|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. The association between chronic conditions combinations and depression |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| Zero | 860 (15.6) | 5523  | 1.00  |  |
| One |  |  |  |  |  |  |  |  |  |
| 1. Arthritis | 650 (29.1) | 2236  | 1.55  | 1.37  | 1.76  |
| 2. Diabetes | 143 (20.0) | 716  | 1.41  | 1.14  | 1.73  |
| 3. Heart disease | 116 (22.7) | 511  | 1.39  | 1.10  | 1.76  |
| 4. Hypertension | 793 (17.0) | 4678  | 1.04  | 0.93  | 1.17  |
| 5. Pulmonary disease | 92 (29.9) | 308  | 1.76  | 1.35  | 2.31  |
| 6. Cancer | 105 (34.9) | 301  | 3.04  | 2.33  | 3.96  |
| 7. Stroke | 79 (38.4) | 206  | 2.81  | 2.07  | 3.83  |
| 8. Osteoporosis | 111 (21.9) | 508  | 1.18  | 0.93  | 1.50  |
| Two |  |  |  |  |  |  |  |  |  |
| 9. Arthritis + Diabetes | 103 (31.7) | 325  | 2.01  | 1.55  | 2.60  |
| 10. Arthritis + Heart disease | 97 (37.2) | 261  | 2.14  | 1.62  | 2.82  |
| 11. Arthritis + Hypertension | 799 (30.4) | 2628  | 1.60  | 1.42  | 1.81  |
| 12. Arthritis + Pulmonary disease | 49 (38.6) | 127  | 2.26  | 1.54  | 3.32  |
| 13. Arthritis + Cancer | 24 (30.8) | 78  | 1.60  | 0.95  | 2.70  |
| 14. Arthritis + Stroke | 46 (54.8) | 84  | 4.14  | 2.59  | 6.63  |
| 15. Arthritis + Osteoporosis | 252 (33.3) | 757  | 1.66  | 1.38  | 1.99  |
| (Continued to next page) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 16. Diabetes + Heart disease | 35 (27.1) | 129  | 1.89  | 1.24  | 2.88  |
| 17. Diabetes + Hypertension | 437 (23.9) | 1828  | 1.58  | 1.37  | 1.81  |
| 18. Diabetes + Pulmonary disease | 12 (50.0) | 24  | 4.28  | 1.80  | 10.21  |
| 19. Diabetes + Cancer | 24 (40.7) | 59  | 4.09  | 2.33  | 7.16  |
| 20. Diabetes + Stroke | 30 (52.6) | 57  | 4.95  | 2.78  | 8.81  |
| 21. Diabetes + Osteoporosis | 17 (25.8) | 66  | 1.46  | 0.81  | 2.65  |
| 22. Heart disease + Hypertension | 160 (22.4) | 713  | 1.43  | 1.17  | 1.75  |
| 23. Heart disease + Pulmonary disease | 20 (47.6) | 42  | 3.40  | 1.78  | 6.50  |
| 24. Heart disease + Cancer | 7 (28.0) | 25  | 2.15  | 0.83  | 5.59  |
| 25. Heart disease + Stroke | 11 (36.7) | 30  | 1.82  | 0.82  | 4.03  |
| 26. Heart disease + Osteoporosis | 19 (34.6) | 55  | 1.83  | 1.02  | 3.30  |
| 27. Hypertension + Pulmonary disease | 62 (32.3) | 192  | 2.00  | 1.43  | 2.78  |
| 28. Hypertension + Cancer | 48 (29.5) | 163  | 2.25  | 1.56  | 3.25  |
| 29. Hypertension + Stroke | 195 (38.0) | 513  | 2.53  | 2.06  | 3.12  |
| 30. Hypertension + Osteoporosis | 171 (29.3) | 583  | 1.50  | 1.22  | 1.85  |
| 31. Pulmonary disease + Cancer | 6 (42.9) | 14  | 3.92  | 1.28  | 11.98  |
| 32. Pulmonary disease + Stroke | 10 (66.7) | 15  | 6.78  | 2.19  | 20.99  |
| 33. Pulmonary disease + Osteoporosis | 10 (34.5) | 29  | 2.27  | 1.01  | 5.12  |
| (Continued to next page) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 34. Cancer + Stroke | 5 (55.6) | 9  | 4.21  | 0.97  | 18.17  |
| 35. Cancer + Osteoporosis | 8 (36.4) | 22  | 2.84  | 1.10  | 7.35  |
| 36. Stroke + Osteoporosis | 4 (26.7) | 15  | 1.14  | 0.33  | 3.90  |
| Three |  |  |  |  |  |  |  |
| 37. Arthritis + Diabetes + Heart disease | 20 (41.7) | 48  | 2.43  | 1.31  | 4.49  |
| 38. Arthritis + Diabetes + Hypertension | 353 (36.0) | 982  | 2.02  | 1.72  | 2.38  |
| 39. Arthritis + Diabetes + Pulmonary disease | 6 (33.3) | 18  | 1.77  | 0.64  | 4.91  |
| 40. Arthritis + Diabetes + Cancer | 9 (45.0) | 20  | 3.16  | 1.24  | 8.05  |
| 41. Arthritis + Diabetes + Stroke | 7 (46.7) | 15  | 3.39  | 1.11  | 10.36  |
| 42. Arthritis + Diabetes + Osteoporosis | 36 (31.3) | 115  | 1.40  | 0.91  | 2.15  |
