



## Supplementary

**Table S1.** Characteristics of unmatched SMI patients.

| Unmatched SMI patients<br>(n=14,656)                                                                                  |                           |
|-----------------------------------------------------------------------------------------------------------------------|---------------------------|
| Characteristics                                                                                                       | Mean ( $\pm$ SD) or n (%) |
| <i>Demographic characteristics</i>                                                                                    |                           |
| Age                                                                                                                   | 47,82 ( $\pm$ 11.75)      |
| Sex (female)                                                                                                          | 6,645 (45.34)             |
| <i>Socio-economic characteristics at the individual level</i>                                                         |                           |
| Inclusion in the scheme covering healthcare costs<br>for low-income groups (CMU-C)                                    | 522 (4.64)                |
| Missing values                                                                                                        | 3,399 (23.19)             |
| Inclusion in the scheme providing financial<br>assistance for the purchase of supplementary<br>health insurance (ACS) | 744 (6.61)                |
| Missing values                                                                                                        | 3,398 (23.19)             |
| <i>Characteristics of the living environment</i>                                                                      |                           |
| Quintile of deprivation index (FDep) (from lower<br>to higher deprivation)                                            |                           |
| 1 <sup>st</sup> quintile                                                                                              | 654 (4.46)                |
| 2 <sup>nd</sup> quintile                                                                                              | 446 (3.04)                |
| 3 <sup>rd</sup> quintile                                                                                              | 481 (3.28)                |
| 4 <sup>th</sup> quintile                                                                                              | 468 (3.19)                |
| 5 <sup>th</sup> quintile                                                                                              | 467 (3.19)                |
| Missing values <sup>1</sup>                                                                                           | 12,140 (82.83)            |
| Social fragmentation                                                                                                  | 3.99 ( $\pm$ 2.60)        |
| Missing values                                                                                                        | 11,996 (81.85)            |
| Residency in an overseas territory                                                                                    | 136 (0.93)                |
| <i>Clinical characteristics</i>                                                                                       |                           |
| Comorbidity index                                                                                                     | 1.55 (3.00)               |
| Ischemic heart disease                                                                                                | 261 (1.78)                |
| Cerebrovascular disease                                                                                               | 179 (1.22)                |
| Heart failure or arrhythmias or valve diseases                                                                        | 275 (1.88)                |
| Peripheral vascular disease                                                                                           | 106 (0.72)                |
| Diabetes                                                                                                              | 972 (6.63)                |
| Cancer                                                                                                                | 288 (1.97)                |
| History of cancer                                                                                                     | 309 (2.11)                |
| Substance abuse disorders                                                                                             | 1,357 (9.26)              |
| Dementia (including Alzheimer's disease)                                                                              | 125 (0.85)                |
| Parkinson disease                                                                                                     | 57 (0.39)                 |



|                                                                                            |                        |
|--------------------------------------------------------------------------------------------|------------------------|
| Multiple sclerosis or paraplegia or tetraplegia                                            | 78 (0.53)              |
| Epilepsy                                                                                   | 311 (2.12)             |
| Chronic respiratory diseases (including asthma and COPD <sup>2</sup> )                     | 805 (5.49)             |
| Rheumatoid arthritis or systemic and connective tissue diseases                            | 66 (0.45)              |
| HIV infection or AIDS <sup>3</sup>                                                         | 61 (0.42)              |
| End-stage renal disease                                                                    | 16 (0.11)              |
| Liver and pancreas diseases (including chronic and acute failures)                         | 313 (2.14)             |
| <b><i>Use of prevention</i></b>                                                            |                        |
| <i>Use of general preventive care services</i>                                             |                        |
| Use of immunization (diphtheria, tetanus, and polio vaccine / hepatitis b vaccine)         | 766 (5.23) / 88 (0.60) |
| Use of breast cancer and cervical cancer screening (for women only)                        | 3,165 (47.63)          |
| Use of colorectal cancer screening                                                         | 1,216 (8.30)           |
| <i>Use of specific prevention targeting the adverse effects of antipsychotic drugs</i>     |                        |
| Use of electrocardiogram                                                                   | 1,742 (11.89)          |
| Use of blood test, glucose test and cholesterol test (all three)                           | 6,743 (46.01)          |
| <b><i>Use of primary care and routine specialized somatic care</i></b>                     |                        |
| Existence of designated gatekeeper physician (general practitioner or any other physician) | 11,567 (78.92)         |
| Average number of contacts with a general practitioner                                     | 9.91 ( $\pm 13.04$ )   |
| Average number of contacts with a specialist physician <sup>4</sup>                        | 2.40 ( $\pm 4.29$ )    |
| Use of dental care                                                                         | 7,356 (50.19)          |
| Use of gynecological care (for women only)                                                 | 2,330 (35.06)          |
| Use of contraception (for women of child-bearing age only)                                 | 536 (32.43)            |
| Use of ophthalmological care                                                               | 4,759 (32.47)          |
| <b><i>Admissions to non-psychiatric hospital departments for somatic causes</i></b>        |                        |
| Admission to emergency somatic care (in emergency departments)                             | 5,388 (36.76)          |
| Average total number of visits to somatic emergency departments                            | 0.93 ( $\pm 2.72$ )    |
| Average number of visits to somatic emergency departments followed by a hospitalization    | 0.26 ( $\pm 0.92$ )    |



|                                                                                                         |                     |
|---------------------------------------------------------------------------------------------------------|---------------------|
| Average number of visits to somatic emergency departments not precursor to a subsequent hospitalization | 0.67 ( $\pm 2.15$ ) |
| Admission to hospital somatic departments <sup>5</sup>                                                  | 4,853 (33.11)       |
| Admission for a avoidable hospitalization <sup>6</sup>                                                  | 362 (2.47)          |

<sup>1</sup> Most missing values were linked to the lack of availability of this index for overseas territories.

