

JOE BREW

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Barcelona, 08027 (Spain)
CISM, Vila da Manhica, Bairro Cambeve, Rua 12
Distrito da Manhica, CP 1929, Maputo (Mozambique)

Languages

Native: English
Fluent: Spanish, French, Catalan
Proficient: Portuguese

Expert: R, SAS, Stata
Professional: Python, SPSS, Ruby
Proficient: Javascript, HTML, CSS

Education

PhD (in progress)

Institut de Salut Global (host institution)

Vrije Universiteit (secondary institution)

Centro de Investigacao em Saude de Manhica (research site)

January 2016-

BARCELONA, SPAIN

AMSTERDAM, HOLLAND

MANHICA, MOZAMBIQUE

- Coursework in economics, epidemiology and policy
- Research on the cost effectiveness and efficacy of malaria control and elimination interventions

Master of Public Health

Kobenhavns Universitet (year 2)

Escuela Andaluza de Salud Pública (year 1)

September 2011 - July 2013

COPENHAGEN, DENMARK

GRANADA, SPAIN

- Coursework in epidemiology, economic evaluation, demography, advanced biostatistics, management, health policy, health promotion
- Research focus on immigration and youth health

Master of Arts

Institut Catholique de Paris

September 2009-June 2010

PARIS, FRANCE

- Coursework in diplomacy, policy, political science and history
- MA in Contemporary Diplomatic History, with fieldwork on the secret diplomacy which ended the Vietnam War through the Paris Peace Accords

Bachelor of Arts

Sewanee: The University of the South

August 2004-May 2008

SEWANEE, TN, USA

- Triple major in Contemporary Non-Western History, Spanish, French
- Research focus on civil war in Guatemala

Publications

Peer-reviewed papers

García-Basteiro A, Miranda R, **Brew J**, et al. Tuberculosis on the rise in southern Mozambique (1997–2012). *European Respiratory Journal*
DOI: 10.1183/13993003.01683-2016 (2017 [pre-publication])

Tran C, **Brew J**, Johnson N, Ryan K, Martin B, Cornett C, Caron B, Duncan R, Small P, Myers P, Morris J. *Sustainability of School-located Influenza Vaccination Programs in Florida*. *Vaccine*
DOI: 10.1016/j.vaccine.2016.04.017 (2016)

Lednicky J, Iovine N, **Brew J**, Loeb J, Sugimoto J, Rand K, Morris J. *Hemagglutinin Gene Clade 3C.2a Influenza A(H3N2) Viruses, Alachua County, Florida, USA, 2014–15*. *Emerging Infectious Diseases*
DOI: 10.3201/eid2201.151019 (2016)

Potash E, **Brew J**, Loewi A, Majumdar S, Reece A, Walsh J, Rozier E, Jorgenson E, Mansour R, Ghani R. *Predictive Modeling for Public Health: Preventing Childhood Lead Poisoning*. *ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*
DOI: 10.1145/2783258.2788629 (2015)

Iovine M, Morris JG, Fedenburg K, Rand K, Alnuaimat H, Lipori G, **Brew J**, Lednicky JA. *Increased severity of H1N1 influenza in the 2013-14 season and emergence of the D225G variant*. *Emerging Infectious Diseases*
DOI: 10.3201/eid2104.141375 (2015)

Brew J. *(Mis)measurement in the study of food environment: we need better methods to solve the puzzle*. *Journal of Epidemiology and Community Health*
DOI:10.1136/jech-2014-205163 (2015)

Tran CH, Sugimoto JD, Pulliam JR, Ryan KA, Myers PD, Castleman JB, Doty R, Johnson J, Stringfellow J, Kovacevich N, **Brew J**, Cheung LL, Caron B, Lipori G, Harle CA, Alexander C, Yang Y, Longini IM Jr, Halloran ME, Morris JG, Small PA Jr. *School-Located Influenza Vaccination Reduces Community Risk for Influenza and Influenza-Like Illness Emergency Care Visits*. *PLOS ONE*
DOI: 10.1371/journal.pone.0114479 (2014)

Conference presentations

Brew J, Cirera L, Sicuri E. *The economic benefits of a malaria elimination campaign in Southern Mozambique*. *African Health Economics Association Conference: The sustainable development goals, the grand convergence, and health in Africa*.
Rabat, Morocco (2016)

Academic theses

Youth overweight in Denmark: prevalence, ethnicity and other risk factors. Kobenhavns Universitet (MPH dissertation) 2013

Estrés laboral en trabajadoras domésticas en Andalucía. Escuela Andaluza de Salud Pública 2012

La Presse comme arme politique: le role des journaux américains dans les négociations des accords de Paris. Institut Catholique de Paris (MA dissertation) 2009

Religion and Counterrevolution: Fundamentalist Evangelicalism and the Dictatorship of Efraín Ríos Montt. Sewanee: The University of the South (BA thesis) 2008

Non-academic papers and projects

BCN Data: the numbers behind Europe's most vibrant city (website)
www.bcndata.cat 2015 - ongoing

Control Flu Data Insights: Immunization, consent and vaccine hesitance
Florida Department of Health, Alachua County 2015

Community Health Improvement Plan: Evaluation Reports
Florida Department of Health, Alachua County (internal) 2014

Quantifying capacity at Health Posts in Tigray, Ethiopia
Tigray Regional Health Bureau (internal) 2013

Ciudad Quetzal: A Guatemalan City Grapples with Gang Terrorism
Tico Times, Costa Rica 2011