| 43. Arthritis + Heart disease + Hypertension | 165 (39.4) | 419  | 2.23  | 1.78  | 2.79  |
| 44. Arthritis + Heart disease + Pulmonary disease | 7 (58.3) | 12  | 2.76  | 0.84  | 9.06  |
| 45. Arthritis + Heart disease + Cancer | 3 (42.9) | 7  | 2.61  | 0.56  | 12.13  |
| 46. Arthritis + Heart disease + Stroke | 7 (50.0) | 14  | 2.77  | 0.91  | 8.43  |
| 47. Arthritis + Heart disease + Osteoporosis | 34 (49.3) | 69  | 2.65  | 1.60  | 4.40  |
| 48. Arthritis + Hypertension + Pulmonary disease | 49 (39.2) | 125  | 2.09  | 1.41  | 3.08  |
| 49. Arthritis + Hypertension + Cancer | 20 (32.8) | 61  | 1.82  | 1.03  | 3.24  |
| 50. Arthritis + Hypertension + Stroke | 112 (47.5) | 236  | 2.69  | 2.02  | 3.58  |
| (Continued to next page) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 51. Arthritis + Hypertension + Osteoporosis | 348 (36.7) | 949  | 1.84  | 1.57  | 2.17  |
| 52. Arthritis + Pulmonary disease + Cancer | 2 (50.0) | 4  | 3.92  | 0.54  | 28.72  |
| 53. Arthritis + Pulmonary disease + Stroke | 1 (50.0) | 2  | 2.91  | 0.14  | 59.31  |
| 54. Arthritis + Pulmonary disease + Osteoporosis | 24 (53.3) | 45  | 3.13  | 1.64  | 5.95  |
| 55. Arthritis + Cancer + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  |
| 56. Arthritis + Cancer + Osteoporosis | 15 (62.5) | 24  | 7.80  | 3.21  | 18.96  |
| 57. Arthritis + Stroke + Osteoporosis | 10 (52.6) | 19  | 3.28  | 1.23  | 8.75  |
| 58. Diabetes + Heart disease + Hypertension | 116 (33.2) | 349  | 2.58  | 2.01  | 3.31  |
| 59. Diabetes + Heart disease + Pulmonary disease | 5 (50.0) | 10  | 4.09  | 1.12  | 14.98  |
| 60. Diabetes + Heart disease + Cancer | 2 (33.3) | 6  | 3.29  | 0.51  | 21.25  |
| 61. Diabetes + Heart disease + Stroke | 3 (33.3) | 9  | 1.55  | 0.35  | 6.88  |
| 62. Diabetes + Heart disease + Osteoporosis | 5 (45.5) | 11  | 3.37  | 0.98  | 11.58  |
| 63. Diabetes + Hypertension + Pulmonary disease | 27 (33.8) | 80  | 1.89  | 1.14  | 3.13  |
| 64. Diabetes + Hypertension + Cancer | 30 (39.5) | 76  | 3.32  | 2.01  | 5.50  |
| 65. Diabetes + Hypertension + Stroke | 84 (37.5) | 224  | 2.60  | 1.93  | 3.52  |
| 66. Diabetes + Hypertension + Osteoporosis | 57 (35.6) | 160  | 2.03  | 1.43  | 2.89  |
| 67. Diabetes + Pulmonary disease + Cancer | 2 (100.0) | 2  |  -  |  -  |  -  |
| 68. Diabetes + Pulmonary disease + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  |
| (Continued to next page) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 69. Diabetes + Pulmonary disease + Osteoporosis | 1 (33.3) | 3  | 2.31  | 0.20  | 26.76  |
| 70. Diabetes + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 71. Diabetes + Cancer + Osteoporosis | 0 (0.0) | 4  |  -  |  -  |  -  |
| 72. Diabetes + Stroke + Osteoporosis | 3 (100.0) | 3  |  -  |  -  |  -  |
| 73. Heart disease + Hypertension + Pulmonary disease | 12 (28.6) | 42  | 1.44  | 0.71  | 2.93  |
| 74. Heart disease + Hypertension + Cancer | 10 (38.5) | 26  | 3.18  | 1.39  | 7.30  |
| 75. Heart disease + Hypertension + Stroke | 27 (36.5) | 74  | 2.32  | 1.39  | 3.88  |
| 76. Heart disease + Hypertension + Osteoporosis | 27 (29.4) | 92  | 1.34  | 0.83  | 2.17  |
| 77. Heart disease + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |
| 78. Heart disease + Pulmonary disease + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  |
| 79. Heart disease + Pulmonary disease + Osteoporosis | 2 (66.7) | 3  | 4.44  | 0.40  | 49.39  |
| 80. Heart disease + Cancer + Stroke | 0 (0.0) | 2  |  -  |  -  |  -  |
| 81. Heart disease + Cancer + Osteoporosis | 2 (100.0) | 2  |  -  |  -  |  -  |
| 82. Heart disease + Stroke + Osteoporosis | 2 (100.0) | 2  |  -  |  -  |  -  |
