### S1 Table. Sociodemographic characteristics of the included patients according to newly diagnosis of lung cancer

|                                | Patients without newly diagnosed lung cancer (n=5,794,814) | Patients with newly diagnosed lung cancer (n=36,225) |
|--------------------------------|--------------------------------------------------------|-----------------------------------------------------|
| **Age (yr)**                   |                                                        |                                                     |
| ≥ 20 and < 30                  | 1,027,834 (17.7)                                       | 524 (1.4)                                           |
| ≥ 30 and < 40                  | 1,409,288 (24.3)                                       | 2,035 (5.6)                                         |
| ≥ 40 and < 50                  | 1,702,322 (29.4)                                       | 7,694 (21.2)                                        |
| ≥ 50 and < 60                  | 1,188,703 (20.5)                                       | 14,678 (40.5)                                       |
| ≥ 60 and < 65                  | 466,667 (8.1)                                          | 11,294 (31.2)                                       |
| **Female sex**                 |                                                        |                                                     |
|                                | 2,611,116 (45.1)                                       | 11,798 (32.6)                                       |
| **BMI, median (IQR)**          |                                                        |                                                     |
|                                | 23.4 (21.3-25.5)                                       | 23.7 (21.7-25.6)                                    |
| **Screening year**             |                                                        |                                                     |
| 2005                           | 1,593,369 (27.5)                                       | 15,560 (43.0)                                       |
| 2006                           | 2,695,761 (46.5)                                       | 13,865 (38.3)                                       |
| 2007                           | 1,505,684 (26.0)                                       | 6,800 (18.8)                                        |
| **Smoking history**            |                                                        |                                                     |
| Never-smoker                   | 3,534,972 (61)                                         | 18,861 (52.1)                                       |
| Ex-smoker                      | 508,447 (8.8)                                          | 4,087 (11.3)                                        |
| Current smoker                 | 1,465,374 (25.3)                                       | 12,076 (33.3)                                       |
| Not recorded                   | 286,021 (4.9)                                          | 1,201 (3.3)                                         |
| **Socioeconomic status**       |                                                        |                                                     |
| 1st (1-5 quantile)             | 1,124,276 (19.4)                                       | 7,569 (20.9)                                        |
| 2nd (6-10 quantile)            | 1,350,721 (23.3)                                       | 7,018 (19.4)                                        |
| 3rd (11-15 quantile)           | 1,574,822 (27.2)                                       | 8,965 (24.7)                                        |
| 4th (16-20 quantile)           | 1,642,879 (28.4)                                       | 12,283 (33.9)                                       |
| Not recorded                   | 102,116 (1.8)                                          | 390 (1.1)                                           |
| **Drinking behavior**          |                                                        |                                                     |
| < 3/wk                         | 5,078,138 (87.6)                                       | 30,065 (83.0)                                       |
| ≥ 3/wk                         | 485,761 (8.4)                                          | 5,219 (14.4)                                        |
| Not recorded                   | 230,915 (4.0)                                          | 941 (2.6)                                           |
| **Exercise behavior**          |                                                        |                                                     |
| < 3/wk                         | 4,512,066 (77.9)                                       | 27,254 (75.3)                                       |
| ≥ 3/wk                         | 1,005,619 (17.4)                                       | 7,871 (21.7)                                        |
| Not recorded                   | 277,129 (4.7)                                          | 1,100 (3.0)                                         |
| **Underlying chronic disease** |                                                        |                                                     |
| Hypertension                   | 385,638 (6.7)                                          | 4,965 (13.7)                                        |
| Previous malignancy            | 23,314 (0.4)                                           | 891 (2.5)                                           |
| Cardiovascular disease         | 35,272 (0.6)                                           | 536 (1.5)                                           |
| Condition                                      | Number (Percentage) | Median (IQR)     |
|-----------------------------------------------|---------------------|------------------|
| Diabetes mellitus                             | 128,257 (2.2)       | 2,064 (5.7)      |
| Stroke                                        | 16,784 (0.3)        | 280 (0.8)        |
| Liver disease                                 | 77,055 (1.3)        | 712 (2)          |
| **Blood chemistry, median (IQR)**             |                     |                  |
| Hemoglobin (g/dL)                             | 14.1 (13.0-15.3)    | 14.3 (13.2-15.2) |
| Fasting glucose (mg/dL)                       | 90 (83-99)          | 94 (85-105)      |
| Total cholesterol (mg/dL)                     | 190 (167-215)       | 195 (171-220)    |
| **Chest radiography**                         |                     |                  |
| Normal                                        | 5,164,345 (89.1)    | 25,624 (70.7)    |
| Suspicious active pulmonary tuberculosis      | 293,075 (5.1)       | 4,085 (11.3)     |
| Suspicious inactive pulmonary tuberculosis    | 23,486 (0.4)        | 615 (1.7)        |
| Suspicious lung disease other than pulmonary tuberculosis | 108,918 (1.9) | 3,139 (8.7) |
| Suspicious cardiovascular disease             | 82,845 (1.4)        | 758 (2.1)        |
| Not recorded                                  | 122,145 (2.1)       | 2,004 (5.5)      |

Values are presented as number (%) or median (range). BMI, body mass index; IQR, interquartile range.