José Manuel Aburto [updated September 2019]

Contact University of Southern Denmark

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FORMAL EDUCATION

PhD in Public Health and Demography [Expected submission November 2019] University of Southern Denmark and Max Planck Institute for Demographic Research.

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

European Doctoral School of Demography, Sapienza University of Rome & Max Planck Institute for Demographic Research. 15/09/2015 - 30/06/2016.

M.Sc. Demography, El Colegio de México, Mexico City. 15/08/2012 - 30/06/2014.

B.S., Actuarial sciences and mathematics, Universidad Autónoma de Guadalajara, Guadalajara, Mexico. 01/08/2005 - 30/06/2009.

AWARDS

Best poster award Population Association of America 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 Newton International Fellowship from the Royal Society/British Academy to conduct independent research at Oxford University. $100,500\,\pounds$

Life length and life disparity research network. Danish Ministry of Education. Co-PI with Virginia Zarulli. 38,350EU

Funding for research stay at Universidad Autónoma de Barcelona.

Funding for research stay at INED. French National Institute for Demographic Studies. 2,040EU December 2018

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. 19,515USD Term: 2018

Title: Longevity in Latin America and the Caribbean (LAC). Description: To compare mortality trends across time and the LAC region versus EU. Agency: World Bank. Role: Co-PI. 12,762USD Term: 2017

National Council of Science and Technology (CONACYT) funding for a research stay at University of Wisconsin-Madison. 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

PUBLICATIONS

Peer Reviewed published articles

17. Riffe, T., **Aburto**, **J.M.**. (forthcoming) "Lexis fields" *Demographic Research*.

Preprint: https://www.demogr.mpg.de/papers/working/wp-2019-001.pdf

- 16. Kashnitsky, I., **Aburto, J.M.**. (2019) "Geofaceting align small-multiples for regions in a spatially meaningful way" *Demographic Research*. doi:10.4054/DemRes.2019.41.17
- 15. **Aburto, J.M.**, Alvarez-Martínez, J.A., Villavicencio, F., Vaupel, J.W. (2019) "The threshold age of the lifetable entropy" *Demographic Research*. doi:10.4054/DemRes.2019.41.4
- 14. Alvarez-Martínez, J., **Aburto**, **J.M.**, Canudas-Romo, V. (2019) "Latin American convergence and divergence towards the mortality profiles of developed countries" *Population Studies*.

https://doi.org/10.1080/00324728.2019.1614651

- 13. García, J., **Aburto**, **J.M.** (2019, Co-first author) "The impact of violence on Venezuelan life expectancy and lifespan inequality" *International Journal of Epidemiology*. doi:10.1093/ije/dyz072
- 12. Canudas-Romo, V., **Aburto**, **J.M.** (2019, Co-first author) "Youth lost to homicides: The disparities in survival in Latin America and the Caribbean". *BMJ Global Health*, 4(2), e001275. doi:10.1136/bmjgh-2018-001275
- 11. **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*, 109(3), 483-489. doi:10.2105/AJPH.
- 10. **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
- 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
- 8. **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
- 7. Canudas-Romo, V., **Aburto**, **J.M.** (Co-first author) (2017). "Biodemography of Aging Determinants of Healthy Life Span and Longevity". Book Review. *European Journal of Population*. https://goo.gl/KZbPSu.
- 6. 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
- 5. **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.
- 4. **Aburto, J.M.**, García Guerrero, V.M. (2015) "El modelo aditivo doble multiplicativo. Una aplicación a la mortalidad mexicana".

Peer Reviewed book chapters

- 3. 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
- 2. Bergeron-Boucher, MP., Kjærgaard, S., Pascariu, M., **Aburto, J.M.**, Alvarez, J., Basellini, U., Rizzi, S., Vaupel, J.W. (Forthcoming) Alternative forecasts of Danish life expectancy. Edited by Stefano Mazzuco.
- 1. 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

Aburto, J.M., Canudas-Romo, V. Homicides in Latin America: A Global Health challenge. N-IUSSP. https://bit.ly/2Izgz27.

Aburto, J.M., García, J. Venezuela's soaring murder rate has plunged the nation into a public health crisis. The Conversation UK. https://bit.ly/2WkwH0s.

Aburto, J.M., Enciso, F. Mexican war on drugs has, in places, decreased life expectancy. The Conversation UK. https://bit.ly/2GwZjvS.

Submitted publications with peer review process

Marius, T., Basellini, U., **Aburto, J.M.**, Canudas-Romo, V. "The Linear Link: Deriving Age-Specific Death Rates from Life Expectancy" Under review in European Journal of Population.

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

Aburto, J.M., Calazans, J., Queiroz, B., Luhar, S., Canudas-Romo, V. "The uneven state-distribution of homicides in Brazil and their effect on

life expectancy, 2000-15" Under review in Health Affairs.

Working papers

Aburto, J.M., di Lego, V., Torrisi, O., Riffe, T. "The contribution of violence to life uncertainty on a global scale".

Aburto, J.M., Kashyap, R. van Raalte, A., Zarulli, V. "Sex differences in life expectancy and lifespan dispersion: long-term patterns and emerging crossovers".

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

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.

Software AND WEB APPLICATIONS

Aburto, J.M., Tim Riffe (PI), Ilya Kashnitsky and Marius Pascariu. DEVELOPMENT R package DemoTools. Project developed for the United Nations Population Division.