| 83. Hypertension + Pulmonary disease + Cancer | 7 (77.8) | 9  | 10.77  | 1.95  | 59.60  |
| 84. Hypertension + Pulmonary disease + Stroke | 8 (33.3) | 24  | 2.07  | 0.83  | 5.15  |
| 85. Hypertension + Pulmonary disease + Osteoporosis | 8 (38.1) | 21  | 1.97  | 0.77  | 5.03  |
| 86. Hypertension + Cancer + Stroke | 5 (29.4) | 17  | 1.80  | 0.59  | 5.51  |
| (Continued to next page) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 87. Hypertension + Cancer + Osteoporosis | 7 (31.8) | 22  | 1.60  | 0.61  | 4.21  |
| 88. Hypertension + Stroke + Osteoporosis | 16 (42.1) | 38  | 2.69  | 1.35  | 5.36  |
| 89. Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 90. Pulmonary disease + Cancer + Osteoporosis | 2 (50.0) | 4  | 3.00  | 0.41  | 21.90  |
| 91. Pulmonary disease + Stroke + Osteoporosis | 0 (0.0) | 1  |  -  |  -  |  -  |
| 92. Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  - |  -  |
| Four |  |  |  |  |  |  |  |
| 93. Arthritis + Diabetes + Heart disease + Hypertension | 90 (45.9) | 196  | 2.75  | 2.02  | 3.75  |
| 94. Arthritis + Diabetes + Heart disease + Pulmonary disease | 2 (50.0) | 4  | 5.02  | 0.66  | 38.27  |
| 95. Arthritis + Diabetes + Heart disease + Cancer | 2 (100.0) | 2  |  -  |  -  |  -  |
| 96. Arthritis + Diabetes + Heart disease + Stroke | 1 (50.0) | 2  | 5.21  | 0.32  | 83.99  |
| 97. Arthritis + Diabetes + Heart disease + Osteoporosis | 4 (33.3) | 12  | 1.41  | 0.40  | 5.03  |
| 98. Arthritis + Diabetes + Hypertension + Pulmonary disease | 19 (51.4) | 37  | 3.04  | 1.52  | 6.10  |
| 99. Arthritis + Diabetes + Hypertension + Cancer | 15 (38.5) | 39  | 2.47  | 1.23  | 4.95  |
| 100. Arthritis + Diabetes + Hypertension + Stroke | 73 (57.9) | 126  | 4.75  | 3.22  | 7.00  |
| 101. Arthritis + Diabetes + Hypertension + Osteoporosis | 143 (42.6) | 336  | 2.28  | 1.78  | 2.91  |
| 102. Arthritis + Diabetes + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |
| 103. Arthritis + Diabetes + Pulmonary disease + Stroke | 1 (100.0) | 1  |  -  |  -  |  -  |
| (Continued to next page) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 104. Arthritis + Diabetes + Pulmonary disease + Osteoporosis | 2 (66.7) | 3  | 5.29 | 0.44 | 64.23 |
| 105. Arthritis + Diabetes + Cancer + Stroke | 1 (50.0) | 2  | 2.84  | 0.14  | 56.40  |
| 106. Arthritis + Diabetes + Cancer + Osteoporosis | 0 (0.0) | 1  |  -  |  -  |  -  |
| 107. Arthritis + Diabetes + Stroke + Osteoporosis | 5 (83.3) | 6  | 18.45  | 1.98  | 171.78  |
| 108. Arthritis + Heart disease + Hypertension + Pulmonary disease | 22 (61.1) | 36  | 4.07  | 2.00  | 8.30  |
| 109. Arthritis + Heart disease + Hypertension + Cancer | 3 (50.0) | 6  | 4.92  | 0.96  | 25.24  |
| 110. Arthritis + Heart disease + Hypertension + Stroke | 29 (58.0) | 50  | 4.53  | 2.48  | 8.29  |
| 111. Arthritis + Heart disease + Hypertension + Osteoporosis | 56 (38.6) | 145  | 1.94  | 1.35  | 2.79  |
| 112. Arthritis + Heart disease + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |
| 113. Arthritis + Heart disease + Pulmonary disease + Stroke |  -  |  -  |  -  |  -  |  -  |
| 114. Arthritis + Heart disease + Pulmonary disease + Osteoporosis | 4 (50.0) | 8  | 1.74  | 0.41  | 7.35  |
| 115. Arthritis + Heart disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 116. Arthritis + Heart disease + Cancer + Osteoporosis | 4 (100.0) | 4  |  -  |  -  |  -  |
| 117. Arthritis + Heart disease + Stroke + Osteoporosis | 1 (100.0) | 1  |  -  |  -  |  -  |
| 118. Arthritis + Hypertension + Pulmonary disease + Cancer | 3 (75.0) | 4  | 4.67  | 0.44  | 49.35  |
| 119. Arthritis + Hypertension + Pulmonary disease + Stroke | 10 (76.9) | 13  | 9.20  | 2.33  | 36.29  |
