# Table 1A. Baseline Characteristics by ABG Group

Table 1A: ABG cohorts

| **Variable** | **No ABG**  N = 32,8091 | **ABG\_NoHypercapnia**  N = 12,9661 | **ABG\_Hypercapnia**  N = 5,7851 |
| --- | --- | --- | --- |
| Age (years) | 58.2 ± 18.0; 0.0/32,809.0 missing (0.0%) | 60.9 ± 17.1; 0.0/12,966.0 missing (0.0%) | 62.0 ± 16.4; 0.0/5,785.0 missing (0.0%) |
| Current BMI kg/m2 | 32.3 ± 8.8; 18,425.0/32,809.0 missing (56.2%) | 28.6 ± 6.9; 7,599.0/12,966.0 missing (58.6%) | 29.8 ± 7.7; 3,380.0/5,785.0 missing (58.4%) |
| sex\_label |  |  |  |
| Female | 16,938 (52%) | 5,868 (45%) | 2,684 (46%) |
| Male | 15,871 (48%) | 7,098 (55%) | 3,101 (54%) |
| race\_ethnicity\_label |  |  |  |
| White | 19,890 (61%) | 8,189 (63%) | 4,006 (69%) |
| Black or African American | 6,257 (19%) | 1,933 (15%) | 785 (14%) |
| Hispanic | 2,363 (7.2%) | 755 (5.8%) | 285 (4.9%) |
| Asian | 496 (1.5%) | 281 (2.2%) | 67 (1.2%) |
| American Indian | 190 (0.6%) | 177 (1.4%) | 30 (0.5%) |
| Pacific Islander | 43 (0.1%) | 8 (<0.1%) | 6 (0.1%) |
| Unknown | 3,570 (11%) | 1,623 (13%) | 606 (10%) |
| location\_label |  |  |  |
| South | 13,925 (42%) | 7,181 (55%) | 3,235 (56%) |
| Northeast | 9,231 (28%) | 2,308 (18%) | 1,342 (23%) |
| Midwest | 2,331 (7.1%) | 1,071 (8.3%) | 493 (8.5%) |
| West | 7,322 (22%) | 2,406 (19%) | 715 (12%) |
| osa\_label | 5,991 (18%) | 1,695 (13%) | 1,173 (20%) |
| asthma\_label | 4,802 (15%) | 1,269 (9.8%) | 814 (14%) |
| copd\_label | 5,937 (18%) | 2,124 (16%) | 1,880 (32%) |
| chf\_label | 5,990 (18%) | 2,542 (20%) | 1,652 (29%) |
| nmd\_label | 1,141 (3.5%) | 591 (4.6%) | 240 (4.1%) |
| phtn\_label | 2,379 (7.3%) | 1,064 (8.2%) | 745 (13%) |
| ckd\_label | 5,573 (17%) | 2,531 (20%) | 1,187 (21%) |
| diabetes\_label | 9,196 (28%) | 3,704 (29%) | 1,818 (31%) |
| encounter\_type\_label |  |  |  |
| Emergency | 14,304 (44%) | 1,963 (15%) | 1,018 (18%) |
| Inpatient | 18,505 (56%) | 11,003 (85%) | 4,767 (82%) |
| VBG PCO2 | 45.3 ± 10.4; 23,389.0/32,809.0 missing (71.3%) | 42.2 ± 11.3; 9,251.0/12,966.0 missing (71.3%) | 57.9 ± 19.0; 4,050.0/5,785.0 missing (70.0%) |
| Arterial PCO2 | NA ± NA; 32,809.0/32,809.0 missing (100.0%) | 35.4 ± 6.1; 0.0/12,966.0 missing (0.0%) | 58.4 ± 19.6; 0.0/5,785.0 missing (0.0%) |
| 1Mean ± SD; N Missing/No. obs. missing (% Missing); n (%) | | | |

# Table 1B. Baseline Characteristics by VBG Group

Table 1B: VBG cohorts

| **Variable** | **No VBG**  N = 36,6901 | **VBG\_NoHypercapnia**  N = 10,4981 | **VBG\_Hypercapnia**  N = 4,3721 |
| --- | --- | --- | --- |
| Age (years) | 59.4 ± 17.8; 0.0/36,690.0 missing (0.0%) | 58.2 ± 17.7; 0.0/10,498.0 missing (0.0%) | 60.9 ± 16.8; 0.0/4,372.0 missing (0.0%) |
| Current BMI kg/m2 | 31.8 ± 8.6; 19,381.0/36,690.0 missing (52.8%) | 28.5 ± 7.1; 6,916.0/10,498.0 missing (65.9%) | 29.2 ± 7.9; 3,107.0/4,372.0 missing (71.1%) |
| sex\_label |  |  |  |
| Female | 18,538 (51%) | 4,894 (47%) | 2,058 (47%) |
| Male | 18,152 (49%) | 5,604 (53%) | 2,314 (53%) |
| race\_ethnicity\_label |  |  |  |
| White | 24,215 (66%) | 5,414 (52%) | 2,456 (56%) |
| Black or African American | 6,196 (17%) | 1,949 (19%) | 830 (19%) |
| Hispanic | 2,268 (6.2%) | 870 (8.3%) | 265 (6.1%) |
| Asian | 535 (1.5%) | 229 (2.2%) | 80 (1.8%) |
| American Indian | 194 (0.5%) | 178 (1.7%) | 25 (0.6%) |
| Pacific Islander | 49 (0.1%) | 7 (<0.1%) | 1 (<0.1%) |
| Unknown | 3,233 (8.8%) | 1,851 (18%) | 715 (16%) |
| location\_label |  |  |  |
| South | 19,761 (54%) | 3,096 (29%) | 1,484 (34%) |
| Northeast | 6,559 (18%) | 4,398 (42%) | 1,924 (44%) |
| Midwest | 2,542 (6.9%) | 899 (8.6%) | 454 (10%) |
| West | 7,828 (21%) | 2,105 (20%) | 510 (12%) |
| osa\_label | 6,470 (18%) | 1,523 (15%) | 866 (20%) |
| asthma\_label | 4,921 (13%) | 1,320 (13%) | 644 (15%) |
| copd\_label | 7,039 (19%) | 1,580 (15%) | 1,322 (30%) |
| chf\_label | 6,932 (19%) | 2,009 (19%) | 1,243 (28%) |
| nmd\_label | 1,420 (3.9%) | 378 (3.6%) | 174 (4.0%) |
| phtn\_label | 2,766 (7.5%) | 845 (8.0%) | 577 (13%) |
| ckd\_label | 6,224 (17%) | 2,152 (20%) | 915 (21%) |
| diabetes\_label | 9,983 (27%) | 3,323 (32%) | 1,412 (32%) |
| encounter\_type\_label |  |  |  |
| Emergency | 12,612 (34%) | 3,397 (32%) | 1,276 (29%) |
| Inpatient | 24,078 (66%) | 7,101 (68%) | 3,096 (71%) |
| VBG PCO2 | NA ± NA; 36,690.0/36,690.0 missing (100.0%) | 40.1 ± 6.6; 0.0/10,498.0 missing (0.0%) | 60.3 ± 12.8; 0.0/4,372.0 missing (0.0%) |
| Arterial PCO2 | 42.2 ± 15.2; 23,389.0/36,690.0 missing (63.7%) | 38.5 ± 15.1; 6,856.0/10,498.0 missing (65.3%) | 52.4 ± 19.1; 2,564.0/4,372.0 missing (58.6%) |
| 1Mean ± SD; N Missing/No. obs. missing (% Missing); n (%) | | | |