

Table S1. Adjustment of the linear time-series regression model of the average log of 1DDD/1,000 inhabit-ants/year of NSAIDS.

```
Call:
lm(formula = log(DDD) ~ residuosdef2 + residuosdef3 + residuosdef4 +
    tt + City + tt:City, data = dt)

Residuals:
    Min       1Q   Median       3Q      Max
-3.5528 -0.3125  0.0243  0.4058  2.7125

Coefficients:
                Estimate Std. Error t value Pr(>|t|)
(Intercept)      1.94837    0.57271   3.402 0.000749 ***
residuosdef2     -0.20938    0.05566  -3.762 0.000198 ***
residuosdef3     -0.29904    0.05782  -5.172 3.98e-07 ***
residuosdef4     -0.33560    0.06521  -5.146 4.51e-07 ***
tt                0.37985    0.08448   4.497 9.50e-06 ***
City ANTONIO CARLOS  0.12481    0.80953   0.154 0.877567
City ARAPUA         0.51681    0.81006   0.638 0.523917
City BALDIM         2.49191    0.81124   3.072 0.002301 **
City BELA VISTA DE MINAS 2.88497    0.80952   3.564 0.000418 ***
City BONFINOPOLIS DE MINAS 2.79380    0.81034   3.448 0.000637 ***
City CATAS ALTAS    3.93701    0.81003   4.860 1.80e-06 ***
City CONEGO MARINHO 0.75728    0.80962   0.935 0.350277
City CONGONHAS DO NORTE 3.43479    0.81040   4.238 2.91e-05 ***
City DOM CAVATI     0.75769    0.81485   0.930 0.353107
City DOURADOQUARA   3.57622    0.81082   4.411 1.39e-05 ***
City INDIANOPOLIS   2.95797    0.80968   3.653 0.000300 ***
City JEQUITIBA      -0.54795    0.80984  -0.677 0.499114
City JOANESIA       2.80149    0.80999   3.459 0.000612 ***
City JOAO MONLEVADE -3.08393    0.81017  -3.807 0.000167 ***
City LAGOA FORMOSA  2.08493    0.80981   2.575 0.010460 *
City LIMEIRA DO OESTE 1.58685    0.80953   1.960 0.050790 .
City MALACACHETA    -0.92290    0.80971  -1.140 0.255179
City MESQUITA       0.90947    0.80987   1.123 0.262242
City MONJOLOS       3.07809    0.81075   3.797 0.000174 ***
City NOVA PONTE     1.69089    0.81046   2.086 0.037695 *
City PALMA          2.99534    0.80956   3.700 0.000252 ***
City PEDRA DO INDAIA 3.45909    0.81005   4.270 2.54e-05 ***
City PRESIDENTE JUSCELINO 0.67182    0.80954   0.830 0.407196
City RIO PARANAIBA  -1.67014    0.81020  -2.061 0.040027 *
City SANTA BARBARA  -2.85477    0.81074  -3.521 0.000488 ***
City SAO DOMINGOS DO PRATA -1.94685    0.80973  -2.404 0.016738 *
City SAO GONCALO DO ABAETE 2.53549    0.81532   3.110 0.002031 **
City SAO GONCALO DO RIO ABAIXO 4.43388    0.80959   5.477 8.46e-08 ***
City SAO JOAO DO MANHUACU 1.31146    0.81025   1.619 0.106465
City SAO JOSE DA SAFIRA 0.99156    0.80956   1.225 0.221496
City SAO SEBASTIAO DO RIO PRETO 3.71608    0.80998   4.588 6.31e-06 ***
City SAO TOMAS DE AQUINO 2.06573    0.81020   2.550 0.011223 *
City SAO VICENTE DE MINAS 2.48386    0.80981   3.067 0.002334 **
City SENHORA DOS REMEDIOS 2.53470    0.80950   3.131 0.001892 **
City SETE LAGOAS    -6.82214    0.81313  -8.390 1.33e-15 ***
City UBERABA        -4.58765    0.80955  -5.667 3.11e-08 ***
City VERISSIMO      2.31805    0.80999   2.862 0.004474 **
tt:City ANTONIO CARLOS -0.06978    0.11937  -0.585 0.559230
tt:City ARAPUA      -0.07960    0.11963  -0.665 0.506243
tt:City BALDIM      -0.35328    0.11981  -2.949 0.003412 **
tt:City BELA VISTA DE MINAS -0.29520    0.11937  -2.473 0.013887 *
tt:City BONFINOPOLIS DE MINAS -0.42843    0.11963  -3.581 0.000392 ***
tt:City CATAS ALTAS  -0.38833    0.11942  -3.252 0.001262 **
tt:City CONEGO MARINHO -0.21114    0.11942  -1.768 0.077953 .
tt:City CONGONHAS DO NORTE -0.53999    0.11960  -4.515 8.75e-06 ***
tt:City DOM CAVATI   -0.15515    0.12088  -1.283 0.200194
tt:City DOURADOQUARA -0.44722    0.11969  -3.737 0.000219 ***
tt:City INDIANOPOLIS -0.27411    0.11937  -2.296 0.022272 *
tt:City JEQUITIBA    -0.13337    0.11952  -1.116 0.265261
tt:City JOANESIA     -0.43692    0.11953  -3.655 0.000297 ***
tt:City JOAO MONLEVADE -0.06292    0.11942  -0.527 0.598604
tt:City LAGOA FORMOSA -0.16622    0.11942  -1.392 0.164891
tt:City LIMEIRA DO OESTE -0.21875    0.11937  -1.833 0.067748 .
tt:City MALACACHETA  -0.09109    0.11944  -0.763 0.446217
tt:City MESQUITA     -0.23589    0.11951  -1.974 0.049214 *
tt:City MONJOLOS     -0.39060    0.11985  -3.259 0.001231 **
tt:City NOVA PONTE   -0.12145    0.11972  -1.014 0.311124
tt:City PALMA        -0.70958    0.11940  -5.943 6.96e-09 ***
tt:City PEDRA DO INDAIA -0.37368    0.11949  -3.127 0.001918 **
tt:City PRESIDENTE JUSCELINO -0.13938    0.11937  -1.168 0.243787
tt:City RIO PARANAIBA -0.16926    0.11956  -1.416 0.157778
tt:City SANTA BARBARA -0.31533    0.11959  -2.637 0.008758 **
tt:City SAO DOMINGOS DO PRATA -0.08668    0.11944  -0.726 0.468494
tt:City SAO GONCALO DO ABAETE -0.51436    0.12021  -4.279 2.45e-05 ***
tt:City SAO GONCALO DO RIO ABAIXO -0.53819    0.11940  -4.508 9.04e-06 ***
tt:City SAO JOAO DO MANHUACU -0.48781    0.11959  -4.079 5.64e-05 ***
tt:City SAO JOSE DA SAFIRA -0.30396    0.11939  -2.546 0.011341 *
tt:City SAO SEBASTIAO DO RIO PRETO -0.36481    0.11943  -3.055 0.002433 **
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tt:CitySAO TOMAS DE AQUINO	-0.51641	0.11957	-4.319	2.06e-05	***
tt:CitySAO VICENTE DE MINAS	-0.31418	0.11941	-2.631	0.008899	**
tt:CitySENHORA DOS REMEDIOS	-0.44881	0.11935	-3.760	0.000200	***
tt:CitySETE LAGOAS	0.36744	0.12072	3.044	0.002518	**
tt:CityUBERABA	-0.25704	0.11938	-2.153	0.032011	*
tt:CityVERISSIMO	-0.19863	0.11942	-1.663	0.097177	.

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.8851 on 339 degrees of freedom
Multiple R-squared: 0.8567, Adjusted R-squared: 0.8237
F-statistic: 25.97 on 78 and 339 DF, p-value: < 2.2e-16

Table S2. Full linear time-series regression model for DDD/1,000 inhabitants/year of NSAIDS and covariates.

