**Appendix**

**Table I**

Percentage of Spanish population according to Andersen’s model of demand for care variables by survey with their 95% confidence intervals (Spain, 2001-2017).

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **2001****% (95%CI)****n = 21,067** | **2003****% (95%CI)****n = 22,575** | **2006****% (95%CI)****n = 29,478** | **2011****% (95%CI)****n = 20,884** | **2014****% (95%CI)****n = 22,659** | **2017****% (95%CI)****n = 22,903** |
| Men | Factors of need |  |  |  |  |  |  |  |
|  | Self-rated health | Good | 75.4 (74.6-76.3) | 73.1 (72.1-73.8) | 72.6 (71.9-73.4) | 76.6 (75.8-77.5) | 75.1 (74.3-75.9) | 74.8 (74.1-75.6) |
|  |  | Bad | 24.6 (19.4-21.9) | 27.1 (26.1-27.8) | 27.3 (26.6-28.1) | 23.3 (22.5-24.2) | 24.9 (24.1-25.7) | 25.1 (24.4-25.9) |
|  | Chronic disease |  | 51.5 (49.6-51.3) | 45.7 (44.6-46.8) | 37.9 (36.9-38.9) | 43.5 (42.5-44.5) | 42.6 (41.8-43.4) | 43.1 (42.4-43.9) |
|  | Physical activity limitation (last 6 months) |  | 23.4 (21.9-24.8) | 31.8 (31.5-33.2) | 27.8 (26.9-28.7) | 27.5 (26.9-28.1) | 21.5 (21.8-22.3) | 25.1 (24.2-25.9) |
|  | Habitual activities limitation (last 2 weeks)  |  | 9.3 (8.7-9.8) | 11.1 (11.4-11.6) | 11.9 (11.4-12.4) | 11.1 (11.5-11.7) | 11.5 (11.1-11.1) | 12.2 (11.5-12.7) |
|  | Factors that facilitate access and use of health carea |  |  |  |  |  |  |
|  | Marital status | Married | 58.1 (57.2-59.1) | 58.9 (57.9-59.8) | 57.4 (56.1-57.6) | 58.3 (57.3-59.2) | 61.1 (61.1-61.9) | 61.8 (61.9-62.7) |
|  |  | Single | 35.7 (34.7-36.6) | 36.5 (35.5-37.4) | 36.9 (36.1-37.6) | 35.2 (34.3-36.2) | 32.9 (32.1-33.8) | 31.4 (31.5-32.3) |
|  |  | Divorced/Separate | 2.9 (2.5-3.2) | 2.1 (1.8-2.4) | 3.5 (3.2-3.8) | 3.9 (3.5-4.2) | 3.6 (3.3-4.1) | 3.9 (3.6-4.3) |
|  |  | Widower | 3.3 (2.9-3.7) | 2.5 (2.2-2.8) | 2.8 (2.5-3.1) | 2.6 (2.3-2.9) | 2.5 (2.2-2.8) | 2.2 (1.9-2.5) |
|  | Tobacco consumption |  | 42.2 (41.2-43.1) | 37.6 (36.6-38.5) | 35.3 (34.5-36.1) | 37.8 (36.9-38.8) | 31.4 (29.6-31.3) | 28.1 (27.4-29.1) |
|  | Health insurance model | Public  | 96.9 (96.5-97.2) | 96.1 (95.7-96.5) | 95.1 (94.9-95.5) | 97.1 (96.8-97.4) | 97.1 (96.8-97.4) | 95.9 (95.5-96.2) |
