José Manuel Aburto [updated January 2019]

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RESEARCH INTERESTS Demography, demographic methods, health, mortality, statistical modeling, lifespan equality, biodemography.

FORMAL EDUCATION

PhD candidate in Public Health. University of Southern Denmark, Max Planck Center on the Biodemography of Aging & Max Planck Institute for Demographic Research.

Topic: "On the relationship between life expectancy and lifespan equality" Main supervisor: James W. Vaupel

European Doctoral School of Demography, Sapienza University of Rome & Max Planck Institute for Demographic Research, 2015-16. Mentors: Alyson van Raalte and Tim Riffe

M.Sc. Demography, El Colegio de Mexico, Mexico City, 2012-14. Supervisors: Hiram Beltrán-Sánchez and Victor M. García Guerrero

B.S., Actuarial sciences, Universidad Autonoma de Guadalajara, Guadalajara, Mexico, 2005-09.

TEACHING RESEARCH EXPERIENCE **Teaching Assistant**. Biostatistics I. University of Southern Denmark. Fall term 2018.

Lecturer. An introduction to Shiny apps for health and demographic research. Workshop at Australian National University. September 2018.

Lecturer. Mathematical Demography: Decomposition techniques for health research. University of Southern Denmark, European Doctoral School of Demography. Cohort 2017-2018.

Teaching Assistant. Biostatistics I. University of Southern Denmark. Fall term 2017.

Lecturer. Demography & Economics. University of Southern Denmark. Fall term 2017.

Teaching Assistant. Mathematical Analysis. Universidad Autonoma de Guadalajara. 2008-2009.

Positions and **Visiting Scholar**. Institut national d'tudes dmographiques, December-Professional January 2019 Experience

Visiting Scholar. Australian National University, October 2018

Consultant. World Bank; Health Profile for Saudi Arabia 2018-

Guest researher. Max Planck Institute for Demographic Research 2017-

Consultant. World Bank; Age- and Cause-Decomposition of the Difference in Life-Expectancy in Latin American and Caribbean Countries 2017-

Research Assistant. Max-Planck Odense Center on Biodemography of Aging; IST - EBB/Epidemiology, Biostatistics and Biodemography. University of Southern Denmark 2016-2017

Assistant Director. Demographic Analysis- Census Division. National Institute of Statistics and Geography (INEGI), Mexico. 2010-2012

Research Assistant. "Derecho a la Identidad: la cobertura del registro de nacimiento en Mexico en 1999 y 2009". INEGI-UNICEF 2011-2012

Risk Account Analyst. AON Risk Services (Guadalajara) 2007-2009

AWARDS

Best poster award PAA 2018: Homicides in Mexico increased inequality of lifespans 2018

Editor's choice for the paper: "Mexico's Epidemic of Violence and its Public Health Significance on Average Length of Life" In *Journal of Epidemiology and Community Health*. http://jech.bmj.com/content/71/2 2017

Actuarial Sciences cohort 2005-2009 BD Summa Cum Laude, Universidad Autonoma de Guadalajara 2009

RESEARCH SUPPORT Funding for research stay. French National Institute for Demographic Studies.

December 2018

Title: Longevity in Latin America and the Caribbean (LAC). Description: To compare mortality trends across time and the LAC region

Title: Health Status of the Population of Saudi Arabia. Description: To compare mortality trends across time in SA as well as construct a burden of disease study. Agency: World Bank. Role: Co-PI. Term: 2018

Term: 2017

National Council of Science and Technology (CONACYT) funding for a research stay. Spring 2014

National Council of Science and Technology (CONACYT) Studentship to pursue Master degree. 2012-2014

National Program of Fellowships (PRONABE) Studentship to pursue BSc degree. 2005-2009

Published Articles

García, J., **Aburto**, **J.M.** (Forthcoming) "The impact of violence on Venezuelan life expectancy and lifespan inequality" *International Journal of Epidemiology*.

Canudas-Romo, V., **Aburto**, **J.M.** (Forthcoming) "Youth lost to homicides: The disparities in survival in Latin America and the Caribbean". *BMJ Global Health*.

Aburto, J.M., Beltrán-Sánchez H. (2019) "The upsurge of homicides and its impact on life expectancy and lifespan inequality in Mexico, 2005-2015". *American Journal of Public Health*. doi:10.2105/AJPH.

