

Luis Esteban Segura Sánchez, MD, MPH

DrPH Candidate in Epidemiology

Medical License: 6039713 (Mexico)

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Education

Columbia University Mailman School of Public Health

Sep 2014 – Present

New York, NY, USA

- DrPH Candidate in Epidemiology
- Advisor: Dr. Sharon Schwartz
- Substance Abuse Epidemiology Unit under the supervision of Dr. Silvia Martins
- Social Epidemiology Cluster formerly under the supervision of Dr. Abdulrahman M. El-Sayed. Currently under the supervision of Dr. Lisa Bates.
- Doctoral student at the Policy and Health Initiatives on Opioids and Other Substances (<https://www.publichealth.columbia.edu/research/policy-and-health-initiatives-opioids-and-other-substances-phios/fellows-and-students>)

National Institute of Public Health

Sep 2010 – Oct 2012

(Instituto Nacional de Salud Pública)

Cuernavaca, Morelos, Mexico

- Masters of Public Health in Epidemiology. Chronic and Cardiovascular Disease Unit
- Thesis: "Comparison of two glycemic curves in mothers with gestational diabetes to predict neonatal adverse outcomes".

Kaplan USMLE Step 2 clinical knowledge course

San Antonio, Texas

College of Medicine, Autonomous University of Nuevo Leon (UANL)

Sep 2001 – Sep 2008

Monterrey, Nuevo Leon, Mexico

- M.D., General Practitioner/Family Physician

Ferrara University Hospital (Universita degli Studi di Ferrara)

Jun 2005

Ferrara, Italy

- Vascular Surgery and Angiology Rotation

Neurology and Neurosurgery Medical Center, Giessen University Clinic

May 2005

(Universitätsklinikum Giessen, Medizinisches Zentrum für Neurologie und Neurochirurgie)

Giessen, Germany

- General Surgery and Neurosurgery Rotation

Northern Ostrobothnia Hospital Oulu District University Hospital

Apr 2005

Oulu, Finland

- Plastic Surgery, Gastroenterology, and Traumatology Rotation

Teaching Experience

Columbia University Mailman School of Public Health

New York, NY, USA

- **EXEPP6400** Introduction to Epidemiology Fall 2021
- **Head TA** of the Online Master's in Science in Epidemiology Spring 2021
- **EXEPP6400** Introduction to Epidemiology Fall 2020
- **Co-Instructor** of Analysis of Complex Survey Data Summer 2018, 2019 & 2020
- **Head TA** of the Executive Master's in Science in Epidemiology Fall 2018 – 2020
- **EXEPP9400** EPI IV: Critical Thinking in Epidemiology Spring 2017
- **EPIC2016** Social Network Analysis June 2016
- **EPIDP8438** Design & Conduct of Observational Epidemiology Spring 2016 & 2017
- **EPIDP8415** Chronic Disease Epidemiology Spring 2016
- **EXEPP6103** Introduction to Biostatistics Fall 2015

Employment

Columbia University Mailman School of Public Health

Feb 2015 - Present

New York, NY, USA.

Graduate Research Assistant to Dr. Silvia Martins, Department of Epidemiology

Substance Use Epidemiology Unit and Policy and Health Initiatives on Opioids and Other Substances (PHIOS)

- Lead author of manuscripts for publication
- Data analysis on substance use, causal inference methods applied to substance use, psychiatric comorbidities, and drug-related state policies.
- Writing and preparation of grant proposals

Head TA on the Online MS in Epidemiology Program

2018 – Present

- Co-Instructor of Introduction to Epidemiology (Epi 1)
- Redesign of the Online MS in Epidemiology Program, previously known as Executive MS in Epidemiology.
- Branding and Marketing redesign of the Online MS in Epidemiology Program

Juniper Tree Clinic at Back2Back Ministries

Nov 2012 – Aug 2014

Monterrey, Nuevo León, México

Volunteer, Public Health Official and Medical Staff

- Participated in clinical consultations for the orphan children beneficiaries of the Juniper Tree Clinic

- Participated in designing health programs for orphan children at the Juniper Tree Clinic.

University Hospital “Dr. José Eleuterio González” (UANL)

Nov 2012 – Aug 2014

Monterrey, Nuevo León, México

Epidemiologist, Epidemiology Department, Board Member of the Hospital Patient Safety and Quality Assistance Committee, and Board Member of the Hospital Pharmacovigilance Committee

- Data analysis on quality of care research
- Design and conduct of patient quality research
- Participated in decisions, research and intervention planning regarding patient safety interventions, health quality assistance and monitoring.
- Participated in designing, monitoring and evaluation of the pharmacovigilance surveillance system.