|  |  | Private  | 3.1 (2.8-3.5) | 3.9 (3.5-4.2) | 4.9 (4.5-5.2) | 2.9 (2.5-3.2) | 2.9 (2.6-3.2) | 4.1 (3.7-1.4) |
| Women | Factors of need |  |  |  |  |  |  |  |
|  | Self-rated health | Good | 64.1 (63.1-64.9) | 63.2 (62.3-64.1) | 61.6 (59.8-61.4) | 67.5 (66.6-68.3) | 67.1 (66.2-67.9) | 66.4 (65.6-67.3) |
|  |  | Bad | 36.1 (35.1-36.9) | 36.8 (35.9-37.7) | 39.4 (38.6-41.1) | 32.5 (31.6-33.4) | 33.1 (32.1-33.8) | 33.5 (32.7-34.4) |
|  | Chronic disease |  | 49.5 (48.7-51.4) | 54.3 (53.2-55.4) | 62.1 (61.1-63.1) | 56.4 (55.4-57.5) | 57.4 (56.6-58.2) | 56.8 (56.1-57.6) |
|  | Physical activity limitation (last 6 months) |  | 31.8 (29.3-32.2) | 39.8 (38.5-41.1) | 34.7 (33.8-35.5) | 23.6 (22.8-24.4) | 28.8 (28.1-29.6) | 32.9 (32.1-33.8) |
|  | Habitual activities limitation (last 2 weeks) |  | 15.1 (14.4-15.7) | 15.5 (15.6-17.1) | 17.6 (17.1-18.3) | 14.4 (13.7-15.1) | 17.5 (16.8-18.2) | 17.6 (16.9-18.3) |
|  | Factors that facilitate access and use of health carea |  |  |  |  |  |  |
|  | Marital status | Married | 57.8 (56.8-58.7) | 55.4 (54.4-56.3) | 57.4 (56.6-58.2) | 53.7 (52.8-54.7) | 55.1 (54.2-56.1) | 56.1 (55.2-56.9) |
|  |  | Single | 26.3 (25.4-27.1) | 29.7 (28.8-31.5) | 26.7 (26.1-27.4) | 28.8 (27.9-29.6) | 26.8 (26.1-27.6) | 26.1 (25.3-26.8) |
|  |  | Divorced/separate | 4.1 (3.6-4.4) | 3.1 (2.8-3.4) | 4.7 (4.3-5.1) | 5.6 (5.2-6.1) | 6.1 (5.5-6.4) | 6.4 (5.9-6.8) |
|  |  | Widower | 11.9 (11.3-12.5) | 11.8 (11.2-12.4) | 11.2 (11.6-11.6) | 11.9 (11.3-12.5) | 12.1 (11.5-12.7) | 11.4 (11.8-11.9) |
|  | Tobacco consumption |  | 27.3 (26.4-28.1) | 24.7 (23.9-25.5) | 23.9 (23.2-24.6) | 46.9 (45.9-47.8) | 21.5 (19.8-21.2) | 21.1 (21.1-21.5) |
|  | Health insurance model | Public  | 96.9 (96.6-97.3) | 96.1 (95.8-96.5) | 96.3 (95.9-96.6) | 97.4 (97.1-97.7) | 97.1 (96.6-97.3) | 95.2 (94.8-95.6) |
|   |   | Private  | 3.1 (2.5-3.2) | 3.9 (3.5-4.2) | 3.7 (3.4-4.1) | 2.6 (2.4-2.9) | 3.1 (2.7-3.3) | 4.7 (4.3-5.1) |
| 95%CI: 95% confidence interval.aThe remaining variables (social class. occupation and educational level) are available in table 1.  |

