

# PRÓ-REITORIA DE PESQUISA E PÓS-GRADUAÇÃO MESTRADO EM CIÊNCIAS DA SAÚDE

# **CHARLENE TROIANI DO NASCIMENTO**

A PAISAGEM EM MUDANÇA: CARACTERÍSTICAS GEOESPACIAIS, EPIDEMIOLÓGICAS E DOENÇAS INFECCIOSAS DE PRIVADOS DE LIBERDADE VIVENDO EM UMA REGIÃO COM ALTO NÚMERO DE PRISÕES, BRASIL.



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> Dissertação apresentada à Pró-Reitoria Pesquisa e Pós-Graduação, Universidade do Oeste Paulista, como parte dos requisitos para obtenção do título de Mestre em Ciências da Saúde. de Concentração: Doenças infecciosas e parasitárias.

Orientador:

Prof. Dr. Luiz Euribel Prestes Carneiro

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Dissertação apresentada a Pró-Reitoria de Pesquisa e Pós-Graduação, Universidade do Oeste Paulista, como parte dos requisitos para obtenção do título de Mestre em Ciências da Saúde. Medicina II. Área de concentração: Doenças infecciosas e parasitárias.

Presidente Prudente, 14 de Fevereiro de 2019.

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# **DEDICATÓRIA**

Este trabalho é dedicado...

A Deus e Nossa Senhora Aparecida, por sempre me concederem sabedoria nas escolhas dos melhores caminhos, coragem para acreditar, força para não desistir e proteção para me amparar.

Ao meu esposo Michel, pelo amor, apoio, confiança e motivação incondicionais.

Aos meus filhos Theo, Arthur e Mel, que através do mais puro amor sempre me impulsionam em direção às vitórias dos meus desafios.

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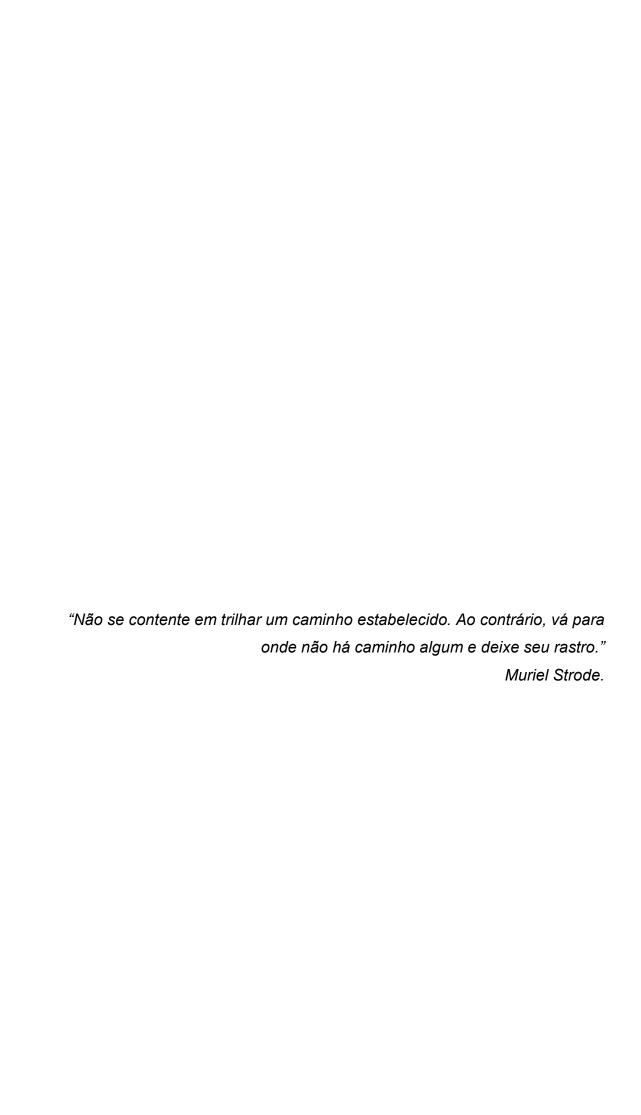
AOS AMIGOS de Mestrado que compartilharam comigo esses momentos de aprendizado; juntos rimos, choramos e nos ajudamos mutuamente.

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Enfim... a todos aqueles que de alguma maneira contribuíram para que este percurso pudesse ser concluído.



