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| Supplementary Material 4. The association between chronic conditions combinations and depression by gender |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| Zero | 454 (13.9) | 3259  | 1.00  |  | 406 (17.9) | 2264  | 1.00  |  |
| One |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Arthritis | 191 (27.7) | 689  | 1.61  | 1.30  | 1.98  | 459 (29.7) | 1547  | 1.49  | 1.27  | 1.75  |
| 2. Diabetes | 60 (15.0) | 401  | 1.16  | 0.85  | 1.58  | 83 (26.4) | 315  | 1.67  | 1.25  | 2.24  |
| 3. Heart disease | 56 (18.0) | 312  | 1.14  | 0.83  | 1.58  | 60 (30.2) | 199  | 1.74  | 1.24  | 2.46  |
| 4. Hypertension | 332 (13.7) | 2417  | 1.00  | 0.85  | 1.17  | 461 (20.4) | 2261  | 1.06  | 0.91  | 1.24  |
| 5. Pulmonary disease | 69 (30.9) | 223  | 1.94  | 1.41  | 2.68  | 23 (27.1) | 85  | 1.30  | 0.78  | 2.18  |
| 6. Cancer | 67 (31.0) | 216  | 2.88  | 2.08  | 3.98  | 38 (44.7) | 85  | 3.69  | 2.30  | 5.90  |
| 7. Stroke | 52 (36.6) | 142  | 2.87  | 1.95  | 4.20  | 27 (42.2) | 64  | 2.71  | 1.59  | 4.62  |
| 8. Osteoporosis | 20 (42.6) | 47  | 2.53  | 1.34  | 4.77  | 91 (19.7) | 461  | 1.02  | 0.78  | 1.34  |
| Two |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9. Arthritis + Diabetes | 29 (31.5) | 92  | 2.35  | 1.45  | 3.81  | 74 (31.8) | 233  | 1.86  | 1.36  | 2.53  |
| 10. Arthritis + Heart disease | 30 (38.5) | 78  | 2.68  | 1.62  | 4.43  | 67 (36.6) | 183  | 1.92  | 1.37  | 2.68  |
| 11. Arthritis + Hypertension | 151 (28.8) | 585  | 1.51  | 1.20  | 1.89  | 648 (31.7) | 2043  | 1.59  | 1.37  | 1.85  |
| 12. Arthritis + Pulmonary disease | 23 (41.8) | 55  | 2.93  | 1.65  | 5.20  | 26 (36.1) | 72  | 1.80  | 1.07  | 3.03  |
| 13. Arthritis + Cancer | 12 (36.4) | 33  | 2.09  | 0.96  | 4.52  | 12 (26.7) | 45  | 1.20  | 0.59  | 2.47  |
| 14. Arthritis + Stroke | 11 (47.8) | 23  | 3.11  | 1.24  | 7.78  | 35 (57.4) | 61  | 4.43  | 2.55  | 7.71  |
| 15. Arthritis + Osteoporosis | 16 (35.6) | 45  | 1.80  | 0.91  | 3.56  | 236 (33.2) | 712  | 1.60  | 1.31  | 1.95  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 16. Diabetes + Heart disease | 15 (21.4) | 70  | 1.68  | 0.91  | 3.10  | 20 (33.9) | 59  | 2.07  | 1.15  | 3.73  |
| 17. Diabetes + Hypertension | 195 (21.2) | 921  | 1.57  | 1.28  | 1.92  | 242 (26.7) | 907  | 1.55  | 1.28  | 1.88  |
| 18. Diabetes + Pulmonary disease | 10 (55.6) | 18  | 6.02  | 2.19  | 16.58  | 2 (33.3) | 6  | 1.45  | 0.24  | 8.86  |
| 19. Diabetes + Cancer | 17 (38.6) | 44  | 3.76  | 1.92  | 7.38  | 7 (46.7) | 15  | 4.66  | 1.62  | 13.37  |
| 20. Diabetes + Stroke | 20 (54.1) | 37  | 5.60  | 2.72  | 11.51  | 10 (50.0) | 20  | 3.64  | 1.38  | 9.65  |
| 21. Diabetes + Osteoporosis | 0 (0.0) | 3  |  -  |  -  |  -  | 17 (27.0) | 63  | 1.48  | 0.81  | 2.70  |
| 22. Heart disease + Hypertension | 86 (22.8) | 377  | 1.81  | 1.37  | 2.39  | 74 (22.0) | 336  | 1.11  | 0.82  | 1.48  |
| 23. Heart disease + Pulmonary disease | 16 (45.7) | 35  | 3.11  | 1.52  | 6.36  | 4 (57.1) | 7  | 5.10  | 1.00  | 26.01  |
| 24. Heart disease + Cancer | 6 (35.3) | 17  | 3.27  | 1.05  | 10.02  | 1 (12.5) | 8  | 0.71  | 0.08  | 6.07  |
| 25. Heart disease + Stroke | 8 (42.1) | 19  | 2.61  | 0.95  | 7.13  | 3 (27.3) | 11  | 0.90  | 0.23  | 3.52  |
