



Dra. Muriel Ramírez Santana

mramirezs@ucn.cl

Profesora Titular,

Departamento de Salud Pública, FAMED-UCN

Directora, Magister en Salud Pública, FAMED-UCN



- Médica Cirujana, Especialista en Salud Pública
- Magister en Salud Pública Mención Epidemiología (U. de Chile).
- Máster en Salud Internacional y Medicina Tropical (Instituto de Salud Pública Carlos III, España).
- PhD Medical Sciences (Universidad de Radboud, Holanda).

Líneas de investigación:

- Epidemiología ambiental, ocupacional y de enfermedades transmisibles.
- Estudios epidemiológicos

Physician, Magister in Public Health Mention in Epidemiology, Specialist in Public Health, University of Chile. Master's in international health and Tropical Medicine, National School of Public Health – Carlos III Health Institute, Madrid, Spain. PhD Medical Sciences, Universidad de Radboud, Nijmegen, The Netherlands.

Research lines:

- Environmental, occupational, and communicable disease epidemiology.
- Epidemiological studies.

Proyectos últimos 5 años:

1. **2021-2023** Directora Proyecto FONIS SA21I0009.
2. **2021-2025** Co-investigadora FONDECYT 1210130.
3. **2020-2021** Co-investigadora ANID COVID0589,

Publicaciones últimos 5 años:

1. **2014.** Assessment of healthcare and economic costs due to episodes of acute pesticide intoxication in workers of rural areas of the Coquimbo Region, Chile.



Value in Health Regional Issues. 5C (2014) 35-39. **Ramírez-Santana M**, Iglesias J, Castillo M, Scheepers P, Van der Velden K

2. **2015**. Assessing biomarkers and neuropsychological outcomes in rural populations exposed to organophosphate pesticides in Chile - Study Protocol. **Ramírez-Santana M**, Liliana Zúñiga, Sebastián Corral, Rodrigo Sandoval, Paul Scheepers, Koos Van der Velden, Nel Roeleveld, Floria Pancetti. BMC Public Health 15: 1–9. <http://www.biomedcentral.com/1471-2458/15/116>
3. **2015**. Comparación de costos y resultados de pacientes con neumonía adquirida en comunidad atendidos en domicilio o en hospitalización tradicional: estudio exploratorio de 40 casos Carvajal Mario, Hernández Alberto, **Ramírez-Santana Muriel**. Value in Health Regional Issues. Vol 8C:112- 115. Doi: 10.1016/j.vhri.2015.08.003
4. **2015**. Assessing exposure to organophosphate pesticides, biomarkers and neuropsychological outcomes in rural populations of Chile. **Muriel Ramírez-Santana**, Liliana Zúñiga, Sebastián Corral, Rodrigo Sandoval, Floria Pancetti. Neurotoxicology and Teratology. Volume 49, May–June 2015, Page 128. <https://doi.org/10.1016/j.ntt.2015.04.092>
5. **2018**. Predicting Condom Use among Undergraduate Students Based on the Theory of Planned Behaviour, Coquimbo, Chile, 2016. Patricio Ramírez-Correa and **Muriel Ramírez-Santana**. Int. J. Environ. Res. Public Health. 2018. DOI/URL: <http://dx.doi.org/10.3390/ijerph15081689>
6. **2017**. Association between May-Thurner syndrome and lumbo-pelvic pathology and symptomatology. M.I.Álvarez Argaluzaa, V.A.Ardiles Vega, D.Alvarado Gómez, F.Parraguez Guerra, J.Toledo Gómeza, P.Olivares Araya, **M.Ramírez Santana**. 2017. Angiología Vol.69 (6): 342-347. <https://doi.org/10.1016/j.angio.2017.07.005> ; ISSN 0003-3170
7. **2018**. Biomonitoring of blood cholinesterases and acylpeptide hydrolase activities in rural inhabitants exposed to pesticides in the Coquimbo Region of Chile. **Ramírez-Santana M**, Farías-Gómez C,Zúñiga-Venegas L, Sandoval R, Roeleveld N, Van der Velden K, et al. (2018) PLoS ONE 13(5): e0196084. <https://doi.org/10.1371/journal.pone.0196084>
8. **2018**. Carcinoma de células escamosas de piel. Serie de casos. Osvaldo Iribarren B., **Muriel Ramírez S.**, Juan A. Madariaga G., Óscar Riveros F., Claudia Valdés V., Javiera Toledo S. Rev.Chilena de Cirugía. Vol 70 (4).