<sup>2</sup> COPD: chronic obstructive pulmonary disease

<sup>3</sup> HIV: human immunodeficiency virus; AIDS: acquired immune deficiency syndrome

<sup>4</sup> Including cardiologists, dermatologists, gynaecologists, gastroenterologists, ophthalmologists, otolaryngologists and rheumatologists but excluding psychiatrists.

<sup>5</sup> Excluding hospitalizations in somatic departments for psychiatric conditions or suicide attempts.

<sup>6</sup> Hospitalizations for asthma, congestive heart failure, chronic obstructive pulmonary disease, dehydration, complications of diabetes, angina (chest pain), dental problem, nutritional deficiency, conditions following immunization.



## Detailed results of the multivariable analyses

**Table S2.** Use of preventive care services.

| Characteristics                                                                                          | Use of immunization<br>(diphtheria, tetanus, and<br>polio vaccine) |                     | Use of immunization<br>(hepatitis b vaccine) |                     | Use of breast cancer and<br>cervical cancer screening<br>(for women only) |                     | Use of colorectal cancer<br>screening |                     | Use of electrocardiogram |                     | Use of blood test,<br>glucose test and<br>cholesterol test (all<br>three) |                     |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------|----------------------------------------------|---------------------|---------------------------------------------------------------------------|---------------------|---------------------------------------|---------------------|--------------------------|---------------------|---------------------------------------------------------------------------|---------------------|
|                                                                                                          | AOR<br>(95% CI)                                                    | Adjusted<br>P-value | AOR<br>(95% CI)                              | Adjusted<br>P-value | AOR<br>(95% CI)                                                           | Adjusted<br>P-value | AOR (95%<br>CI)                       | Adjusted<br>P-value | AOR (95%<br>CI)          | Adjusted<br>P-value | AOR (95%<br>CI)                                                           | Adjusted<br>P-value |
| <i>Clinical characteristics</i>                                                                          |                                                                    |                     |                                              |                     |                                                                           |                     |                                       |                     |                          |                     |                                                                           |                     |
| Presence of a SMI<br>diagnosis (vs. absence)                                                             | 0.99 (0.97-<br>1.00)                                               | n.s.                | 0.91 (0.87-<br>0.96)                         | 0.0002              | 0.68 (0.67-<br>0.69)                                                      | <0.0001             | 0.81 (0.80-<br>0.82)                  | <0.0001             | 1.10 (1.09-<br>1.11)     | <0.0001             | 1.24 (1.23-<br>1.25)                                                      | <0.0001             |
| Comorbidity index                                                                                        | 0.99 (0.98-<br>0.99)                                               | <0.0001             | 1.05 (1.05-<br>1.06)                         | <0.0001             | 0.98 (0.97-<br>0.98)                                                      | <0.0001             | 1.00 (1.00-<br>1.01)                  | <0.0001             | 1.11 (1.10-<br>1.11)     | <0.0001             | 1.06 (1.06-<br>1.06)                                                      | <0.0001             |
| Length of stay in<br>inpatient psychiatric<br>care over the two-year<br>study period (ref: >365<br>days) |                                                                    |                     |                                              |                     |                                                                           |                     |                                       |                     |                          |                     |                                                                           |                     |
| 0 days                                                                                                   | 2.40 (2.00-<br>2.87)                                               | <0.0001             | 1.55 (1.00-<br>2.38)                         | 0.0477              | 2.40 (2.14-<br>2.68)                                                      | <0.0001             | 3.78 (3.12-<br>4.59)                  | <0.0001             | 0.78 (0.71-<br>0.85)     | <0.0001             | 2.28 (2.14-<br>2.44)                                                      | <0.0001             |
| 1-60 days                                                                                                | 2.47 (2.06-<br>2.96)                                               | <0.0001             | 2.03 (1.31-<br>3.14)                         | 0.0014              | 2.07 (1.85-<br>2.32)                                                      | <0.0001             | 2.47 (2.03-<br>3.01)                  | <0.0001             | 1.15 (1.06-<br>1.26)     | 0.0016              | 2.51 (2.35-<br>2.68)                                                      | <0.0001             |



|              |                      |         |                      |        |                      |         |                      |         |                      |         |                      |         |
|--------------|----------------------|---------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|
| 61-180 days  | 2.13 (1.77-<br>2.56) | <0.0001 | 1.65 (1.05-<br>2.57) | 0.0285 | 1.82 (1.62-<br>2.04) | <0.0001 | 2.17 (1.77-<br>2.64) | <0.0001 | 1.40 (1.28-<br>1.54) | <0.0001 | 2.31 (2.16-<br>2.48) | <0.0001 |
| 181-365 days | 1.59 (1.30-<br>1.94) | <0.0001 | 1.52 (0.95-<br>2.45) | n.s.   | 1.32 (1.16-<br>1.50) | <0.0001 | 1.26 (1.01-<br>1.58) | 0.0369  | 1.24 (1.12-<br>1.37) | <0.0001 | 1.54 (1.43-<br>1.65) | <0.0001 |