| 26. Heart disease + Osteoporosis | 3 (42.9) | 7  | 3.28  | 0.70  | 15.32  | 16 (33.3) | 48  | 1.63  | 0.86  | 3.08  |
| 27. Hypertension + Pulmonary disease | 33 (28.0) | 118  | 1.80  | 1.16  | 2.81  | 29 (39.2) | 74  | 2.24  | 1.35  | 3.72  |
| 28. Hypertension + Cancer | 31 (30.1) | 103  | 2.44  | 1.54  | 3.87  | 17 (28.3) | 60  | 1.86  | 1.01  | 3.42  |
| 29. Hypertension + Stroke | 111 (34.9) | 318  | 2.31  | 1.76  | 3.05  | 84 (43.1) | 195  | 2.63  | 1.90  | 3.63  |
| 30. Hypertension + Osteoporosis | 16 (34.0) | 47  | 2.24  | 1.16  | 4.34  | 155 (28.9) | 536  | 1.43  | 1.14  | 1.80  |
| 31. Pulmonary disease + Cancer | 5 (41.7) | 12  | 3.43  | 0.99  | 11.85  | 1 (50.0) | 2  | 6.57  | 0.39  | 112.08  |
| 32. Pulmonary disease + Stroke | 5 (83.3) | 6  | 18.15  | 1.95  | 169.07  | 5 (55.6) | 9  | 4.01  | 1.01  | 15.86  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 33. Pulmonary disease + Osteoporosis | 2 (40.0) | 5  | 2.23  | 0.30  | 16.30  | 8 (33.3) | 24  | 2.18  | 0.89  | 5.34  |
| 34. Cancer + Stroke | 3 (50.0) | 6  | 4.50  | 0.73  | 27.92  | 2 (66.7) | 3  | 3.11  | 0.28  | 34.52  |
| 35. Cancer + Osteoporosis | 0 (0.0) | 1  |  -  |  -  |  -  | 8 (38.1) | 21  | 3.22  | 1.23  | 8.43  |
| 36. Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 4 (26.7) | 15  | 1.09  | 0.32  | 3.74  |
| Three |  |  |  |  |  |  |  |  |  |  |  |  |
| 37. Arthritis + Diabetes + Heart disease | 7 (46.7) | 15  | 3.29  | 1.09  | 10.00  | 13 (39.4) | 33  | 2.02  | 0.96  | 4.26  |
| 38. Arthritis + Diabetes + Hypertension | 84 (33.6) | 250  | 2.25  | 1.66  | 3.06  | 269 (36.8) | 732  | 1.92  | 1.58  | 2.34  |
| 39. Arthritis + Diabetes + Pulmonary disease | 3 (33.3) | 9  | 2.12  | 0.50  | 9.12  | 3 (33.3) | 9  | 1.44  | 0.34  | 6.03  |
| 40. Arthritis + Diabetes + Cancer | 1 (20.0) | 5  | 0.71  | 0.07  | 7.16  | 8 (53.3) | 15  | 4.99  | 1.69  | 14.75  |
| 41. Arthritis + Diabetes + Stroke | 1 (25.0) | 4  | 0.99  | 0.09  | 11.12  | 6 (54.6) | 11  | 4.97  | 1.31  | 18.82  |
| 42. Arthritis + Diabetes + Osteoporosis | 0 (0.0) | 4  |  -  |  -  |  -  | 36 (32.4) | 111  | 1.46  | 0.94  | 2.26  |
| 43. Arthritis + Heart disease + Hypertension | 26 (28.3) | 92  | 1.76  | 1.08  | 2.88  | 139 (42.5) | 327  | 2.34  | 1.80  | 3.04  |
| 44. Arthritis + Heart disease + Pulmonary disease | 1 (33.3) | 3  | 0.66  | 0.06  | 7.68  | 6 (66.7) | 9  | 4.19  | 1.00  | 17.48  |
| 45. Arthritis + Heart disease + Cancer | 3 (42.9) | 7  | 2.65  | 0.55  | 12.68  |  -  |  -  |  -  |  -  |  -  |
| 46. Arthritis + Heart disease + Stroke | 3 (50.0) | 6  | 2.61  | 0.45  | 15.07  | 4 (50.0) | 8  | 2.72  | 0.63  | 11.76  |
| 47. Arthritis + Heart disease + Osteoporosis | 3 (75.0) | 4  | 8.26  | 0.77  | 88.36  | 31 (47.7) | 65  | 2.44  | 1.45  | 4.12  |
| 48. Arthritis + Hypertension + Pulmonary disease | 14 (37.8) | 37  | 2.29  | 1.11  | 4.69  | 35 (39.8) | 88  | 1.94  | 1.22  | 3.09  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 49. Arthritis + Hypertension + Cancer | 3 (21.4) | 14  | 0.86  | 0.20  | 3.70  | 17 (36.2) | 47  | 2.03  | 1.08  | 3.82  |
| 50. Arthritis + Hypertension + Stroke | 34 (45.3) | 75  | 2.90  | 1.73  | 4.84  | 78 (48.5) | 161  | 2.55  | 1.80  | 3.62  |
| 51. Arthritis + Hypertension + Osteoporosis | 13 (31.7) | 41  | 1.39  | 0.67  | 2.86  | 335 (36.9) | 908  | 1.83  | 1.53  | 2.02  |
