Appendix Table 1. Demographic and comorbidity information for the participants aged >=65 by availability of Medicare data and comparison with remainder of National Lung Screening Trial (NLST).

|  |  |  |
| --- | --- | --- |
|  | *LDCT* | *CXR* |
| *Medicare data available\*(N=1100)* | *Medicare data not available(N=1510)* | *Entire NLST LDCT arm(N=26730)* | *Medicare data available\*(N=1294)* | *Medicare data not available(N=1312)* | *Entire NLST CXR arm(N=26730)* |
| Age at Randomization - N(%) | <=64 | 0 (0) | 0 (0) | 19608 (73) | 0 (0) | 0 (0) | 19622 (73) |
| 65-69 | 715 (65) | 1027 (68) | 4760 (18) | 834 (64) | 913 (70) | 4761 (18) |
| >=70 | 385 (35) | 483 (32) | 2354 (9) | 460 (36) | 399 (30) | 2347 (9) |
| Gender - N(%) | Male | 643 (58) | 876 (58) | 15769 (59) | 745 (58) | 764 (58) | 15761 (59) |
| Female | 457 (42) | 634 (42) | 10953 (41) | 549 (42) | 548 (42) | 10969 (41) |
| Race - N (%) | White | 1048 (95) | 1405 (93) | 24289 (91) | 1243 (96) | 1215 (93) | 24260 (91) |
| Non-White | 52 (5) | 105 (7) | 2433 (9) | 51 (4) | 97 (7) | 2470 (9) |
| Ethnic Group - N (%) | Hispanic or Latino | 10 (<1) | 21 (1) | 479 (2) | 10 (<1) | 16 (1) | 456 (2) |
| Neither Hispanic or Latino/Unknown | 1090 (99) | 1489 (99) | 26243 (98) | 1284 (99) | 1296 (99) | 26274 (98) |
| Smoking Status - N (%) | Former | 639 (58) | 880 (58) | 13862 (52) | 740 (57) | 736 (56) | 13830 (52) |
| Current | 461 (42) | 630 (42) | 12860 (48) | 554 (43) | 576 (44) | 12900 (48) |
| Highest level of education completed - N (%) | < College | 472 (43) | 668 (44) | 11648 (44) | 545 (42) | 582 (44) | 11747 (44) |
| College | 424 (39) | 512 (34) | 10694 (40) | 470 (36) | 466 (36) | 10529 (39) |
| > College | 201 (18) | 324 (21) | 4265 (16) | 277 (21) | 259 (20) | 4301 (16) |
| Unknown | 3 (<1) | 6 (<1) | 115 (<1) | 2 (<1) | 5 (<1) | 153 (<1) |
| Marital Status - N (%) | Never married/Widowed/Separated/Divorced | 376 (34) | 571 (38) | 8771 (33) | 459 (35) | 502 (38) | 8753 (33) |
| Married or living as married | 721 (66) | 935 (62) | 17815 (67) | 831 (64) | 805 (61) | 17774 (66) |
| Data missing | 3 (<1) | 4 (<1) | 136 (<1) | 4 (<1) | 5 (<1) | 203 (<1) |
| History of COPD? - N (%) | No / Unknown | 770 (70) | 1112 (74) | 20567 (77) | 949 (73) | 947 (72) | 20561 (77) |
| Yes | 330 (30) | 398 (26) | 6155 (23) | 345 (27) | 365 (28) | 6169 (23) |
| History of Other Pulmonary Diseases? - N (%) | No / Unknown | 743 (68) | 1036 (69) | 19869 (74) | 895 (69) | 893 (68) | 19931 (75) |
| Yes | 357 (32) | 474 (31) | 6853 (26) | 399 (31) | 419 (32) | 6799 (25) |
| History of Diabetes? - N (%) | No / Unknown | 977 (89) | 1365 (90) | 24128 (90) | 1176 (91) | 1161 (88) | 24150 (90) |
| Yes | 123 (11) | 145 (10) | 2594 (10) | 118 (9) | 151 (12) | 2580 (10) |
| History of Heart Disease or Heart Attack? - N (%) | No / Unknown | 878 (80) | 1259 (83) | 23277 (87) | 1046 (81) | 1089 (83) | 23378 (87) |
| Yes | 222 (20) | 251 (17) | 3445 (13) | 248 (19) | 223 (17) | 3352 (13) |
| History of Hypertension? - N (%) | No / Unknown | 605 (55) | 860 (57) | 17344 (65) | 699 (54) | 728 (55) | 17178 (64) |
| Yes | 495 (45) | 650 (43) | 9378 (35) | 595 (46) | 584 (45) | 9552 (36) |
| History of Stroke? - N (%) | No / Unknown | 1052 (96) | 1457 (96) | 25969 (97) | 1236 (96) | 1254 (96) | 25971 (97) |
| Yes | 48 (4) | 53 (4) | 753 (3) | 58 (4) | 58 (4) | 759 (3) |
| History of Cancer? - N (%) | No / Unknown | 1045 (95) | 1436 (95) | 25626 (96) | 1217 (94) | 1231 (94) | 25518 (95) |
| Yes | 55 (5) | 74 (5) | 1096 (4) | 77 (6) | 81 (6) | 1212 (5) |