Aburto, J.M., van Raalte, A. (2018) "Lifespan dispersion in times of life expectancy fluctuation: the case of Central and Eastern Europe". *Demography*, 55(6), 2071-2096. doi:10.1007/s13524-018-0729-9

Aburto, J.M., Riffe, T., Canudas-Romo, V. (2018) "Trends in avoidable mortality over the life course in Mexico, 1990-2015: A cross-sectional demographic analysis". *BMJ Open* 2018;8:e022350. doi: 10.1136/bmjopen-2018-022350

Aburto, J.M., Wensink, M., van Raalte, A., Lindahl-Jacobsen, R. (2018). "Potential gains in life expectancy by reducing inequality of lifespans in Denmark: An international comparison and cause-of-death analysis". *BMC Public Health*, 18(1), 831. doi:0.1186/s12889-018-5730-0

Canudas-Romo, V., **Aburto, J.M.** (2017). "Biodemography of Aging Determinants of Healthy Life Span and Longevity". Book Review.

European Journal of Population. https://goo.gl/KZbPSu.

Canudas-Romo, V., **Aburto**, **J.M.**, García-Guerrero, V., Beltrán-Sánchez, H. (2017), "Mexico's Epidemic of Violence and its Public Health Significance on Average Length of Life". *Journal of Epidemiology and Community Health*, 71(2), 188-193. doi:10.1136/jech-2015-207015

Aburto, J.M., Beltrán-Sánchez, H., García-Guerrero, V., Canudas-Romo, V. (2016), "Homicides In Mexico Reversed Life Expectancy Gains For Men And Slowed Them For Women, 2000-10". *Health Affairs*, 35(1),88-95.

Aburto, J.M., García Guerrero, V.M. (2015) "El modelo aditivo doble multiplicativo. Una aplicación a la mortalidad mexicana". *Papeles de población*, 21(84), 9-44.

BOOK CHAPTERS

Lenart, A., **Aburto, J.M.**, Stockmarr, A., Vaupel, J.W. (Forthcoming). "The human longevity record may hold for decades". In *Exceptional Lifespans*. Edited by H. Maier, B. Jeune, and J. W. Vaupel.

Preprint: https://arxiv.org/abs/1812.01952

Villavicencio, F., **Aburto**, **J.M.** (Forthcoming). "Does the force of mortality increase after age 110?".

In Exceptional Lifespans. Edited by H. Maier, B. Jeune, and J. W. Vaupel. Preprint: https://arxiv.org/abs/1809.03732

OTHER PUBLISHED OUTPUTS

Canudas-Romo, V., **Aburto**, **J.M.** (2018). Saudi Arabia Health Profile Interactive Application. Available at:

https://population-health.shinyapps.io/saudi-arabia-health-profile/

Canudas-Romo, V., **Aburto**, **J.M.** (2017). Age- and Cause-Decomposition of the Difference in Life-Expectancy in Latin American and Caribbean Countries. Available at: https://wb-lac.shinyapps.io/lac_diversity/

Working Papers

Alvarez-Martínez, J., **Aburto, J.M.**, Canudas-Romo, V. "Latin American convergence and divergence towards the mortality profiles of developed countries" Resubmitted in Population Studies

Aburto, **J.M.**, Alvarez-Martínez, J.A., Canudas-Romo, V. "Reformulation of years of life lost" Under review in International Journal of Epidemiology.

Aburto, **J.M.**, Alvarez-Martínez, J.A., Villavicencio, F., Vaupel, J.W. "The threshold age of Keyftiz' entropy" Under review in Demographic Research.

Preprint: https://arxiv.org/abs/1901.07963

Riffe, T., Aburto, J.M. "Lexis fields" Under review in Demographic Research. Preprint: https://www.demogr.mpg.de/papers/working/wp-2019-001.pdf

Kashnitsky, I., **Aburto, J.M.**. "Geofaceting align small-multiples for regions in a spatially meaningful way". Under review in Demographic Research. Preprint: https://github.com/ikashnitsky/demres-2018-geofacet

Aburto, **J.M.**, Basellini, U., Villavicencio, F. "The Gini coefficient of the life table: a reexamination" Intended for Theoretical Population Biology.

Aburto, J.M., Villavicencio, F., Basellini, U., Kjærgaard, S., Vaupel, J.W. "Dynamics of life expectancy and lifespan equality" Intended for PNAS.

Pescador, M., Flores, A., Vignau, M., Riffe, T., Canudas-Romo, V., **Aburto**, **J.M.** "Violence and its consequences on women's health in Mexico after 2005". Intended for Health Affairs.

Colchero, F., **Aburto**, **J.M.**, Altmann, J., ..., Wrangham, R., Alberts, S. "The evolutionary landscape of primate longevity". Intended for Science.