| 52. Arthritis + Pulmonary disease + Cancer | 2 (66.7) | 3  | 6.88  | 0.59  | 79.95  | 0 (0.0) | 1  |  -  |  -  |  -  |
| 53. Arthritis + Pulmonary disease + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  | 1 (100.0) | 1  |  -  |  -  |  -  |
| 54. Arthritis + Pulmonary disease + Osteoporosis | 4 (80.0) | 5  | 6.31  | 0.59  | 67.45  | 20 (50.0) | 40  | 2.80  | 1.42  | 5.53  |
| 55. Arthritis + Cancer + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 56. Arthritis + Cancer + Osteoporosis | 1 (100.0) | 1  |  -  |  -  |  -  | 14 (60.9) | 23  | 7.02  | 2.85  | 17.29  |
| 57. Arthritis + Stroke + Osteoporosis | 2 (100.0) | 2  |  -  |  -  |  -  | 8 (47.1) | 17  | 2.84  | 1.02  | 7.95  |
| 58. Diabetes + Heart disease + Hypertension | 52 (28.6) | 182  | 2.63  | 1.84  | 3.77  | 64 (38.3) | 167  | 2.45  | 1.72  | 3.47  |
| 59. Diabetes + Heart disease + Pulmonary disease | 5 (50.0) | 10  | 3.98  | 1.06  | 14.95  |  -  |  -  |  -  |  -  |  -  |
| 60. Diabetes + Heart disease + Cancer | 2 (40.0) | 5  | 4.64  | 0.58  | 36.88  | 0 (0.0) | 1  |  -  |  -  |  -  |
| 61. Diabetes + Heart disease + Stroke | 1 (14.3) | 7  | 0.72  | 0.08  | 6.41  | 2 (100.0) | 2  |  -  |  -  |  -  |
| 62. Diabetes + Heart disease + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 5 (45.5) | 11  | 3.27  | 0.95  | 11.31  |
| 63. Diabetes + Hypertension + Pulmonary disease | 14 (26.4) | 53  | 1.38  | 0.70  | 2.72  | 13 (48.2) | 27  | 2.79  | 1.24  | 6.25  |
| 64. Diabetes + Hypertension + Cancer | 15 (31.3) | 48  | 2.49  | 1.27  | 4.89  | 15 (53.6) | 28  | 4.98  | 2.20  | 11.28  |
| 65. Diabetes + Hypertension + Stroke | 51 (37.5) | 136  | 2.76  | 1.86  | 4.11  | 33 (37.5) | 88  | 2.16  | 1.35  | 3.47  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 66. Diabetes + Hypertension + Osteoporosis | 6 (42.9) | 14  | 2.43  | 0.77  | 7.63  | 51 (34.9) | 146  | 1.93  | 1.32  | 2.81  |
| 67. Diabetes + Pulmonary disease + Cancer | 2 (100.0) | 2  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 68. Diabetes + Pulmonary disease + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 69. Diabetes + Pulmonary disease + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 1 (33.3) | 3  | 2.30  | 0.20  | 26.56  |
| 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 | 6 (24.0) | 25  | 1.17  | 0.44  | 3.16  | 6 (35.3) | 17  | 1.75  | 0.62  | 4.93  |
| 74. Heart disease + Hypertension + Cancer | 6 (35.3) | 17  | 3.51  | 1.24  | 9.95  | 4 (44.4) | 9  | 2.90  | 0.74  | 11.42  |
| 75. Heart disease + Hypertension + Stroke | 16 (32.0) | 50  | 1.84  | 0.95  | 3.55  | 11 (45.8) | 24  | 3.09  | 1.30  | 7.34  |
| 76. Heart disease + Hypertension + Osteoporosis | 3 (37.5) | 8  | 2.37  | 0.53  | 10.56  | 24 (28.6) | 84  | 1.27  | 0.76  | 2.11  |
| 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  | 4.26  | 0.38  | 47.36  |
| 80. Heart disease + Cancer + Stroke | 0 (0.0) | 2  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 81. Heart disease + Cancer + Osteoporosis | 1 (100.0) | 1  |  -  |  -  |  -  | 1 (100.0) | 1  |  -  |  -  |  -  |
| 82. Heart disease + Stroke + Osteoporosis | 1 (100.0) | 1  |  -  |  -  |  -  | 1 (100.0) | 1  |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 83. Hypertension + Pulmonary disease + Cancer | 6 (85.7) | 7  | 23.01  | 2.38  | 222.18  | 1 (50.0) | 2  | 1.63  | 0.06  | 46.39  |