*\*Match cohort from NLST and CMS (N=2394)*

Appendix Table 2. Demographic and comorbidity information for the participants aged >=65 by availability of Medicare data and comparison with remainder of National Lung Screening Trial (NLST) participants 65 and older.

|  |  |  |
| --- | --- | --- |
|  | *LDCT* | *CXR* |
| *Medicare data available\*(N=1100)* | *Medicare data not available(N=1510)* | *NLST LDCT arm >= 65(N=7108)* | *Medicare data available\*(N=1294)* | *Medicare data not available(N=1312)* | *NLST CXR arm >= 65(N=7108)* |
| Age at Randomization - N(%) | 65-69 | 715 (65) | 1027 (68) | 4760 (67) | 834 (64) | 913 (70) | 4761 (67) |
| >=70 | 385 (35) | 483 (32) | 2354 (33) | 460 (36) | 399 (30) | 2347 (33) |
| Gender - N(%) | Male | 643 (58) | 876 (58) | 4398 (62) | 745 (58) | 764 (58) | 4385 (62) |
| Female | 457 (42) | 634 (42) | 2716 (38) | 549 (42) | 548 (42) | 2723 (38) |
| Race - N (%) | White | 1048 (95) | 1405 (93) | 6535 (92) | 1243 (96) | 1215 (93) | 6553 (92) |
| Non-White | 52 (5) | 105 (7) | 579 (8) | 51 (4) | 97 (7) | 555 (8) |
| Ethnic Group - N (%) | Hispanic or Latino | 10 (<1) | 21 (1) | 141 (2) | 10 (<1) | 16 (1) | 112 (2) |
| Neither Hispanic or Latino/Unknown | 1090 (99) | 1489 (99) | 6973 (98) | 1284 (99) | 1296 (99) | 6996 (98) |
| Smoking Status - N (%) | Former | 639 (58) | 880 (58) | 4262 (60) | 740 (57) | 736 (56) | 4211 (59) |
| Current | 461 (42) | 630 (42) | 2852 (40) | 554 (43) | 576 (44) | 2897 (41) |
| Highest level of education completed - N (%) | < College | 472 (43) | 668 (44) | 3357 (47) | 545 (42) | 582 (44) | 3340 (47) |
| College | 424 (39) | 512 (34) | 2546 (36) | 470 (36) | 466 (36) | 2509 (35) |
| > College | 201 (18) | 324 (21) | 1186 (17) | 277 (21) | 259 (20) | 1216 (17) |
| Unknown | 3 (<1) | 6 (<1) | 25 (<1) | 2 (<1) | 5 (<1) | 43 (<1) |
| Marital Status - N (%) | Never married/ Widowed/ Separated/ Divorced | 376 (34) | 571 (38) | 2338 (33) | 459 (35) | 502 (38) | 2351 (33) |
| Married or living as married | 721 (66) | 935 (62) | 4745 (67) | 831 (64) | 805 (61) | 4699 (66) |
| Data missing | 3 (<1) | 4 (<1) | 31 (<1) | 4 (<1) | 5 (<1) | 58 (<1) |
| History of COPD? - N (%) | No / Unknown | 770 (70) | 1112 (74) | 5271 (74) | 949 (73) | 947 (72) | 5289 (74) |
| Yes | 330 (30) | 398 (26) | 1843 (26) | 345 (27) | 365 (28) | 1819 (26) |
| History of Other Pulmonary Diseases? - N (%) | No / Unknown | 743 (68) | 1036 (69) | 5147 (72) | 895 (69) | 893 (68) | 5161 (73) |
| Yes | 357 (32) | 474 (31) | 1967 (28) | 399 (31) | 419 (32) | 1947 (27) |
| History of Diabetes? - N (%) | No / Unknown | 977 (89) | 1365 (90) | 6319 (89) | 1176 (91) | 1161 (88) | 6285 (88) |
| Yes | 123 (11) | 145 (10) | 795 (11) | 118 (9) | 151 (12) | 823 (12) |
| History of Heart Disease or Heart Attack? - N (%) | No / Unknown | 878 (80) | 1259 (83) | 5826 (82) | 1046 (81) | 1089 (83) | 5838 (82) |
| Yes | 222 (20) | 251 (17) | 1288 (18) | 248 (19) | 223 (17) | 1270 (18) |
| History of Hypertension? - N (%) | No / Unknown | 605 (55) | 860 (57) | 4104 (58) | 699 (54) | 728 (55) | 4070 (57) |
| Yes | 495 (45) | 650 (43) | 3010 (42) | 595 (46) | 584 (45) | 3038 (43) |
| History of Stroke? - N (%) | No / Unknown | 1052 (96) | 1457 (96) | 6801 (96) | 1236 (96) | 1254 (96) | 6808 (96) |
| Yes | 48 (4) | 53 (4) | 313 (4) | 58 (4) | 58 (4) | 300 (4) |
| History of Cancer? - N (%) | No / Unknown | 1045 (95) | 1436 (95) | 6716 (94) | 1217 (94) | 1231 (94) | 6655 (94) |
| Yes | 55 (5) | 74 (5) | 398 (6) | 77 (6) | 81 (6) | 453 (6) |