Medical Services for Employees of the UANL

Feb 2010 – Sep 2010

Monterrey, Nuevo León, México

- Attending Physician in Family Medicine.

University Hospital “Dr. José Eleuterio González” (UANL)

Feb 2009 – May 2010

Monterrey, Nuevo Leon, Mexico

Volunteer Researcher, Assistant Epidemiologist, and Physician Scientist

- **Co-author** on “Mortality Predictors in Hospitalized Patients with Suspected H1N1 Influenza”
- Conducted data gathering and data analysis
- Wrote hospital reports on the prevalence of Nosocomial Infections on Public Hospitals of the Secretariat of Health, a Multicenter Survey
- Board member on the UANL University Hospital Influenza Committee
- Participated in epidemiological decisions regarding H1N1 influenza patient care (such as prevention of future transmission and isolation) during the H1N1 pandemic
- Physician in charge of the diagnosis and treatment of patients with suspected H1N1 influenza
- Outbreak investigation of influenza H1N1 in a Monterrey Catholic Seminary
- Participation in the Infectious Diseases department’s Journal Club reviewing clinical cases, latest research articles, infection control and isolation strategies.

University Hospital “Dr. José Eleuterio González” (UANL)

Sep 2008 – Feb 2009

Monterrey, Nuevo León, México

Physician at the Department of Infectology

- Primary Care Physician in the Infectious Disease department as part of unpaid social service required of all medical graduates in Mexico
- Microbiology Lab duties: interpretation of bacterial cultures, Gram tests, and identification of bacterial strains
- Conducted intra-hospital reports on patient HIV statistics

Ministry of Health of Nuevo León

Feb 2008 – Sep 2008

Linares, Nuevo Leon, Mexico

Attending General Practice Physician

- Only physician for the town of Linares, a rural town in the state of Nuevo León, México.
Completed as part of unpaid social service required of all medical graduates in México

Awards, Prizes, and Scholarships

NIDA's Women & Sex/Gender Differences Research Junior Investigator Travel Award for CPDD 2020

NIDA's Women & Sex/Gender Differences Research Junior Investigator Travel Award for CPDD 2018

Best Student Abstract Accepted for the Society for Epidemiologic Research 2018 Annual Meeting

National Science and Technology Council (CONACYT) Doctoral Scholarship

National Science and Technology Council (CONACYT) Monthly Scholarship for Masters students

Academic Excellence award for score on Medical Knowledge Exam EGEL-MG CENEVAL

Second place in the 10th Mexican Olympics in Biology

Summer of Scientific and Technology Research Award at the Autonomous University of Nuevo Leon (UANL)

First place in 10th Statewide Olympics in Biology for the State of Nuevo Leon

Certifications & Courses

Epidemiology and Public Health Summer Institute at Columbia University	Jul 2017
Introduction to GIS in Public Health	

Society for Epidemiological Research	Jun 2017
Implementing the Parametric G Formula with complex Longitudinal Data	

National Boards of Public Health Examiners	Feb 2013
Certified in Public Health	

Conference on Public Health and Epidemiology Developments (Programa de Actualización en Salud Pública y Epidemiología)

Aug 2012

- Certified in Survival Analysis
- Certified in Pharmacoepidemiology and Pharmacovigilance
- Certified in Control of Nosocomial Infections
- Certified in Epidemiology of Diabetes and Cardiovascular Risk: Primary and Secondary Prevention

Publications

Martins SS, **Segura LE**, Levy NS, (2021). Racial/ethnic Differences in Cannabis use Following Legalization in U.S. States with Medical Cannabis Laws. In *JAMA Network Open*, in press.

Castaldelli-Maia JM, **Segura LE**, Martins SS. The concerning increasing trend of alcohol beverage sales in the U.S. during the COVID-19 pandemic. *Alcohol*. 2021 Jul 7:S0741-8329(21)00073-2. doi: 10.1016/j.alcohol.2021.06.004. Epub ahead of print.

