| Dependent: status\_factor |  | 0 | 1 | p |
| --- | --- | --- | --- | --- |
| MDI\_quintile | 1 | 880 (38.4) | 174 (39.8) | 0.674 |
|  | 2 | 568 (24.8) | 98 (22.4) |  |
|  | 3 | 421 (18.4) | 89 (20.4) |  |
|  | 4 | 215 (9.4) | 36 (8.2) |  |
|  | 5 | 208 (9.1) | 40 (9.2) |  |
| area\_type\_mode\_5yrs\_prior | rural | 728 (30.9) | 141 (29.5) | 0.824 |
|  | suburban | 1427 (60.6) | 296 (61.9) |  |
|  | urban | 198 (8.4) | 41 (8.6) |  |
| house\_type\_mode\_5yrs\_prior | apartment/condo/townhome | 131 (5.6) | 33 (6.9) | 0.428 |
|  | motor home | 2 (0.1) |  |  |
|  | single family | 2220 (94.3) | 445 (93.1) |  |
| water\_source\_mode\_5yrs\_prior | municipal | 1718 (73.0) | 355 (74.3) | 0.660 |
|  | other | 18 (0.8) | 5 (1.0) |  |
|  | well | 617 (26.2) | 118 (24.7) |  |
| pipes\_metal\_any\_mode\_5yrs\_prior | 0 | 1115 (47.4) | 220 (46.0) | 0.622 |
|  | 1 | 1238 (52.6) | 258 (54.0) |  |
| pipes\_plastic\_any\_mode\_5yrs\_prior | 0 | 1159 (49.3) | 240 (50.2) | 0.742 |
|  | 1 | 1194 (50.7) | 238 (49.8) |  |
| heating\_fuel\_primary\_mode\_5yrs\_prior | electric | 572 (24.4) | 127 (26.6) | 0.086 |
|  | natural\_gas | 1303 (55.5) | 274 (57.4) |  |
|  | oil | 221 (9.4) | 25 (5.2) |  |
|  | other | 18 (0.8) | 2 (0.4) |  |
|  | propane | 176 (7.5) | 34 (7.1) |  |
|  | renewable | 17 (0.7) | 3 (0.6) |  |
|  | wood | 41 (1.7) | 12 (2.5) |  |
| cooking\_fuel\_primary\_mode\_5yrs\_prior | electric | 1274 (54.2) | 236 (49.4) | 0.157 |
|  | natural gas | 878 (37.3) | 197 (41.2) |  |
|  | propane | 199 (8.5) | 45 (9.4) |  |
| heating\_fuel\_secondary\_mode\_5yrs\_prior | electric | 375 (33.3) | 72 (31.2) | 0.233 |
|  | natural gas | 133 (11.8) | 23 (10.0) |  |
|  | oil | 23 (2.0) | 6 (2.6) |  |
|  | other | 329 (29.2) | 87 (37.7) |  |
|  | propane | 68 (6.0) | 13 (5.6) |  |
|  | renewable | 1 (0.1) |  |  |
|  | wood | 196 (17.4) | 30 (13.0) |  |
| cooking\_fuel\_secondary\_mode\_5yrs\_prior | electric | 576 (51.2) | 130 (48.7) | 0.455 |
|  | natural gas | 62 (5.5) | 11 (4.1) |  |
|  | other | 360 (32.0) | 98 (36.7) |  |
|  | propane | 126 (11.2) | 28 (10.5) |  |
| region\_mode\_5y\_prior | midwest | 317 (22.5) | 61 (19.6) | 0.649 |
|  | northeast | 256 (18.1) | 60 (19.3) |  |
|  | south | 438 (31.0) | 104 (33.4) |  |
|  | west | 401 (28.4) | 86 (27.7) |  |
| number\_comorbs\_present\_lifetime | 0 | 2468 (96.6) | 469 (95.7) | 0.055 |
|  | 1 | 67 (2.6) | 21 (4.3) |  |
|  | 2 | 13 (0.5) |  |  |
|  | 3 | 6 (0.2) |  |  |
| study\_year\_first\_chronic\_inflam | 0 | 100 (47.8) | 29 (51.8) | 0.927 |
|  | 1 | 38 (18.2) | 9 (16.1) |  |
|  | 2 | 17 (8.1) | 7 (12.5) |  |
|  | 3 | 18 (8.6) | 4 (7.1) |  |
|  | 4 | 21 (10.0) | 3 (5.4) |  |
|  | 5 | 5 (2.4) | 2 (3.6) |  |
|  | 6 | 6 (2.9) | 2 (3.6) |  |
|  | 7 | 1 (0.5) |  |  |
|  | 8 | 2 (1.0) |  |  |
|  | 9 | 1 (0.5) |  |  |
| chronic\_inflam\_present\_5y | 0 | 2494 (97.7) | 476 (97.1) | 0.611 |
|  | 1 | 60 (2.3) | 14 (2.9) |  |
| number\_comorbs\_present\_5y | 0 | 2494 (97.7) | 476 (97.1) | 0.119 |
|  | 1 | 44 (1.7) | 14 (2.9) |  |
|  | 2 | 11 (0.4) |  |  |
|  | 3 | 5 (0.2) |  |  |
| chronic\_inflam\_present\_no\_min\_year | 0 | 2455 (96.1) | 477 (97.3) | 0.235 |
|  | 1 | 99 (3.9) | 13 (2.7) |  |
| number\_comorbs\_present\_no\_min\_year | 0 | 2455 (96.1) | 477 (97.3) | 0.585 |
|  | 1 | 97 (3.8) | 13 (2.7) |  |
|  | 2 | 1 (0.0) |  |  |
|  | 3 | 1 (0.0) |  |  |
| time\_between\_first\_comorb\_and\_endpoint | 1 | 6 (2.9) |  | 0.454 |
|  | 10 | 8 (3.8) | 5 (8.9) |  |
|  | 2 | 13 (6.2) | 1 (1.8) |  |
|  | 3 | 14 (6.7) | 5 (8.9) |  |
|  | 4 | 19 (9.1) | 4 (7.1) |  |
|  | 5 | 21 (10.0) | 7 (12.5) |  |
|  | 6 | 20 (9.6) | 9 (16.1) |  |
|  | 7 | 35 (16.7) | 9 (16.1) |  |
|  | 8 | 46 (22.0) | 9 (16.1) |  |