#### *Socio-economic characteristics at the individual level*

Non-inclusion in the  
scheme providing  
financial assistance for  
the purchase of  
supplementary health  
insurance (ACS) (vs.  
inclusion)

|                      |      |                      |         |                      |         |                      |         |                      |         |                      |        |
|----------------------|------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|--------|
| 0.98 (0.96-<br>1.01) | n.s. | 0.87 (0.82-<br>0.93) | <0.0001 | 1.34 (1.32-<br>1.37) | <0.0001 | 1.24 (1.21-<br>1.27) | <0.0001 | 1.04 (1.02-<br>1.06) | <0.0001 | 1.02 (1.00-<br>1.03) | 0.0101 |
|----------------------|------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|--------|

#### *Characteristics of the living environment*

|                      |                      |        |                      |         |                      |         |                      |         |                      |         |                      |         |
|----------------------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|
| Social fragmentation | 1.00 (0.99-<br>1.00) | 0.0149 | 1.03 (1.02-<br>1.04) | <0.0001 | 0.96 (0.96-<br>0.97) | <0.0001 | 0.96 (0.95-<br>0.96) | <0.0001 | 0.97 (0.97-<br>0.97) | <0.0001 | 0.97 (0.97-<br>0.97) | <0.0001 |
|----------------------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|

Taxonomy of French  
local geographical  
areas (ref : *ad hoc*  
category created for  
overseas territories  
which present  
similarities in terms of  
accessibility to  
healthcare)

|                                   |                      |         |                      |         |                      |         |                      |         |                      |         |                      |         |
|-----------------------------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|
| 1: Suburban areas<br>with a lower | 1.12 (1.08-<br>1.17) | <0.0001 | 0.66 (0.59-<br>0.73) | <0.0001 | 1.43 (1.39-<br>1.48) | <0.0001 | 1.55 (1.49-<br>1.62) | <0.0001 | 0.68 (0.65-<br>0.70) | <0.0001 | 0.88 (0.86-<br>0.90) | <0.0001 |
|-----------------------------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|



accessibility to  
healthcare and  
medium overall health  
status of the  
population

|                                                                                                                               |                      |         |                      |         |                      |         |                      |         |                      |         |                      |         |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|
| 2: Rural borders with<br>a lower accessibility to<br>healthcare                                                               | 1.07 (1.03-<br>1.12) | 0.0018  | 0.64 (0.57-<br>0.73) | <0.0001 | 1.31 (1.27-<br>1.36) | <0.0001 | 1.67 (1.60-<br>1.75) | <0.0001 | 0.62 (0.60-<br>0.64) | <0.0001 | 0.98 (0.95-<br>1.00) | 0.0369  |
| 3: Areas with a<br>strong attraction for<br>tourist and retired<br>populations and the<br>best accessibility to<br>healthcare | 0.98 (0.94-<br>1.02) | n.s.    | 0.59 (0.52-<br>0.67) | <0.0001 | 1.50 (1.45-<br>1.55) | <0.0001 | 1.40 (1.34-<br>1.47) | <0.0001 | 0.75 (0.72-<br>0.77) | <0.0001 | 1.04 (1.01-<br>1.06) | 0.002   |
| 4: Deprived areas,<br>urban and rural, with<br>poor overall health<br>status of the<br>population                             | 1.15 (1.11-<br>1.2)  | <0.0001 | 0.66 (0.59-<br>0.73) | <0.0001 | 1.23 (1.19-<br>1.27) | <0.0001 | 1.48 (1.41-<br>1.54) | <0.0001 | 0.68 (0.66-<br>0.70) | <0.0001 | 0.96 (0.94-<br>0.98) | 0.0005  |
| 5: Cities with<br>abundant healthcare<br>supply and<br>heterogeneous socio-<br>economic situations                            | 1.09 (1.05-<br>1.13) | <0.0001 | 0.77 (0.70-<br>0.85) | <0.0001 | 1.38 (1.34-<br>1.42) | <0.0001 | 1.39 (1.33-<br>1.45) | <0.0001 | 0.80 (0.78-<br>0.82) | <0.0001 | 0.92 (0.90-<br>0.94) | <0.0001 |
| 6: Wealthy cities and<br>sub-urban areas                                                                                      | 1.09 (1.05-<br>1.14) | <0.0001 | 0.68 (0.62-<br>0.75) | <0.0001 | 1.55 (1.50-<br>1.59) | <0.0001 | 1.33 (1.28-<br>1.39) | <0.0001 | 0.78 (0.76-<br>0.80) | <0.0001 | 0.88 (0.86-<br>0.89) | <0.0001 |



Urban area zoning (ref:  
isolated municipality  
located outside the  
sphere of influence of a  
urban center)