Heart of the sky, heart of the earth: religious division and its sociopolitical causes and consequences in San Juan Sacatepequez, Guatemala
Biehl Fellowship Paper 2007

Experience

Economist

Centro de Investigação em Saude de Manhica

MANHIÇA, MOZAMBIQUE

November 2016 - present

- Field research on economics and malaria
- Supervise and organize data collection teams
- Capacity-building and course instruction on data visualization and statistical software

Consultant

Adveq

ZÜRICH, SWITZERLAND

December 2016 - present

- Database creation, data cleaning, and data management

Consultant

World Bank

WASHINGTON, DC, USA

May 2016 - present

- Design and create researcher tools for large-scale surveys carried out by the World Bank Trade Competitiveness Global Practice
- Build interactive web app for data exploration

Data scientist

Lendable

OAKLAND, CA, USA

January 2015 - present

- Work to expand access to financial products to the developing world (East Africa, India)
- Program machine learning algorithms to predict financial risk
- Develop and implement stochastic simulation methods
- Devise creative means for extracting and generating features in a low-data context
- Create internal and client-facing visualization tools

Surveillance Epidemiologist

Florida Department of Health, Alachua County

GAINESVILLE, FL, USA

July 2013 - December 2015

- Write programs to detect clusters/abnormalities for ER data stream
- Analyze mosquito trap data to prevent arbovirus transmission
- Coordinate flu surveillance operations through school system
- Oversee program evaluation, billing, revenue modeling activities

Analyst

Analyst Institute

WASHINGTON, DC, USA

April 2014 - April 2015

- Analyzed voter data from controlled experiments
- Created tools for statistical analysis
- Designed interactive dashboards for data visualization

"Data Science for Social Good" Fellow

University of Chicago

CHICAGO, IL, USA

June 2014 - August 2014

- Analyzed large datasets to predict pediatric lead poisoning
- Worked in close collaboration with the Chicago Dept. of Public Health
- Used tools like R, Python and D3
- Worked closely with industry experts like Rayid Ghani and Ben Yuhas
- Designed tools for data exploration

Erasmus Mundus Researcher

Skolesundhed

COPENHAGEN, DENMARK

February 2012-June 2013

- Redesigned school health screening system to bring to digital platform
- Analyzed 3 years of youth health data on immigration and overweight

Health Systems Researcher

Agència de Salut Pública de Barcelona

BARCELONA, SPAIN

November 2012-February 2013

- Worked on SOPHIE project on immigration and health disparities

Maternal Health Epidemiologist

Tigray Regional Health Bureau

MEKELLE, ETHIOPIA

May 2012-August 2012

- Collected, analyzed and reported on data from rural regional Health Posts near the Eritrean border

Teacher

St. Andrew's-Sewanee School

SEWANEE, TN, USA

January 2010-June 2011

- Taught middle and high school Spanish and Technology

Assistant Coach

The University of the South

SEWANEE, TN, USA

August 2009-December 2010

- Coached men and women's cross country and track and field

Health Educator

Promotion et Développement Humain

AVEDJI CITÉ, TOGO

May 2009-August 2009

- Lead sexual health education workshops for teens
- Assessed medication adherence among HIV/AIDS patients through visits/interviews
- Assisted in accounting, data organization, process improvement

Recreation Coordinator / Teacher

Instituto Experimental de Ciudad Quetzal

CIUDAD QUETZAL, GUATEMALA

2006-2008 (summers)

- Organized youth recreation clinics for the *Cases Interculturales* program
- Taught English and Spanish in impoverished and violence-stricken area

Honors and Awards

Transdisciplinary Global Health Fellowship

2015

Funded by the European Commission to carry out research on economics and malaria

Data Science for Social Good Fellowship

2014

Funded by the University of Chicago to spend 3 months tackling big problems with big data

Erasmus Mundus Fellowship

2011

European Commission award for full MPH funding

Highest honors ("mention très bien") on MA thesis

2009

La Presse comme arme politique: le role des journaux américains dans les négociations des accords de Paris

Highest honors ("summa cum laude") and Phi Beta Kappa

2008

Top 5% of graduating class at Sewanee

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| Linda Wheat Fellowship Full funding for graduate studies at the Institut Catholique de Paris | 2008 |
| Fulbright ETA (Andorra) Awarded, but I declined in order to pursue graduate studies | 2008 |
| Algernon Sydney Sullivan Award Granted to one graduate annually, Sewanee's "most prestigious prize" | 2008 |
| Joseph Cushman Scholarship Highest award given to History major at Sewanee | 2007 |
| Gessell Fellowship Funding to carry out research on African-American history at Sewanee | 2007 |
| Biehl Social Science Fellowship Full funding to investigate the religious roots of social division in Guatemala | 2007 |
| Lilly Grant Full funding for vocational institute and internship in Guatemala | 2006 |
| Wright-Bentley Scholarship For strong academic skills and service to the community | 2005 |
| Wilkins Scholarship Merit and community award | 2004 |

Community Service

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| Translator <i>Physicians for Haiti</i> | PORT-AU-PRINCE, HAITI 2010-present |
| • Translated medical education documents between French and English | |
| Founder <i>Weekend English for Migrants</i> | SEWANEE, TN, USA 2009-2011 |
| • Organized language exchanges between high-schoolers and undocumented immigrants | |
| Co-founder <i>ABRE</i> | SEWANEE, TN, USA 2006-2008 |
| • Co-founded and presided over social awareness and social justice organization | |

Personal

Happily married, father, likes to fix and ride bikes, enjoys travel, doesn't enjoy airplanes, loves running, hates sitting, morning person.