| 84. Hypertension + Pulmonary disease + Stroke | 7 (36.8) | 19  | 2.13  | 0.77  | 5.93  | 1 (20.0) | 5  | 1.23  | 0.12  | 12.85  |
| 85. Hypertension + Pulmonary disease + Osteoporosis | 0 (0.0) | 1  |  -  |  -  |  -  | 8 (40.0) | 20  | 2.10  | 0.81  | 5.44  |
| 86. Hypertension + Cancer + Stroke | 3 (27.3) | 11  | 2.04  | 0.50  | 8.39  | 2 (33.3) | 6  | 1.40  | 0.23  | 8.76  |
| 87. Hypertension + Cancer + Osteoporosis | 2 (100.0) | 2  |  -  |  -  |  -  | 5 (25.0) | 20  | 1.06  | 0.36  | 3.11  |
| 88. Hypertension + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 16 (42.1) | 38  | 2.73  | 1.37  | 5.43  |
| 89. Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 90. Pulmonary disease + Cancer + Osteoporosis | 0 (0.0) | 1  |  -  |  -  |  -  | 2 (66.7) | 3  | 6.03  | 0.53  | 68.47  |
| 91. Pulmonary disease + Stroke + Osteoporosis | 0 (0.0) | 1  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 92. Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  - |  -  |
| Four |  |  |  |  |  |  |  |  |  |  |  |  |
| 93. Arthritis + Diabetes + Heart disease + Hypertension | 13 (48.2) | 27  | 4.18  | 1.85  | 9.42  | 77 (45.6) | 169  | 2.53  | 1.80  | 3.56  |
| 94. Arthritis + Diabetes + Heart disease + Pulmonary disease | 1 (50.0) | 2  | 3.42  | 0.18  | 66.26  | 1 (50.0) | 2  | 6.48  | 0.40  | 105.42  |
| 95. Arthritis + Diabetes + Heart disease + Cancer | 2 (100.0) | 2  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 96. Arthritis + Diabetes + Heart disease + Stroke | 0 (0.0) | 1  |  -  |  -  |  -  | 1 (100.0) | 1  |  -  |  -  |  -  |
| 97. Arthritis + Diabetes + Heart disease + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 4 (33.3) | 12  | 1.44  | 0.41  | 5.12  |
| 98. Arthritis + Diabetes + Hypertension + Pulmonary disease | 6 (50.0) | 12  | 4.30  | 1.28  | 14.42  | 13 (52.0) | 25  | 2.61  | 1.13  | 6.06  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 99. Arthritis + Diabetes + Hypertension + Cancer | 3 (42.9) | 7  | 4.37  | 0.91  | 20.89  | 12 (37.5) | 32  | 2.13  | 0.98  | 4.62  |
| 100. Arthritis + Diabetes + Hypertension + Stroke | 23 (53.5) | 43  | 4.51  | 2.31  | 8.82  | 50 (60.2) | 83  | 4.65  | 2.88  | 7.52  |
| 101. Arthritis + Diabetes + Hypertension + Osteoporosis | 4 (44.4) | 9  | 3.31  | 0.80  | 13.65  | 139 (42.5) | 327  | 2.25  | 1.73  | 2.91  |
| 102. Arthritis + Diabetes + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 103. Arthritis + Diabetes + Pulmonary disease + Stroke | 1 (100.0) | 1  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 104. Arthritis + Diabetes + Pulmonary disease + Osteoporosis | 1 (100.0) | 1  |  -  |  -  |  -  | 1 (50.0) | 2  | 4.01  | 0.25  | 65.22  |
| 105. Arthritis + Diabetes + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  | 1 (50.0) | 2  | 2.84  | 0.15  | 53.29  |
| 106. Arthritis + Diabetes + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 0 (0.0) | 1  |  -  |  -  |  -  |
| 107. Arthritis + Diabetes + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 5 (83.3) | 6  | 17.57  | 1.91  | 162.00  |
| 108. Arthritis + Heart disease + Hypertension + Pulmonary disease | 8 (66.7) | 12  | 8.31  | 2.30  | 30.08  | 14 (58.3) | 24  | 3.02  | 1.29  | 7.05  |