```
> model3=lm(log(DDD)~Coverage+FDA+Ext+Endo+DP+tt+City+tt:City,data=dt) #
> summary(model3) # Adjust the least squares model.
```

Call:
lm(formula = log(DDD) ~ Coverage + FDA + Ext + Endo + DP + tt + City + tt:City, data = dt)

Residuals:

Min	1Q	Median	3Q	Max
-3.6242	-0.3586	0.0493	0.4513	2.6633

Coefficients:

	Estimate	Std. Error	tvalue	Pr(> t)
(Intercept)	1.669e+00	7.723e-01	2.161	0.031396 *
Coverage	1.612e-03	4.802e-03	0.336	0.737347
FDA	-1.161e-05	7.583e-05	-0.153	0.878454
Ext	8.109e-03	9.064e-03	0.895	0.371623
Endo	-3.613e-03	8.931e-03	-0.405	0.686067
DP	4.539e-03	2.061e-03	2.202	0.028359 *
tt	3.253e-01	9.010e-02	3.611	0.000352 ***
City ANTONIO CARLOS	1.950e-01	8.573e-01	0.227	0.820177
City ARAPUA	3.759e-01	8.656e-01	0.434	0.664335
City BALDIM	1.686e+00	8.751e-01	1.926	0.054898 .
City BELA VISTA DE MINAS	3.049e+00	9.182e-01	3.321	0.000997 ***
City BONFINOPOLIS DE MINAS	2.170e+00	8.639e-01	2.512	0.012488 *
City CATAS ALTAS	3.617e+00	8.810e-01	4.106	5.06e-05 ***
City CONEGO MARINHO	1.055e-02	1.003e+00	0.011	0.991607
City CONGONHAS DO NORTE	2.691e+00	8.952e-01	3.006	0.002844 **
City DOM CAVATI	-8.007e-01	9.017e-01	-0.888	0.375156
City DOURADOQUARA	2.519e+00	8.799e-01	2.863	0.004456 **
City INDIANOPOLIS	3.077e+00	8.579e-01	3.587	0.000384 ***
City JEQUITIBA	-7.543e-01	8.779e-01	-0.859	0.390850
City JOANESIA	2.828e+00	8.569e-01	3.300	0.001069 **
City JOAO MONLEVADE	-3.523e+00	9.570e-01	-3.681	0.000270 ***
City LAGOA FORMOSA	1.490e+00	8.842e-01	1.685	0.092888 .
City LIMEIRA DO OESTE	1.233e+00	8.637e-01	1.428	0.154263
City MALACACHETA	-1.161e+00	8.646e-01	-1.343	0.180208
City MESQUITA	7.642e-01	8.565e-01	0.892	0.372913
City MONJOLOS	1.637e+00	9.152e-01	1.789	0.074527 .
City NOVA PONTE	1.605e+00	8.636e-01	1.859	0.063919 .
City PALMA	2.872e+00	8.576e-01	3.349	0.000904 ***
City PEDRA DO INDAIA	3.086e+00	8.628e-01	3.576	0.000399 ***
City PRESIDENTE JUSCELINO	-1.243e-01	8.946e-01	-0.139	0.889557
City RIO PARANAIBA	-1.839e+00	8.701e-01	-2.114	0.035274 *
City SANTA BARBARA	-3.265e+00	8.977e-01	-3.637	0.000319 ***
City SAO DOMINGOS DO PRATA	-2.293e+00	8.698e-01	-2.637	0.008761 **
City SAO GONCALO DO ABAETE	2.033e+00	9.112e-01	2.231	0.026331 *
City SAO GONCALO DO RIO ABAIXO	4.156e+00	8.738e-01	4.757	2.92e-06 ***
City SAO JOAO DO MANHUACU	7.250e-01	8.681e-01	0.835	0.404236
City SAO JOSE DA SAFIRA	6.781e-01	8.675e-01	0.782	0.434964
City SAO SEBASTIAO DO RIO PRETO	3.222e+00	1.132e+00	2.846	0.004691 **
City SAO TOMAS DE AQUINO	1.968e+00	8.573e-01	2.296	0.022295 *
City SAO VICENTE DE MINAS	2.144e+00	8.633e-01	2.484	0.013490 *
City SENHORA DOS REMEDIOS	2.483e+00	8.815e-01	2.817	0.005136 **
City SETE LAGOAS	-7.250e+00	9.214e-01	-7.869	4.93e-14 ***
City UBERABA	-4.632e+00	8.689e-01	-5.330	1.80e-07 ***
City VERISSIMO	1.960e+00	8.691e-01	2.255	0.024747 *