|  | 9 | 27 (12.9) | 7 (12.5) |  |
| num\_lifetime\_chronic\_inflam | 0 | 2345 (91.8) | 434 (88.6) | 0.034 |
|  | 1 | 88 (3.4) | 20 (4.1) |  |
|  | 2 | 69 (2.7) | 25 (5.1) |  |
|  | 3 | 39 (1.5) | 7 (1.4) |  |
|  | 4 | 11 (0.4) | 2 (0.4) |  |
|  | 5 | 2 (0.1) | 2 (0.4) |  |
| USDA\_30min\_sy1\_2 | below\_USDA | 936 (37.3) | 191 (39.4) | 0.406 |
|  | more\_than\_USDA | 1576 (62.7) | 294 (60.6) |  |
| activity\_1h\_min\_sy1\_2 | below\_1h | 2166 (86.2) | 423 (87.2) | 0.610 |
|  | more\_than\_1h | 346 (13.8) | 62 (12.8) |  |
| activity\_KC\_2h\_min\_sy1\_2 | below\_KC | 2500 (99.5) | 481 (99.2) | 0.535 |
|  | more\_than\_KC | 12 (0.5) | 4 (0.8) |  |
| avg\_activity\_duration\_sy1\_2\_quartiles | ≥0 - <26.67 | 844 (33.0) | 171 (34.9) | 0.065 |
|  | ≥26.67 - <33.33 | 433 (17.0) | 103 (21.0) |  |
|  | ≥33.33 - <40 | 709 (27.8) | 121 (24.7) |  |
|  | ≥40 - <100 | 568 (22.2) | 95 (19.4) |  |
| avg\_activity\_freq\_sy1\_2\_terciles | ≥20 - <80 | 1197 (46.9) | 219 (44.7) | 0.225 |
|  | ≥80 - <93.33 | 541 (21.2) | 121 (24.7) |  |
|  | ≥93.33 - <100 | 816 (31.9) | 150 (30.6) |  |
| avg\_activity\_freq\_sy3\_terciles | ≥1.1 - <5.41 | 549 (25.7) | 108 (22.5) | 0.148 |
|  | ≥12.65 - <100 | 511 (23.9) | 137 (28.5) |  |
|  | ≥5.41 - <8.4 | 538 (25.2) | 121 (25.2) |  |
|  | ≥8.4 - <12.65 | 540 (25.3) | 114 (23.8) |  |
| avg\_activity\_intensity\_sy3\_quartiles | ≥0.91 - <4.06 | 278 (13.0) | 54 (11.2) | 0.500 |
|  | ≥4.06 - <5.71 | 325 (15.2) | 70 (14.6) |  |
|  | ≥5.71 - <9.38 | 648 (30.3) | 140 (29.2) |  |
|  | ≥9.38 - <100 | 887 (41.5) | 216 (45.0) |  |
| avg\_intensity\_5y\_prior\_endpoint\_quartiles | 0-<50 | 603 (23.6) | 129 (26.8) | <0.001 |
|  | >=50-<61 | 646 (25.3) | 139 (28.9) |  |
|  | >=61-<68.9 | 671 (26.3) | 81 (16.8) |  |
|  | >=68.9-100 | 634 (24.8) | 132 (27.4) |  |
| avg\_frequency\_5y\_prior\_endpoint\_quartiles | ≥20 - <71.67 | 660 (25.8) | 106 (22.0) | <0.001 |
|  | ≥71.67 - <80 | 929 (36.4) | 225 (46.8) |  |
|  | ≥80 - <85 | 299 (11.7) | 64 (13.3) |  |
|  | ≥85 - <100 | 666 (26.1) | 86 (17.9) |  |
| use\_aerosol\_study\_years\_early\_life | Not within early life | 1122 (43.9) | 230 (46.9) | 0.239 |
|  | Within early life | 1432 (56.1) | 260 (53.1) |  |
| use\_air\_cleaner\_study\_years\_early\_life | Not within early life | 2082 (81.5) | 410 (83.7) | 0.285 |
|  | Within early life | 472 (18.5) | 80 (16.3) |  |
| use\_hepa\_filter\_study\_years\_early\_life | Not within early life | 1459 (57.1) | 279 (56.9) | 0.979 |
|  | Within early life | 1095 (42.9) | 211 (43.1) |  |
| use\_moth\_balls\_study\_years\_early\_life | Not within early life | 2484 (97.3) | 476 (97.1) | 1.000 |
|  | Within early life | 70 (2.7) | 14 (2.9) |  |
| use\_incense\_or\_candles\_study\_years\_early\_life | Not within early life | 983 (38.5) | 199 (40.6) | 0.405 |
|  | Within early life | 1571 (61.5) | 291 (59.4) |  |
| smoke\_exposure\_study\_years\_early\_life | Not within early life | 2282 (89.4) | 451 (92.0) | 0.085 |
|  | Within early life | 272 (10.6) | 39 (8.0) |  |
| use\_aerosol\_study\_years\_rest\_of\_life | Not within rest of life | 1414 (55.4) | 242 (49.4) | 0.017 |
|  | Within rest of life | 1140 (44.6) | 248 (50.6) |  |
| use\_air\_cleaner\_study\_years\_rest\_of\_life | Not within rest of life | 1925 (75.4) | 358 (73.1) | 0.305 |
|  | Within rest of life | 629 (24.6) | 132 (26.9) |  |
| use\_hepa\_filter\_study\_years\_rest\_of\_life | Not within rest of life | 1342 (52.5) | 234 (47.8) | 0.058 |
|  | Within rest of life | 1212 (47.5) | 256 (52.2) |  |
| use\_moth\_balls\_study\_years\_rest\_of\_life | Not within rest of life | 2512 (98.4) | 484 (98.8) | 0.627 |
|  | Within rest of life | 42 (1.6) | 6 (1.2) |  |