|                                                                 |                  |        |                  |        |                  |         |                  |         |                  |         |                  |         |
|-----------------------------------------------------------------|------------------|--------|------------------|--------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|
| Large urban center                                              | 0.99 (0.95-1.03) | n.s.   | 0.88 (0.78-0.99) | 0.0379 | 1.11 (1.08-1.14) | <0.0001 | 0.96 (0.93-0.99) | 0.0091  | 1.03 (1.00-1.07) | n.s.    | 0.97 (0.95-0.99) | 0.0007  |
| Suburban municipality of a large urban center                   | 1.02 (0.98-1.06) | n.s.   | 0.82 (0.72-0.93) | 0.0015 | 1.10 (1.07-1.13) | <0.0001 | 0.97 (0.94-1.00) | n.s.    | 0.96 (0.93-0.99) | 0.0218  | 0.94 (0.93-0.96) | <0.0001 |
| Suburban municipality of several large urban centers            | 1.06 (1.01-1.11) | 0.011  | 0.82 (0.71-0.95) | 0.0094 | 1.08 (1.04-1.12) | <0.0001 | 0.98 (0.94-1.02) | n.s.    | 0.95 (0.91-0.99) | 0.0089  | 0.99 (0.97-1.01) | n.s.    |
| Average urban center                                            | 0.96 (0.92-1.01) | n.s.   | 0.91 (0.79-1.05) | n.s.   | 1.14 (1.10-1.18) | <0.0001 | 1.08 (1.03-1.12) | 0.0003  | 0.94 (0.90-0.97) | 0.0016  | 0.93 (0.90-0.95) | <0.0001 |
| Suburban municipality of an average urban center                | 0.94 (0.85-1.04) | n.s.   | 0.85 (0.61-1.17) | n.s.   | 1.12 (1.04-1.21) | 0.0025  | 1.05 (0.97-1.13) | n.s.    | 0.92 (0.85-1.00) | n.s.    | 0.90 (0.86-0.95) | <0.0001 |
| Small urban center                                              | 1.02 (0.98-1.07) | n.s.   | 0.85 (0.74-0.99) | 0.0327 | 1.05 (1.02-1.09) | 0.0028  | 1.07 (1.03-1.11) | 0.0005  | 1.03 (0.99-1.07) | n.s.    | 1.01 (0.98-1.03) | n.s.    |
| Suburban municipality of a small urban center                   | 0.82 (0.71-0.96) | 0.0111 | 0.93 (0.60-1.45) | n.s.   | 0.95 (0.85-1.05) | n.s.    | 1.01 (0.91-1.13) | n.s.    | 0.86 (0.76-0.97) | 0.0152  | 1.00 (0.93-1.07) | n.s.    |
| Suburban municipality of several average or small urban centers | 1.04 (0.99-1.08) | n.s.   | 0.84 (0.73-0.96) | 0.0127 | 1.02 (0.99-1.06) | n.s.    | 0.93 (0.90-0.96) | <0.0001 | 0.91 (0.87-0.94) | <0.0001 | 0.95 (0.92-0.97) | <0.0001 |



**Table S3.** Use of primary care and routine specialized somatic care.

| Characteristics                                                                              | Existence of a designated gatekeeper physician (GP or any other physician) |                  | Average number of contacts with a GP |                  | Average number of contacts with a specialist physician <sup>1</sup> |                  | Use of dental care |                  | Use of gynecological care (for women only) |                  | Use of contraception (for women of child-bearing age only) |                  | Use of ophthalmological care |                  |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------|--------------------------------------|------------------|---------------------------------------------------------------------|------------------|--------------------|------------------|--------------------------------------------|------------------|------------------------------------------------------------|------------------|------------------------------|------------------|
|                                                                                              | AOR (95% CI)                                                               | Adjusted P-value | AOR (95% CI)                         | Adjusted P-value | AOR (95% CI)                                                        | Adjusted P-value | AOR (95% CI)       | Adjusted P-value | AOR (95% CI)                               | Adjusted P-value | AOR (95% CI)                                               | Adjusted P-value | AOR (95% CI)                 | Adjusted P-value |
| <i>Clinical characteristics</i>                                                              |                                                                            |                  |                                      |                  |                                                                     |                  |                    |                  |                                            |                  |                                                            |                  |                              |                  |
| Presence of a SMI diagnosis (vs. absence)                                                    | 1.21 (1.20-1.22)                                                           | <0.0001          | 1.21 (1.20-1.21)                     | <0.0001          | 0.70 (0.70-0.71)                                                    | <0.0001          | 0.88 (0.88-0.89)   | <0.0001          | 0.63 (0.62-0.64)                           | <0.0001          | 0.76 (0.74-0.77)                                           | <0.0001          | 0.71 (0.70-0.72)             | <0.0001          |
| Comorbidity index                                                                            | 1.06 (1.05-1.06)                                                           | <0.0001          | 1.07 (1.07-1.07)                     | <0.0001          | 1.05 (1.04-1.05)                                                    | <0.0001          | 0.96 (0.96-0.96)   | <0.0001          | 0.92 (0.92-0.92)                           | <0.0001          | 0.96 (0.96-0.96)                                           | <0.0001          | 1.01 (1.01-1.01)             | <0.0001          |
| Length of stay in inpatient psychiatric care over the two-year study period (ref: >365 days) |                                                                            |                  |                                      |                  |                                                                     |                  |                    |                  |                                            |                  |                                                            |                  |                              |                  |
| 0 days                                                                                       | 6.61 (6.19-7.05)                                                           | <0.0001          | 3.48 (3.26-3.71)                     | <0.0001          | 2.74 (2.52-2.98)                                                    | <0.0001          | 1.97 (1.84-2.10)   | <0.0001          | 1.69 (1.51-1.89)                           | <0.0001          | 1.00 (0.86-1.16)                                           | n.s.             | 2.57 (2.37-2.79)             | <0.0001          |
| 1-60 days                                                                                    | 6.98 (6.53-7.46)                                                           | <0.0001          | 4.10 (3.84-4.37)                     | <0.0001          | 2.41 (2.21-2.62)                                                    | <0.0001          | 2.07 (1.94-2.21)   | <0.0001          | 1.86 (1.65-2.08)                           | <0.0001          | 1.13 (0.97-1.31)                                           | n.s.             | 2.27 (2.09-2.46)             | <0.0001          |



|              |                      |         |                      |         |                      |         |                      |         |                      |         |                      |      |                      |         |
|--------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|------|----------------------|---------|
| 61-180 days  | 5.08 (4.74-<br>5.45) | <0.0001 | 3.45 (3.22-<br>3.68) | <0.0001 | 2.10 (1.93-<br>2.29) | <0.0001 | 1.82 (1.70-<br>1.94) | <0.0001 | 1.67 (1.48-<br>1.88) | <0.0001 | 1.10 (0.94-<br>1.29) | n.s. | 1.94 (1.79-<br>2.11) | <0.0001 |
| 181-365 days | 2.43 (2.26-<br>2.62) | <0.0001 | 2.11 (1.97-<br>2.27) | <0.0001 | 1.56 (1.42-<br>1.71) | <0.0001 | 1.28 (1.19-<br>1.37) | <0.0001 | 1.22 (1.07-<br>1.39) | 0.0025  | 0.99 (0.83-<br>1.18) | n.s. | 1.44 (1.31-<br>1.58) | <0.0001 |