tt:City ANTONIO CARLOS	-5.970e-02	1.263e-01	-0.473	0.636802
tt:City ARAPUA	-5.540e-02	1.277e-01	-0.434	0.664641
tt:City BALDIM	-2.309e-01	1.276e-01	-1.809	0.071379 .
tt:City BELA VISTA DE MINAS	-2.729e-01	1.284e-01	-2.125	0.034320 *
tt:City BONFINOPOLIS DE MINAS	-3.199e-01	1.272e-01	-2.514	0.012394 *
tt:City CATAS ALTAS	-3.697e-01	1.273e-01	-2.906	0.003908 **
tt:City CONEGO MARINHO	-1.047e-01	1.464e-01	-0.715	0.475337
tt:City CONGONHAS DO NORTE	-4.175e-01	1.290e-01	-3.238	0.001324 **
tt:City DOM CAVATI	1.122e-01	1.325e-01	0.847	0.397739
tt:City DOURADOQUARA	-2.919e-01	1.289e-01	-2.265	0.024146 *
tt:City INDIANOPOLIS	-2.785e-01	1.263e-01	-2.206	0.028065 *
tt:City JEQUITIBA	-1.203e-01	1.280e-01	-0.940	0.347976
tt:City JOANESIA	-4.222e-01	1.263e-01	-3.342	0.000926 ***
tt:City JOAO MONLEVADE	4.224e-02	1.297e-01	0.326	0.744982
tt:City LAGOA FORMOSA	-7.789e-02	1.320e-01	-0.590	0.555579
tt:City LIMEIRA DO OESTE	-1.371e-01	1.276e-01	-1.074	0.283502
tt:City MALACACHETA	-1.135e-01	1.265e-01	-0.897	0.370120
tt:City MESQUITA	-1.698e-01	1.264e-01	-1.344	0.179949
tt:City MONJOLOS	-1.941e-01	1.304e-01	-1.488	0.137705
tt:City NOVA PONTE	-1.196e-01	1.278e-01	-0.936	0.350181
tt:City PALMA	-6.411e-01	1.268e-01	-5.057	7.00e-07 ***
tt:City PEDRA DO INDAIA	-3.537e-01	1.400e-01	-2.527	0.011975 *
tt:City PRESIDENTE JUSCELINO	-9.671e-02	1.308e-01	-0.739	0.460129
tt:City RIO PARANAIBA	-1.027e-01	1.265e-01	-0.812	0.417261
tt:City SANTA BARBARA	-2.675e-01	1.466e-01	-1.825	0.068874 .
tt:City SAO DOMINGOS DO PRATA	-2.921e-02	1.274e-01	-0.229	0.818791

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tt:City SAO GONCALO DO ABAETE -3.983e-01 1.300e-01 -3.065 0.002352 **
tt:City SAO GONCALO DO RIO ABAIXO -5.214e-01 1.339e-01 -3.894 0.000119 ***
tt:City SAO JOAO DO MANHUACU -3.647e-01 1.277e-01 -2.856 0.004556 **
tt:City SAO JOSE DA SAFIRA -2.557e-01 1.282e-01 -1.995 0.046873 *
tt:City SAO SEBASTIAO DO RIO PRETO -3.038e-01 1.425e-01 -2.131 0.033788 *
tt:City SAO TOMAS DE AQUINO -4.503e-01 1.266e-01 -3.557 0.000429 ***
tt:City SAO VICENTE DE MINAS -2.435e-01 1.290e-01 -1.888 0.059883 .
tt:City SENHORA DOS REMEDIOS -4.137e-01 1.289e-01 -3.210 0.001455 **
tt:City SETE LAGOAS 5.391e-01 1.270e-01 4.244 2.84e-05 ***
tt:City UBERABA -1.943e-01 1.270e-01 -1.530 0.127071
tt:City VERISSIMO -1.524e-01 1.280e-01 -1.190 0.234766
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Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9358 on 337 degrees of freedom
Multiple R-squared: 0.8407, Adjusted R-squared: 0.8029
F-statistic: 22.23 on 80 and 337 DF, p-value: < 2.2e-16

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Table S3. Final linear time-series regression model for DDD/1,000 inhabitants/year of NSAIDS and covariates.

