Supplemental Table 1. Characteristics of patients with and without subsequent cancer.

| Characteristics                  | Cancer                     | p value |
|----------------------------------|----------------------------|---------|
|                                  | Yes (n = 1,077)            | No (n = 56,533) |
|                                  | n  | %    | n    | %    |         |
| Age, years (mean ± SD)           | 59.63 ± 14.90              | 44.52 ± 16.67 |
| <65                              | 673 | 62.5 | 49,287 | 87.2 | <0.001 |
| ≥65                              | 404 | 37.5 | 7,246  | 12.8 |         |
| Sex                              |                             |         |
| Female                           | 591 | 54.9 | 32,234 | 57.0 | 0.162  |
| Male                             | 486 | 45.1 | 24,299 | 43.0 |         |
| Comorbidities                    |                             |         |
| TB contact                       | 191 | 17.7 | 11,331 | 20.0 | 0.066  |
| Diabetes mellitus                | 236 | 21.9 | 5,992  | 10.6 | <0.001 |
| Coronary heart disease           | 245 | 22.7 | 6,137  | 10.9 | <0.001 |
| Heart failure                    | 42  | 3.9  | 948    | 1.7  | <0.001 |
| Cerebrovascular disease          | 158 | 14.7 | 3,961  | 7.0  | <0.001 |
| Hypertension                     | 482 | 44.8 | 12,674 | 22.4 | <0.001 |
| SLE                              | 30  | 2.8  | 756    | 1.3  | <0.001 |
| RA                               | 37  | 3.4  | 892    | 1.6  | <0.001 |
| CKD/ESRD                         | 111 | 10.3 | 2,701  | 4.8  | <0.001 |
| Liver cirrhosis                  | 131 | 12.2 | 2,676  | 4.7  | <0.001 |
| Asthma                           | 217 | 20.1 | 8,110  | 14.3 | <0.001 |
| COPD                             | 8189 | 17.5 | 4,567  | 8.1  | <0.001 |
| NTM                              | 5   | 0.5  | 166    | 0.3  | 0.257  |
| Income Level                     |                             |         |
| Low                              | 450 | 41.8 | 20,153 | 35.6 | <0.001 |
| Intermediate                     | 473 | 43.9 | 25,485 | 45.1 |         |
| High                             | 154 | 14.3 | 10,895 | 19.3 |         |

Abbreviations: SD, standard deviation; SLE, systemic lupus erythematosus; RA, rheumatoid arthritis; CKD, chronic renal disease; ESRD, end-stage renal disease; GERD, gastro-esophageal reflux disease; COPD, chronic obstructive pulmonary disease; NTM, nontuberculous mycobacteria.
### Supplemental Table 2. Predictors of cancer in Cox proportional hazards regression analysis

| Variables                  | Unadjusted          | Adjusted*          |          |          |
|----------------------------|---------------------|--------------------|----------|----------|
|                            | HR (95% CI)         | p                  | HR (95% CI) | p        |
| TB contact                 | 0.97 (0.83–1.14)    | 0.714              |          |          |
| Age ≥ 65 years             | 4.15 (3.67–4.70)    | <0.001             | 3.00 (2.55–3.53) | <0.001 |
| Male gender                | 1.16 (1.03–1.31)    | 0.017              | 1.23 (1.09–1.39) | 0.001   |
| Comorbidities              |                     |                    |          |          |
| Diabetes mellitus          | 2.44 (2.11–2.82)    | <0.001             | 1.24 (1.05–1.45) | 0.012   |
| Coronary heart disease     | 2.44 (2.12–2.81)    | <0.001             | 1.00 (0.84–1.19) | 0.983   |
| Heart failure              | 2.81 (2.06–3.82)    | <0.001             | 1.00 (0.72–1.38) | 0.977   |
| Cerebrovascular disease    | 2.41 (2.04–2.85)    | <0.001             | 0.90 (0.74–1.09) | 0.288   |
| Hypertension               | 2.82 (2.50–3.18)    | <0.001             | 1.46 (1.25–1.72) | <0.001 |
| SLE                        | 2.34 (1.62–3.36)    | <0.001             | 1.76 (1.22–2.55) | 0.003   |
| RA                         | 2.20 (1.58–3.05)    | <0.001             | 1.28 (0.92–1.79) | 0.148   |
| CKD/ESRD                   | 2.37 (1.95–2.89)    | <0.001             | 1.18 (0.96–1.46) | 0.119   |
| Liver cirrhosis            | 2.52 (2.10–3.02)    | <0.001             | 1.75 (1.45–2.12) | <0.001 |
| Asthma                     | 1.55 (1.33–1.80)    | <0.001             | 0.99 (0.84–1.16) | 0.875   |
| COPD                       | 2.38 (2.04–2.79)    | <0.001             | 1.15 (0.96–1.38) | 0.141   |
| NTM                        | 1.87 (0.78–4.51)    | 0.162              |          |          |
| Income level               |                     |                    |          |          |
| Low                        | Referent            | Referent           |          |          |
| Intermediate               | 0.90 (0.79–1.02)    | 0.098              | 1.12 (0.98–1.28) | 0.085   |
| High                       | 0.82 (0.75–0.90)    | <0.001             | 0.96 (0.79–1.16) | 0.671   |

Abbreviations: SD, standard deviation; SLE, systemic lupus erythematosus; RA, rheumatoid arthritis; CKD, chronic renal disease; ESRD, end-stage renal disease; GERD, gastroesophageal reflux disease; COPD, chronic obstructive pulmonary disease; NTM, nontuberculous mycobacteria.

*All factors with p < 0.1 in univariate analyses were included in the Cox multivariate analysis.
Supplemental Figure 1 Flow diagram summarizing the process of enrollment and follow-up.

1,000,000 Nationwide representative population

14,654 contacts of tuberculosis (TB) patients from 1997 to 2012

Excluded (n=3,132):
  Age < 20 years old (n=2,748)
  Antecedent cancer (n=169)
  Antecedent TB infection (n=215)

11,522 contacts of TB patients were enrolled (136 received Isoniazid prophylaxis)

46,088 age- and sex-matched subjects

130 developed subsequent TB activation (Latent TB infection)

Follow-up:
  34,558 person-years
  191 developed cancer

157 patients developed subsequent TB activation

Follow-up:
  155,347 person-years
  886 patients developed cancer

Supplemental Figure 2 Cumulative incidence of cancer in latent tuberculosis infection (LTBI) patients with and without isoniazid (INH) prophylaxis
Number at risk
LTBI, INH (-)  121  87  63  36  15  5  2
LTBI, INH (+)  9  2  0  0  0  0  0

Log rank $p = 0.511$