#### *Socio-economic characteristics at the individual level*

Non-inclusion  
in the scheme  
providing  
financial  
assistance for  
the purchase of  
supplementary  
health  
insurance  
(ACS) (vs.  
inclusion)

|                      |      |                      |         |                      |         |                      |         |                      |         |                      |      |                      |         |
|----------------------|------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|------|----------------------|---------|
| 1.00 (0.98-<br>1.01) | n.s. | 0.87 (0.86-<br>0.88) | <0.0001 | 1.19 (1.17-<br>1.21) | <0.0001 | 1.19 (1.17-<br>1.20) | <0.0001 | 1.39 (1.36-<br>1.41) | <0.0001 | 0.99 (0.96-<br>1.02) | n.s. | 1.31 (1.29-<br>1.32) | <0.0001 |
|----------------------|------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|------|----------------------|---------|

#### *Characteristics of the living environment*

|                         |                      |         |                      |         |                      |         |                      |         |                      |         |                      |         |                      |         |
|-------------------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|
| Social<br>fragmentation | 0.94 (0.93-<br>0.94) | <0.0001 | 1.00 (1.00-<br>1.00) | <0.0001 | 0.99 (0.99-<br>0.99) | <0.0001 | 0.98 (0.98-<br>0.98) | <0.0001 | 0.98 (0.98-<br>0.99) | <0.0001 | 0.98 (0.98-<br>0.98) | <0.0001 | 0.96 (0.96-<br>0.97) | <0.0001 |
|-------------------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|

Taxonomy of  
French local  
geographical  
areas (ref : *ad  
hoc* category  
created for  
overseas



territories

which present

similarities in

terms of

accessibility to

healthcare)

1: Suburban  
areas with a  
lower

accessibility to

healthcare and

medium overall

health status of

the population

2: Rural

borders with a

lower

accessibility to

healthcare

3: Areas with

a strong

attraction for

tourist and

retired

populations

and the best

|                  |         |                  |         |                  |         |                  |         |                  |         |                  |         |                  |         |
|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|
| 1.79 (1.74-1.83) | <0.0001 | 0.94 (0.93-0.95) | <0.0001 | 1.11 (1.09-1.14) | <0.0001 | 1.62 (1.58-1.65) | <0.0001 | 1.27 (1.23-1.32) | <0.0001 | 1.02 (0.96-1.07) | n.s.    | 1.32 (1.29-1.35) | <0.0001 |
| 1.76 (1.71-1.80) | <0.0001 | 0.96 (0.95-0.98) | <0.0001 | 1.03 (1.00-1.05) | n.s.    | 1.50 (1.47-1.54) | <0.0001 | 1.08 (1.04-1.12) | 0.0001  | 1.00 (0.94-1.06) | n.s.    | 1.23 (1.20-1.26) | <0.0001 |
| 1.63 (1.58-1.67) | <0.0001 | 0.99 (0.97-1.00) | n.s.    | 1.28 (1.25-1.31) | <0.0001 | 1.78 (1.74-1.82) | <0.0001 | 1.28 (1.24-1.33) | <0.0001 | 0.89 (0.84-0.94) | <0.0001 | 1.39 (1.36-1.43) | <0.0001 |



accessibility to  
healthcare

4: Deprived  
areas, urban

|                                                                       |                      |         |                      |         |                      |        |                      |         |                      |         |                      |        |                      |         |
|-----------------------------------------------------------------------|----------------------|---------|----------------------|---------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|--------|----------------------|---------|
| and rural, with<br>poor overall<br>health status of<br>the population | 2.03 (1.98-<br>2.08) | <0.0001 | 1.08 (1.06-<br>1.09) | <0.0001 | 1.04 (1.01-<br>1.06) | 0.0043 | 1.38 (1.35-<br>1.41) | <0.0001 | 1.14 (1.10-<br>1.18) | <0.0001 | 1.09 (1.03-<br>1.15) | 0.0019 | 1.17 (1.15-<br>1.20) | <0.0001 |
|-----------------------------------------------------------------------|----------------------|---------|----------------------|---------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|--------|----------------------|---------|

5: Cities with  
abundant

|                                                                           |                      |         |                      |        |                      |         |                      |         |                      |         |                      |      |                      |         |
|---------------------------------------------------------------------------|----------------------|---------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|------|----------------------|---------|
| healthcare<br>supply and<br>heterogeneous<br>socio-economic<br>situations | 1.72 (1.68-<br>1.76) | <0.0001 | 1.02 (1.01-<br>1.03) | 0.0069 | 1.22 (1.19-<br>1.25) | <0.0001 | 1.60 (1.57-<br>1.64) | <0.0001 | 1.38 (1.34-<br>1.43) | <0.0001 | 0.97 (0.92-<br>1.02) | n.s. | 1.33 (1.30-<br>1.36) | <0.0001 |
|---------------------------------------------------------------------------|----------------------|---------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|------|----------------------|---------|

|                                              |                      |         |                      |         |                      |         |                      |         |                      |         |                      |         |                      |         |
|----------------------------------------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|
| 6: Wealthy<br>cities and sub-<br>urban areas | 1.30 (1.27-<br>1.33) | <0.0001 | 0.87 (0.86-<br>0.88) | <0.0001 | 1.35 (1.32-<br>1.38) | <0.0001 | 1.79 (1.76-<br>1.83) | <0.0001 | 1.68 (1.62-<br>1.74) | <0.0001 | 0.82 (0.78-<br>0.86) | <0.0001 | 1.51 (1.48-<br>1.55) | <0.0001 |
|----------------------------------------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|