| use\_incense\_or\_candles\_study\_years\_rest\_of\_life | Not within rest of life | 1275 (49.9) | 221 (45.1) | 0.057 |
|  | Within rest of life | 1279 (50.1) | 269 (54.9) |  |
| smoke\_exposure\_study\_years\_rest\_of\_life | Not within rest of life | 2275 (89.1) | 434 (88.6) | 0.804 |
|  | Within rest of life | 279 (10.9) | 56 (11.4) |  |
| any\_treated\_weeds\_study\_years\_rest\_of\_life | Not within rest of life | 1133 (44.4) | 159 (32.4) | <0.001 |
|  | Within rest of life | 1421 (55.6) | 331 (67.6) |  |
| any\_treated\_insects\_study\_years\_rest\_of\_life | Not within rest of life | 1215 (47.6) | 185 (37.8) | <0.001 |
|  | Within rest of life | 1339 (52.4) | 305 (62.2) |  |
| any\_treated\_fertilizer\_study\_years\_rest\_of\_life | Not within rest of life | 1022 (40.0) | 134 (27.3) | <0.001 |
|  | Within rest of life | 1532 (60.0) | 356 (72.7) |  |
| use\_aerosol\_study\_years\_whole\_life | Not within whole life | 930 (36.4) | 185 (37.8) | 0.608 |
|  | Within whole life | 1624 (63.6) | 305 (62.2) |  |
| use\_air\_cleaner\_study\_years\_whole\_life | Not within whole life | 1722 (67.4) | 336 (68.6) | 0.657 |
|  | Within whole life | 832 (32.6) | 154 (31.4) |  |
| use\_hepa\_filter\_study\_years\_whole\_life | Not within whole life | 1029 (40.3) | 190 (38.8) | 0.564 |
|  | Within whole life | 1525 (59.7) | 300 (61.2) |  |
| use\_moth\_balls\_study\_years\_whole\_life | Not within whole life | 2468 (96.6) | 476 (97.1) | 0.659 |
|  | Within whole life | 86 (3.4) | 14 (2.9) |  |
| use\_incense\_or\_candles\_study\_years\_whole\_life | Not within whole life | 785 (30.7) | 165 (33.7) | 0.218 |
|  | Within whole life | 1769 (69.3) | 325 (66.3) |  |
| smoke\_exposure\_study\_years\_whole\_life | Not within whole life | 2151 (84.2) | 420 (85.7) | 0.443 |
|  | Within whole life | 403 (15.8) | 70 (14.3) |  |
| any\_treated\_weeds\_study\_years\_whole\_life | Not within whole life | 1133 (44.4) | 159 (32.4) | <0.001 |
|  | Within whole life | 1421 (55.6) | 331 (67.6) |  |
| any\_treated\_insects\_study\_years\_whole\_life | Not within whole life | 1059 (41.5) | 162 (33.1) | 0.001 |
|  | Within whole life | 1495 (58.5) | 328 (66.9) |  |
| any\_treated\_fertilizer\_study\_years\_whole\_life | Not within whole life | 1022 (40.0) | 134 (27.3) | <0.001 |
|  | Within whole life | 1532 (60.0) | 356 (72.7) |  |
| hours\_of\_smoke\_early\_life\_total\_dosage\_terciles | >0-<2h | 70 (2.7) | 8 (1.6) | 0.286 |
|  | >=2-<7h | 112 (4.4) | 16 (3.3) |  |
|  | >=7-72h | 90 (3.5) | 15 (3.1) |  |
|  | no\_smoke | 2282 (89.4) | 451 (92.0) |  |
| hours\_of\_smoke\_rest\_of\_life\_total\_dosage\_terciles | >0-<2h | 85 (3.3) | 20 (4.1) | 0.846 |
|  | >=2-<9h | 95 (3.7) | 19 (3.9) |  |
|  | >=9-378h | 96 (3.8) | 17 (3.5) |  |
|  | no\_smoke | 2278 (89.2) | 434 (88.6) |  |
| hours\_of\_smoke\_whole\_life\_total\_dosage\_terciles | >0-<2h | 108 (4.2) | 23 (4.7) | 0.211 |
|  | >=10-388h | 132 (5.2) | 28 (5.7) |  |
|  | >=2-<10h | 160 (6.3) | 19 (3.9) |  |
|  | no\_smoke | 2154 (84.3) | 420 (85.7) |  |
| in.the.garage\_YN\_study\_years\_early\_life | Not within early life | 2485 (97.4) | 484 (98.8) | 0.090 |
|  | Within early life | 67 (2.6) | 6 (1.2) |  |
| in.the.house\_YN\_study\_years\_early\_life | Not within early life | 37 (1.4) | 4 (0.8) | 0.368 |
|  | Within early life | 2515 (98.6) | 486 (99.2) |  |
| outside\_YN\_study\_years\_early\_life | Not within early life | 2397 (93.9) | 472 (96.3) | 0.040 |
|  | Within early life | 157 (6.1) | 18 (3.7) |  |
| in.the.house\_YN\_sum\_early\_life\_terciles | ≥0 - <3 | 1393 (54.5) | 223 (45.5) | <0.001 |
|  | ≥3 - <4 | 627 (24.5) | 126 (25.7) |  |
|  | ≥4 - <15 | 534 (20.9) | 141 (28.8) |  |