**Table II**

Odds ratios and their 95% confidence intervals of primary care use according to Andersen’s model of demand for care variables stratified by sex. Comparison of the pre-recession (2001-2006), recession period (2011-2014), and post-recession period (2017).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | **Pre-recession period (2001-2006)** | **Recession period** **(2011-2014)** | **Post-recession** **(2017)** |
|  |  |  | **Model 1****OR (95%CI)** | **Model 2****OR (95%CI)** | **Model 1****OR (95%CI)** | **Model 2****OR (95%CI)** | **Model 1****OR (95%CI)** | **Model 2****OR (95%CI)** |
|  |  |  |
| Men | Factors of need |  |  |  |  |  |  |  |
|  | Age |  | 1.2 (1.1-1.3)a | 1.2 (1.1-1.3)a | 1.2 (1.1-1.3)a | 1.2 (1.1-1.3)a | 1.2 (1.1-1.3) | 1.2 (1.1-1.3)a |
|  |  |  |  |  |  |  |  |  |
|  | Self-rated health | Good |  | Ref. |  | Ref. |  | Ref. |
|  |  | Bad |  | 1.2 (1.1-1.3)a |  | 1.8(1.7-1.3)a |  | 1.9 (1.7-2.2)a |
|  | Chronic disease |  |  | 1.2 (1.1-1.3)a |  | 1.5 (1.4-1.7)a |  | 1.4 1.3-1.5)a |
|  | Physical activity limitation (last 6 months) |  |  | 1.6 (1.4-1.8)a |  | 2.8 (2.5-3.2)a |  | 1.8 (1.6-2.1)a |
|  | Habitual activities limitation (last 2 weeks) |  |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |  | 1.6 (1.4-1.7)a |
|  | Factors that facilitate access and use of health careb |  |  |  |  |  |  |
|  | Marital status | Married |  | Ref. |  | Ref. |  | Ref. |
|  |  | Single |  | 1.2 (1.1-1.3)a |  | 1.1 (0.9-1.2) |  | 1.1 (0.9-1.2) |
|  |  | Divorced/separate |  | 1.1 (0.8-1.3) |  | 1.1 (0.8-1.2) |  | 0.9 (0.8-1.1) |
|  |  | Widower |  | 1.1 (0.9-1.3) |  | 1.1 (0.8-1.3) |  | 1.1 (0.8-1.4) |
|  | Tobacco consumption |  |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |
|  | Health insurance model | Public  |  | Ref. |  | Ref. |  | Ref. |
|  |  | Private  |  | 0.2 (0.1-0.3)a |  | 0.9 (0.7-1.1) |  | 1.2 (0.9-1.4) |
| Women | Factors of need |  |  |  |  |  |  |  |
|  | Age |  | 1.2 (1.1-1.3)a | 1.2 (1.1-1.3)a | 1.2 (1.1-1.3)a | 1.2 (1.1-1.3)a |  | 0.8 (0.7-0.9)a |
|  | Self-rated health | Good |  | Ref. |  | Ref. |  | Ref. |
|  |  | Bad |  | 1.5 (1.4-1.6)a |  | 1.7 (1.6-1.9)a |  | 1.8 (1.6-2.1)a |
|  | Chronic disease |  |  | 1.2 (1.1-1.4)a |  | 1.5 (1.4-1.6)a |  | 1.4 (0.2-1.8) |
|  | Physical activity limitation (last 6 months) |  |  | 1.4 (1.3-1.5)a |  | 2.2 (2.1-2.4)a |  | 1.5 (1.4-1.7)a |
|  | Habitual activities limitation (last 2 weeks) |  |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |
|  | Factors that facilitate access and use of health careb |  |  |  |  |  |  |
|  | Marital status | Married |  | Ref. |  | Ref. |  | Ref. |
|  |  | Single |  | 0.8 (0.7-0.9)a |  | 0.9 (0.8-1.1) |  | 1.1 (0.9-1.2) |
|  |  | Divorced/separate |  | 0.9 (0.8-1.1) |  | 0.8 (0.7-0.9) |  | 1.1 (0.8-1.2) |
|  |  | Widower |  | 0.9 (0.8-1.1) |  | 0.9 (0.8-1.1) |  | 1.1 (0.9-1.3) |
|  | Tobacco consumption |  |  |  |  | 1.2 (1.1-1.3)a |  |  |
|  | Health insurance model | Public  |  | Ref. |  | Ref. |  | Ref. |
|  |  | Private |  | 0.2 (0.1-0.3)a |  | 0.7 (0.6-0.9)a |  | 1.1 (0.8-1.3) |
| 95%CI: 95% confidence interval; NE: Not evaluable (low number of subjects); OR: odds ratio; Ref: reference category.  |
| ap<0.005.bThe remaining variables (social class, occupation and educational level) are available in table 3.  |
|  Model 1 adjusted by age. Model 2 adjusted by age and by the variables of Andersen’s Model for care (self-rated health. chronic disease/disorder. limitation of physical activity in the last 6 months and limitation during the last two weeks to perform usual activities due to pain or any other symptom. employment status. social class. educational level. marital status. tobacco consumption and health insurance model). |