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Urban area  
zoning (ref:  
isolated  
municipality  
located outside  
the sphere of  
influence of a  
urban center)



|                                                      |                  |         |                  |         |                  |         |                  |         |                  |         |                  |      |                  |         |
|------------------------------------------------------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|------|------------------|---------|
| Large urban center                                   | 1.05 (1.03-1.08) | <0.0001 | 1.02 (1.00-1.03) | 0.0103  | 1.15 (1.13-1.17) | <0.0001 | 1.09 (1.07-1.11) | <0.0001 | 1.29 (1.25-1.33) | <0.0001 | 0.96 (0.92-1.01) | n.s. | 1.14 (1.12-1.17) | <0.0001 |
| Suburban municipality of a large urban center        | 1.04 (1.02-1.07) | 0.0017  | 0.99 (0.98-1.00) | n.s.    | 1.08 (1.06-1.10) | <0.0001 | 1.09 (1.06-1.11) | <0.0001 | 1.27 (1.23-1.31) | <0.0001 | 0.99 (0.94-1.04) | n.s. | 1.10 (1.08-1.13) | <0.0001 |
| Suburban municipality of several large urban centers | 1.07 (1.04-1.11) | <0.0001 | 1.02 (1.01-1.04) | 0.0056  | 1.08 (1.06-1.10) | <0.0001 | 1.07 (1.04-1.09) | <0.0001 | 1.17 (1.13-1.21) | <0.0001 | 0.99 (0.93-1.05) | n.s. | 1.07 (1.05-1.10) | <0.0001 |
| Average urban center                                 | 1.13 (1.10-1.16) | <0.0001 | 0.97 (0.96-0.99) | 0.0005  | 1.06 (1.03-1.09) | <0.0001 | 1.09 (1.07-1.12) | <0.0001 | 1.07 (1.03-1.11) | 0.0002  | 1.00 (0.94-1.06) | n.s. | 1.08 (1.06-1.11) | <0.0001 |
| Suburban municipality of an average urban center     | 1.02 (0.96-1.09) | n.s.    | 0.86 (0.84-0.89) | <0.0001 | 0.99 (0.94-1.03) | n.s.    | 1.08 (1.02-1.13) | 0.0048  | 1.07 (0.99-1.15) | n.s.    | 1.01 (0.89-1.14) | n.s. | 1.05 (1.00-1.10) | n.s.    |
| Small urban center                                   | 1.09 (1.06-1.13) | <0.0001 | 1.02 (1.00-1.03) | 0.017   | 1.05 (1.03-1.08) | <0.0001 | 1.01 (0.98-1.03) | n.s.    | 1.09 (1.05-1.13) | <0.0001 | 1.02 (0.96-1.08) | n.s. | 1.07 (1.05-1.10) | <0.0001 |
| Suburban municipality of a small urban center        | 1.03 (0.94-1.12) | n.s.    | 0.97 (0.92-1.01) | n.s.    | 1.04 (0.98-1.11) | n.s.    | 1.03 (0.96-1.11) | n.s.    | 1.08 (0.98-1.20) | n.s.    | 1.08 (0.90-1.30) | n.s. | 0.95 (0.88-1.02) | n.s.    |
| Suburban municipality of several average             | 1.00 (0.98-1.03) | n.s.    | 0.98 (0.96-0.99) | 0.0005  | 1.03 (1.01-1.06) | 0.0011  | 1.00 (0.97-1.02) | n.s.    | 1.08 (1.05-1.12) | <0.0001 | 1.00 (0.95-1.06) | n.s. | 1.05 (1.03-1.07) | <0.0001 |



or small urban

centers

<sup>1</sup> Including cardiologists, dermatologists, gynaecologists, gastroenterologists, ophthalmologists, otolaryngologists and rheumatologists but excluding psychiatrists.