Levy NS, Mauro PM, Mauro CM, Segura LE, Martins SS. Joint perceptions of the risk and availability of Cannabis in the United States, 2002-2018. *Drug Alcohol Depend*. 2021; 108873. doi: 10.1016/j.drugalcdep.2021.108873

Medina C, Chavira J, Aburto A, Nieto C, Contreras-Manzano A, **Segura LE**, Jáuregui A, Barquera S. Revisión rápida: evidencia de transmisión por Covid-19 e infecciones respiratorias agudas similares en espacios públicos abierto. *Salud Publica Mex*. 2021;63:232-241. doi: 10.21149/11827

Levy NS, Duarte CS, **Segura LE**, Santaella-Tenorio J, Okuda M, Wall M, Chen C, Ramos-Olazagasti MA, Canino G, Bird H, Martins SS. The longitudinal effect of early-life sensation seeking on gambling and gambling problems among Puerto Rican young adults. *Psychol Addict Behav*. 2020. Feb;34(1):201-208. doi: 10.1037/adb0000515

Segura LE, Mauro CM, Levy NS, Khauli N, Philbin MM, Mauro PM, Martins SS. Association of US Medical Marijuana Laws with Nonmedical Prescription Opioid use and Prescription Opioid Use Disorder. *JAMA Network Open*. 2019;2(7):e197216. doi:10.1001/jamanetworkopen.2019.7216

Santaella-Tenorio J, Levy NS, **Segura LE**, Mauro PM, Martins SS. Cannabis use disorder among people using cannabis daily/almost daily in the United States, 2002–2016. *Drug Alcohol Depend*. 2019. Dec 1;205:107621 doi.org/10.1016/j.drugalcdep.2019.107621

Perlmutter AS, Bauman M, Mantha S, **Segura LE**, Ghandour L, Martins SS. Nonmedical Prescription Drug Use among Adolescents: Global Epidemiological Evidence for Prevention, Assessment, Diagnosis, and Treatment. *Curr Addict Rep*. 2018 Jun;5(2):120-127. doi: 10.1007/s40429-018-0194-y

Chen LY, Perlmutter AS, **Segura L**, Santaella-Tenorio J, Schleimer JP, Mendez M, Ghandour L, Cerdá M, Martins SS. Nonmedical prescription drug use in adolescents and young adults. In *The Prescription Drug Abuse Epidemic: Incidence, Treatment, Prevention, and Policy*. Praeger. ABC-CLIO, publisher.abc-clio.com/9781440852657.

Martins SS, **Segura L**, Santaella-Tenorio J, Perlmutter A, Fenton MC, Cerdá M, Keyes KM, Ghandour LA, Storr CL, Hasin DS (2017). Prescription opioid use disorder and heroin use

among 12-34 year-olds in the United States from 2002 to 2014. *Addictive behaviors*, 65, 236-241.

Okuda M, Liu W, Cisewski JA, **Segura L**, Storr CL, & Martins SS. (2016). Gambling disorder and minority populations: prevalence and risk factors. *Current Addiction Reports*, 3(3), 280-292.

Perlmutter AS, Conner SC, Savone M, Kim JH, **Segura LE**, & Martins SS. (2017). Is employment status in adults over 25 years old associated with nonmedical prescription opioid and stimulant use?. *Social psychiatry and psychiatric epidemiology*, 52(3), 291-298.

Monthly editor of the American Journal of Public Health Global News

2016 – Present

Collaboration in Research Grant Proposals

Funded:

Columbia President's Global Innovation Fund

Martins (PI)

06/01/2020- 05/30/2022

Title: Overdose deaths in Brazil, Colombia, Mexico and the USA: a comparison analysis

Purpose: The overall aim of this proposal is to build capacity among researchers from Brazil, Colombia, and Mexico in the fields of epidemiology and psychiatry to analyze large datasets with secondary data available in each country in order to produce high-quality reports about drug overdoses.

Role: **Co-Investigator**.

1R01 HD060072

Martins, Canino and Duarte (MPIs)

04/01/14 - 03/31/2021

Title: Predictors of impulsive behavior among youth

Purpose: This study integrates a developmental model of PG, Blaszczynski and Nower's Pathways model (so far only examined cross-sectionally) with a context-and intervention-informed developmental model of other risk behaviors (Ecodevelopmental theory). We will collect new information about gambling behaviors and PG on a high-risk population of 1,100 youth/young adults from two population-based samples of Puerto Rican (ages 15-26) from two sites: the South Bronx (SBx), NYC and San Juan, Puerto Rico (PR) by taking advantage of an ongoing study, the Boricua Youth Study. This is a competing continuation of former proposal "Predictors of Pathological Gambling among African-American Young Adults", Martins (PI).

