Table S1. Immediate and long-term effect of the events under study based on segmented logistic regression models (Odds Ratio and 95% CI) without imputed data\*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Poor populationa | Low- and middle-income pensioners | Low-income non-pensioners | Middle-income non-pensioners | High-income populationa |
|  | OR | 95% CI | OR | 95% CI | OR | 95% CI | OR | 95% CI | OR | 95% CI |
| Baseline level of IMNA (intercept, $e^{β0}$) | **0.193** | **0.161; 0.231** | **0.165** | **0.151; 0.181** | **0.124** | **0.117; 0.132** | **0.131** | **0.118; 0.144** | **0.197** | **0.084; 0.463** |
| Baseline trend per week of IMNA (pre-intervention slope, $e^{β1}$)b | 1.000 | 0.995; 1.006 | **0.995** | **0.992; 0.997** | 1.000 | 0.998; 1.002 | 0.999 | 0.995; 1.002 | 0.988 | 0.956; 1.021 |
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| Immediate effect of the event (level change in IMNA rate from prior week, $e^{β2}$) c | **0.812** | **0.664; 0.993** | 0.994 | 0.899; 1.099 | **0.905** | **0.843; 0.971** | 0.907 | 0.796; 1.033 | 0.636 | 0.190; 2.127 |
| Long term effect of the event (gradual change in slope, per week, $e^{β1+β3}$) d | 1.000 | 0.993; 1.008 | 0.994 | **0.990; 0.998** | 0.996 | 0.993; 0.998 | 0.999 | 0.994; 1.004 | 1.014 | 0.969; 1.061 |
| **Introduction of the fixed co-payment e** |  |  |  |  |  |  |  |  |  |  |
| Immediate effect of the event (level change in IMNA rate from prior week, $e^{β4}$)c | **1.484** | **1.053; 2.091** | **1.418** | **1.211; 1.660** | **1.139** | **0.994; 1.305** | 0.965 | 0.746; 1.247 | 4.487 | 0.615; 32.71 |
| Long term effect of the event (gradual change in slope, per week,$ e^{β1+β3+β5}$) d | **0.932** | **0.877; 0.991** | **1.087** | **1.062; 1.112** | 1.059 | 1.024; 1.095 | **1.080** | **1.015; 1.150** | 0.677 | 0.407; 1.127 |
| **Change in co-insurance schemee** |  |  |  |  |  |  |  |  |  |  |
| Immediate effect of the event (level change in IMNA rate from prior week, $e^{β6}$) c | 1.002 | 0.717; 1.399 | 0.914 | 0.755; 1.107 | 0.978 | 0.801; 1.195 | 0.955 | 0.658; 1.388 | 19.05 | 0.559; 649.7 |
| Long term effect of the event (gradual change in slope, per week, $e^{β1+β3+β5+β7}$)d | **1.044** | **1.026; 1.062** | 0.979 | 0.969; 0.989 | 1.002 | 0.996; 1.008 | 1.004 | 0.993; 1.015 | 0.947 | 0.831; 1.079 |
| **Suspension of fixed co-payment** |  |  |  |  |  |  |  |  |  |  |
| Immediate effect of the event (level change in IMNA rate from prior week, $e^{β8}$)c | **0.693** | **0.545; 0.882** | 0.938 | 0.835; 1.055 | **0.879** | **0.811; 0.952** | **0.764** | **0.663; 0.881** | 2.009 | 0.347; 11.64 |
| Long term effect of the event (gradual change in slope, per week, $e^{β1+β3+β5+β7+β9}$)d | 0.995 | 0.993; 0.998 | **0.999** | 0.998; 1.000 | 1.000 | 0.999; 1.000 | 1.002 | 1.000; 1.003 | 1.001 | 0.986; 1.016 |

\*Models were adjusted by the characteristics of patients, GPs and PC centers as well as for seasonality (week of the month and month of the year).

a Includes pensioners and non-pensioners

b Bold numbers indicate statistically significant difference from zero.

c This row reports the level change in IMNA prevalence (OR) –i.e., the increase/decrease in IMNA prevalence- immediately after the event week; Bold numbers indicate statistically significant differences (95% confidence probability)

d This row reports period trend in OR per one-week increase. Bold numbers indicate statistically significant differences between each period slope and initial period slope.

e The end of the third period and the beginning of the fourth period are not the same for all population profiles. For only-non-pensioner profiles (40% and 50%) the period change was in the 83rd week, for only-pensioner profiles (40%) the period change was in the 88th week and for profile groups with pensioner and non-pensioner the period change was in the 85th week.

Table S2. Odds Ratio of IMNA trend in each period in segmented logistic regression model for all medication.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Poor populationa | Low- and middle-income pensioners | Low-income non-pensioners | Middle-income non-pensioners | High-income populationa |
|  | OR | 95% CI | OR | 95% CI | OR | 95% CI | OR | 95% CI | OR | 95% CI |
| **All medication** |  |  |  |  |  |  |  |  |  |  |
| **News release** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β3) | 0.998 | 0.996; 1.001 | **0.995** | **0.994; 0.996** | **0.998** | **0.997; 0.999** | **0.997** | **0.996; 0.998** | **0.981** | **0.969; 0.993** |
| **Introduction of the fixed co-payment b** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β5) | **0.963** | **0.949; 0.977** | **1.066** | **1.060; 1.072** | **1.025** | **1.017: 1.033** | **1.031** | **1.018; 1.044** | **1.122** | **1.036; 1.215** |
| **Change in co-insurance scheme b** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β7) | **1.069** | **1.053; 1.085** | **0.928** | **0.923; 0.934** | **0.976** | **0.969; 0.984** | **0.969** | **0.957; 0.982** | **0.895** | **0.824; 0.972** |
| **Suspension of fixed co-payment** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β9) | **0.967** | **0.964; 0.971** | **1.017** | **1.014; 1.019** | 1.001 | 0.999; 1.002 | **1.004** | **1.002; 1.006** | 1.015 | 0.995; 1.035 |

CI: Confidence Interval.