**Table S4.** Admissions to non-psychiatric hospital departments for somatic causes.

| Characteristics                                                                              | Admission to emergency somatic care (in emergency departments) |                  | Average total number of visits to somatic emergency departments |                  | Average number of visits to somatic emergency departments followed by a hospitalization |                  | Average number of visits to somatic emergency departments not precursor to a subsequent hospitalization |                  | Admission to hospital somatic departments <sup>1</sup> |                  | Admission for a avoidable hospitalization <sup>2</sup> |                  |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------|-----------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------|------------------|--------------------------------------------------------|------------------|
|                                                                                              | AOR (95% CI)                                                   | Adjusted P-value | AOR (95% CI)                                                    | Adjusted P-value | AOR (95% CI)                                                                            | Adjusted P-value | AOR (95% CI)                                                                                            | Adjusted P-value | AOR (95% CI)                                           | Adjusted P-value | AOR (95% CI)                                           | Adjusted P-value |
| <i>Clinical characteristics</i>                                                              |                                                                |                  |                                                                 |                  |                                                                                         |                  |                                                                                                         |                  |                                                        |                  |                                                        |                  |
| Presence of a SMI diagnosis (vs. absence)                                                    | 1.13 (1.12-1.14)                                               | <0.0001          | 1.18 (1.17-1.19)                                                | <0.0001          | 1.38 (1.35-1.40)                                                                        | <0.0001          | 1.14 (1.13-1.15)                                                                                        | <0.0001          | 0.99 (0.98-1.00)                                       | 0.0062           | 2.01 (1.94-2.08)                                       | <0.0001          |
| Comorbidity index                                                                            | 1.07 (1.07-1.07)                                               | <0.0001          | 1.08 (1.08-1.08)                                                | <0.0001          | 1.17 (1.17-1.18)                                                                        | <0.0001          | 1.05 (1.05-1.05)                                                                                        | <0.0001          | 1.16 (1.16-1.16)                                       | <0.0001          | 1.16 (1.15-1.16)                                       | <0.0001          |
| Length of stay in inpatient psychiatric care over the two-year study period (ref: >365 days) |                                                                |                  |                                                                 |                  |                                                                                         |                  |                                                                                                         |                  |                                                        |                  |                                                        |                  |
| 0 days                                                                                       | 0.33 (0.31-0.35)                                               | <0.0001          | 0.26 (0.24-0.28)                                                | <0.0001          | 0.18 (0.17-0.20)                                                                        | <0.0001          | 0.29 (0.26-0.31)                                                                                        | <0.0001          | 0.41 (0.38-0.43)                                       | <0.0001          | 0.31 (0.27-0.36)                                       | <0.0001          |



|              |                  |         |                  |         |                  |         |                  |        |                  |         |                  |         |
|--------------|------------------|---------|------------------|---------|------------------|---------|------------------|--------|------------------|---------|------------------|---------|
| 1-60 days    | 1.59 (1.49-1.70) | <0.0001 | 0.86 (0.81-0.93) | <0.0001 | 0.80 (0.74-0.86) | <0.0001 | 0.89 (0.82-0.96) | 0.0041 | 1.04 (0.98-1.11) | n.s.    | 0.48 (0.42-0.55) | <0.0001 |
| 61-180 days  | 1.8 (1.69-1.93)  | <0.0001 | 1.09 (1.02-1.17) | 0.0173  | 1.06 (0.98-1.14) | n.s.    | 1.10 (1.02-1.20) | 0.0196 | 1.20 (1.12-1.29) | <0.0001 | 0.56 (0.49-0.65) | <0.0001 |
| 181-365 days | 1.45 (1.35-1.56) | <0.0001 | 1.16 (1.07-1.25) | 0.0002  | 1.13 (1.04-1.22) | 0.0038  | 1.17 (1.07-1.28) | 0.0008 | 1.22 (1.13-1.31) | <0.0001 | 0.77 (0.66-0.90) | 0.0013  |

*Socio-economic characteristics at the individual level*

|                                                                                                                                     |                  |         |                  |         |                  |         |                  |         |                  |        |                  |         |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|--------|------------------|---------|
| Non-inclusion in the scheme providing financial assistance for the purchase of supplementary health insurance (ACS) (vs. inclusion) | 0.85 (0.84-0.86) | <0.0001 | 0.81 (0.80-0.82) | <0.0001 | 0.83 (0.82-0.85) | <0.0001 | 0.80 (0.79-0.82) | <0.0001 | 0.97 (0.96-0.99) | 0.0001 | 0.72 (0.69-0.75) | <0.0001 |
|-------------------------------------------------------------------------------------------------------------------------------------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|--------|------------------|---------|

*Characteristics of the living environment*

|                      |                  |       |                  |         |                  |        |                  |         |                  |         |                  |      |
|----------------------|------------------|-------|------------------|---------|------------------|--------|------------------|---------|------------------|---------|------------------|------|
| Social fragmentation | 1.00 (1.00-1.00) | 0.016 | 1.01 (1.01-1.01) | <0.0001 | 1.00 (1.00-1.01) | 0.0022 | 1.01 (1.01-1.01) | <0.0001 | 0.99 (0.99-0.99) | <0.0001 | 1.01 (1.00-1.01) | n.s. |
|----------------------|------------------|-------|------------------|---------|------------------|--------|------------------|---------|------------------|---------|------------------|------|

Taxonomy of French local geographical areas (ref : *ad hoc* category created for overseas territories which present similarities in terms of accessibility to healthcare)



|                                                                                                                |                  |         |                  |         |                  |         |                  |         |                  |         |                  |         |
|----------------------------------------------------------------------------------------------------------------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|
| 1: Suburban areas with a lower accessibility to healthcare and medium overall health status of the population  | 1.35 (1.32-1.38) | <0.0001 | 1.23 (1.20-1.27) | <0.0001 | 0.93 (0.89-0.98) | 0.0033  | 1.32 (1.29-1.36) | <0.0001 | 1.33 (1.30-1.37) | <0.0001 | 1.31 (1.18-1.46) | <0.0001 |
| 2: Rural borders with a lower accessibility to healthcare                                                      | 1.45 (1.41-1.48) | <0.0001 | 1.32 (1.28-1.36) | <0.0001 | 1.02 (0.97-1.08) | n.s.    | 1.40 (1.36-1.45) | <0.0001 | 1.39 (1.36-1.43) | <0.0001 | 1.42 (1.27-1.58) | <0.0001 |
| 3: Areas with a strong attraction for tourist and retired populations and the best accessibility to healthcare | 1.25 (1.21-1.28) | <0.0001 | 1.16 (1.13-1.20) | <0.0001 | 0.88 (0.83-0.92) | <0.0001 | 1.25 (1.21-1.29) | <0.0001 | 1.38 (1.35-1.42) | <0.0001 | 1.27 (1.13-1.42) | <0.0001 |
| 4: Deprived areas, urban and rural, with poor overall health status of the population                          | 1.48 (1.45-1.52) | <0.0001 | 1.35 (1.31-1.38) | <0.0001 | 1.13 (1.08-1.18) | <0.0001 | 1.41 (1.37-1.45) | <0.0001 | 1.42 (1.38-1.45) | <0.0001 | 1.62 (1.46-1.79) | <0.0001 |
| 5: Cities with abundant healthcare supply and heterogeneous                                                    | 1.40 (1.37-1.43) | <0.0001 | 1.30 (1.27-1.33) | <0.0001 | 0.91 (0.87-0.95) | <0.0001 | 1.41 (1.37-1.45) | <0.0001 | 1.34 (1.31-1.37) | <0.0001 | 1.30 (1.18-1.44) | <0.0001 |