| 120. Arthritis + Hypertension + Pulmonary disease + Osteoporosis | 32 (50.8) | 63  | 2.70  | 1.58  | 4.61  |
| 121. Arthritis + Hypertension + Cancer + Stroke | 4 (44.4) | 9  | 2.51  | 0.61  | 10.40  |
| (Continued to next page) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 122. Arthritis + Hypertension + Cancer + Osteoporosis | 5 (17.9) | 28  | 0.77  | 0.28  | 2.10  |
| 123. Arthritis + Hypertension + Stroke + Osteoporosis | 56 (56.0) | 100  | 3.68  | 2.40  | 5.65  |
| 124. Arthritis + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 125. Arthritis + Pulmonary disease + Cancer + Osteoporosis | 1 (33.3) | 3  | 1.38  | 0.09  | 20.54  |
| 126. Arthritis + Pulmonary disease + Stroke + Osteoporosis | 1 (33.3) | 3  | 1.81  | 0.13  | 25.05  |
| 127. Arthritis + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 128. Diabetes + Heart disease + Hypertension + Pulmonary disease | 12 (48.0) | 25  | 3.55  | 1.55  | 80.10  |
| 129. Diabetes + Heart disease + Hypertension + Cancer | 5 (33.3) | 15  | 2.97  | 0.97  | 9.10  |
| 130. Diabetes + Heart disease + Hypertension + Stroke | 31 (53.5) | 58  | 5.34  | 3.03  | 9.39  |
| 131. Diabetes + Heart disease + Hypertension + Osteoporosis | 23 (54.8) | 42  | 5.13  | 2.69  | 9.76  |
| 132. Diabetes + Heart disease + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |
| 133. Diabetes + Heart disease + Pulmonary disease + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  |
| 134. Diabetes + Heart disease + Pulmonary disease + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 135. Diabetes + Heart disease + Cancer + Stroke | 1 (100.0) | 1  |  -  |  -  |  -  |
| 136. Diabetes + Heart disease + Cancer + Osteoporosis | 0 (0.0) | 1  |  -  |  -  |  -  |
| 137. Diabetes + Heart disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 138. Diabetes + Hypertension + Pulmonary disease + Cancer | 2 (66.7) | 3  | 17.37  | 1.40  | 215.12  |
| 139. Diabetes + Hypertension + Pulmonary disease + Stroke | 4 (36.4) | 11  | 1.54  | 0.42  | 5.67  |
| 140. Diabetes + Hypertension + Pulmonary disease + Osteoporosis | 1 (20.0) | 5  | 0.89  | 0.08  | 9.70  |
| (Continued to next page) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 141. Diabetes + Hypertension + Cancer + Stroke | 3 (37.5) | 8  | 3.66  | 0.84  | 15.92  |
| 142. Diabetes + Hypertension + Cancer + Osteoporosis | 1 (20.0) | 5  | 0.96  | 0.10  | 8.83  |
| 143. Diabetes + Hypertension + Stroke + Osteoporosis | 3 (25.0) | 12  | 1.26  | 0.33  | 4.92  |
| 144. Diabetes + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 145. Diabetes + Pulmonary disease + Cancer + Osteoporosis | 1 (50.0) | 2  | 4.12  | 0.25  | 67.67  |
| 146. Diabetes + Pulmonary disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 147. Diabetes + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 148. Heart disease + Hypertension + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |
| 149. Heart disease + Hypertension + Pulmonary disease + Stroke | 3 (42.9) | 7  | 6.23  | 1.36  | 28.55  |
| 150. Heart disease + Hypertension + Pulmonary disease + Osteoporosis | 2 (33.3) | 6  | 2.12  | 0.34  | 13.15  |
| 151. Heart disease + Hypertension + Cancer + Stroke | 3 (75.0) | 4  | 7.43  | 0.76  | 72.65  |
| 152. Heart disease + Hypertension + Cancer + Osteoporosis | 1 (33.3) | 3  | 1.32  | 0.11  | 16.40  |
| 153. Heart disease + Hypertension + Stroke + Osteoporosis | 4 (80.0) | 5  | 8.15  | 0.86  | 76.94  |
| 154. Heart disease + Pulmonary disease + Cancer + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  |