| in.the.garage\_YN\_study\_years\_rest\_of\_life | Not within rest of life | 2490 (97.5) | 479 (97.8) | 0.894 |
|  | Within rest of life | 63 (2.5) | 11 (2.2) |  |
| in.the.house\_YN\_study\_years\_rest\_of\_life | Not within rest of life | 438 (17.1) | 11 (2.2) | <0.001 |
|  | Within rest of life | 2116 (82.9) | 479 (97.8) |  |
| outside\_YN\_study\_years\_rest\_of\_life | Not within rest of life | 2418 (94.7) | 473 (96.5) | 0.114 |
|  | Within rest of life | 135 (5.3) | 17 (3.5) |  |
| in.the.house\_YN\_sum\_rest\_of\_life\_quartiles | ≥0 - <4 | 757 (29.6) | 63 (12.9) | <0.001 |
|  | ≥13 - <60 | 582 (22.8) | 144 (29.4) |  |
|  | ≥4 - <9 | 706 (27.6) | 171 (34.9) |  |
|  | ≥9 - <13 | 509 (19.9) | 112 (22.9) |  |
| in.the.garage\_YN\_study\_years\_whole\_life | Not within whole life | 2454 (96.2) | 479 (97.8) | 0.116 |
|  | Within whole life | 97 (3.8) | 11 (2.2) |  |
| in.the.house\_YN\_study\_years\_whole\_life | Not within whole life | 23 (0.9) | 2 (0.4) | 0.404 |
|  | Within whole life | 2529 (99.1) | 488 (99.6) |  |
| outside\_YN\_study\_years\_whole\_life | Not within whole life | 2343 (91.8) | 466 (95.1) | 0.015 |
|  | Within whole life | 210 (8.2) | 24 (4.9) |  |
| in.the.house\_YN\_sum\_whole\_life\_quartiles | ≥0 - <7 | 727 (28.5) | 64 (13.1) | <0.001 |
|  | ≥12 - <17 | 588 (23.0) | 140 (28.6) |  |
|  | ≥17 - <69 | 586 (22.9) | 146 (29.8) |  |
|  | ≥7 - <12 | 653 (25.6) | 140 (28.6) |  |
| majority\_sleep\_location\_lifetime | in the garage\_YN | 20 (0.8) | 3 (0.6) | 0.172 |
|  | in the house\_YN | 2498 (97.8) | 485 (99.0) |  |
|  | outside\_YN | 36 (1.4) | 2 (0.4) |  |
| main\_lifestyle\_category | breed/showing | 70 (2.7) | 8 (1.6) | 0.035 |
|  | companion/pet | 2222 (87.0) | 444 (90.6) |  |
|  | competitive | 211 (8.3) | 24 (4.9) |  |
|  | miscellaneous | 18 (0.7) | 6 (1.2) |  |
|  | working | 33 (1.3) | 8 (1.6) |  |
| main\_lifestyle\_category\_mode\_5yrs\_prior | breed/showing | 52 (2.2) | 7 (1.5) | 0.032 |
|  | companion/pet | 2062 (87.6) | 435 (91.0) |  |
|  | competitive | 192 (8.2) | 22 (4.6) |  |
|  | miscellaneous | 15 (0.6) | 6 (1.3) |  |
|  | working | 32 (1.4) | 8 (1.7) |  |
| sleep\_location\_mode\_5yrs\_prior | in the garage | 27 (1.1) | 5 (1.0) | 0.200 |
|  | in the house | 2301 (97.8) | 472 (98.7) |  |
|  | outside | 25 (1.1) | 1 (0.2) |  |
| use\_aerosol\_exposed\_5yrs\_prior | No | 1288 (50.4) | 243 (49.6) | 0.771 |
|  | Yes | 1266 (49.6) | 247 (50.4) |  |
| use\_air\_cleaner\_exposed\_5yrs\_prior | No | 1916 (75.0) | 373 (76.1) | 0.645 |
|  | Yes | 638 (25.0) | 117 (23.9) |  |
| use\_hepa\_filter\_exposed\_5yrs\_prior | No | 1322 (51.8) | 235 (48.0) | 0.135 |
|  | Yes | 1232 (48.2) | 255 (52.0) |  |
| use\_moth\_balls\_exposed\_5yrs\_prior | No | 2506 (98.1) | 484 (98.8) | 0.413 |
|  | Yes | 48 (1.9) | 6 (1.2) |  |
| use\_incense\_or\_candles\_exposed\_5yrs\_prior | No | 1157 (45.3) | 229 (46.7) | 0.593 |
|  | Yes | 1397 (54.7) | 261 (53.3) |  |
| smoke\_exposure\_exposed\_5yrs\_prior | No | 2263 (88.6) | 436 (89.0) | 0.872 |
|  | Yes | 291 (11.4) | 54 (11.0) |  |
| any\_treated\_weeds\_exposed\_5yrs\_prior | No | 1242 (48.6) | 189 (38.6) | <0.001 |
|  | Yes | 1312 (51.4) | 301 (61.4) |  |
| any\_treated\_insects\_exposed\_5yrs\_prior | No | 1252 (49.0) | 212 (43.3) | 0.022 |
|  | Yes | 1302 (51.0) | 278 (56.7) |  |
| any\_treated\_fertilizer\_exposed\_5yrs\_prior | No | 1148 (44.9) | 163 (33.3) | <0.001 |
|  | Yes | 1406 (55.1) | 327 (66.7) |  |
| hours\_of\_smoke\_exposure\_hours\_5yrs\_prior\_terciles | >0-<4h | 97 (3.8) | 16 (3.3) | 0.948 |
|  | >=14-368h | 100 (3.9) | 20 (4.1) |  |
|  | >=4-<14h | 91 (3.6) | 18 (3.7) |  |
|  | no\_smoke | 2266 (88.7) | 436 (89.0) |  |
| sex | F | 1291 (50.5) | 213 (43.5) | 0.005 |
