Supplementary Online Content

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**eFigure 1.** Spatial Distribution of the 1013 Clinical Laboratories That Participated in the PRIMO Surveillance System in 2019

**eFigure 2.** Results of the Correlation Matrix Performed to Explore the Multicollinearity of Variables

**eTable 1.** Number and Percentages of *Escherichia coli* and Extended-Spectrum \( \beta \)-Lactamase–Producing *E coli* Strains Included in the Study According to French Departments in 2019

**eTable 2.** French Department Characteristics Significantly Associated With Presence of Extended-Spectrum \( \beta \)-Lactamase–Producing *Escherichia coli* Community-Acquired Urinary Tract Infections, Results of Bivariate Analysis

This supplementary material has been provided by the authors to give readers additional information about their work.
**eFigure 1.** Spatial Distribution of the 1013 Clinical Laboratories That Participated in the PRIMO Surveillance System in 2019

Blue dotes: Participating clinical laboratories; Blank dotes: Clinical laboratories in activity in 2019 but not participating to the PRIMO surveillance system.
**eFigure 2.** Results of the Correlation Matrix Performed to Explore the Multicollinearity of Variables
**Table 1.** Number and Percentages of *Escherichia coli* and Extended-Spectrum β-Lactamase–Producing *E. coli* Strains Included in the Study According to French Departments in 2019

| French departments          | Number of ESBL-*E. coli* | Number of *E. coli* | Proportion of ESBL-*E. coli* (%) |
|-----------------------------|--------------------------|---------------------|----------------------------------|
| Ain                         | 32                       | 1,217               | 2.63                             |
| Allier                      | 105                      | 3,386               | 3.10                             |
| Alpes-Maritimes             | 958                      | 20,919              | 4.58                             |
| Aube                        | 85                       | 4,021               | 2.11                             |
| Bouches-du-Rhône            | 638                      | 7,545               | 8.46                             |
| Calvados                    | 458                      | 18,806              | 2.44                             |
| Charente                    | 22                       | 999                 | 2.20                             |
| Charente-Maritime           | 257                      | 8,674               | 2.96                             |
| Cher                        | 6                        | 412                 | 1.46                             |
| Corse-du-Sud                | 37                       | 951                 | 3.89                             |
| Côte-d’Or                   | 17                       | 1,196               | 1.42                             |
| Côtes-d’Armor               | 188                      | 6,404               | 2.94                             |
| Doubs                       | 296                      | 10,961              | 2.70                             |
| Eure                        | 48                       | 1,614               | 2.97                             |
| Eure-et-Loir                | 23                       | 632                 | 3.64                             |
| Finistère                   | 479                      | 14,526              | 3.30                             |
| Gard                        | 380                      | 13,191              | 2.88                             |
| Gers                        | 29                       | 913                 | 3.18                             |
| Gironde                     | 540                      | 20,801              | 2.60                             |
| Haute-Corse                 | 128                      | 3,404               | 3.76                             |
| Haute-Saône                 | 43                       | 2,487               | 1.73                             |
| Haute-Savoie                | 387                      | 11,933              | 3.24                             |
| Hautes-Pyrénées             | 14                       | 336                 | 4.17                             |
| Hérault                     | 938                      | 29,064              | 3.23                             |
| Ille-et-Vilaine             | 303                      | 13,338              | 2.27                             |
| Indre                       | 12                       | 701                 | 1.71                             |
| Indre-et-Loire              | 286                      | 13,164              | 2.17                             |
| Jura                        | 158                      | 7,082               | 2.23                             |
| Landes                      | 82                       | 3,177               | 2.58                             |
| Loir-et-Cher                | 17                       | 552                 | 3.08                             |
| Loire-Atlantique            | 490                      | 22,610              | 2.17                             |
| Lot-et-Garonne              | 80                       | 2,634               | 3.04                             |
| Maine-et-Loire              | 350                      | 15,176              | 2.31                             |
| Manche                      | 117                      | 5,272               | 2.22                             |
| Mayenne                     | 84                       | 3,930               | 2.14                             |
| Meurthe-et-Moselle          | 720                      | 22,747              | 3.17                             |
| Morbihan                    | 168                      | 7,282               | 2.31                             |
| Moselle                     | 159                      | 5,280               | 3.01                             |
| Nièvre                      | 71                       | 2,379               | 2.98                             |
| Nord                        | 256                      | 8,883               | 2.88                             |
| Orne                        | 12                       | 738                 | 1.63                             |
| Pas-de-Calais               | 335                      | 12,126              | 2.76                             |
| Puy-de-Dôme                 | 272                      | 9,844               | 2.76                             |
| Pyrénées-Atlantiques        | 174                      | 7,404               | 2.35                             |
| Rhône                       | 396                      | 11,333              | 3.49                             |
| Saône-et-Loire              | 119                      | 4,723               | 2.52                             |
| Sarthe                      | 211                      | 9,712               | 2.17                             |
| Seine-et-Marne              | 220                      | 5,307               | 4.15                             |
| Seine-Maritime              | 149                      | 5,323               | 2.80                             |
| Seine-Saint-Denis           | 58                       | 893                 | 6.49                             |
| Somme                       | 85                       | 3,639               | 2.34                             |
| Territoire de Belfort       | 78                       | 2,858               | 2.73                             |