9. **2018.** Medicina traslacional e innovación en salud: mecanismos y perspectivas. Isabel P. Valdés, **Muriel Ramírez-Santana**, Andrea Basagoitia, Xavier Testar, Julio A. Vásquez. Rev Med Chile 2018; 146: 890-898.
10. **2018.** Cohort Studies in Health Sciences. Chapter 3: Bias and Limitations in cohort studies. **Muriel Ramírez-Santana**. IntechOpen, London, 2018. <http://dx.doi.org/10.5772/intechopen.71243>
11. **2019.** Explaining the Use of Social Network Sites as Seen by Older Adults: The Enjoyment Component of a Hedonic Information System. Ramírez-Correa, P.; Grandón, E.E.; **Ramírez-Santana, M.**; Belmar Órdenes, L. Int. J. Environ. Res. Public Health 2019, 16, 1673. <https://doi.org/10.3390/ijerph16101673>
12. **2019.** Social Vulnerability and Health Needs of the Immigrant Population in Northern Chile. **Muriel Ramírez-Santana**, Johana Rivera Humeres, Margarita Bernal Silva and Báltica Cabieses Valdés. MIGRACIONES INTERNACIONALES AÑO 18, ART. 1, 2019. <http://dx.doi.org/10.33679/rmi.v1i36.2005>
13. **2019.** Mortalidad estandarizada según causas, edad y género en una comuna minera del norte de Chile entre 2006 y 2015. Alvaro Leyton-Hernández, **Muriel Ramírez-Santana**. Revista Chilena de Salud Pública, 2019, Vol 23(2):124-131.
14. **2019.** Budget analysis of two techniques for screening congenital syphilis at a medium-complexity care hospital. Juan Linsam Barth Salgado, **Muriel Ramírez Santana**. Rev. Inst. Salud Pública Chile. 2019, 3(2): 13-20 DOI: <https://doi.org/10.34052/rispch.v3i2.60>
15. **2020.** Association between cholinesterase's inhibition and cognitive impairment: A basis for prevention policies of environmental pollution by organophosphate and carbamate pesticides in Chile. **Muriel Ramírez-Santana**, Liliana Zúñiga-Venegas, Sebastián Corral, Nel Roeleveld, Hans Groenewoud, Koosvan der Velden, Paul T.J.Scheepers , FloriaPancetti. Environmental Research, 2020. <https://doi.org/10.1016/j.envres.2020.109539>
16. **2020.** Experiencia de enseñanza usando metodologías activas y tecnologías de información y comunicación en estudiantes de medicina del ciclo clínico. 2020. Castillo-Montes, Mauricio, & **Ramírez-Santana, Muriel**. (2020). Formación universitaria, 13(3), 65-76. <https://dx.doi.org/10.4067/S0718-50062020000300065>
17. **2020.** Reduced neurobehavioral functioning in agricultural workers and rural inhabitants exposed to pesticides in northern Chile and its association with blood



- biomarkers inhibition. **Ramírez-Santana, M.**, Zúñiga-Venegas, L., Corral, S. et al. *Environ Health* 19, 84 (2020). <https://doi.org/10.1186/s12940-020-00634-6>
18. **2020**. Urinary incontinence in Chilean women: A prevalence study, health profile and associated factors. Andrés Salgado-Maldonado, **Muriel Ramírez-Santana**, 2020. *Medwave* 2020;20(6):e7976 doi: 10.5867/medwave.2020.06.7976
 19. **2020**. Social Network Communications in Chilean Older Adults. Francisco Javier Rondán-Cataluña, Patricio E. Ramírez-Correa, Jorge Arenas-Gaitán, **Muriel Ramírez-Santana**, Elizabeth E. Grandón Jorge Alfaro-Pérez. *Int. J. Environ. Res. Public Health* 2020, 17(17), 6078; <https://doi.org/10.3390/ijerph17176078>
 20. **2020**. Formación médica para afrontar emergencias y desastres: experiencia de enseñanza-aprendizaje con trabajo colaborativo, uso de tecnologías de información y comunicación, y simulación. **Muriel Ramírez-Santana**, Javier Aguirre, Nazareno Carvajal. www.fundacioneducacionmedica.org FEM 2020; 23 (5): 243.249.
 21. **2020**. Estimación de incidencia de cáncer en la Región de Coquimbo, según resultados de biopsias, años 2006 al 2015. 2020. Haylyn Sarria, **Muriel Ramírez-Santana**. *Rev. Chilena de Salud Pública*, Vol 24(2), 86-96. <https://revistasaludpublica.uchile.cl/index.php/RCSP/article/view/61255/64958>
 22. **2020**. Epidemiological features of syphilis diagnosed at a clinic of sexually transmitted diseases. Andrea Cavero Tardones, **Muriel Ramírez-Santana**. *Rev Med Chile* 2020; 148: 956-962. DOI: 10.4067/S0034-98872020000700956
 23. **2021**. A Positive Relationship between Exposure to Heavy Metals and Development of Chronic Diseases: A Case Study from Chile. Sandra Cortés, Liliana Zúñiga-Venegas, Floria Pancetti, Alejandra Covarrubias, **Muriel Ramírez-Santana**, Héctor Adaros and Luis Muñoz. *Int. J. Environ. Res. Public Health* 2021, 18(4), 1419; <https://doi.org/10.3390/ijerph18041419>
 24. **2021**. Omega-3 Index and Clinical Outcomes of Severe COVID-19: Preliminary Results of a Cross- Sectional Study. Zapata B., Rodrigo, José M. Müller, Juan E. Vásquez, Franco Ravera, Gustavo Lago, Eduardo Cañón, Daniella Castañeda, Madelaine Pradenas, and **Muriel Ramírez-Santana**. 2021. *International Journal of Environmental Research and Public Health* 18, no. 15: 7722. <https://doi.org/10.3390/ijerph18157722>
 25. **2021**. Segmentation of Older Adults in the Acceptance of Social Networking Sites Using Machine Learning. Ramírez-Correa Patricio E., Rondán-Cataluña F. Javier, Arenas-Gaitán Jorge, Grandón, Elizabeth E., Alfaro-Pérez Jorge L.,