|  | M | 1263 (49.5) | 277 (56.5) |  |
| neuter | Entire | 527 (20.6) | 75 (15.3) | 0.008 |
|  | Neutered | 2027 (79.4) | 415 (84.7) |  |
| mismating\_ever | 0 | 2541 (99.5) | 490 (100.0) | 0.228 |
|  | 1 | 13 (0.5) |  |  |
| neutered\_reason | Behavioral | 63 (2.5) | 9 (1.8) | 0.048 |
|  | Elective | 1772 (69.4) | 374 (76.3) |  |
|  | Entire | 555 (21.7) | 83 (16.9) |  |
|  | Medical Reason | 156 (6.1) | 23 (4.7) |  |
|  | Unknown | 8 (0.3) | 1 (0.2) |  |
| neutered\_ever\_bred | 0 | 2549 (99.8) | 489 (99.8) | 1.000 |
|  | 1 | 5 (0.2) | 1 (0.2) |  |
| spayed\_while\_in\_heat | 0 | 883 (34.6) | 162 (33.1) | <0.001 |
|  | 1 | 225 (8.8) | 40 (8.2) |  |
|  | Intact Female | 183 (7.2) | 11 (2.2) |  |
|  | Male | 1263 (49.5) | 277 (56.5) |  |
| spayed\_while\_pregnant | 0 | 2548 (99.8) | 487 (99.4) | 0.340 |
|  | 1 | 6 (0.2) | 3 (0.6) |  |
| prevent\_heat\_ever | 0 | 2549 (99.8) | 490 (100.0) | 0.710 |
|  | 1 | 5 (0.2) |  |  |
| no\_pregnancy\_ever | 0 | 1291 (50.5) | 282 (57.6) | 0.005 |
|  | 1 | 1263 (49.5) | 208 (42.4) |  |
| intact\_sired\_litters\_natural\_ever | 0 | 2523 (98.8) | 482 (98.4) | 0.592 |
|  | 1 | 31 (1.2) | 8 (1.6) |  |
| neutered\_females\_bred\_with\_count\_ever | 0 | 2523 (98.8) | 482 (98.4) | 0.592 |
|  | 1 | 31 (1.2) | 8 (1.6) |  |
| neutered\_sired\_litters\_natural\_ever | 0 | 2550 (99.8) | 489 (99.8) | 1.000 |
|  | 1 | 4 (0.2) | 1 (0.2) |  |
| heats\_before\_neutering | 0 | 676 (64.0) | 114 (58.8) | 0.398 |
|  | 1 | 102 (9.7) | 28 (14.4) |  |
|  | 10 | 1 (0.1) |  |  |
|  | 12 | 1 (0.1) |  |  |
|  | 2 | 63 (6.0) | 10 (5.2) |  |
|  | 3 | 37 (3.5) | 10 (5.2) |  |
|  | 4 | 49 (4.6) | 14 (7.2) |  |
|  | 5 | 67 (6.3) | 10 (5.2) |  |
|  | 6 | 47 (4.5) | 6 (3.1) |  |
|  | 7 | 11 (1.0) | 1 (0.5) |  |
|  | 8 | 2 (0.2) | 1 (0.5) |  |
| heats\_before\_neutering\_terciles | 0 | 676 (27.0) | 114 (23.7) | <0.001 |
|  | 1-<=2 | 165 (6.6) | 38 (7.9) |  |
|  | >2-<=4 | 86 (3.4) | 24 (5.0) |  |
|  | >4-12 | 129 (5.2) | 18 (3.7) |  |
|  | Intact Female | 183 (7.3) | 11 (2.3) |  |
|  | Male | 1263 (50.5) | 277 (57.5) |  |
| preg\_pre\_neuter | 0 | 2481 (97.1) | 478 (97.6) | 0.723 |
|  | 1 | 73 (2.9) | 12 (2.4) |  |
| num\_breeding\_before\_neutering\_terciles | >0-<3h | 15 (0.6) | 5 (1.0) | 0.190 |
|  | >=3-<9h | 36 (1.4) | 9 (1.8) |  |
|  | >=9-142h | 28 (1.1) | 10 (2.0) |  |
|  | not\_bred | 2475 (96.9) | 466 (95.1) |  |
| ever\_bred\_from | 0 | 2393 (93.7) | 452 (92.2) | 0.275 |
|  | 1 | 161 (6.3) | 38 (7.8) |  |
| avg\_weight\_5y\_prior\_endpoint\_quartiles | 9.75-<21.31kg | 632 (25.9) | 96 (20.5) | <0.001 |
|  | >=21.31-<24.66kg | 631 (25.8) | 97 (20.7) |  |
|  | >=24.66-<29.37kg | 584 (23.9) | 144 (30.8) |  |
|  | >=29.37-41.52kg | 597 (24.4) | 131 (28.0) |  |
| avg\_height\_5y\_prior\_endpoint\_quartiles | 49.13-<56.07cm | 189 (26.0) | 20 (18.3) | 0.159 |
|  | >=56.07-<58.42cm | 166 (22.9) | 30 (27.5) |  |
|  | >=58.42-<60.32cm | 185 (25.5) | 35 (32.1) |  |
|  | >=60.32cm-67.73cm | 186 (25.6) | 24 (22.0) |  |
| avg\_purina\_BCS\_5y\_prior\_endpoint\_quartiles | 3.3-<5 | 287 (20.1) | 51 (19.8) | 0.054 |
|  | >=5-<5.28 | 388 (27.2) | 90 (35.0) |  |
|  | >=5.28-<5.86 | 378 (26.5) | 63 (24.5) |  |
|  | >=5.86 - 9 | 373 (26.2) | 53 (20.6) |  |
| mode\_purina\_BCS\_5y\_prior\_endpoint | 3 | 3 (0.2) |  | 0.142 |
|  | 4 | 106 (6.1) | 22 (5.4) |  |
|  | 5 | 1008 (57.6) | 253 (62.3) |  |
|  | 6 | 426 (24.3) | 80 (19.7) |  |
|  | 7 | 151 (8.6) | 44 (10.8) |  |
|  | 8 | 43 (2.5) | 6 (1.5) |  |
|  | 9 | 13 (0.7) | 1 (0.2) |  |
| mode\_BCS\_classify | ideal | 1114 (63.7) | 275 (67.7) | 0.227 |
|  | overweight | 633 (36.2) | 131 (32.3) |  |
|  | underweight | 3 (0.2) |  |  |
| half\_anti\_microbials\_lifetime | drug\_not\_administered | 450 (17.6) | 64 (13.1) | <0.001 |