| 155. Heart disease + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 156. Heart disease + Pulmonary disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 157. Heart disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 158. Hypertension + Pulmonary disease + Cancer + Stroke | 1 (50.0) | 2  | 2.50  | 0.07  | 94.51  |
| (Continued to next page) |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 159. Hypertension + Pulmonary disease + Cancer + Osteoporosis | 1 (50.0) | 2  | 1.96  | 0.10  | 36.91  |
| 160. Hypertension + Pulmonary disease + Stroke + Osteoporosis | 1 (100.0) | 1  |  -  |  -  |  -  |
| 161. Hypertension + Cancer + Stroke + Osteoporosis | 2 (66.7) | 3  | 6.01  | 0.26  | 138.69  |
| 162. Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| Five |  |  |  |  |  |  |  |
| 163. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease | 11 (61.1) | 18 | 4.94  | 1.76  | 13.85  |
| 164. Arthritis + Diabetes + Heart disease + Hypertension + Cancer | 4 (80.0) | 5 | 21.74  | 2.00  | 236.57  |
| 165. Arthritis + Diabetes + Heart disease + Hypertension + Stroke | 17 (68.0) | 25 | 5.48  | 2.21  | 13.54  |
| 166. Arthritis + Diabetes + Heart disease + Hypertension + Osteoporosis | 43 (53.8) | 80 | 3.12  | 1.94  | 5.02  |
| 167. Arthritis + Diabetes + Heart disease + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |
| 168. Arthritis + Diabetes + Heart disease + Pulmonary disease + Stroke | 0 (0.0) | 1 |  -  |  -  |  -  |
| 169. Arthritis + Diabetes + Heart disease + Pulmonary disease + Osteoporosis | 0 (0.0) | 1 |  -  |  -  |  -  |
| 170. Arthritis + Diabetes + Heart disease + Cancer + Stroke | 0 (0.0) | 1 |  -  |  -  |  -  |
| 171. Arthritis + Diabetes + Heart disease + Cancer + Osteoporosis | 0 (0.0) | 2 |  -  |  -  |  -  |
| 172. Arthritis + Diabetes + Heart disease + Stroke + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  |
| 173. Arthritis + Diabetes + Hypertension + Pulmonary disease + Cancer | 0 (0.0) | 1 |  -  |  -  |  -  |
| 174. Arthritis + Diabetes + Hypertension + Pulmonary disease + Stroke | 4 (57.1) | 7 | 4.31  | 0.94  | 19.71  |
| 175. Arthritis + Diabetes + Hypertension + Pulmonary disease + Osteoporosis | 15 (65.2) | 23 | 3.69  | 1.49  | 9.16  |
| (Continued to next page) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 176. Arthritis + Diabetes + Hypertension + Cancer + Stroke | 2 (100.0) | 2 |  -  |  -  |  -  |
| 177. Arthritis + Diabetes + Hypertension + Cancer + Osteoporosis | 8 (57.1) | 14 | 2.93  | 0.94  | 9.11  |
| 178. Arthritis + Diabetes + Hypertension + Stroke + Osteoporosis | 19 (52.8) | 36 | 3.02  | 1.50  | 6.08  |
| 179. Arthritis + Diabetes + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 180. Arthritis + Diabetes + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 181. Arthritis + Diabetes + Pulmonary disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 182. Arthritis + Diabetes + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 183. Arthritis + Heart disease + Hypertension + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |
| 184. Arthritis + Heart disease + Hypertension + Pulmonary disease + Stroke | 1 (33.3) | 3 | 1.13  | 0.09  | 14.06  |
| 185. Arthritis + Heart disease + Hypertension + Pulmonary disease + Osteoporosis | 9 (52.9) | 17 | 3.38  | 1.25  | 9.12  |
| 186. Arthritis + Heart disease + Hypertension + Cancer + Stroke | 2 (66.7) | 3 | 12.13  | 1.03  | 143.07  |
| 187. Arthritis + Heart disease + Hypertension + Cancer + Osteoporosis | 4 (80.0) | 5 | 9.92  | 1.10  | 89.48  |
| 188. Arthritis + Heart disease + Hypertension + Stroke + Osteoporosis | 12 (63.2) | 19 | 3.73  | 1.37  | 10.15  |
