Supplementary tables

**Table 4A Multivariate model results for exclusion from social relationships among empty nesters**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model 1 | Model 2 | Model 3 |
|  | Coeff (95%CI) | Coeff (95%CI) | Coeff (95%CI) |
| Constant | 8.25(8.12,8.38) \*\*\* | -1.95(-3.19,-0.71) \*\*\* | -1.92(-3.16,-0.68) \*\*\* |
| **Living arrangement(ref: With spouse only)** | | | |
|
| Alone | 0.16(-0.09,0.41) | -0.6(-0.85,-0.35) \*\*\* | -0.32(-0.63,-0.02) \*\* |
| **Age** |  | 0.14(0.13,0.16) \*\*\* | 0.14(0.13,0.16) \*\*\* |
| **Female (ref: Male)** |  | 0.49(0.27,0.71) \*\*\* | 0.47(0.25,0.69) \*\*\* |
| **Non-Han (ref: Han-Chinese)** |  | 0.85(0.35,1.35) \*\*\* | 0.85(0.35,1.35) \*\*\* |
| **Rural** **(ref: Urban)** |  | 0.34(0.06,0.63) \*\* | 0.56(0.24,0.87) \*\*\* |
| **Educational attainment (ref: No)** |  |  |  |
| Elementary School or below |  | -0.3(-0.62,0.01) \* | -0.31(-0.63,0) \* |
| Middle School |  | -0.54(-0.9,-0.18) \*\*\* | -0.54(-0.9,-0.18) \*\*\* |
| High School and above |  | -0.86(-1.24,-0.47) \*\*\* | -0.85(-1.24,-0.46) \*\*\* |
| **Economically active (ref: Inactive)** |  |  |  |
| Activity |  | 0.1(-0.19,0.39) | 0.07(-0.22,0.36) |
| Missing |  | -2.71(-6.38,0.95) | -2.88(-6.54,0.78) |
| **Income (ref: Lowest Quintile)** |  |  |  |
| 2nd |  | 0.3(-0.1,0.7) | 0.29(-0.11,0.69) |
| 3rd |  | 0.81(0.41,1.22) \*\*\* | 0.77(0.36,1.17) \*\*\* |
| 4th |  | 0.39(-0.04,0.82) \* | 0.36(-0.07,0.79) |
| Highest Quintile |  | 0.34(-0.1,0.78) | 0.32(-0.12,0.76) |
| Missing |  | 0.44(-0.08,0.96) | 0.41(-0.11,0.94) |
| **House tenure (ref: Own)** |  |  |  |
| No |  | 0.54(0.16,0.91) \*\*\* | 0.55(0.17,0.93) \*\*\* |
| Missing |  | 0.46(-1.38,2.3) | 0.4(-1.44,2.24) |
| **Interaction between living arrangements and residence** |  |  |  |
| Alone x Rural |  |  | -0.78(-1.28,-0.28) \*\*\* |

**Table 4B Multivariate model results for subjective feeling of exclusion among empty nesters**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model 1 | Model 2 | Model 3 |
|  | Coeff (95%CI) | Coeff (95%CI) | Coeff (95%CI) |
| Constant | 4.22(4.18,4.27) \*\*\* | 3.63(3.2,4.06) \*\*\* | 3.63(3.2,4.06) \*\*\* |
| **Living arrangement(ref: With spouse)** |  |  |  |
| Alone | -0.52(-0.61,-0.44) \*\*\* | -0.46(-0.55,-0.38) \*\*\* | -0.44(-0.55,-0.34) \*\*\* |
| **Age** |  | 0(0,0.01) | 0(0,0.01) |
| **Female (ref: Male)** |  | 0.14(0.06,0.21) \*\*\* | 0.13(0.06,0.21) \*\*\* |
| **Non-Han (ref: Han-Chinese)** |  | -0.15(-0.32,0.03) \* | -0.15(-0.32,0.03) \* |
