

Supplementary Table S1. Results of the chi-square tests of independence for each air pollutant with the frequency of women affected by the disease living in countries included in the Top 10 rank of worse pollution compared to people living in other countries.

Air pollutants	Women in high-exposed countries (%)	Women in other countries (%)	Chi-square statistic	p-value
SO/NO	92.82	93.04	0.21	0.644
CO	93.32	92.47	3.60	0.058
Nonmethane	92.70	93.10	0.76	0.384
PM1.0	92.68	93.39	2.20	0.138
PM2.5	92.78	93.41	1.82	0.178

APPENDIX

Other members of the Sjögren Big Data Consortium who contributed to the study:

- Xu Dong, Zhao Yan, Department of Rheumatology, Peking Union Medical College Hospital, Beijing, China.
- Xiaomei Li, Li Wang, Department of Rheumatology and Immunology, The First Affiliated Hospital of USTC, University of Science and Technology of China (Anhui Provincial Hospital), Hefei, China.
- Peter Olsson, Thomas Mandl, Department of Rheumatology, Skane University Hospital Malmö, Lund University, Lund, Sweden.
- Raphaële Seror, Xavier Mariette, Center for Immunology of Viral Infections and Autoimmune Diseases, Assistance Publique – Hôpitaux de Paris, Hôpitaux Universitaires Paris-Sud, Le Kremlin-Bicêtre, Université Paris Sud, INSERM, Paris, France Paris, France.
- Arjan Vissink, Hendrika Bootsma, Department of Oral and Maxillofacial Surgery, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands.
- Debashish Danda, Department of Clinical Immunology & Rheumatology, Christian Medical College & Hospital, Vellore, India.
- Vasco C. Romão, Matilde Bandeira, Manuel Silvério-António, Rheumatology Department, Hospital de Santa Maria, Centro Hospitalar Universitário Lisboa Norte and Rheumatology Research Unit, Instituto de Medicina Molecular, Faculdade de Medicina, Universidade de Lisboa, Lisbon Academic Medical

Centre, Lisbon, Portugal.

- Roser Solans, Department of Internal Medicine, Hospital Vall d'Hebron, Barcelona, Spain.
- Carlos Galisteo, Department of Rheumatology, Hospital Parc Taulí, Barcelona, Spain.
- Demian Sene, Hôpital Lariboisière, Paris, France.
- David Isenberg, University College of London, UK.
- Paola Cipriani, Clinical Unit of Rheumatology, University of L'Aquila, School of Medicine, L'Aquila, Italy.
- Valerie Devauchelle, Cavale Blanche-University Hospital, Brest, France.
- Tamer Gheita, Rheumatology Department, Kasr Al Ainy School of Medicine, Cairo University, Cairo, Egypt.
- Marcos Vázquez, Department of Rheumatology, Hospital de Clínicas, San Lorenzo, Paraguay.
- Jacques Morel, Department of Rheumatology, Teaching hospital and University of Montpellier, France .
- Sandra Consani, Internal Medicine, Hospital Maciel, and Universidad de la República (UdelaR), Montevideo, Uruguay.
- S-K. Kwok, S-H. Park, Division of Rheumatology, Department of Internal Medicine, Seoul St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, South Korea.
- Marika Kvarnstrom, Marie Wahren-Herlenius, Department of Medicine, Solna, Division of Experimental Rheumatology, Karolinska Institutet, and Karolinska University Hospital, Stockholm.
- P. Ericka Díaz Cuiza, B.E. Herrera, Departamento de Reumatología del Seguro Social Universitario y consultorio privado de Reumatología, Sucre, Bolivia.
- Toshimasa Shimizu, Department of Immunology and Rheumatology, Division of Advanced Preventive Medical Sciences, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan.
- Andrés González-García, Department of Internal Medicine, Hospital 12 de Octubre, Madrid, Spain.
- Sheila Melchor-Díaz, Department of Rheumatology, Hospital 12 de Octubre, Madrid, Spain.
- Michele Bombardieri, Queen Mary University of London, London, UK.
- Adrian Lees, Westmead Hospital, Sydney, Australia.
- Suzanne Arends, Department of Rheumatology & Clinical Immunology, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands.
- Elena Treppo, Simone Longhino, Valeria Manfrè, Maria Teresa Rizzo, Clinic of Rheumatology, Department of Medical and Biological Sciences, University Hospital Santa Maria della Misericordia, Udine, Italy.
- Agata Sebastian, Piotr Wiland, Department of Rheumatology and Internal Medicine, Wrocław Medical University, Wrocław, Poland.
- Roberto Gerli, Rheumatology Unit, Department of Medicine, University of Perugia, Italy.
- Sarah Downie-Doyle, Department of Rheumatology, The Queen Elizabeth Hospital, University of Adelaide, South Australia, Australia.
- Alain Saraux, Rheumatology Department, Brest University, INSERM 1227, Brest, France.
- Gunnel Nordmark, Rheumatology, Department of Medical Sciences, Uppsala University, Uppsala, Sweden.
- César Morcillo, Hospital Digital Sanitas, Hospital CIMA- Sanitas, Barcelona, Spain.
- Lluís González-de-Paz, Antoni Sisó-Almirall, Primary Healthcare Transversal Research Group, IDIBAPS, Primary Care Center Les Corts, CAPSBE, Barcelona, Spain.