| 109. Arthritis + Heart disease + Hypertension + Cancer |  -  |  -  |  -  |  -  |  -  | 3 (50.0) | 6  | 4.67  | 0.91  | 23.89  |
| 110. Arthritis + Heart disease + Hypertension + Stroke | 10 (52.6) | 19  | 3.79  | 1.35  | 10.61  | 19 (61.3) | 31  | 4.78  | 2.25  | 10.19  |
| 111. Arthritis + Heart disease + Hypertension + Osteoporosis | 1 (16.7) | 6  | 0.53  | 0.06  | 5.03  | 55 (39.6) | 139  | 1.97  | 1.35  | 2.88  |
| 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  | 1.72  | 0.41  | 7.23  |
| 115. Arthritis + Heart disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 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  | 4.56  | 0.44  | 47.76  |
| 119. Arthritis + Hypertension + Pulmonary disease + Stroke | 5 (71.4) | 7  | 5.13  | 0.92  | 28.75  | 5 (83.3) | 6  | 17.14  | 1.70  | 172.39  |
| 120. Arthritis + Hypertension + Pulmonary disease + Osteoporosis | 1 (50.0) | 2  | 4.11  | 0.26  | 66.24  | 31 (50.8) | 61  | 2.69  | 1.56  | 4.65  |
| 121. Arthritis + Hypertension + Cancer + Stroke | 1 (33.3) | 3  | 3.84  | 0.35  | 42.65  | 3 (50.0) | 6  | 2.18  | 0.41  | 11.59  |
| 122. Arthritis + Hypertension + Cancer + Osteoporosis | 0 (0.0) | 4  |  -  |  -  |  -  | 5 (20.8) | 24  | 0.97  | 0.35  | 2.69  |
| 123. Arthritis + Hypertension + Stroke + Osteoporosis | 4 (57.1) | 7  | 7.68  | 1.63  | 36.25  | 52 (55.9) | 93  | 3.46  | 2.21  | 5.42  |
| 124. Arthritis + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 125. Arthritis + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 1 (33.3) | 3  | 1.34  | 0.09  | 21.03  |
| 126. Arthritis + Pulmonary disease + Stroke + Osteoporosis | 1 (100.0) | 1  |  -  |  -  |  -  | 0 (0.0) | 2  |  -  |  -  |  -  |
| 127. Arthritis + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 128. Diabetes + Heart disease + Hypertension + Pulmonary disease | 7 (50.0) | 14  | 4.69  | 1.53  | 14.42  | 5 (45.5) | 11  | 2.28  | 0.68  | 7.73  |
| 129. Diabetes + Heart disease + Hypertension + Cancer | 5 (41.7) | 12  | 4.09  | 1.20  | 13.96  | 0 (0.0) | 3  |  -  |  -  |  -  |
| 130. Diabetes + Heart disease + Hypertension + Stroke | 19 (50.0) | 38  | 5.62  | 2.78  | 11.38  | 12 (60.0) | 20  | 4.76  | 1.83  | 12.40  |
| 131. Diabetes + Heart disease + Hypertension + Osteoporosis | 2 (50.0) | 4  | 4.86  | 0.66  | 35.74  | 21 (55.3) | 38  | 5.09  | 2.58  | 10.06  |
| 132. Diabetes + Heart disease + Pulmonary disease + Cancer |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 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 | 1 (50.0) | 2  | 5.95  | 0.37  | 96.06  | 1 (100.0) | 1  |  -  |  -  |  -  |
| 139. Diabetes + Hypertension + Pulmonary disease + Stroke | 4 (50.0) | 8  | 3.49  | 0.76  | 16.08  | 0 (0.0) | 3  |  -  |  -  |  -  |
| 140. Diabetes + Hypertension + Pulmonary disease + Osteoporosis | 0 (0.0) | 2  |  -  |  -  |  -  | 1 (33.3) | 3  | 1.57  | 0.11  | 23.34  |
| 141. Diabetes + Hypertension + Cancer + Stroke | 2 (28.6) | 7  | 2.21  | 0.41  | 11.96  | 1 (100.0) | 1  |  -  |  -  |  -  |
| 142. Diabetes + Hypertension + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 1 (20.0) | 5  | 0.87  | 0.09  | 8.13  |
| 143. Diabetes + Hypertension + Stroke + Osteoporosis | 1 (33.3) | 3  | 1.16  | 0.10  | 13.63  | 2 (22.2) | 9  | 1.07  | 0.21  | 5.49  |