**Table III**

Odds ratios and their 95% confidence intervals of secondary care use according to Andersen’s model of demand for care variables stratified by sex. Comparison of the pre-recession (2001-2006), crisis recession (2011-2014) and post-recession period (2017).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  | **Pre-recession period (2001-2006)** | **Recession period** **(2011-2014)** | **Post-recession** **(2017)** |
|  |  |  | **Model 1****OR (95%CI)** | **Model 2****OR (95%CI)** | **Model 1****OR (95%CI)** | **Model 2****OR (95%CI)** | **Model 1** **OR (95%CI)** | **Model 2** **OR (95%CI)** |
|  |  |  |
| Men | Factors of need |  |  |  |  |  |  |  |
|  | Age |  | 1.2 (1.1-1.3)a | 1.1 (0.9-1.2) | 1.2 (1.1-1.3)a | 0.9 (0.8-1.1) | 1.2 (1.1-1.3) | 0.9 (0.8-1.1) |
|  | Self-rated health | Good |  | Ref. |  | Ref. |  | Ref. |
|  |  | Bad |  | 1.8 (1.5-2.1)a |  | 2.5 (2.2-2.8)a |  | 2.3 (1.9-2.6)a |
|  | Chronic disease |  |  | 1.2 (1.1-1.3)a |  | 1.7 (1.5-1.9)a |  | 1.5 (1.3-1.7)a |
|  | Physical activity limitation (last 6 months) |  |  | 1.7 (1.5-1.9)a |  | 2.6 (2.3-2.9)a |  | 2.2 (1.8-2.5)a |
|  | Habitual activities limitation (last 2 weeks) |  |  | 1.2 (1.1-1.4)a |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |
|  |  |  |  |  |  |  |  |  |
|  | Factors that facilitate access and use of health careb |  |  |  |  |  |  |
|  | Marital status | Married |  | Ref. |  | Ref. |  | Ref. |
|  |  | Single |  | 0.8 (0.7-1.1) |  | 0.8 (0.7-1.1) |  | 1.3 (1.1-1.7)a |
|  |  | Divorced/separate |  | 1.1 (0.8-1.5) |  | 1.1 (0.8-1.2) |  | 1.1 (0.8-1.5) |
|  |  | Widower |  | 0.7 (0.6-0.9)a |  | 0.9 (0.7-1.1) |  | 1.3 (0.9-1.9) |
|  | Tobacco consumption |  |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |  | 1.1 (0.9-1.3) |
|  | Health insurance model | Public  |  | Ref. |  | Ref. |  | Ref. |
|  |  | Private  |  | 1.6 (1.2-1.9)a |  | 1.8 (1.4-2.3)a |  | 1.5 (1.2-2.1)a |
| Women | Factors of need |  |  |  |  |  |  |  |
|  |  | Age | 1.2 (1.1-1.3)a | 0.9 (0.8-1.1) | 0.9 (0.8-1.1) | 0.8 (0.7-0.9)a | 0.8 (0.7-0.9)a | 0.8 (0.7-0.9)a |
|  | Self-rated health | Good |  | Ref. |  | Ref. |  | Ref. |
|  |  | Bad |  | 1.5 (1.3-1.7)a |  | 2.3 (2.1-2.5)a |  | 2.1 (1.8-2.4) |
|  | Chronic disease |  |  | 1.1 (0.9-1.2) |  | 1.5 (1.3-1.6)a |  | 1.3 (1.1-1.5)a |
|  | Physical activity limitation (last 6 months) |  |  | 1.4 (1.3-1.6)a |  | 1.8 (1.7-2.1)a |  | 2.1(1.9-2.5)a |
|  |  |  |  |  |  |  |  |  |
|  | Habitual activities limitation (last 2 weeks) |  |  | 1.3 (1.2-1.5)a |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |
|  | Factors that facilitate access and use of health careb |  |  |  |  |  |  |
|  | Marital status | Married |  | Ref. |  | Ref. |  | Ref. |
|  |  | Single |  | 0.8 (0.7-0.9)a |  | 0.8 (0.7-0.9)a |  | 1.2 (1.1-1.4)a |
|  |  | Divorced/separate |  | 1.1 (0.8-1.3) |  | 1.1 (0.9-1.2) |  | 0.9 (0.8-1.2) |
|  |  | Widower |  | 0.7 (0.6-0.8)a |  | 0.8 (0.7-0.9)a |  | 1.2 (0.9-1.5) |
|  | Tobacco consumption |  |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.3)a |  | 1.2 (1.1-1.4)a |
|  | Health insurance model | Public  |  | Ref. |  | Ref. |  | Ref. |
|  |  | Private  |  | 1.4 (1.1-1.7)a |  | 1.3 (1.1-1.6)a |  | 1.9 (1.5-2.4)a |
| 95%CI: 95% confidence interval; NE: Not evaluable (low number of subjects); OR: odds ratio; Ref: reference category.  |
| ap<0.005.bThe remaining variables (social class, occupation and educational level) are available in table 4.  |
|  Model 1 adjusted by age. Model 2 adjusted by age and by the variables of Andersen’s Model for care (self-rated health, chronic disease/disorder, limitation of physical activity in the last 6 months and limitation during the last two weeks to perform usual activities due to pain or any other symptom, employment status, social class, educational level, marital status, tobacco consumption and health insurance model). |