| **Rural** **(ref: Urban)** |  | -0.25(-0.35,-0.15) \*\*\* | -0.23(-0.34,-0.12) \*\*\* |
| **Educational attainment (ref: No)** |  |  |  |
| Elementary School or below |  | 0.08(-0.03,0.19) | 0.08(-0.03,0.18) |
| Middle School |  | 0.21(0.08,0.33) \*\*\* | 0.21(0.08,0.33) \*\*\* |
| High School and above |  | 0.28(0.14,0.41) \*\*\* | 0.28(0.14,0.41) \*\*\* |
| **Economically active (ref: Inactive)** |  |  |  |
| Activity |  | 0.11(0.01,0.21) \*\* | 0.11(0,0.21) \*\* |
| Missing |  | 0.17(-1.1,1.44) | 0.16(-1.11,1.43) |
| **Income (ref: Lowest Quintile)** |  |  |  |
| 2nd |  | 0.11(-0.03,0.25) | 0.11(-0.03,0.24) |
| 3rd |  | 0.31(0.17,0.44) \*\*\* | 0.3(0.16,0.44) \*\*\* |
| 4th |  | 0.42(0.27,0.57) \*\*\* | 0.42(0.27,0.57) \*\*\* |
| Highest Quintile |  | 0.49(0.34,0.64) \*\*\* | 0.49(0.34,0.64) \*\*\* |
| Missing |  | 0.34(0.16,0.52) \*\*\* | 0.34(0.16,0.52) \*\*\* |
| **House tenure (ref: Own)** |  |  |  |
| No |  | -0.19(-0.32,-0.06) \*\*\* | -0.19(-0.32,-0.06) \*\*\* |
| Missing |  | -0.14(-0.78,0.5) | -0.14(-0.78,0.49) |
| **Interaction between living arrangements and residence** | | | |
| Alone x Rural |  |  | -0.05(-0.22, 0.13) |

**Table 4C Multivariate model results for exclusion from social activities among empty nesters**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model 1 | Model 2 | Model 3 |
|  | ORs (95%CI) | ORs (95%CI) | ORs (95%CI) |
| **Living arrangement(ref: With spouse)** |  |  |  |
| Alone | 1.04(0.87,1.24) | 1.13(0.93,1.37) \*\*\* | 1.21(0.96,1.53) \*\*\* |
| **Age** |  | 1.49(1.18,1.87) \*\*\* | 1.49(1.19,1.88) \*\*\* |
| **Age^2** |  | 1(1,1) \*\*\* | 1(1,1) \*\*\* |
| **Female (ref: Male)** |  | 1.15(0.97,1.36) | 1.14(0.96,1.36) |
| **Non-Han (ref: Han-Chinese)** |  | 1.51(1.06,2.15) \*\* | 1.51(1.06,2.15) \*\* |
| **Rural** **(ref: Urban)** |  | 1.01(0.81,1.26) | 1.07(0.84,1.37) |
| **Educational attainment (ref: No)** |  |  |  |
| Elementary School or below |  | 1.07(0.84,1.38) | 1.07(0.84,1.37) |
| Middle School |  | 1.11(0.83,1.47) | 1.11(0.83,1.47) |
| High School and above |  | 1.2(0.89,1.62) | 1.2(0.89,1.62) |
| **Economically active (ref: Inactive)** |  |  |  |
| Activity |  | 1.07(0.85,1.33) | 1.06(0.85,1.32) |
| **Income (ref: Lowest Quintile)** |  |  |  |
| 2nd |  | 1.2(0.87,1.65) | 1.19(0.87,1.64) |
| 3rd |  | 1.51(1.1,2.06) \*\* | 1.49(1.09,2.04) \*\* |
| 4th |  | 1.05(0.74,1.48) | 1.04(0.74,1.47) |
| Highest Quintile |  | 1.37(0.97,1.94) \* | 1.36(0.96,1.93) \* |
| Missing |  | 0.84(0.54,1.3) | 0.83(0.53,1.3) |