*\*Match cohort from NLST and CMS (N=2394)*

Appendix Table 3. Lung Cancer Diagnosis and Mortality in Study Cohort.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | LDCT | CXR | LDCT | CXR |
| #Lung Cancers/#At Risk | #Lung Cancers/#At Risk | #Deaths/#At Risk | #Deaths/#At Risk |
| Screening Time Point | Screen Result | 2/763 | 3/1151 | 5/763 | 9/1151 |
| T0 | Negative |
| SIF | 0/153 | 0/34 | 3/153 | 0/34 |
| Positive | 3/184 | 1/109 | 0/184 | 0/109 |
| T1 | Negative | 0/726 | 4/1083 | 5/726 | 7/1083 |
| SIF | 0/107 | 0/27 | 1/107 | 0/27 |
| Positive | 4/196 | 5/87 | 1/196 | 2/87 |
| No Screen\* | 0/66 | 2/93 | 5/63 | 7/88 |
| T2 | Negative | 0/834 | 8/1065 | 4/834 | 15/1065 |
| SIF | 0/78 | 0/17 | 1/78 | 0/17 |
| Positive | 14/90 | 9/65 | 3/90 | 3/65 |
| No Screen\* | 0/89 | 2/132 | 6/78 | 9/122 |
| Post-T2\*\* | Negative | 16/834 | 26/1057 | 54/830 | 60/1050 |
| SIF | 1/78 | 1/17 | 5/77 | 1/17 |
| Positive | 2/76 | 1/56 | 9/87 | 10/62 |
| No Screen\* | 0/89 | 5/130 | 7/72 | 23/113 |

\* No screen=no screening test at that screening time point.

\*\* Post-T2=post-screening period. Screen results from the T2 screen apply.