| 144. Diabetes + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 145. Diabetes + Pulmonary disease + Cancer + Osteoporosis | 1 (50.0) | 2  | 3.54  | 0.21  | 61.29  |  -  |  -  |  -  |  -  |  -  |
| 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 (60.0) | 5  | 12.88  | 2.10  | 79.07  | 0 (00.0) | 2  |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 150. Heart disease + Hypertension + Pulmonary disease + Osteoporosis | 0 (0.0) | 2  |  -  |  -  |  -  | 2 (50.0) | 4  | 3.18  | 0.40  | 25.29  |
| 151. Heart disease + Hypertension + Cancer + Stroke | 1 (100.0) | 1  |  -  |  -  |  -  | 2 (66.7) | 3  | 4.80  | 0.43  | 54.21  |
| 152. Heart disease + Hypertension + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 1 (33.3) | 3  | 1.25  | 0.10  | 15.18  |
| 153. Heart disease + Hypertension + Stroke + Osteoporosis | 1 (50.0) | 2  | 1.18  | 0.06  | 24.81  | 3 (100.0) | 3  |  -  |  -  |  -  |
| 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  | 1.87  | 0.03  | 125.28  |  -  |  -  |  -  |  -  |  -  |
| 159. Hypertension + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 1 (50.0) | 2  | 2.11  | 0.11  | 40.10  |
| 160. Hypertension + Pulmonary disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 1 (100.0) | 1  |  -  |  -  |  -  |
| 161. Hypertension + Cancer + Stroke + Osteoporosis | 1 (100.0) | 1  |  -  |  -  |  -  | 1 (50.0) | 2  | 4.30  | 0.14  | 137.08  |
| 162. Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| Five |  |  |  |  |  |  |  |  |  |  |  |  |
| 163. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease | 4 (100.0) | 4 |  -  |  -  |  -  | 7 (50.0) | 14 | 2.27  | 0.75  | 6.91  |
| 164. Arthritis + Diabetes + Heart disease + Hypertension + Cancer | 1 (50.0) | 2 | 5.96  | 0.24  | 148.22  | 3 (100.0) | 3 |  -  |  -  |  -  |
| 165. Arthritis + Diabetes + Heart disease + Hypertension + Stroke | 5 (55.6) | 9 | 4.15  | 1.00  | 17.34  | 12 (75.0) | 16 | 6.45  | 1.95  | 21.40  |
| 166. Arthritis + Diabetes + Heart disease + Hypertension + Osteoporosis | 5 (83.3) | 6 | 13.69  | 1.48  | 126.69  | 38 (51.4) | 74 | 2.85  | 1.73  | 4.68  |
| 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 | 1 (25.0) | 4 | 1.13  | 0.11  | 11.53  | 3 (100.0) | 3 |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 175. Arthritis + Diabetes + Hypertension + Pulmonary disease + Osteoporosis | 0 (0.0) | 1 |  -  |  -  |  -  | 15 (68.2) | 22 | 4.21  | 1.63  | 10.87  |
| 176. Arthritis + Diabetes + Hypertension + Cancer + Stroke | 1 (100.0) | 1 |  -  |  -  |  -  | 1 (100.0) | 1 |  -  |  -  |  -  |
| 177. Arthritis + Diabetes + Hypertension + Cancer + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  | 7 (53.9) | 13 | 2.67  | 0.83  | 8.60  |
| 178. Arthritis + Diabetes + Hypertension + Stroke + Osteoporosis | 3 (75.0) | 4 | 15.61  | 1.42  | 171.92  | 16 (50.0) | 32 | 2.51  | 1.20  | 5.26  |
| 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 (50.0) | 2 | 1.87  | 0.08  | 44.12  | 0 (0.0) | 1 |  -  |  -  |  -  |
| 185. Arthritis + Heart disease + Hypertension + Pulmonary disease + Osteoporosis | 2 (50.0) | 4 | 6.48  | 0.86  | 48.84  | 7 (53.9) | 13 | 2.75  | 0.90  | 8.38  |
| 186. Arthritis + Heart disease + Hypertension + Cancer + Stroke | 1 (50.0) | 2 | 6.30  | 0.35  | 113.31  | 1 (100.0) | 1 |  -  |  -  |  -  |