| 189. Arthritis + Heart disease + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 190. Arthritis + Heart disease + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 191. Arthritis + Heart disease + Pulmonary disease + Stroke + Osteoporosis | 3 (75.0) | 4 | 9.84  | 1.00  | 96.88  |
| 192. Arthritis + Heart disease + Cancer + Stroke + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  |
| 193. Arthritis + Hypertension + Pulmonary disease + Cancer + Stroke | 0 (0.0) | 1 |  -  |  -  |  -  |
| (Continued to next page) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 194. Arthritis + Hypertension + Pulmonary disease + Cancer + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  |
| 195. Arthritis + Hypertension + Pulmonary disease + Stroke + Osteoporosis | 5 (62.5) | 8 | 3.74  | 0.81  | 17.27  |
| 196. Arthritis + Hypertension + Cancer + Stroke + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  |
| 197. Arthritis + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 198. Diabetes + Heart disease + Hypertension + Pulmonary disease + Cancer | 0 (0.0) | 1 |  -  |  -  |  -  |
| 199. Diabetes + Heart disease + Hypertension + Pulmonary disease + Stroke | 3 (60.0) | 5 | 8.79  | 1.28  | 60.39  |
| 200. Diabetes + Heart disease + Hypertension + Pulmonary disease + Osteoporosis | 2 (33.3) | 6 | 3.17  | 0.56  | 17.77  |
| 201. Diabetes + Heart disease + Hypertension + Cancer + Stroke | 1 (100.0) | 1 |  -  |  -  |  -  |
| 202. Diabetes + Heart disease + Hypertension + Cancer + Osteoporosis | 0 (0.0) | 1 |  -  |  -  |  -  |
| 203. Diabetes + Heart disease + Hypertension + Stroke + Osteoporosis | 2 (100.0) | 2 |  -  |  -  |  -  |
| 204. Diabetes + Heart disease + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 205. Diabetes + Heart disease + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 206. Diabetes + Heart disease + Pulmonary disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 207. Diabetes + Heart disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 208. Diabetes + Hypertension + Pulmonary disease + Cancer + Stroke | 0 (0.0) | 2 |  -  |  -  |  -  |
| 209. Diabetes + Hypertension + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 210. Diabetes + Hypertension + Pulmonary disease + Stroke + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  |
| 211. Diabetes + Hypertension + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| (Continued to next page) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 212. Diabetes + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 213. Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 214. Heart disease + Hypertension + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 215. Heart disease + Hypertension + Pulmonary disease + Stroke + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  |
| 216. Heart disease + Hypertension + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 217. Heart disease + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 218. Hypertension + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| Six |  |  |  |  |  |  |  |
| 219. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |
| 220. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease + Stroke |  -  |  -  |  -  |  -  |  -  |
| 221. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease + Osteoporosis | 8 (80.0) | 10 | 6.90  | 1.38  | 34.62  |
| 222. Arthritis + Diabetes + Heart disease + Hypertension + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 223. Arthritis + Diabetes + Heart disease + Hypertension + Cancer + Osteoporosis | 0 (0.0) | 2 |  -  |  -  |  -  |
| 224. Arthritis + Diabetes + Heart disease + Hypertension + Stroke + Osteoporosis | 10 (52.6) | 19 | 2.28  | 0.85  | 6.09  |