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| Department | Number | Population | Growth Rate |
|------------|--------|------------|-------------|
| Val-d'Oise | 379    | 6,797      | 5.58        |
| Var        | 528    | 12,078     | 4.37        |
| Vaucluse   | 156    | 5,018      | 3.11        |
| Vendée     | 190    | 8,381      | 2.27        |
| Vienne     | 214    | 9,114      | 2.35        |
| Vosges     | 119    | 5,246      | 2.27        |
| Yvelines   | 196    | 5,148      | 3.81        |
### eTable 2. French Department Characteristics Significantly Associated With Presence of Extended-Spectrum β-Lactamase–Producing *Escherichia coli* Community-Acquired Urinary Tract Infections, Results of Bivariate Analysis

| Characteristics                              | Coefficient β₁ | p-value  |
|----------------------------------------------|-----------------|----------|
| **Healthcare-related characteristics**       |                 |          |
| All Antibiotics                              | 0.0002          | 0.001    |
| β-lactams                                    | 0.0003          | 0.004    |
| Broad-spectrum penicillins                   | 0.0003          | 0.15     |
| Penicillin associations                       | 0.001           | 0.001    |
| Cephalosporins                               | 0.0005          | 0.16     |
| 2GC consumption                              | 0.002           | 0.20     |
| 3GC/4GC consumption                          | 0.0005          | 0.26     |
| Macrolides consumption                       | 0.001           | <0.001   |
| Fluoroquinolones                             | 0.002           | <0.001   |
| Sulfonamides Trimethoprim                    | 0.004           | 0.04     |
| Tetracyclines                                | 0.001           | 0.03     |
| Associations and others                      | 0.001           | 0.11     |
| Density of antibiotic prescribers            | 0.053           | <0.001   |
| Density of hospital beds                     | 0.042           | 0.001    |
| Density of nursing home places               | 0.002           | 0.004    |
| **Socio-demographic characteristics**        |                 |          |
| Population density                           | 0.0002          | 0.005    |
| Proportion of women                          | 0.266           | 0.004    |
| Proportion of population <5years old         | 0.171           | 0.02     |
| Proportion of population >65 years old       | -0.009          | 0.551    |
| Deprivation index (FDep)                     | -0.111          | 0.18     |
| **Living conditions**                        |                 |          |
| Overcrowded households                       | 0.084           | <0.001   |
| Number of household members                  | 0.776           | 0.07     |
| Travel by public transport                   | 0.021           | <0.001   |
| Density of children day care centers         | 0.023           | 0.003    |
| Dogs per person > 19 years old               | -0.027          | 0.003    |
| **Agriculture and Environment characteristics** |             |          |
| Agricultural land                            | -0.008          | <0.001   |
| Surface water                                | 0.082           | 0.004    |
| Cattle density                               | -0.006          | <0.001   |
| Pig density                                  | -0.0004         | 0.50     |
| Poultry density                              | -0.0001         | 0.1      |
| Sheep density                                | 0.004           | 0.31     |

Abbreviations: 2GC, second generation cephalosporins; 3GC, third generation cephalosporins; 4GC, fourth generation cephalosporins; km², square kilometer.