socio-economic

situations

|                                          |                      |         |                      |        |                      |         |                      |         |                      |         |                      |      |
|------------------------------------------|----------------------|---------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|------|
| 6: Wealthy cities<br>and sub-urban areas | 1.10 (1.07-<br>1.12) | <0.0001 | 1.04 (1.01-<br>1.07) | 0.0073 | 0.73 (0.69-<br>0.76) | <0.0001 | 1.13 (1.10-<br>1.16) | <0.0001 | 1.25 (1.22-<br>1.28) | <0.0001 | 1.04 (0.94-<br>1.16) | n.s. |
|------------------------------------------|----------------------|---------|----------------------|--------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|------|

Urban area zoning  
(ref: isolated  
municipality located  
outside the sphere of  
influence of a urban  
center)

|                                                               |                      |         |                      |         |                      |         |                      |         |                      |        |                      |      |
|---------------------------------------------------------------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|---------|----------------------|--------|----------------------|------|
| Large urban center                                            | 1.25 (1.22-<br>1.28) | <0.0001 | 1.26 (1.23-<br>1.29) | <0.0001 | 0.99 (0.95-<br>1.03) | n.s.    | 1.35 (1.32-<br>1.39) | <0.0001 | 1.03 (1.01-<br>1.05) | 0.0154 | 1.00 (0.91-<br>1.10) | n.s. |
| Suburban<br>municipality of a<br>large urban center           | 1.11 (1.09-<br>1.14) | <0.0001 | 1.10 (1.08-<br>1.13) | <0.0001 | 0.91 (0.88-<br>0.95) | <0.0001 | 1.16 (1.14-<br>1.20) | <0.0001 | 1.01 (0.98-<br>1.03) | n.s.   | 0.92 (0.83-<br>1.02) | n.s. |
| Suburban<br>municipality of<br>several large urban<br>centers | 1.11 (1.08-<br>1.14) | <0.0001 | 1.09 (1.07-<br>1.12) | <0.0001 | 0.91 (0.87-<br>0.96) | 0.0001  | 1.15 (1.12-<br>1.19) | <0.0001 | 1.00 (0.97-<br>1.02) | n.s.   | 1.05 (0.94-<br>1.18) | n.s. |
| Average urban<br>center                                       | 1.40 (1.36-<br>1.43) | <0.0001 | 1.40 (1.36-<br>1.44) | <0.0001 | 1.02 (0.97-<br>1.07) | n.s.    | 1.52 (1.48-<br>1.57) | <0.0001 | 1.02 (1.00-<br>1.05) | n.s.   | 1.11 (0.99-<br>1.24) | n.s. |
| Suburban<br>municipality of an<br>average urban center        | 1.26 (1.19-<br>1.33) | <0.0001 | 1.19 (1.13-<br>1.25) | <0.0001 | 0.85 (0.77-<br>0.94) | 0.0012  | 1.30 (1.23-<br>1.37) | <0.0001 | 0.96 (0.91-<br>1.02) | n.s.   | 1.06 (0.84-<br>1.35) | n.s. |
| Small urban center                                            | 1.10 (1.07-<br>1.13) | <0.0001 | 1.12 (1.09-<br>1.15) | <0.0001 | 0.95 (0.91-<br>1.00) | 0.0462  | 1.17 (1.14-<br>1.21) | <0.0001 | 1.03 (1.00-<br>1.05) | n.s.   | 1.11 (0.99-<br>1.24) | n.s. |



|                                                                          |                      |         |                      |         |                      |        |                      |         |                      |      |                      |      |
|--------------------------------------------------------------------------|----------------------|---------|----------------------|---------|----------------------|--------|----------------------|---------|----------------------|------|----------------------|------|
| Suburban<br>municipality of a<br>small urban center                      | 1.16 (1.07-<br>1.25) | 0.0002  | 1.22 (1.13-<br>1.32) | <0.0001 | 0.89 (0.77-<br>1.02) | n.s.   | 1.32 (1.21-<br>1.43) | <0.0001 | 1.05 (0.97-<br>1.14) | n.s. | 1.12 (0.81-<br>1.56) | n.s. |
| Suburban<br>municipality of<br>several average or<br>small urban centers | 1.12 (1.09-<br>1.14) | <0.0001 | 1.10 (1.07-<br>1.13) | <0.0001 | 0.94 (0.90-<br>0.99) | 0.0098 | 1.15 (1.12-<br>1.19) | <0.0001 | 0.99 (0.97-<br>1.02) | n.s. | 0.96 (0.86-<br>1.07) | n.s. |

<sup>1</sup> Excluding hospitalizations in somatic departments for psychiatric conditions or suicide attempts.

<sup>2</sup> Hospitalizations for asthma, congestive heart failure, chronic obstructive pulmonary disease, dehydration, complications of diabetes, angina (chest pain), dental problem, nutritional deficiency, conditions following immunization.