- Ramírez-Santana Muriel. 2021. *Frontiers in Psychology*, 12: 3423. DOI: 10.3389/fpsyg.2021.705715
<https://www.frontiersin.org/article/10.3389/fpsyg.2021.705715>
26. **2022.** Seroprevalence, spatial distribution, and social determinants of SARS-CoV-2 in three urban centers of Chile. Pablo Vial, Claudia González, Gloria Icaza, Muriel Ramírez-Santana, Rubén Quezada-Gaete, Loreto Núñez-Franz, Mauricio Apablaza, Cecilia Vial, Paola Rubilar, Juan Correa, Claudia Pérez, Andrei Florea, Eugenio Guzmán, María-Estela Lavín, Paula Concha, Manuel Nájera & Ximena Aguilera. *BMC Infect Dis* 22, 99 (2022). <https://doi.org/10.1186/s12879-022-07045-7>
 27. **2022.** Sociodemographic and clinical characteristics of people with multiple sclerosis and neuro-myelitis optica spectrum disorder in a central northern region of Chile: A prevalence study, Katherine Henríquez, Fernando Molt, Javiera Gajardo, Basthian Cortés, Muriel Ramírez-Santana, *Multiple Sclerosis and Related Disorders*, Volume 61, 2022, 103750, ISSN 2211-0348, <https://doi.org/10.1016/j.msard.2022.103750>
 28. **2022.** Global epidemiology of SARS-CoV-2 infection: a systematic review and metaanalysis of standardized population-based seroprevalence studies, Jan 2020-Dec 2021. Isabel Bergueri et al. medRxiv 2021.12.14.21267791; doi: <https://doi.org/10.1101/2021.12.14.21267791> . Colaborador.
 29. **2022.** Percepciones de personas mayores chilenas respecto del uso de las redes sociales digitales y su relación con el bienestar subjetivo, en contexto de pandemia SARS CoV-2. María Teresa Acevedo Cisternas, Mirliana Ramírez-Pereira, Patricio Ramírez-Correa, Muriel Ramírez-Santana. *Iberian Journal of Information Systems and Technologies*. RISTI, N.º E48, 02/2022; 518-534.
 30. **2022.** Inverse Association between Omega-3 Index and Severity of COVID-19: A Case–Control Study. Muriel Ramírez-Santana, Rodrigo Zapata Barra, Marcela Ñunque González, José Miguel Müller, Juan Enrique Vásquez, Franco Ravera, Gustavo Lago, Eduardo Cañón, Daniella Castañeda and Madelaine Pradena. 2022. *International Journal of Environmental Research and Public Health*, 19, 6445. <https://doi.org/10.3390/ijerph19116445>
 31. **2022.** Immunization and SARS-CoV-2 antibodies seroprevalence in a country with high vaccination coverage: Lessons from Chile. Ximena Aguilera, Claudia González, Mauricio Apablaza, Paola Rubilar, Gloria Icaza, Muriel Ramírez-Santana, Claudia Pérez, Lina Jimena Cortes, Loreto Núñez-Franz, Rubén Quezada-Gaete, Carla Castillo-Laborde, Juan Correa, Macarena Said, Juan Hormazábal, Cecilia Vial and Pablo Vial. *Vaccines* 2022, 10(7), 1002; <https://doi.org/10.3390/vaccines10071002>



32. **2022.**SARS-CoV-2 Neutralizing Antibodies in Chile after a Vaccination Campaign with Five Different Schemes Ximena Aguilera, Juan Hormazábal, Cecilia Vial, Lina Jimena Cortes, Claudia González, Paola Rubilar, Mauricio Apablaza, Muriel Ramírez-Santana, Gloria Icaza, Loreto Nuñez-Franz, Carla Castillo-Laborde, Carolina Ramírez-Riffo, Claudia Pérez, Rubén Quezada-Gate, Macarena Said and Pablo Vial. Vaccines 2022,10, 1051. <https://doi.org/10.3390/vaccines10071051>

Medio de contacto:

Dra. Muriel Ramírez Santana

mramirezs@ucn.cl

Departamento de Salud Pública

Facultad de Medicina

Universidad Católica del Norte

Av. Larrondo 1281, Coquimbo, Chile.

Twitter @murielrami

ORCID: <https://orcid.org/0000-0002-3642-6965>