| **House tenure (ref: Own)** |  |  |  |
| No |  | 0.94(0.7,1.26) | 0.94(0.7,1.27) |
| Missing |  | 0.44(0.06,3.45) | 0.43(0.06,3.4) |
| **Interaction between living arrangements and residence** | | | |
| Alone x Rural |  |  | 0.81(0.55,1.2) |

**Table 4D Multivariate model results for exclusion from financial products among empty nesters**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model 1 | Model 2 | Model 3 |
|  | ORs (95%CI) | ORs (95%CI) | ORs (95%CI) |
| **Living arrangement(ref: With spouse)** |  |  |  |
| Alone | 0.87(0.73,1.03) | 1.14(0.92,1.4) | 1.78(1.36,2.33) \*\*\* |
| **Age** |  | 0.98(0.97,1) \*\* | 0.98(0.97,1) \*\* |
| **Female (ref: Male)** |  | 0.79(0.66,0.96) \*\* | 0.77(0.64,0.94) \*\*\* |
| **Non-Han (ref: Han-Chinese)** |  | 0.8(0.52,1.23) | 0.8(0.52,1.23) |
| **Rural** **(ref: Urban)** |  | 2.76(2.19,3.47) \*\*\* | 3.58(2.78,4.61) \*\*\* |
| **Educational attainment (ref: No)** |  |  |  |
| Elementary School or below |  | 1.12(0.87,1.45) | 1.11(0.86,1.44) |
| Middle School |  | 0.93(0.68,1.26) | 0.92(0.68,1.25) |
| High School and above |  | 0.95(0.68,1.33) | 0.95(0.68,1.33) |
| **Economically active (ref: Inactive)** |  |  |  |
| Activity |  | 9.24(7.51,11.37) \*\*\* | 9.19(7.46,11.31) \*\*\* |
| **Income (ref: Lowest Quintile)** |  |  |  |
| 2nd |  | 1.37(0.99,1.9) \* | 1.35(0.97,1.87) \* |
| 3rd |  | 1.91(1.36,2.68) \*\*\* | 1.8(1.28,2.53) \*\*\* |
| 4th |  | 1.48(1.01,2.18) \*\* | 1.42(0.97,2.08) \* |
| Highest Quintile |  | 1.93(1.31,2.83) \*\*\* | 1.89(1.29,2.78) \*\*\* |
| Missing |  | 1.55(1,2.39) \*\* | 1.5(0.97,2.32) \* |
| **House tenure (ref: Own)** |  |  |  |
| No |  | 0.73(0.52,1.03) \* | 0.75(0.53,1.05) \* |
| Missing |  | 0.67(0.1,4.38) | 0.59(0.09,3.97) |
| **Interaction between living arrangements and residence** | | | |
| Alone x Rural |  |  | 0.37(0.24,0.55) \*\*\* |

**Table 4E Multivariate model results for self-rated health among empty nesters**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Model 1 | | Model 2 | | Model 3 | |
|  | Fair | Poor | Fair | Poor | Fair | Poor |
|  | ORs (95%CI) | ORs (95%CI) | ORs (95%CI) | ORs (95%CI) | ORs (95%CI) | ORs (95%CI) |
| **Living arrangement(ref: With spouse)** |  |  |  |  |  |  |
| Alone | 1(0.84,1.2) | 1.43(1.2,1.72) \*\*\* | 0.91(0.75,1.09) | 1.07(0.88,1.31) | 0.85(0.68,1.06) | 1.02(0.79,1.32) |
| **Age** |  |  | 1.03(0.85,1.24) | 1.2(0.96,1.49) | 1.03(0.85,1.24) | 1.19(0.96,1.49) |
| **Age^2** |  |  | 1(1,1) | 1(1,1) | 1(1,1) | 1(1,1) |
