

Additional File 1: Definition of comorbidity clusters

Cancer: breast cancer, cervical cancer, colorectal cancer, leukemia, lymphoma, melanoma, metastatic solid tumor, non-small cell lung cancer, prostate cancer, small cell lung cancer, skin cancer, uterine cancer, and other cancer

Gastrointestinal: gastroesophageal reflux disease, heartburn, abdominal pain, abdominal bloating, irritable bowel syndrome, Crohn's disease, ulcerative colitis, ulcer disease, ulcers (active stomach or duodenal), and frequent diarrhea

Infectious: hepatitis B, hepatitis C, HIV, AIDS,

Arthritis: rheumatoid arthritis, osteoarthritis

Psychiatric: depression, anxiety, generalized anxiety disorder, panic disorder, social anxiety disorder, post-traumatic stress disorder, bipolar disorder, phobias, obsessive compulsive disorder, and attention deficit disorder

Respiratory: asthma, chronic bronchitis, emphysema, chronic obstructive pulmonary disease, allergies, hay fever, and pulmonary embolism

Renal disease: chronic kidney disease, moderate or severe renal disease

Liver disease: cirrhosis

Diabetes

Cardiovascular disease: hypertension, hyperlipidemia, angina pectoris, arrhythmia, congestive heart failure, and atherosclerosis

Cerebrovascular disease: stroke or mini-stroke/transient ischemic attack