# LISTA DE SIGLAS

Anti HBC Total - Anticorpo contra o core do vírus da hepatite B

CROESTE - Coordenadoria de Unidades Prisionais da Região Oeste

DP - Desvio Padrão da media

ELISA - Ensaio imunoenzimático

HBsAg - Antígeno de superfície do vírus da hepatite B ou antígeno "s" do

vírus da hepatite B

HBV - Vírus da Hepatite B

HCV - Vírus da Hepatite C

HIV - Vírus da Imunodeficiência Humana

HSH - Homens que fazem sexo com homens

IB - Imunoblot

IBR - Imunoblot rápido

IC - Intervalo de Confiança

IDH - Índice de Desenvolvimento Humano

IFI - Imunofluorescência Indireta

ISTs - Infecções Sexualmente Transmissíveis

OR - Odds ratio

TB - Tuberculose

WB - Western blot

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# ARTIGO

The Changing Landscape: Geospatial, Epidemiologic

Characteristics and Infectious Diseases of Inmates Living in a

Region with a High Number of Prisons, Brazil

Charlene Troiani do Nascimento, Danilo Zangirolami Pena, Edilson Ferreira

Flores, Rogério Giuffrida, Fernanda Nobre Bandeira Monteiro, Francisco Assis

da Silva e Luiz Euribel Prestes Carneiro\*

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Abbreviations: CI, confidence interval; CROESTE, Coordination of Prison Units of

Western Region; ELISA, enzyme-linked immunosorbent assay; HBV, hepatitis B virus;

HCV, hepatitis C virus; HDI, Human Development Index; MSM, men who have sex with

men; OR, odds ratio; STI, sexually transmitted infection; TB, tuberculosis.

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Master's Degree in Health Sciences, Universidade do Oeste Paulista, UNOESTE, Brazil (e-

mail: luizepcarneiro@gmail.com).

Running head: Epidemiology of Prison Inmates, Brazil

**ABSTRACT** 

Brazil has the third largest prison population in the world. The risk of infectious diseases is

higher in prisons than in the general community. We determined the geospatial and

epidemiologic characteristics and prevalence of HIV, tuberculosis, viral hepatitis, syphilis,

and co-infections in inmates in 28 prisons located in the western and northwestern regions of

São Paulo state. Data were obtained through a standard questionnaire from inmates diagnosed

with an infection. Locations of prisons and highways were obtained from shape file databases.

Data on inhabitants, population growth, and Human Development Index were obtained from

public agencies. Of 37,497 inmates, 741 (1.97%) were diagnosed with an infection. HIV was

the most prevalent disease (0.68%), followed by tuberculosis (0.66%), syphilis (0.2%), HCV

(0.2%), and HBV (0.04%). HIV-syphilis was the most prevalent co-infection (odds ratio,

63.7; 95% confidence interval: 41.4, 96.7). Mean age was 35.82 years (SD, 10.41 years) and

57.9% had been in prison previously. Construction of large prisons beside the radial highways

changed the landscape and prevented migration of people from small to large cities. This is

one of the biggest studies in Brazil, and the prevalence of infectious diseases among inmates

was lower than countrywide. Therefore, improvements in health care are necessary, mainly in

screening for infectious diseases.

inmates; active search; co-infection; infectious diseases

# **ANEXO**

**Normas Revista** 



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#### **EXAMPLES OF REFERENCE STYLE**

# Standard journal article

Nakajima S, Saijo Y, Kato S, et al. Effects of prenatal exposure to polychlorinated biphenyls and dioxins on mental and motor development in Japanese children at 6 months of age. *Environ Health Perspect*. 2006;114(5):773–778.

# Standard journal article with a published correction/erratum

Korpi A, Mantyjarvi R, Rautiainen J, et al. Detection of mouse and rat urinary aeroallergens with an improved ELISA [published correction appears in *J Allergy Clin Immunol*. 2004;113(6):1226]. *J Allergy Clin Immunol*. 2004;113(4):677–682.

# Journal article with digital object identifier (article not yet in print)

Sturmer T, Gefeller O, Brenner H. A computer program to estimate power and relative efficiency to assess gene-environment interactions in flexibly matched case-control studies. [published online ahead of print August 10, 2005]. *Comput Methods Programs Biomed*.(doi:10.1016/j.cmpb.2003.08.003).

# Article in an online-only journal that accounts for the lack of a page range

Laupland KB, Davies HD, Low DE, et al. Invasive group A streptococcal disease in children and association with varicella-roster virus infection. Ontario Group A Streptococcal Study Group. *Pediatrics*. 2000;105(5):E60.

# Article in a supplemental issue

Giovannucci E. Alcohol, one-carbon metabolism, and colorectal cancer: recent insights from molecular studies. *J Nutr.* 2004;134(suppl):24755–2481S.

# **Preprints**

Pothin E, Segura L, Galactionova K, et al. A methodology for malaria programme impact evaluation. *PeerJ Preprints*. 2017. (doi:10.7287/peerj.preprints.3263v1). Accessed September 21, 2017.

# Committee or corporate author

Self-reported illness and health status among Gulf War veterans. A population-based study. The Iowa Persian Gulf Study Group. *JAMA*. 1997;277(3):238–245.

Centers for Disease Control (CDC). Tuberculosis—United States, 1980. MMWR Morb Mortal Wkly Rep. 1981;30(5):55–56.

# Article with a non-English-language title

Richartz E, Schott KJ, Wormstall H. Psychopharmakotherapie bei Demenzerkrankungen. Dtsch Med Wochenschr. 2004;129(25):1434–1440.