| 225. Arthritis + Diabetes + Heart disease + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 226. Arthritis + Diabetes + Heart disease + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 227. Arthritis + Diabetes + Heart disease + Pulmonary disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 228. Arthritis + Diabetes + Heart disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| (Continued to next page) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| 229. Arthritis + Diabetes + Hypertension + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 230. Arthritis + Diabetes + Hypertension + Pulmonary disease + Cancer + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  |
| 231. Arthritis + Diabetes + Hypertension + Pulmonary disease + Stroke + Osteoporosis | 1 (50.0) | 2 | 2.56  | 0.16  | 41.14  |
| 232. Arthritis + Diabetes + Hypertension + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 233. Arthritis + Diabetes + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 234. Arthritis + Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 235. Arthritis + Heart disease + Hypertension + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 236. Arthritis + Heart disease + Hypertension + Pulmonary disease + Stroke + Osteoporosis | 1 (50.0) | 2 | 5.53  | 0.30  | 103.61  |
| 237. Arthritis + Heart disease + Hypertension + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 238. Arthritis + Heart disease + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 239. Arthritis + Hypertension + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 240. Diabetes + Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke | 0 (0.0) | 1 |  -  |  -  |  -  |
| 241. Diabetes + Heart disease + Hypertension + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 242. Diabetes + Heart disease + Hypertension + Pulmonary disease + Stroke + Osteoporosis | 0 (0.0) | 1 |  -  |  -  |  -  |
| 243. Diabetes + Heart disease + Hypertension + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 244. Diabetes + Heart disease + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 245. Diabetes + Hypertension + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 246. Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| (Continued to next page) |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Supplementary Material 3. Continued |  |  |  |  |  |  |  |
| 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Chronic condition combinations | Depression |
| Yes | Total | OR | 95% CI |
| N (%) | N |
| Seven |  |  |  |  |  |  |  |
| 247. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |
| 248. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease + Cancer + Osteoporosis | 0 (0.0) | 1 |  -  |  -  |  -  |
| 249. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease + Stroke + Osteoporosis | 2 (66.7) | 3 | 2.06  | 0.13  | 32.98  |
| 250. Arthritis + Diabetes + Heart disease + Hypertension + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 251. Arthritis + Diabetes + Heart disease + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 252. Arthritis + Diabetes + Hypertension + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 253. Arthritis + Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| 254. Diabetes + Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| Eight |  |  |  |  |  |  |  |
| 255. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |
| Adjusted for gender, age, marital status, living arrangement, education, type of insurance, current smoking, lack of exercise, high-risk alcohol drinking, restriction on activities of daily living, frequency of contact with people, other chronic conditions, and year.  |
|