```

Call:
lm(formula = log(DDD) ~ DP + tt + City + tt:City, data = dt)

Residuals:
    Min       1Q   Median       3Q      Max
-3.8190 -0.3726  0.0529  0.4284  2.7604

Coefficients:
              Estimate Std. Error tvalue Pr(>|t|)
(Intercept)    2.036835   0.609189   3.344 0.000919 ***
DP             0.004755   0.002027   2.346 0.019566 *
tt              0.327170   0.090617   3.610 0.000352 ***
City ANTONIO CARLOS  0.234142   0.861493   0.272 0.785951
City ARAPUA         0.731905   0.861510   0.850 0.396165
City BALDIM         2.195972   0.861436   2.549 0.011234 *
City BELA VISTA DE MINAS 2.948325   0.861278   3.423 0.000694 ***
City BONFINOPOLIS DE MINAS 2.490708   0.861459   2.891 0.004083 **
City CATAS ALTAS     3.606916   0.863333   4.178 3.74e-05 ***
City CONEGO MARINHO  0.716633   0.861345   0.832 0.405995
City CONGONHAS DO NORTE 2.893657   0.870172   3.325 0.000979 ***
City DOM CAVATI      -0.049152   0.863095  -0.057 0.954620
City DOURADOQUARA    2.940355   0.871007   3.376 0.000821 ***
City INDIANOPOLIS    2.988696   0.862369   3.466 0.000596 ***
City JEQUITIBA       -0.259641   0.863979  -0.301 0.763965
City JOANESIA        2.825208   0.861767   3.278 0.001152 **
City JOAO MONLEVADE  -3.185030   0.861503  -3.697 0.000254 ***
City LAGOA FORMOSA    1.827029   0.879616   2.077 0.038543 *
City LIMEIRA DO OESTE 1.551052   0.861225   1.801 0.072589 .
City MALACACHETA     -0.997454   0.865180  -1.153 0.249764
City MESQUITA        0.794441   0.861596   0.922 0.357150
City MONJOLOS        2.187479   0.895179   2.444 0.015047 *
City NOVA PONTE      1.848724   0.862753   2.143 0.032835 *
City PALMA           3.008536   0.861641   3.492 0.000543 ***
City PEDRA DO INDAIA 3.311803   0.861609   3.844 0.000145 ***
City PRESIDENTE JUSCELINO 0.590530   0.861616   0.685 0.493573
City RIO PARANAIBA   -1.875760   0.861337  -2.178 0.030111 *
City SANTA BARBARA   -3.400207   0.866644  -3.923 0.000106 ***
City SAO DOMINGOS DO PRATA -2.072593   0.861667  -2.405 0.016690 *
City SAO GONCALO DO ABAETE 1.987237   0.861810   2.306 0.021716 *
City SAO GONCALO DO RIO ABAIXO 4.196084   0.867618   4.836 2.01e-06 ***
City SAO JOAO DO MANHUACU 1.116163   0.861560   1.296 0.196019
City SAO JOSE DA SAFIRA 0.780837   0.868363   0.899 0.369177
City SAO SEBASTIAO DO RIO PRETO 3.331971   0.865842   3.848 0.000142 ***
City SAO TOMAS DE AQUINO 1.906484   0.861927   2.212 0.027637 *
City SAO VICENTE DE MINAS 2.407357   0.861667   2.794 0.005503 **
City SENHORA DOS REMEDIOS 2.576464   0.861492   2.991 0.002986 **
City SETE LAGOAS     -7.347054   0.861318  -8.530 4.85e-16 ***
City UBERABA         -4.732710   0.861876  -5.491 7.81e-08 ***
City VERISSIMO       2.303424   0.865747   2.661 0.008168 **
tt:City ANTONIO CARLOS -0.073017   0.127001  -0.575 0.565716
tt:City ARAPUA        -0.103929   0.127219  -0.817 0.414536
tt:City BALDIM        -0.283006   0.127024  -2.228 0.026534 *
tt:City BELA VISTA DE MINAS -0.278132   0.127565  -2.180 0.029918 *
tt:City BONFINOPOLIS DE MINAS -0.348008   0.127553  -2.728 0.006695 **
tt:City CATAS ALTAS    -0.363291   0.126976  -2.861 0.004482 **
tt:City CONEGO MARINHO -0.196026   0.126984  -1.544 0.123588
tt:City CONGONHAS DO NORTE -0.448685   0.128556  -3.490 0.000546 ***
tt:City DOM CAVATI     0.005146   0.127367   0.040 0.967798
tt:City DOURADOQUARA  -0.340073   0.128358  -2.649 0.008439 **
tt:City INDIANOPOLIS  -0.280615   0.127042  -2.209 0.027851 *
tt:City JEQUITIBA      -0.179210   0.127071  -1.410 0.159361
tt:City JOANESIA       -0.437179   0.127002  -3.442 0.000649 ***
tt:City JOAO MONLEVADE -0.028695   0.127402  -0.225 0.821936
tt:City LAGOA FORMOSA  -0.134768   0.129613  -1.040 0.299184
tt:City LIMEIRA DO OESTE -0.178794   0.127487  -1.402 0.161692
tt:City MALACACHETA    -0.125515   0.126997  -0.988 0.323694
tt:City MESQUITA       -0.178687   0.127102  -1.406 0.160679
tt:City MONJOLOS       -0.266074   0.128443  -2.072 0.039060 *
tt:City NOVA PONTE     -0.157224   0.127732  -1.231 0.219213
tt:City PALMA          -0.668557   0.127162  -5.258 2.58e-07 ***
tt:City PEDRA DO INDAIA -0.372329   0.128024  -2.908 0.003873 **
tt:City PRESIDENTE JUSCELINO -0.180205   0.128111  -1.407 0.160446
tt:City RIO PARANAIBA  -0.108314   0.127054  -0.852 0.394535
tt:City SANTA BARBARA  -0.228805   0.127703  -1.792 0.074068 .
tt:City SAO DOMINGOS DO PRATA -0.074390   0.127075  -0.585 0.558663
tt:City SAO GONCALO DO ABAETE -0.408731   0.127125  -3.215 0.001428 **
tt:City SAO GONCALO DO RIO ABAIXO -0.521267   0.127511  -4.088 5.43e-05 ***
tt:City SAO JOAO DO MANHUACU -0.413530   0.127265  -3.249 0.001272 **