| **Female (ref: Male)** |  |  | 1.03(0.87,1.21) | 1.27(1.06,1.52) \*\*\* | 1.03(0.88,1.21) | 1.28(1.06,1.53) \*\*\* |
| **Non-Han (ref: Han-Chinese)** |  |  | 0.79(0.53,1.17) | 1.26(0.86,1.83) | 0.79(0.53,1.17) | 1.26(0.86,1.83) |
| **Rural (ref: Urban)** |  |  | 0.99(0.8,1.23) | 1.61(1.29,2.02) \*\*\* | 0.94(0.74,1.2) | 1.56(1.21,2.00) \*\*\* |
| **Educational attainment (ref: No)** |  |  |  |  |  |  |
| Elementary School or below |  |  | 1.23(0.96,1.57) | 0.98(0.78,1.25) | 1.23(0.96,1.57) | 0.99(0.78,1.25) |
| Middle School |  |  | 1.25(0.95,1.64) | 0.73(0.54,0.97) \*\* | 1.25(0.95,1.64) | 0.73(0.54,0.97) \*\* |
| High School and above |  |  | 1.28(0.96,1.71) \* | 0.69(0.5,0.96) \*\* | 1.28(0.96,1.71) \* | 0.69(0.5,0.96) \*\* |
| **Economically active (ref: Inactive)** |  |  |  |  |  |  |
| Activity |  |  | 0.72(0.58,0.9) \*\*\* | 0.54(0.42,0.68) \*\*\* | 0.73(0.58,0.9) \*\*\* | 0.54(0.42,0.69) \*\*\* |
| Missing |  |  | 1.38(0.08,22.95) | 1.63(0.09,29.04) | 1.44(0.09,23.99) | 1.67(0.09,29.97) |
| **Income (ref: Lowest Quintile)** |  |  |  |  |  |  |
| 2nd |  |  | 0.94(0.68,1.29) | 0.88(0.65,1.18) | 0.94(0.68,1.3) | 0.88(0.66,1.18) |
| 3rd |  |  | 0.83(0.6,1.13) | 0.53(0.39,0.73) \*\*\* | 0.84(0.61,1.14) | 0.54(0.4,0.73) |
| 4th |  |  | 0.72(0.52,0.99) \*\* | 0.45(0.32,0.62) \*\*\* | 0.72(0.52,1) | 0.45(0.32,0.63) \*\*\* |
| Highest Quintile |  |  | 0.81(0.58,1.13) | 0.4(0.28,0.57) \*\*\* | 0.81(0.58,1.13) \* | 0.4(0.28,0.58) \*\*\* |
| Missing |  |  | 1.16(0.78,1.73) | 0.72(0.48,1.07) | 1.17(0.78,1.74) | 0.72(0.48,1.08) \*\*\* |
| **House tenure (ref: Own)** |  |  |  |  |  |  |
| No |  |  | 1.22(0.91,1.64) | 1.66(1.24,2.22) \*\*\* | 1.22(0.91,1.63) \*\*\* | 1.66(1.24,2.22) \*\*\* |
| Missing |  |  | 3.16(0.8,12.48) | 1.62(0.26,9.97) | 3.21(0.81,12.67) | 1.64(0.27,10.07) |
| **Interaction between living arrangements and residence** | | | | | | |
| Alone x Rural |  |  |  |  | 1.23(0.83,1.81) | 1.15(0.78,1.69) |

**Table 4F Multivariate model results for depression among empty nesters**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model 1 | Model 2 | Model 3 |
|  | ORs (95%CI) | ORs (95%CI) | ORs (95%CI) |
| **Living arrangement(ref: With spouse)** |  |  |  |
| Alone | 1.87(1.6,2.18) \*\*\* | 1.7(1.44,2.01) \*\*\* | 1.83(1.49,2.25) \*\*\* |
| **Age** |  | 0.77(0.64,0.92) \*\*\* | 0.77(0.64,0.92) \*\*\* |
| **Age^2** |  | 1(1,1) \*\*\* | 1(1,1) \*\*\* |
| **Female (ref: Male)** |  | 1.08(0.93,1.26) | 1.08(0.92,1.25) |
| **Non-Han (ref: Han-Chinese)** |  | 1.13(0.81,1.58) | 1.13(0.81,1.58) |