|  | lower\_half | 1098 (43.0) | 225 (45.9) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 860 (33.7) | 192 (39.2) |  |
| half\_dietary\_supplements\_lifetime | drug\_not\_administered | 1560 (61.1) | 287 (58.6) | <0.001 |
|  | lower\_half | 544 (21.3) | 115 (23.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 304 (11.9) | 79 (16.1) |  |
| half\_enteric\_lifetime | drug\_not\_administered | 1734 (67.9) | 326 (66.5) | <0.001 |
|  | lower\_half | 330 (12.9) | 89 (18.2) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 344 (13.5) | 66 (13.5) |  |
| half\_fluid\_metabolites\_lifetime | drug\_not\_administered | 2364 (92.6) | 469 (95.7) | 0.002 |
|  | lower\_half | 37 (1.4) | 9 (1.8) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 7 (0.3) | 3 (0.6) |  |
| half\_hormones\_and\_related\_lifetime | drug\_not\_administered | 2197 (86.0) | 435 (88.8) | 0.004 |
|  | lower\_half | 120 (4.7) | 25 (5.1) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 91 (3.6) | 21 (4.3) |  |
| half\_immunologicals\_lifetime | drug\_not\_administered | 1774 (69.5) | 322 (65.7) | <0.001 |
|  | lower\_half | 401 (15.7) | 94 (19.2) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 233 (9.1) | 65 (13.3) |  |
| half\_misc\_lifetime | drug\_not\_administered | 1796 (70.3) | 338 (69.0) | 0.001 |
|  | lower\_half | 344 (13.5) | 80 (16.3) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 268 (10.5) | 63 (12.9) |  |
| half\_neurological\_lifetime | drug\_not\_administered | 1435 (56.2) | 278 (56.7) | 0.003 |
|  | lower\_half | 622 (24.4) | 125 (25.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 351 (13.7) | 78 (15.9) |  |
| half\_anti\_parasites\_lifetime | drug\_not\_administered | 229 (9.0) | 32 (6.5) | <0.001 |
|  | lower\_half | 1249 (48.9) | 217 (44.3) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 930 (36.4) | 232 (47.3) |  |
| half\_anti\_septics\_lifetime | drug\_not\_administered | 2237 (87.6) | 454 (92.7) | 0.002 |
|  | lower\_half | 126 (4.9) | 19 (3.9) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 45 (1.8) | 8 (1.6) |  |
| half\_cardio\_respiratory\_lifetime | drug\_not\_administered | 2256 (88.3) | 449 (91.6) | 0.002 |
|  | lower\_half | 96 (3.8) | 24 (4.9) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 56 (2.2) | 8 (1.6) |  |
| half\_diuretics\_lifetime | drug\_not\_administered | 2391 (93.6) | 479 (97.8) | 0.004 |
|  | lower\_half | 16 (0.6) | 2 (0.4) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 1 (0.0) |  |  |
| half\_anti\_hist\_lifetime | drug\_not\_administered | 2342 (91.7) | 464 (94.7) | 0.003 |
|  | lower\_half | 43 (1.7) | 10 (2.0) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 23 (0.9) | 7 (1.4) |  |
| quartile\_anti\_inflam\_lifetime | Q1 | 501 (19.6) | 101 (20.6) | <0.001 |
|  | Q2 | 608 (23.8) | 138 (28.2) |  |
|  | Q3 | 196 (7.7) | 46 (9.4) |  |
|  | Q4 | 414 (16.2) | 91 (18.6) |  |
|  | drug\_not\_administered | 689 (27.0) | 105 (21.4) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_anti\_microbials\_lifetime | Q1 | 671 (26.3) | 136 (27.8) | <0.001 |
|  | Q2 | 427 (16.7) | 89 (18.2) |  |
|  | Q3 | 405 (15.9) | 98 (20.0) |  |
|  | Q4 | 455 (17.8) | 94 (19.2) |  |
|  | drug\_not\_administered | 450 (17.6) | 64 (13.1) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_dietary\_supplements\_lifetime | Q1 | 358 (14.0) | 80 (16.3) | 0.001 |
|  | Q2 | 186 (7.3) | 35 (7.1) |  |
|  | Q3 | 156 (6.1) | 41 (8.4) |  |
|  | Q4 | 148 (5.8) | 38 (7.8) |  |
|  | drug\_not\_administered | 1560 (61.1) | 287 (58.6) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_hormones\_and\_related\_lifetime | Q1 | 81 (3.2) | 15 (3.1) | 0.017 |