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tt:City SAO JOSE DA SAFIRA      -0.275715    0.128299    -2.149 0.032337 *
tt:City SAO SEBASTIAO DO RIO PRETO -0.309457    0.127633    -2.425 0.015845 *
tt:City SAO TOMAS DE AQUINO      -0.453954    0.127067    -3.573 0.000404 ***
tt:City SAO VICENTE DE MINAS     -0.296898    0.126988    -2.338 0.019965 *
tt:City SENHORA DOS REMEDIOS     -0.437191    0.127102    -3.440 0.000655 ***
tt:City SETE LAGOAS              0.521896    0.127353     4.098 5.21e-05 ***
tt:City UBERABA                  -0.210626    0.127671    -1.650 0.099913 .
tt:City VERISSIMO                -0.182364    0.128403    -1.420 0.156449

---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.9417 on 341 degrees of freedom
Multiple R-squared:  0.8368,    Adjusted R-squared:  0.8004 
F-statistic: 23.01 on 76 and 341 DF,  p-value: < 2.2e-16

```

Table S4. Adjustment of the linear time-series regression model for log of DDD/1,000 inhabitants/year of analgesics.

```

Call:
lm(formula = log(DDD) ~ residuosdef2 + residuosdef3 + residuosdef4 +
    tt + City + tt:City, data = dt)

Residuals:
    Min       1Q   Median       3Q      Max
-3.4230 -0.3441  0.0224  0.4296  2.6927