Miyazaki K, Murakami A, Imamura S, et al. A case of fundus albipunctatus with a retinol dehydrogenase 5 gene mutation in a child [in Japanese]. *Nippon Ganka Gakkai Zasshi* . 2001;105(8):530–534.

#### Abstract

Joffe M, Santanna J, Feldman H. Partially marginal structural models for causal inference [abstract]. *Am J Epidemiol*. 2001;153(suppl):S261.

#### Letter

Deddens JA, Petersen MR. Re: "Estimating the relative risk in cohort studies and clinical trials of common outcomes" [letter]. *Am J Epidemiol.* 2004;159(2):213–214.

# **Secondary Citation**

Richardson HJ. *Disabilities and Problems of Hong Kong Veterans, 1664–1965. (Report to Canadian Pensions Commission).* Ottawa, Canada: Canadian Pensions Commission; 1965. Cited by: Tennant CC, Goulston KJ, Dent OF. The psychological effects of being a prisoner of war—40 years after release. *Am J Psychiatry.* 1986;143(5):618–621.

# **Secondary Quotation**

Kato S, Sherman PM. What is new related to *Helicobacter pylori* infection in children and teenagers? *Arch Pediatr Adolesc Med.* 2005;159(5):415-421. Quoted by: Prazar G. How many pediatricians does it take to change a practice? or how to incorporate change into practice [editorial]. *Arch Pediatr Adolesc Med.* 2005;159(5):500-502.

#### **Book**

Rothman KJ, Greenland S, eds. *Modern Epidemiology*. 2nd ed. Philadelphia, PA: Lippincott-Raven, Publishers; 1998.

#### Chapter in a Book

Robins JM. Marginal structural models versus structural nested models as tools for causal inference. In: Halloran ME, Berry D, eds. *Statistical Models in Epidemiology, the Environment, and Clinical Trials*. New York, NY: Springer-Verlag; 1999:95–134.

# Chapter in a book (no chapter titles)

Robins JM. Chapter 3. In: Halloran ME, Berry D, eds. *Statistical Models in Epidemiology, the Environment, and Clinical Trials.* New York, NY: Springer-Verlag; 1999:95–134.

#### **Thesis**

Knoll EG. Mental Evolution and the Science of Language: Darwin, Muller, and Romanes on the Development of the Human Mind [dissertation]. Birmingham, AL: University of Alabama; 1987.

## Agency publication

National Center for Health Statistics. *Plan and Operation of the Third National Health and Nutrition Examination Survey, 1988–94*. Hyattsville, MD: National Center for Health Statistics; 1994. (Vital and health statistics, series 1: programs and collection procedures, no. 32) (DHHS publication no. (PHS) 94-1308) (GPO no. 017-022-01260-0).

# **Conference presentation**

Linna SL, Taanila A, Heikura U, et al. Shift of etiological pattern of intellectual disability in the two northern Finland birth cohorts 1966 and 1986 [abstract]. Presented at the Fourth Congress of the European Association of Intellectual Disability Medicine, Lahti, Finland, August 25–27, 2005.

# Web page/Website

Bureau of the Census, US Department of Commerce. Glossary of basic geographic and related terms—Census 2000. http://www.census.gov/geo/www/tiger/glossary.html#glossary. Published April 8, 2001. Updated January 5, 2004. Accessed February 24, 2005.

US Environmental Protection Agency. Final rule. "National primary drinking water regulations; arsenic and clarifications to compliance and new source contaminants monitoring." Part VIII. Federal Register 66, no. 14 (January 22, 2001):6876–7066.

http://www.epa.gov/safewater/ars/arsenid\_finalrule.htm.

Health Care Financing Administration. 1996 statistics at a glance. Baltimore, MD: Health Care Financing Administration. http://www.hcfa.gov/stats/stathili.htm. Published May 20, 1996. Accessed March 1, 1998.

# Database or database entry

Bureau of the Census, US Department of Commerce. Census 2000 summary file 3. Washington, DC: Bureau of the Census; 2007. http://www.census.gov/population/www/cen2000/. Accessed January 8, 2007.

National Center for Biotechnology Information, US National Library of Medicine. Reference SNP cluster report: rs2077647. (NCBI Single Nucleotide Polymorphism database). Washington, DC: National Library of Medicine; 2007. http://www.ncbi.nlm.nih.gov/SNP/snp\_ref.cgi?rs=2077647. Accessed May 12, 2009.

#### Software manual

Stata Corporation. Stata statistical software, release 9. College Station, TX: Stata Corporation; 2005.

# Media reference

The man who helped indict smoking [editorial]. New York Times. January 18, 1997:A22.

ABC News. What happened over there? 20/20, August 14, 1992. Denver, CO: Journal Graphics, Inc; 1992. (Transcript 1235).

Goode E. Study finds jump in children taking psychiatric drugs. *New York Times*. January 14, 2003:A21, A25.

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