Total costs: \$214,991 (direct costs only).

Role: **Graduate Research Assistant – Co-Investigator**

1R01 DA037866-01

Martins (PI) 09/15/14-

08/31/19 - 08/31/2021

Title: State medical marijuana laws and NSDUH marijuana use and consequences since 2004

Purpose: In this project we propose to investigate the relationship between medical marijuana laws with marijuana use, marijuana use disorders and consequences of marijuana use in both adolescents and adults, using an outstanding resource, the restricted access data files from the National Survey on Drug Use and Health (NSDUH), 2004 and onwards. Total costs: \$2,065,361 (Direct costs: 1,590,206)

Role: **Graduate Research Assistant – Co-Investigator**

Conference Papers and Presentations

Society for Epidemiological Research 2021 Annual Meeting

June 2021

- Oral Abstract Session Chair at the 2021 Society for Epidemiologic Research Annual Meeting. Session title: "Policy effects, target trials, simulations, and forecasting: creative methods in substance use epidemiology".
- Poster Presentation:
 - o **Segura LE**, Levy NS, Morales-del-Angel JA, Martins SS. Does smoking increase the risk of COVID-19 infection?

Society for Epidemiological Research 2020 Annual Meeting

Dec 2020

Online

- Oral Presentation:
 - o The association between prescription opioid misuse and suicidality in United States adolescents: NSDUH 2015-2017
- Poster Presentation:
 - o NS Levy, **LE Segura**, EM Bruzelius, SS Martins. New and Persistent Marijuana Users: Characteristics, Patterns of Use, and Differences by State Medical Marijuana Law Status
 - o AS Perlmutter, **LE Segura**, K Rudolph, SS Martins. Are shorter delays in gateway substance involvement associated with a greater risk of heroin use?

2020 Meeting of The College on Problems of Drug Dependence

Jun 2020

Online

- **LE Segura**, NS Levy, AS Perlmutter, Santaella-Tenorio J, SS Martins. Does using prescription opioids nonmedically contribute to the increase in suicidality among male and female adolescents in the United States?
- SS Martins, **LE Segura**, PM Mauro, C Mauro, NS Levy, MM Philbin, D Hasin. Prevalence of cannabis use, daily cannabis use, and cannabis use disorder by gender, race/ethnicity after enactment of recreational cannabis laws in the U.S. from 2008-2017

American Psychiatric and Psychopathological Association

Mar 2020

New York, NY, USA

- E Bruzelius, NS Levy, **LE Segura**, MM Philbin, ED Nesoff, PM Mauro, SS Martins. Opioid-related emergency department visits in the United States among children and adolescents by urbanicity: 2007-2016
- AS Perlmutter, **LS Segura**, SS Martins. Do asthma emergency department visits depend on electronic smoke device availability in California counties from 2013 to 2016?
- **LE Segura**, NS Levy, AS Perlmutter, J Santaella-Tenorio, SS Martins. The association between prescription opioid misuse and suicidality in United States adolescents: NSDUH 2015-18

Society for Epidemiological Research 2019 Annual Meeting

Jun 2019

Minneapolis, Mn, USA

- **L Segura**, NS Levy, AS Perlmutter, SS Martin. Nonmedical prescription opioids and Cardiovascular disease.

- N. Levy, C. Duarte, **L. Segura**, J. Santaella-Tenorio, M. Okuda Benavides, M. Wall, C. Chen, M. Ramos-Olazagasti, G. Canino, H. Bird, S. Martins. Childhood sensation-seeking and problem gambling in young adulthood: Sex matters
- Perlmutter AS, **Segura LE**, Martins SS, Mauro PM. Medical marijuana use and trouble with the law: Does living in a state with a medical marijuana law modify the relationship?