| 187. Arthritis + Heart disease + Hypertension + Cancer + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  | 3 (75.0) | 4 | 7.42  | 0.76  | 72.64  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 188. Arthritis + Heart disease + Hypertension + Stroke + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  | 11 (61.1) | 18 | 3.51  | 1.27  | 9.68  |
| 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 | 10.07  | 1.02  | 99.19  |
| 192. Arthritis + Heart disease + Cancer + Stroke + Osteoporosis | 1 (100.0) | 1 |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 193. Arthritis + Hypertension + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  | 0 (0.0) | 1 |  -  |  -  |  -  |
| 194. Arthritis + Hypertension + Pulmonary disease + Cancer + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 1 (100.0) | 1 |  -  |  -  |  -  |
| 195. Arthritis + Hypertension + Pulmonary disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 5 (62.5) | 8 | 3.94  | 0.86  | 18.07  |
| 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 | 7.91  | 1.11  | 56.56  |  -  |  -  |  -  |  -  |  -  |
| 200. Diabetes + Heart disease + Hypertension + Pulmonary disease + Osteoporosis | 0 (0.0) | 2 |  -  |  -  |  -  | 2 (50.0) | 4 | 6.95  | 0.94  | 51.38  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 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 | 1 (100.0) | 1 |  -  |  -  |  -  | 1 (100.0) | 1 |  -  |  -  |  -  |
| 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 |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 212. Diabetes + Pulmonary disease + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 213. Heart disease + Hypertension + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 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 | 0 (0.0) | 1 |  -  |  -  |  -  | 8 (88.9) | 9 | 13.06  | 1.56  | 109.15  |
| 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 | 0 (0.0) | 2 |  -  |  -  |  -  | 10 (58.8) | 17 | 3.16  | 1.12  | 8.94  |
| 225. Arthritis + Diabetes + Heart disease + Pulmonary disease + Cancer + Stroke |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 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 |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 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 | 2.67  | 0.17  | 42.89  |
| 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 | 5.24  | 0.28  | 97.23  |
| 237. Arthritis + Heart disease + Hypertension + Cancer + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 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 |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |  -  |
| 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 |  -  |  -  |  -  |
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| Supplementary Material 4. Continued |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chronic condition combinations | Men | Women |
| Depression | Depression |
| Yes | Total | OR | 95% CI | Yes | Total | OR | 95% CI |
| N (%) | N | N (%) | N |
| 249. Arthritis + Diabetes + Heart disease + Hypertension + Pulmonary disease + Stroke + Osteoporosis |  -  |  -  |  -  |  -  |  -  | 2 (66.7) | 3 | 2.04  | 0.15  | 28.61  |
| 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 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.  |
|