> 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/

Teaching EXPERIENCE

02/09/2019 - Present. Lecturer. Basic Mathematics for Demographers. Max Planck Institute for Demographic Research, European Doctoral School of Demography.

13/05/2018 - Present. Lecturer. Mathematical Demography: Decomposition techniques for health research. University of Southern Denmark, European Doctoral School of Demography.

01/08/2018 - 15/12/2018. **Teaching Assistant**. Biostatistics I. University of Southern Denmark.

10/09/2018 - 12/09/2018. Lecturer. An introduction to Shiny apps for health and demographic research. Workshop at Australian National University.

01/08/2017 - 15/12/2017. **Teaching Assistant**. Biostatistics I. University of Southern Denmark.

01/08/2018 - 15/12/2018 **Lecturer**. Demography & Economics. University of Southern Denmark.

MENTORING EXPERIENCE

Qi Cui, University of Southern Denmark. European Doctoral School of Demography 2019-20.

Jesús Daniel Zazueta. University of Southern Denmark. European Doctoral School of Demography 2019-20.

Serena Vigezzi. INED. European Doctoral School of Demography 2019-20.

Jiaxin Shi. Max Planck Institute for Demographic Research. European Doctoral School of Demography 2018-19. Project: Beyond differences in means: rising mortality stratification among income groups in Finland, 1996-2017. Winner of the poster session at the conference Demographic Aspects of Human Wellbeing.

Orsola Torrisi. London School of Economics. European Doctoral School of Demography 2018-19. Project: Armed conflict and the timing of childbearing in Azerbaijan.

Victoria San Juan. Universidad Autónoma de Barcelona. European Doctoral School of Demography 2017-18. Project: Amores imposibles:la brecha entre universitarios y el resto de grupos educativos en los mercados matrimoniales de América Latina, 1970-2010. Published in Notas de Población.

POSITIONS AND PROFESSIONAL EXPERIENCE

01/09/2015-Present. Guest researcher. Max Planck Institute for Demographic Research.

01/10/2019 - 30/11/2019. **Visiting Scholar**. Demographic Center Studies (CED), Universidad Autónoma de Barcelona.

01/12/2018 - 04/01/2019. Visiting Scholar. Institut national d'études démographiques.

01/10/2018 - 05/11/2018. Visiting Scholar. Australian National University.

01/07/2017 - 01/10/2018. Consultant. World Bank. Projects: Health Profile for Saudi Arabia and Age- and Cause-Decomposition of the Difference in Life

Expectancy in Latin American and Caribbean Countries.

01/08/2016 - 30/11/2016. **Research Assistant**. Max-Planck Odense Center on Biodemography of Aging. University of Southern Denmark.

01/02/2010 - 01/08/2012. **Assistant Director**. Demographic Analysis- Census Division. National Institute of Statistics and Geography (INEGI), Mexico.

5/06/2011 - 15/06/2012. Research Assistant. "Derecho a la Identidad: la cobertura del registro de nacimiento en Mexico en 1999 y 2009". INEGIUNICEF.

15/08/2007 - 01/06/2009. Risk Account Analyst. AON Risk Services (Mexico)

RESEARCH STAYS

01/03/2014 - 01/05/2014 University of Wisconsin-Madison.

01/08/2009 - 15/12/2009. Mathematics Research Center (CIMAT).

INVITED PRESENTATIONS

Global contribution of violence to lifetime uncertainty. Universidad Autónoma de Barcelona 2019

Latin America's epidemic of violence. INED

2018

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

Press Coverage

Youth lost to homicides: The disparities in survival in Latin America and the Caribbean, BMJ Global Health

Medical Express: Research shows the impact of homicides in Latin America. https://bit.ly/2HSxldB

News.com.au: Murder rates so high in Latin America that life expectancy is

dropping. https://bit.ly/30AJ6eS

Fox News: Latin America accounts for one third of world's homicides, life expectancy dropping in some countries: study. https://fxn.ws/2Wm3iUq CNN Spanish: El alto número de homicidios en México y Venezuela reduce la esperanza de vida de sus ciudadanos, según estudio https://cnn.it/2ESgQvU

The impact of violence on Venezuelan life expectancy and lifespan inequality, International Journal of Epidemiology

CNN Spanish: El alto número de homicidios en México y Venezuela reduce la esperanza de vida de sus ciudadanos, según estudio https://cnn.it/2ESgQvU

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

El País: 'Eramos niños jugando a ser sicarios': los hijos de la violencia en México https://bit.ly/2pkiPEu

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

ACADEMIC PRESENTA-TIONS

Last 5 of 16

Dynamics of life expectancy and lifespan equality. Nordic Demographic Symposium, Iceland.

Dynamics of life expectancy and lifespan equality. PAA. Austin, USA. 2019

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. 2018

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

FOR

REVIEW PAPERS BMJ, International Journal of Epidemiology, American Journal of Public Health, Health Affairs, Demography, BMJ Global Health, BMC Public Health, Social Science & Medicine, PlosOne, Population Health Metrics, Demographic Research, European Journal of Population, Epidemiology, Journal of Research in Crime and Delinquency, F1000Research, International Journal of Health Policy and Management, Injury Prevention, Theoretical Population Biology, Genus, Papeles de Población.