|  | Q2 | 39 (1.5) | 10 (2.0) |  |
|  | Q3 | 42 (1.6) | 10 (2.0) |  |
|  | Q4 | 49 (1.9) | 11 (2.2) |  |
|  | drug\_not\_administered | 2197 (86.0) | 435 (88.8) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_immunologicals\_lifetime | Q1 | 289 (11.3) | 62 (12.7) | <0.001 |
|  | Q2 | 112 (4.4) | 32 (6.5) |  |
|  | Q3 | 116 (4.5) | 37 (7.6) |  |
|  | Q4 | 117 (4.6) | 28 (5.7) |  |
|  | drug\_not\_administered | 1774 (69.5) | 322 (65.7) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_misc\_lifetime | Q1 | 344 (13.5) | 80 (16.3) | 0.001 |
|  | Q3 | 139 (5.4) | 26 (5.3) |  |
|  | Q4 | 129 (5.1) | 37 (7.6) |  |
|  | drug\_not\_administered | 1796 (70.3) | 338 (69.0) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_neurological\_lifetime | Q1 | 430 (16.8) | 82 (16.7) | 0.013 |
|  | Q2 | 192 (7.5) | 43 (8.8) |  |
|  | Q3 | 122 (4.8) | 27 (5.5) |  |
|  | Q4 | 229 (9.0) | 51 (10.4) |  |
|  | drug\_not\_administered | 1435 (56.2) | 278 (56.7) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_anti\_parasites\_lifetime | Q1 | 680 (26.6) | 100 (20.4) | <0.001 |
|  | Q2 | 569 (22.3) | 117 (23.9) |  |
|  | Q3 | 453 (17.7) | 116 (23.7) |  |
|  | Q4 | 477 (18.7) | 116 (23.7) |  |
|  | drug\_not\_administered | 229 (9.0) | 32 (6.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| half\_anti\_inflam\_5y\_prior\_endpoint | drug\_not\_administered | 858 (33.6) | 145 (29.6) | <0.001 |
|  | lower\_half | 881 (34.5) | 194 (39.6) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 669 (26.2) | 142 (29.0) |  |
| half\_anti\_microbials\_5y\_prior\_endpoint | drug\_not\_administered | 630 (24.7) | 112 (22.9) | 0.002 |
|  | lower\_half | 1038 (40.6) | 222 (45.3) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 740 (29.0) | 147 (30.0) |  |
| half\_enteric\_5y\_prior\_endpoint | drug\_not\_administered | 1885 (73.8) | 353 (72.0) | <0.001 |
|  | lower\_half | 275 (10.8) | 76 (15.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 248 (9.7) | 52 (10.6) |  |
| half\_immunologicals\_5y\_prior\_endpoint | drug\_not\_administered | 1791 (70.1) | 331 (67.6) | <0.001 |
|  | lower\_half | 398 (15.6) | 88 (18.0) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 219 (8.6) | 62 (12.7) |  |
| half\_misc\_5y\_prior\_endpoint | drug\_not\_administered | 1931 (75.6) | 370 (75.5) | 0.001 |
|  | lower\_half | 281 (11.0) | 58 (11.8) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 196 (7.7) | 53 (10.8) |  |
| half\_neurological\_5y\_prior\_endpoint | drug\_not\_administered | 1585 (62.1) | 311 (63.5) | 0.003 |
|  | lower\_half | 564 (22.1) | 111 (22.7) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 259 (10.1) | 59 (12.0) |  |
| half\_anti\_parasites\_5y\_prior\_endpoint | drug\_not\_administered | 363 (14.2) | 76 (15.5) | <0.001 |
|  | lower\_half | 1263 (49.5) | 218 (44.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 782 (30.6) | 187 (38.2) |  |
| half\_dietary\_supplements\_5y\_prior\_endpoint | drug\_not\_administered | 1707 (66.8) | 319 (65.1) | <0.001 |
|  | lower\_half | 476 (18.6) | 103 (21.0) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 225 (8.8) | 59 (12.0) |  |
| half\_anti\_septics\_5y\_prior\_endpoint | drug\_not\_administered | 2289 (89.6) | 462 (94.3) | 0.003 |
|  | lower\_half | 94 (3.7) | 14 (2.9) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 25 (1.0) | 5 (1.0) |  |
| half\_hormones\_and\_related\_5y\_prior\_endpoint | drug\_not\_administered | 2212 (86.6) | 439 (89.6) | 0.004 |
|  | lower\_half | 108 (4.2) | 21 (4.3) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 88 (3.4) | 21 (4.3) |  |
| half\_cardio\_respiratory\_5y\_prior\_endpoint | drug\_not\_administered | 2288 (89.6) | 458 (93.5) | 0.004 |