RESEARCH STAYS Australian National University.

September-October 2018

University of Wisconsin-Madison.

Spring 2014

Mathematics Research Center (CIMAT).

Fall 2009

INVITED PRESENTA-TIONS **Latin America's epidemic of violence**. Australian National University 2018

The impact of violence on lifespan inequality in Mexico. Tel Aviv University. 2018

La epidemia de violencia en México y su impacto en la salud de la población. CIDE Region Centro, México. 2018

Life expectancy and lifespan equality: a long run relationship. Max Planck Institute for Demographic Research, MaxNet aging. 2017

Pace and Shape of real vs lifetable's age at death distributions. Max Planck Institute for Demographic Research, MaxNet aging. 2017

Violence in Mexico in the first decade of the XXI century. Sapienza University of Rome, with Vladimir Canudas-Romo. 2015

ACADEMIC PRESENTA-TIONS The impact of violence on lifespan inequality in Mexico. Oral Presentation. ALAP. Puebla, Mexico. 2018

Dynamics of life expectancy and lifespan equality. Oral Presentation. ALAP. Puebla, Mexico.

Lifespan Inequality in Denmark, Sweden and Norway: How Long until Denmark Reduces the Gap?. Oral Presentation. EPC. Brussels, Belgium. 2018

Potential gains in life expectancy by reducing inequality of lifespans in Denmark: a cause of death analysis. Oral Presentation. PAA. Denver, USA.

Homicides in Mexico increased inequality of lifespans. Poster Session. PAA. Denver, USA. 2018

Macro patterns in the evolution of human aging. BSPS Annual Conference. Liverpool, UK. 2017

Homicides increase variation in lifespans in Mexico and its States, **2005-2015**. BSPS Annual Conference. Liverpool, UK. 2017

Lifespan inequalities in Mexico and its states 1995-2015. International Seminar on Mortaliy, Unicamp, Brazil. 2017

Human Mortality Database Symposium. Oral Presentation. Berlin, Germany. 2017

Life expectancy and lifespan equality: a long run relationship. Oral Presentation. PAA. Chicago, USA. 2017

Lifespan variation in Central and Eastern Europe. Poster Session. PAA. Chicago, USA.

Lifespan variation in Central and Eastern Europe. 9th Young Demographers Conference. Prague, Czech Republic. 2017

Lifespan dispersion in Eastern Europe. European Population Conference. Mainz, Germany. 2016

Homicide, Health, and Deviations from Best Practices Mortality: Mortality in Mexican States, 1990-2010. Poster Session. Population Association of America. Washington, D.C. 2016

Estimación de la Mortalidad Mexicana por el Método de Lee-Carter y por el Modelo Aditivo Doble Multiplicativo Propuesto por Wilmoth.

Diagnóstico de la cobertura de los registros de nacimientos en México. SOMEDE at Aguascalientes, Mexico.

Press Coverage Upsurge of Homicides and Its Impact on Life Expectancy and Life Span Inequality in Mexico, 2005-2015, American Journal of Public Health

Medical Xpress: Increasing murder rate is erasing gains in life expectancy among Mexican men

https://goo.gl/pRPZLC

Newsweek: Mexico's murder rate is so high it has altered the life expectancy of

men https://goo.gl/hzS69f

Homicides In Mexico Reversed Life Expectancy Gains For Men And Slowed Them For Women, 2000-10. 2016,(selected) *Health Affairs*

New York Times: Reverberations From a Rise in Mexico's Murder Rate

https://goo.gl/6nrfQR

(Spanish) https://goo.gl/Q9A97F

Der Spiegel: Drogenkrieg senkt Lebenserwartung mexikanischer Manner

https://goo.gl/SriitK

The Guardian: Mexico's drug war reverses trend of rising male life expectancy,

study finds https://goo.gl/uFE6M7

El País: Violence shortening average life expectancy in Mexico

https://goo.gl/Q6B4vZ

Vox: The war on drugs is literally killing Mexico https://goo.gl/UNRBtf

Independent https://goo.gl/3LQn9h
Sin Embargo https://goo.gl/hnp9Qj
Aristegui Noticias https://goo.gl/w78KHD
El Financiero https://goo.gl/9bwN2n

REVIEW PAPERS **BMJ**

FOR International Journal of Epidemiology

Health Affairs
Demography
PlosOne

European Journal of Population

F1000Research Injury Prevention

Theoretical Population Biology

Genus

Papeles de Población

Languages Spanish: native speaker.

 $\mathbf{English} \colon \mathrm{fluent}.$

Portuguese: good command.

Italian: good command.