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)   0.4587646   0.5183599   0.885 0.376694
residuosdef2  -0.2738633   0.0536506  -5.105 5.23e-07 ***
residuosdef3  -0.2059644   0.0551056  -3.738 0.000214 ***
residuosdef4  -0.2917379   0.0608577  -4.794 2.34e-06 ***
tt             0.2816742   0.0764311   3.685 0.000261 ***
City ARAPUA    0.5660692   0.7330887   0.772 0.440489
City BALDIM    2.5469238   0.7337128   3.471 0.000577 ***
City BELA VISTA DE MINAS 2.4355222   0.7333397   3.321 0.000982 ***
City BONFINOPOLIS DE MINAS 2.9054751   0.7331366   3.963 8.82e-05 ***
City CARNEIRINHO -1.8183032   0.7335968  -2.479 0.013618 *
City CATAS ALTAS 4.1410321   0.7344414   5.638 3.33e-08 ***
City CLAUDIO   -0.8360687   0.7379285  -1.133 0.257924
City CONEGO MARINHO 1.4714822   0.7344899   2.003 0.045836 *
City CONGONHAS DO NORTE 3.0305208   0.7334280   4.132 4.42e-05 ***
City CONQUISTA 1.5560284   0.7331157   2.122 0.034436 *
City DOM BOSCO 0.9346940   0.7359268   1.270 0.204821
City DOM CAVATI 1.1909739   0.7340504   1.622 0.105524
City DOM SILVERIO 0.2876546   0.7339773   0.392 0.695341
City DOURADOQUARA 3.6854934   0.7331361   5.027 7.66e-07 ***
City INDIANOPOLIS 3.5516985   0.7331627   4.844 1.85e-06 ***
City JABOTICATUBAS -3.3285691   0.7344928  -4.532 7.82e-06 ***
City JEQUITIBA  0.6998710   0.7330917   0.955 0.340338
City JOANESIA  2.7926220   0.7334619   3.807 0.000163 ***
City JOAO MONLEVADE -4.0662682   0.7331116  -5.547 5.43e-08 ***
City LAGOA FORMOSA 2.2933578   0.7335628   3.126 0.001905 **
City LIMEIRA DO OESTE 3.1426582   0.7331130   4.287 2.30e-05 ***
City MALACACHETA 0.2792817   0.7340753   0.380 0.703819
City MESQUITA  1.0148051   0.7339674   1.383 0.167582
City MINDURI    0.3347115   0.7336140   0.456 0.648468
City MONJOLOS   3.7450471   0.7336099   5.105 5.22e-07 ***
City NOVA PONTE 0.8333061   0.7332864   1.136 0.256498
City PALMA      3.7014001   0.7334416   5.047 6.96e-07 ***
City PATOS DE MINAS -4.9168540   0.7342305  -6.697 7.60e-11 ***
City PEDRA DO INDAIA 3.3457888   0.7330873   4.564 6.77e-06 ***
City PRESIDENTE JUSCELINO 0.9059260   0.7335319   1.235 0.217579
City RIO PIRACICABA -2.1585867   0.7332011  -2.944 0.003436 **
City SANTO ANTONIO DO MONTE -3.2572018   0.7338013  -4.439 1.18e-05 ***
City SAO GONCALO DO ABAETE 1.2484795   0.7344424   1.700 0.089959 .
City SAO GONCALO DO RIO ABAIXO 4.2047979   0.7333652   5.734 1.99e-08 ***
City SAO JOAO DO MANHUACU 1.6130777   0.7343509   2.197 0.028646 *
City SAO JOSE DA SAFIRA 2.4188086   0.7331552   3.299 0.001060 **
City SAO SEBASTIAO DO RIO PRETO 4.4489227   0.7331437   6.068 3.10e-09 ***
City SAO TOMAS DE AQUINO 1.1801965   0.7334059   1.609 0.108394
City SAO VICENTE DE MINAS 1.9059871   0.7333011   2.599 0.009705 **
City SENHORA DOS REMEDIOS 2.6979398   0.7332588   3.679 0.000267 ***
City UBERABA    -4.9818594   0.7336532  -6.790 4.26e-11 ***
City VERISSIMO  2.0551683   0.7344137   2.798 0.005395 **
tt:City ARAPUA  0.0001513   0.1080955   0.001 0.998884
tt:City BALDIM  -0.1887476   0.1082071  -1.744 0.081904 .
tt:City BELA VISTA DE MINAS -0.1356757   0.1081771  -1.254 0.210532
tt:City BONFINOPOLIS DE MINAS -0.2184619   0.1081022  -2.021 0.043985 *
tt:City CARNEIRINHO 0.2845618   0.1082877   2.628 0.008938 **
tt:City CATAS ALTAS -0.2921835   0.1083575  -2.696 0.007316 **
tt:City CLAUDIO  0.0981477   0.1093523   0.898 0.369995
tt:City CONEGO MARINHO -0.1825408   0.1082855  -1.686 0.092659 .
tt:City CONGONHAS DO NORTE -0.4035550   0.1081751  -3.731 0.000220 ***
tt:City CONQUISTA -0.4149985   0.1080976  -3.839 0.000144 ***
tt:City DOM BOSCO 0.0756348   0.1089636   0.694 0.488021

```

```

tt:City DOM CAVATI 0.0130967 0.1084850 0.121 0.903973
tt:City DOM SILVERIO 0.0607687 0.1084099 0.561 0.575434
tt:City DOURADOQUARA -0.3032056 0.1081047 -2.805 0.005292 **
tt:City INDIANOPOLIS -0.2142150 0.1081297 -1.981 0.048294 *
tt:City JABOTICATUBAS 0.2818154 0.1085331 2.597 0.009777 **
tt:City JEQUITIBA -0.2067512 0.1081013 -1.913 0.056547 .
tt:City JOANESIA -0.3536589 0.1081174 -3.271 0.001168 **
tt:City JOAO MONLEVADE 0.1919792 0.1081094 1.776 0.076560 .
tt:City LAGOA FORMOSA -0.0595399 0.1082188 -0.550 0.582515
tt:City LIMEIRA DO OESTE -0.2535561 0.1080875 -2.346 0.019492 *
tt:City MALACACHETA -0.1676120 0.1084231 -1.546 0.122951
tt:City MESQUITA -0.0109290 0.1082224 -0.101 0.919614
tt:City MINDURI 0.0072944 0.1082596 0.067 0.946316
tt:City MONJOLOS -0.2523838 0.1082884 -2.331 0.020288 *
tt:City NOVA PONTE 0.1328139 0.1081856 1.228 0.220331
tt:City PALMA -0.4755595 0.1081376 -4.398 1.42e-05 ***
tt:City PATOS DE MINAS 0.5115029 0.1084210 4.718 3.34e-06 ***
tt:City PEDRA DO INDAIA -0.2121598 0.1080920 -1.963 0.050394 .
tt:City PRESIDENTE JUSCELINO -0.0188189 0.1082443 -0.174 0.862070
tt:City RIO PIRACICABA -0.1681521 0.1081398 -1.555 0.120781
tt:City SANTO ANTONIO DO MONTE -0.0090411 0.1082269 -0.084 0.933467
tt:City SAO GONCALO DO ABAETE -0.1913689 0.1082234 -1.768 0.077809 .
tt:City SAO GONCALO DO RIO ABAIXO -0.4071786 0.1081953 -3.763 0.000194 ***
tt:City SAO JOAO DO MANHUACU -0.3553363 0.1084834 -3.275 0.001151 **
tt:City SAO JOSE DA SAFIRA -0.4287740 0.1081281 -3.965 8.74e-05 ***
tt:City SAO SEBASTIAO DO RIO PRETO -0.3353637 0.1080866 -3.103 0.002059 **
tt:City SAO TOMAS DE AQUINO -0.4083657 0.1082388 -3.773 0.000187 ***
tt:City SAO VICENTE DE MINAS -0.1079862 0.1081335 -0.999 0.318599
tt:City SENHORA DOS REMEDIOS -0.3979499 0.1081613 -3.679 0.000267 ***
tt:City UBERABA 0.0306384 0.1082486 0.283 0.777301
tt:City VERISSIMO -0.0031269 0.1083135 -0.029 0.976984
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