| **Rural (ref: Urban)** |  | 1.14(0.94,1.38) | 1.2(0.97,1.49) \* |
| **Educational attainment (ref: No)** |  |  |  |
| Elementary School or below |  | 0.9(0.73,1.1) | 0.9(0.73,1.1) |
| Middle School |  | 0.64(0.5,0.82) \*\*\* | 0.64(0.5,0.82) \*\*\* |
| High School and above |  | 0.73(0.56,0.95) \*\* | 0.73(0.56,0.95) \*\* |
| **Economically active (ref: Inactive)** |  |  |  |
| Activity |  | 0.78(0.64,0.96) \*\* | 0.78(0.63,0.95) \*\* |
| **Income (ref: Lowest Quintile)** |  |  |  |
| 2nd |  | 0.72(0.56,0.93) \*\* | 0.72(0.56,0.93) \*\* |
| 3rd |  | 0.63(0.49,0.82) \*\*\* | 0.62(0.48,0.81) \*\*\* |
| 4th |  | 0.54(0.4,0.71) \*\*\* | 0.53(0.4,0.71) \*\*\* |
| Highest Quintile |  | 0.4(0.3,0.54) \*\*\* | 0.4(0.3,0.54) \*\*\* |
| Missing |  | 0.73(0.52,1.02) \* | 0.72(0.52,1.02) \* |
| **House tenure (ref: Own)** |  |  |  |
| No |  | 1.19(0.93,1.53) | 1.19(0.93,1.53) |
| Missing |  | 4.62(1.34,15.92) \*\* | 4.58(1.33,15.81) \*\* |
| **Interaction between living arrangements and residence** | | | |
| Alone x Rural |  |  | 0.83(0.6,1.15) |

**Table 4G Multivariate model results for ADLs among empty nesters**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Model 1 | Model 2 | Model 3 |
|  | ORs (95%CI) | ORs (95%CI) | ORs (95%CI) |
| **Living arrangement(ref: With spouse)** |  |  |  |
| Alone | 1.13(0.87,1.47) | 0.74(0.56,0.99) \*\* | 0.78(0.54,1.13) |
| **Age** |  | 1.07(1.05,1.09) \*\*\* | 1.07(1.05,1.09) \*\*\* |
| **Female (ref: Male)** |  | 0.95(0.73,1.24) | 0.95(0.73,1.23) |
| **Non-Han (ref: Han-Chinese)** |  | 0.96(0.54,1.69) | 0.95(0.54,1.69) |
| **Rural (ref: Urban)** |  | 1.3(0.95,1.78) | 1.35(0.95,1.92) \* |
| **Educational attainment (ref: No)** |  |  |  |
| Elementary School or below |  | 0.95(0.69,1.32) | 0.95(0.69,1.32) |
| Middle School |  | 0.73(0.48,1.11) | 0.74(0.49,1.11) |
| High School and above |  | 0.69(0.44,1.09) | 0.7(0.44,1.09) |
| **Economically active (ref: Inactive)** |  |  |  |
| Activity |  | 1.22(0.85,1.76) | 1.23(0.85,1.77) |
| **Income (ref: Lowest Quintile)** |  |  |  |
| 2nd |  | 0.84(0.55,1.26) | 0.83(0.55,1.26) |
| 3rd |  | 0.98(0.64,1.5) | 0.97(0.63,1.49) |
| 4th |  | 0.78(0.49,1.25) | 0.77(0.48,1.24) |
| Highest Quintile |  | 0.61(0.37,1) \* | 0.61(0.37,1) \*\* |
| Missing |  | 0.87(0.5,1.51) | 0.86(0.5,1.5) |
| **House tenure (ref: Own)** |  |  |  |
| No |  | 1.58(1.11,2.27) \*\* | 1.59(1.11,2.27) \*\* |
| Missing |  | 1.02(0.13,8.21) | 1(0.12,8.1) |
| **Interaction between living arrangements and residence** | | | |
| Alone x Rural |  |  | 0.88(0.5,1.53) |