75% Failures |
|--------------------------------|-------------|-----------|-----------|--------------|--------------|
| BMI ≤21 | 52.1 | 46.1 | 59.4 | 22.1 | 95.5 |
| BMI >21-≤25 | 86 | 69.1 | 100.2 | 37.1 | |
| BMI >25-≤30 | 106 | 97.3 | - | 45.3 | 147 |
| BMI >30-≤35 | 119.9 | 85.4 | - | 42 | |
| BMI >35 | 114 | 103.3 | - | 64.5 | |
| Combined | 93.5 | 83.4 | 104 | 40.9 | 147 |
| Wilcoxon Log Rank test= <.0001 | | | | | |

e-Figure 3. Bar Charts Showing Absolute Number of Death per Category (n), and Proportions for Specific Cause of Death by BMI Categories.



e-Table 1. Comorbidities with >5% Prevalence: Distribution by BMI Category.

| | BMI ≤21 | 21<BMI<25 | 25≤BMI<30 | 30≥BMI<35 | BMI ≥35 | P-value |
|-----------------------------------|---------|-----------|-----------|-----------|---------|---------|
| HTN | 41% | 46% | 53% | 59% | 68% | <.001* |
| Hyperlipidemia | 23% | 38% | 48% | 49% | 54% | <.0001* |
| DM | 8% | 13% | 21% | 32% | 43% | <.0001* |
| Diabetes Mellitus with Neuropathy | 2% | 2% | 3% | 6% | 11% | <.0001* |
| OSA | 2% | 2% | 7% | 15% | 39% | <.0001 |
| Degenerative Joint Disease | 23% | 23% | 31% | 28% | 42% | <.0001* |
| CHF | 13% | 13% | 14% | 18% | 24% | <.0001* |
| CRF | 9% | 12% | 17% | 23% | 29% | <.0001* |
| Erectile Dysfunction | 8% | 6% | 11% | 10% | 21% | <.0001* |
| Pulmonary HTN | 11% | 7% | 9% | 10% | 19% | 0.0014* |
| Gout | 2% | 3% | 4% | 4% | 12% | <.0001* |
| Venous Insufficiency | 3% | 2% | 4% | 5% | 9% | 0.0052* |
| AAA | 12% | 7% | 6% | 4% | 3% | 0.0016* |
| Substance Abuse | 24% | 14% | 12% | 11% | 12% | <.0001* |
| Osteoporosis | 15% | 10% | 9% | 4% | 4% | <.0001* |
| Peripheral Arterial Diseases | 17% | 20% | 17% | 15% | 10% | 0.0108* |
| Prostate Cancer | 8% | 9% | 10% | 5% | 6% | 0.0277* |
| Anxiety | 16% | 13% | 10% | 11% | 12% | 0.11 |
| CVA | 12% | 12% | 12% | 7% | 11% | 0.12 |
| Hypothyroidism | 5% | 9% | 6% | 6% | 10% | 0.125 |
| Lung Cancer | 11% | 8% | 10% | 9% | 7% | 0.19 |
| GERD | 16% | 19% | 20% | 16% | 13% | 0.34 |
| CAD | 30% | 31% | 29% | 30% | 38% | 0.49 |
| Gallbladder Disease | 3% | 6% | 5% | 4% | 6% | 0.54 |
| DVT | 7% | 4% | 6% | 4% | 5% | 0.37 |
| Pulmonary Fibrosis | 7% | 5% | 7% | 5% | 6% | 0.66 |
| Atrial Flutter/Fibrillation | 17% | 11% | 13% | 12% | 19% | 0.85 |
| Gastric/Duodenal Ulcer | 13% | 11% | 11% | 9% | 16% | 0.9 |
| Depression | 19% | 15% | 16% | 16% | 22% | 0.98 |
| BPH | 29% | 26% | 27% | 25% | 31% | 0.99 |
| Cataract | 3% | 5% | 6% | 6% | 7% | 0.1 |

Abbreviations:

AAA= Abdominal Aortic Aneurism, BPH= Benign Prostatic Hypertrophy, CAD = Coronary Artery Disease, CHF=Congestive Heart Failure, CRF=Chronic Renal Failure, CVA=Cerebro-Vascular Accident, DM= Diabetes Mellitus, DVT= Deep Venous Thrombosis, GERD= Gastro-Esophageal Reflux Disease, HTN= Systemic Hypertension, OSA= Obstructive Sleep Apnea, PAD: peripheral artery disease, Pulmonary HTN= Pulmonary Hypertension .