Supplementary Materials

Association of Preterm Birth with Depression and Particulate Matter: Machine Learning Analysis Using National Health Insurance Data
Figure S1. Random forest variable importance.
Figure S2. Random forest variable importance—undersampling.
Table S1. ICD-10 code for preterm birth, depression, gastroesophageal reflux disease and periodontitis.

| Code   | Description                                                                 |
|--------|-----------------------------------------------------------------------------|
| O42.00 | Onset of labor within 24 hours of rupture (0–33 weeks of gestation)         |
| O42.01 | Onset of labor within 24 hours of rupture (34–36 weeks of gestation)       |
| O42.10 | Onset of labor after 24 hours of rupture (0–33 weeks of gestation)         |
| O42.11 | Onset of labor after 24 hours of rupture (34–36 weeks of gestation)       |
| O42.20 | Prolonged labor because of treatment (0–33 weeks of gestation)            |
| O42.21 | Prolonged labor because of treatment (34–36 weeks of gestation)           |
| O42.90 | Unspecified length of time between rupture and onset of labor (0–33 weeks of gestation) |
| O42.91 | Unspecified length of time between rupture and onset of labor (34–36 weeks of gestation) |
| O60.11 | Preterm delivery with preterm labor (0–33 weeks of gestation)             |
| O60.12 | Preterm delivery with preterm labor (34–36 weeks of gestation)            |
| O60.19 | Preterm delivery with preterm labor (unspecified weeks of gestation)      |
| O60.31 | Preterm delivery without preterm labor (0–33 weeks of gestation)          |
| O60.32 | Preterm delivery without preterm labor (34–36 weeks of gestation)         |
| O60.39 | Preterm delivery without preterm labor (unspecified weeks of gestation)   |
| F32    | Depressive episode                                                          |
| K210   | Gastroesophageal reflux disease with esophagitis                           |
| K052   | Aggressive periodontitis                                                   |
| K0528  | Other aggressive periodontitis                                             |
| K0529  | Unspecified aggressive periodontitis                                       |
| K053   | Chronic periodontitis                                                     |
| K0538  | Other chronic periodontitis                                                |
| K0539  | Unspecified chronic periodontitis                                          |

PTB Preterm Birth, PROM Premature Rupture of Membranes, PTL Preterm Labor with Preterm Delivery, GERD Gastroesophageal Reflux Disease.
Table S2. ATC code for medication.

| Medication            | Code  | Description                                      |
|-----------------------|-------|--------------------------------------------------|
| Benzodiazepine        | N05BA | Benzodiazepine derivatives (N05 Psychoanaleptics, N05B Anxiolytics) |
|                       | N05CD | Benzodiazepine derivatives (N05 Psychoanaleptics, N05C Hypnotics and sedatives) |
|                       | N05CF | Benzodiazepine-related drugs (N05 Psychoanaleptics, N05C Hypnotics and sedatives) |
| Calcium Channel Blocker| C08   | Calcium channel blockers                          |
| Nitrate               | C01DA | Organic nitrates                                 |
| Progesterone          | G03   | Sex hormones and modulators of the genital system |
| Proton Pump Inhibitor | A02BC | Proton pump inhibitors                            |
| Sleeping Pills        | N05C  | Hypnotics and sedatives                           |
| Tricyclic Antidepressant | N06A | Antidepressants                                   |