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Residual standard error: 0.8016 on 384 degrees of freedom
Multiple R-squared:  0.8697,    Adjusted R-squared:  0.8398
F-statistic: 29.12 on 88 and 384 DF,  p-value: < 2.2e-16

```

Table S5. Full linear time-series regression model for DDD/1,000 inhabitants/year of analgesics and covariates.

```

> model3=lm(log(DDD) ~ Coverage+FDA+Ext+Endo+DP+tt+City+tt:City,data=dt) #
> summary(model3) # Adjust the least squares model.

Call:
lm(formula = log(DDD) ~ Coverage + FDA + Ext + Endo + DP + tt +
    City + tt:City, data = dt)

Residuals:
    Min       1Q   Median       3Q      Max
-3.8082 -0.3554 -0.0014  0.4504  3.5543

Coefficients:
              Estimate Std. Error tvalue Pr(>|t|)
(Intercept)  2.415e-01  6.628e-01   0.364  0.715757
Coverage     1.983e-03  4.087e-03   0.485  0.627779
FDA          4.583e-05  6.140e-05   0.746  0.455837
Ext          6.965e-03  8.563e-03   0.813  0.416459
Endo        -6.968e-03  8.563e-03  -0.814  0.416250
DP           2.352e-03  1.897e-03   1.240  0.215762
tt           2.775e-01  8.155e-02   3.404  0.000736 ***
City ARAPUA   5.874e-01  7.812e-01   0.752  0.452537
City BALDIM   2.343e+00  7.828e-01   2.993  0.002945 **
City BELA VISTA DE MINAS 2.716e+00  8.174e-01   3.323  0.000977 ***
City BONFINOPOLIS DE MINAS 2.854e+00  7.810e-01   3.654  0.000294 ***
City CARNEIRINHO -1.660e+00  7.850e-01  -2.115  0.035063 *
City CATAS ALTAS  4.306e+00  7.961e-01   5.409  0.12e-07 ***
City CLAUDIO   -1.287e-01  7.949e-01  -0.162  0.871425
City CONEGO MARINHO 2.116e+00  8.809e-01   2.402  0.016772 *
City CONGONHAS DO NORTE 2.995e+00  8.026e-01   3.732  0.000219 ***
City CONQUISTA  1.530e+00  7.824e-01   1.955  0.051314 .
City DOM BOSCO  1.462e+00  7.829e-01   1.868  0.062550 .
City DOM CAVATI  9.271e-01  7.815e-01   1.186  0.236238
City DOM SILVERIO 5.312e-01  7.903e-01   0.672  0.501895
City DOURADOQUARA 3.495e+00  7.885e-01   4.433  1.22e-05 ***
City INDIANOPOLIS 3.622e+00  7.819e-01   4.633  4.96e-06 ***
City JABOTICATUBAS -3.023e+00  7.849e-01  -3.852  0.000138 ***
City JEQUITIBA  7.442e-01  7.855e-01   0.947  0.344009
City JOANESIA  2.654e+00  7.825e-01   3.392  0.000766 ***
City JOAO MONLEVADE -3.824e+00  8.319e-01  -4.597  5.83e-06 ***
City LAGOA FORMOSA 2.237e+00  7.970e-01   2.807  0.005263 **
City LIMEIRA DO OESTE 3.153e+00  7.813e-01   4.035  6.60e-05 ***
City MALACACHETA 4.846e-01  7.852e-01   0.617  0.537484
City MESQUITA  1.244e+00  7.820e-01   1.591  0.112536
City MINDURI   4.509e-01  7.907e-01   0.570  0.568802
City MONJOLOS  3.262e+00  8.103e-01   4.026  6.84e-05 ***
City NOVA PONTE  8.839e-01  7.812e-01   1.132  0.258540
City PALMA     3.876e+00  7.819e-01   4.957  1.08e-06 ***
City PATOS DE MINAS -4.473e+00  7.969e-01  -5.613  3.83e-08 ***
City PEDRA DO INDAIA 3.289e+00  7.881e-01   4.173  3.73e-05 ***
City PRESIDENTE JUSCELINO 1.037e+00  7.811e-01   1.328  0.184917
City RIO PIRACICABA -1.921e+00  8.247e-01  -2.329  0.020369 *

```

City	SANTO ANTONIO DO MONTE	-3.062e+00	7.826e-01	-3.913	0.000108	***
City	SAO GONCALO DO ABAETE	1.669e+00	8.129e-01	2.053	0.040776	*
City	SAO GONCALO DO RIO ABAIXO	4.311e+00	7.947e-01	5.425	1.03e-07	***
City	SAO JOAO DO MANHUACU	1.332e+00	7.814e-01	1.705	0.088962	.