|  | lower\_half | 79 (3.1) | 17 (3.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 41 (1.6) | 6 (1.2) |  |
| half\_fluid\_metabolites\_5y\_prior\_endpoint | drug\_not\_administered | 2383 (93.3) | 471 (96.1) | 0.001 |
|  | lower\_half | 21 (0.8) | 8 (1.6) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 4 (0.2) | 2 (0.4) |  |
| half\_diuretics\_5y\_prior\_endpoint | drug\_not\_administered | 2392 (93.7) | 479 (97.8) | 0.004 |
|  | lower\_half | 15 (0.6) | 2 (0.4) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 1 (0.0) |  |  |
| half\_anti\_hist\_5y\_prior\_endpoint | drug\_not\_administered | 2362 (92.5) | 470 (95.9) | 0.004 |
|  | lower\_half | 32 (1.3) | 7 (1.4) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
|  | upper\_half | 14 (0.5) | 4 (0.8) |  |
| quartile\_anti\_inflam\_5y\_prior\_endpoint | Q1 | 538 (21.1) | 109 (22.2) | 0.001 |
|  | Q2 | 343 (13.4) | 85 (17.3) |  |
|  | Q3 | 425 (16.6) | 92 (18.8) |  |
|  | Q4 | 244 (9.6) | 50 (10.2) |  |
|  | drug\_not\_administered | 858 (33.6) | 145 (29.6) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_anti\_microbials\_5y\_prior\_endpoint | Q1 | 455 (17.8) | 98 (20.0) | 0.010 |
|  | Q2 | 583 (22.8) | 124 (25.3) |  |
|  | Q3 | 326 (12.8) | 67 (13.7) |  |
|  | Q4 | 414 (16.2) | 80 (16.3) |  |
|  | drug\_not\_administered | 630 (24.7) | 112 (22.9) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_immunologicals\_5y\_prior\_endpoint | Q1 | 287 (11.2) | 58 (11.8) | <0.001 |
|  | Q2 | 111 (4.3) | 30 (6.1) |  |
|  | Q3 | 116 (4.5) | 38 (7.8) |  |
|  | Q4 | 103 (4.0) | 24 (4.9) |  |
|  | drug\_not\_administered | 1791 (70.1) | 331 (67.6) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_misc\_5y\_prior\_endpoint | Q1 | 281 (11.0) | 58 (11.8) | 0.001 |
|  | Q3 | 109 (4.3) | 27 (5.5) |  |
|  | Q4 | 87 (3.4) | 26 (5.3) |  |
|  | drug\_not\_administered | 1931 (75.6) | 370 (75.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_neurological\_5y\_prior\_endpoint | Q1 | 387 (15.2) | 68 (13.9) | 0.006 |
|  | Q2 | 177 (6.9) | 43 (8.8) |  |
|  | Q3 | 94 (3.7) | 20 (4.1) |  |
|  | Q4 | 165 (6.5) | 39 (8.0) |  |
|  | drug\_not\_administered | 1585 (62.1) | 311 (63.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_anti\_parasites\_5y\_prior\_endpoint | Q1 | 668 (26.2) | 111 (22.7) | <0.001 |
|  | Q2 | 595 (23.3) | 107 (21.8) |  |
|  | Q3 | 463 (18.1) | 72 (14.7) |  |
|  | Q4 | 319 (12.5) | 115 (23.5) |  |
|  | drug\_not\_administered | 363 (14.2) | 76 (15.5) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_dietary\_supplements\_5y\_prior\_endpoint | Q1 | 322 (12.6) | 67 (13.7) | 0.002 |
|  | Q2 | 154 (6.0) | 36 (7.3) |  |
|  | Q3 | 75 (2.9) | 21 (4.3) |  |
|  | Q4 | 150 (5.9) | 38 (7.8) |  |
|  | drug\_not\_administered | 1707 (66.8) | 319 (65.1) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| quartile\_hormones\_and\_related\_5y\_prior\_endpoint | Q1 | 69 (2.7) | 13 (2.7) | 0.018 |
|  | Q2 | 39 (1.5) | 8 (1.6) |  |
|  | Q3 | 45 (1.8) | 12 (2.4) |  |
|  | Q4 | 43 (1.7) | 9 (1.8) |  |
|  | drug\_not\_administered | 2212 (86.6) | 439 (89.6) |  |
|  | medication\_use\_not\_recorded | 146 (5.7) | 9 (1.8) |  |
| age\_at\_final\_date\_quartiles | 0.74-<8.47 years | 649 (25.4) | 112 (22.9) | <0.001 |
|  | >=10.68-<11.64 years | 683 (26.7) | 81 (16.5) |  |
|  | >=11.64-14.51 years | 705 (27.6) | 56 (11.4) |  |
|  | >=8.47-<10.68 years | 517 (20.2) | 241 (49.2) |  |
| age\_at\_neuter\_years\_quartiles | 0.15-<0.52y | 273 (17.2) | 39 (14.5) | 0.012 |
|  | >=0.52-<0.83y | 272 (17.2) | 40 (14.9) |  |
|  | >=0.83-2.44y | 250 (15.8) | 63 (23.4) |  |
|  | >=2.44-9.59y | 261 (16.5) | 52 (19.3) |  |
|  | Entire | 527 (33.3) | 75 (27.9) |  |

# Finalfit Regression Results