2019 Meeting of The College on Problems of Drug Dependence

Jun 2019

San Antonio, Tx, USA

- Co-chair oral session "This is your body on drugs: health consequences".
 - o Oral presentation: "Nonmedical Prescription Opioids and Cardiovascular Disease"

Society for Epidemiological Research 2018 Annual Meeting

Jun 2018

Baltimore, MD, USA

- **L Segura**, J Santaella-Tenorio, NS Levy. Artefactual changes in measures of effect over time: A causal approach to trend analysis
- NS Levy, **L Segura**, J Santaella-Tenorio, S Mantha, PM Mauro, DP Giovenco, SS Martins. Has alternative tobacco product use influenced future cigarette smoking intention among cigarette-naïve adolescents over time?
- J Santaella-Tenorio, SS Martins, M Cerdá, **L Segura**, K Keyes. Nonmedical use of prescription opioid use and suicidal ideation/attempts

2018 Meeting of The College on Problems of Drug Dependence

Jun 2018

San Diego, CA, USA

- **L Segura**, NS Levy, J Santaella-Tenorio, S Mantha, PM Mauro, DP Giovenco, SS Martins. Alternative tobacco product use and future cigarette smoking intention among cigarette-naïve adolescents over time
- J Santaella-Tenorio, S Mantha, E Boller, NS Levy, **L Segura**, PM Mauro, C Mauro, SS Martins. Cannabis use disorder among cannabis users by frequency of use in the USA, 2002–2014
- L Vaezazizi, M Cahill, PM Mauro, **L Segura**, J Santaella-Tenorio, SS Martins. Heroin and non-medical prescription opioid use trends among Young adults by race/ethnicity, education, and psychological distress between 2005 – 2014

31st National Conference on Problem Gambling

Jul 2017

Portland, OR, USA

- Oral Presentation "Gambling Disorder Treatment: Attunement to Multicultural Issues". Presented initial results of the Boricua Youth Study: Gambling Cohort.

55th Annual Isabel Maitland Stewart Conference on Research in Nursing Alumni Awards

Luncheon and NEAA Annual Membership Meeting - The Opioid Tsunami: Prevention, Partnerships in Opioid Management and Current Trends in Research

May 2018

New York, NY, USA

- **L Segura**, NS Levy, J Santaella-Tenorio, SS Martins. Trends in Nonmedical Prescription Opioid Use and Opioid Use Disorder by employment status from 2002–2014 in U.S. adults ages 26+

American Psychopathological Association 2018 Annual Conference

Mar 2018

New York, NY, USA

- **L Segura**, J Santaella-Tenorio, C Chen, M Okuda, M Wall, G Canino, C Duarte, SS Martins. Gambling and Problem Gambling in US and Puerto-Rican Youth: site and sex differences

2017 Meeting of The College on Problems of Drug Dependence

Jun 2017

Montreal, Canada

- **L Segura**, J Santaella-Tenorio, C Mauro, SS Martins. Is nonmedical prescription opioid and/or marijuana use associated with higher major depression prevalence among U.S. young adults?

2016 Meeting of The College on Problems of Drug Dependence

Jun 2016

Palm Springs, CA, USA

- **L Segura**, A Maldonado, J Santaella-Tenorio, C Storr, SS Martins. Greater curiosity about smoking cigarettes among 6th and 12th grade students using alternative tobacco-smoking products

Center of Health Sciences Research and Development of the Autonomous University of Nuevo Leon (UANL)

Nov 2012

Monterrey, Nuevo León, México

- Keynote Speaker: Association between glucose tolerance test for the diagnosis of Gestational Diabetes and adverse pregnancy outcomes

35th annual Infectious Disease and Clinical Microbiology

May 2010

Veracruz, MX

- **L Segura**, MA Padilla, I Rivera. Mortality Predictors in Hospitalized Patients with Suspected H1N1 Influenza

Skills

I have a wide skill set in many aspects of data science including strategic, programming, analytical, and reporting skills. I am strong in the following statistical packages: R (tidyverse, base R, Shiny, survey, ggplot2, emmeans, package development), MPLUS, STATA, and SAS.

Shiny app developer:

https://luisepisegura.shinyapps.io/comparison_estimates/

<https://luisepisegura.shinyapps.io/PreSize/>

Extracurricular Activities

National Institute of Public Health in México

Aug 2011 – Aug 2012

Cuernavaca, Morelos, México

- Student Representative for the National Institute of Public Health Student Affairs Council

College of Medicine, Autonomous University of Nuevo Leon (UANL)

Monterrey, Nuevo León, México

Aug 2004 – Aug 2006

- Founder and editor of the monthly issue of Medical Science "CM3" student newspaper

Languages

- Spanish (Native speaker)
- English (Fluent speaker and writer). TOEFL ITP: 640/670
- German (Intermediate understanding)