City	SAO JOSE DA SAFIRA	2.341e+00	7.866e-01	2.976	0.003106	**
City	SAO SEBASTIAO DO RIO PRETO	3.832e+00	9.835e-01	3.896	0.000115	***
City	SAO TOMAS DE AQUINO	1.107e+00	7.817e-01	1.417	0.157433	
City	SAO VICENTE DE MINAS	2.049e+00	7.819e-01	2.620	0.009145	**
City	SENHORA DOS REMEDIOS	2.914e+00	7.912e-01	3.683	0.000264	***
City	UBERABA	-4.760e+00	7.851e-01	-6.063	3.21e-09	***
City	VERISSIMO	2.227e+00	7.846e-01	2.838	0.004780	**
tt:City	ARAPUA	-1.401e-03	1.151e-01	-0.012	0.990291	
tt:City	BALDIM	-1.557e-01	1.153e-01	-1.350	0.177700	
tt:City	BELA VISTA DE MINAS	-1.657e-01	1.162e-01	-1.426	0.154582	
tt:City	BONFINOPOLIS DE MINAS	-2.026e-01	1.152e-01	-1.759	0.079383	.
tt:City	CARNEIRINHO	2.515e-01	1.172e-01	2.146	0.032530	*
tt:City	CATAS ALTAS	-3.480e-01	1.159e-01	-3.003	0.002850	**
tt:City	CLAUDIO	-3.085e-02	1.159e-01	-0.266	0.790187	
tt:City	CONEGO MARINHO	-2.863e-01	1.309e-01	-2.187	0.029364	*
tt:City	CONGONHAS DO NORTE	-4.080e-01	1.168e-01	-3.492	0.000535	***
tt:City	CONQUISTA	-4.236e-01	1.158e-01	-3.659	0.000289	***
tt:City	DOM BOSCO	-2.982e-02	1.151e-01	-0.259	0.795763	
tt:City	DOM CAVATI	7.358e-02	1.151e-01	0.639	0.522962	
tt:City	DOM SILVERIO	2.618e-04	1.201e-01	0.002	0.998263	
tt:City	DOURADOQUARA	-2.739e-01	1.156e-01	-2.369	0.018356	*
tt:City	INDIANOPOLIS	-2.433e-01	1.154e-01	-2.109	0.035602	*
tt:City	JABOTICATUBAS	2.167e-01	1.151e-01	1.882	0.060629	.
tt:City	JEQUITIBA	-2.155e-01	1.155e-01	-1.866	0.062797	.
tt:City	JOANESTA	-3.440e-01	1.151e-01	-2.990	0.002970	**
tt:City	JOAO MONLEVADE	1.765e-01	1.152e-01	1.532	0.126349	
tt:City	LAGOA FORMOSA	-5.596e-02	1.184e-01	-0.472	0.636857	
tt:City	LIMEIRA DO OESTE	-2.485e-01	1.151e-01	-2.158	0.031513	*
tt:City	MALACACHETA	-2.419e-01	1.154e-01	-2.096	0.036744	*
tt:City	MESQUITA	-4.245e-02	1.150e-01	-0.369	0.712252	
tt:City	MINDURI	-2.773e-02	1.152e-01	-0.241	0.809889	
tt:City	MONJOLOS	-1.937e-01	1.157e-01	-1.674	0.094868	.
tt:City	NOVA PONTE	1.102e-01	1.153e-01	0.956	0.339790	
tt:City	PALMA	-4.955e-01	1.150e-01	-4.308	2.10e-05	***
tt:City	PATOS DE MINAS	4.532e-01	1.151e-01	3.939	9.74e-05	***
tt:City	PEDRA DO INDAIA	-2.058e-01	1.275e-01	-1.613	0.107502	
tt:City	PRESIDENTE JUSCELINO	-8.560e-02	1.170e-01	-0.732	0.464814	
tt:City	RIO PIRACICABA	-2.043e-01	1.198e-01	-1.706	0.088881	.
tt:City	SANTO ANTONIO DO MONTE	-2.471e-02	1.151e-01	-0.215	0.830075	
tt:City	SAO GONCALO DO ABAETE	-2.340e-01	1.174e-01	-1.994	0.046907	*
tt:City	SAO GONCALO DO RIO ABAIXO	-4.641e-01	1.221e-01	-3.802	0.000167	***
tt:City	SAO JOAO DO MANHUACU	-2.864e-01	1.151e-01	-2.489	0.013246	*
tt:City	SAO JOSE DA SAFIRA	-4.315e-01	1.158e-01	-3.726	0.000224	***
tt:City	SAO SEBASTIAO DO RIO PRETO	-2.865e-01	1.266e-01	-2.262	0.024256	*
tt:City	SAO TOMAS DE AQUINO	-3.820e-01	1.150e-01	-3.321	0.000984	***
tt:City	SAO VICENTE DE MINAS	-1.374e-01	1.152e-01	-1.193	0.233737	
tt:City	SENHORA DOS REMEDIOS	-4.344e-01	1.163e-01	-3.734	0.000217	***
tt:City	UBERABA	3.417e-03	1.152e-01	0.030	0.976363	
tt:City	VERISSIMO	-3.253e-02	1.157e-01	-0.281	0.778736	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.8529 on 382 degrees of freedom
Multiple R-squared: 0.8532, Adjusted R-squared: 0.8186
F-statistic: 24.67 on 90 and 382 DF, p-value: < 2.2e-16