Models adjusted by patient, GP, PCC characteristics and temporality (day of the week, week of the month and month of the year).

Bold numbers indicate statistically significance from zero (95% CI).

a Includes pensioners and non-pensioners

b The end of the third period and the beginning of the fourth period are not the same for all population profiles. For only-non-pensioner profiles (40% and 50%) the period change was in the 83rd week, for only-pensioner profiles (40%) the period change was in the 88th week and for profile groups with pensioner and non-pensioner the period change was in the 85th week.

Table S3. Odds Ratio of IMNA trend in each period in segmented logistic regression model for specific pharmacologic groups.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Poor populationa | Low- and middle-income pensioners | Low-income non-pensioners | Middle-income non-pensioners | High-income populationa |
|  | OR | 95% CI | OR | 95% CI | OR | 95% CI | OR | 95% CI | OR | 95% CI |
| **Medication for chronic condition** |  |  |  |  |  |  |  |  |  |  |
| **News release** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β3) | **1.012** | **1.006; 1.019** | **1.008** | **1.005; 1.011** | **1.006** | **1.002; 1.009** | 1.002 | 0.997; 1.007 | **0.960** | **0.930; 0.991** |
| **Introduction of the fixed co-payment b** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β5) | **0.912** | **0.879; 0.947** | **1.038** | **1.024; 1.052** | 1.003 | 0.972; 1.035 | 1.034 | 0.988; 1.082 | **1.244** | **1.046; 1.481** |
| **Change in co-insurance scheme b** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β7) | **1.124** | **1.080; 1.169** | **0.954** | **0.940; 0.968** | 0.992 | 0.960; 1.025 | 0.954 | 0.919; 1.011 | **0.804** | **0.668; 0.969** |
| **Suspension of fixed co-payment** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β9) | **0.966** | **0.956; 0.977** | **1.011** | **1.005; 1.016** | 1.001 | 0.995; 1.007 | 1.001 | 0.992; 1.009 | 1.032 | 0.976; 1.092 |
| **Analgesics** |  |  |  |  |  |  |  |  |  |  |
| **News release** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β3) | 0.998 | 0.995;1.001 | **0.991** | **0.989;0.993** | **0.997** | **0.996;0.998** | **0.997** | **0.995;0.999** | **0.980** | **0.963;0.997** |
| **Introduction of the fixed co-payment b** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β5) | **0.968** | **0.948;0.988** | **1.078** | **1.069;1.087** | **1.034** | **1.024;1.044** | **1.041** | **1.023;1.059** | 1.061 | 0.934;1.205 |
| **Change in co-insurance scheme b** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β7) | **1.065** | **1.043;1.088** | **0.920** | **0.912;0.928** | **0.968** | **0.958;0.978** | **0.960** | **0.943;0.977** | 0.946 | 0.83;1.079 |
| **Suspension of fixed co-payment** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β9) | **0.965** | **0.960;0.970** | **1.017** | **1.013;1.02** | 1.001 | 0.999;1.002 | **1.005** | **1.002;1.007** | 1.011 | 0.983;1.04 |
| **Penicillins** |  |  |  |  |  |  |  |  |  |  |
| **News release** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β3) | **0.996** | **0.988;1.004** | 0.996 | 0.992;1.001 | 0.999 | 0.997;1.002 | 0.998 | 0.993;1.003 | 0.964 | 0.915;1.015 |
| **Introduction of the fixed co-payment b** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β5) | **0.962** | **0.912;1.015** | **1.064** | **1.038;1.09** | 0.994 | 0.967;1.022 | 1.011 | 0.961;1.064 | 1.113 | 0.808;1.534 |
| **Change in co-insurance scheme b** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β7) | 1.060 | 1.003;1.121 | **0.930** | **0.906;0.954** | 1.004 | 0.976;1.033 | 0.994 | 0.943;1.047 | 0.909 | 0.652;1.267 |
| **Suspension of fixed co-payment** |  |  |  |  |  |  |  |  |  |  |
| Long term effect of the event (gradual change in slope, per week, β9) | 0.974 | 0.961;0.987 | **1.016** | **1.006;1.025** | 1.002 | 0.998;1.006 | 1.001 | 0.993;1.008 | 1.015 | 0.942;1.093 |

Models adjusted by patient, GP, PCC characteristics and temporality (day of the week, week of the month and month of the year).

a Includes pensioners and non-pensioners

b The end of the third period and the beginning of the fourth period are not the same for all population profiles. For only-non-pensioner profiles (40% and 50%) the period change was in the 83rd week, for only-pensioner profiles (40%) the period change was in the 88th week and for profile groups with pensioner and non-pensioner the period change was in the 85th week.