

# JOE BREW

joebrew@gmail.com  
+36 666 66 80 86  
www.economicsofmalaria.com

Carrer de Cienfuegos, 10  
Entresol 2  
Barcelona, 08027 (Spain)

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## Languages

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

*Expert:* R, SAS  
*Professional:* Python, Stata  
*Proficient:* Javascript, SPSS

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## Education

<b>PhD</b> (in progress)	<i>January 2016-</i>
<i>Institut de Salut Global (host institution)</i>	BARCELONA, SPAIN
<i>Vrije Universiteit (secondary institution)</i>	AMSTERDAM, HOLLAND
<i>Centro de Investigação em Saúde de Manhiça (research site)</i>	MANHIÇA, MOZAMBIQUE

- Research on the cost effectiveness and efficacy of malaria control interventions

<b>Master of Public Health</b>	<i>September 2011 - July 2013</i>
<i>Københavns Universitet (year 2)</i>	COPENHAGEN, DENMARK
<i>Escuela Andaluza de Salud Pública (year 1)</i>	GRANADA, SPAIN

- Coursework in epidemiology, economic evaluation, demography, advanced biostatistics, management, health policy, health promotion

<b>Master of Arts</b>	<i>September 2009-June 2010</i>
<i>Institut Catholique de Paris</i>	PARIS, FRANCE

- MA in Contemporary Diplomatic History, fieldwork on negotiations leading to Paris Peace Accords

<b>Bachelor of Arts</b>	<i>August 2004-May 2008</i>
<i>Sewanee: The University of the South</i>	SEWANEE, TN, USA

- Triple major in Contemporary Non-Western History, Spanish, French

## Publications

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### Peer-reviewed papers

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)

Lednický 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**, Lednický 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)

### Peer-reviewed for

Health Education and Behavior

### 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

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**Consultant** WASHINGTON, DC, USA  
*World Bank* May 2016 - present

- Design and create researcher tools for large-scale surveys carried out by the World Bank Trade Competitiveness Global Practice

**Data scientist** OAKLAND, CA, USA  
*Lendable* 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**

GAINESVILLE, FL, USA

*Florida Department of Health, Alachua County*

*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**

WASHINGTON, DC, USA

*Analyst Institute*

*April 2014 - April 2015*

- Analyze voter data from controlled experiments
- Create tools for statistical analysis
- Design tools for data visualization

**"Data Science for Social Good" Fellow**

CHICAGO, IL, USA

*University of Chicago*

*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**

COPENHAGEN, DENMARK

*Skolesundhed*

*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**

BARCELONA, SPAIN

*Agència de Salut Pública de Barcelona*

*November 2012-February 2013*

- Worked on SOPHIE project on immigration and health disparities

**Maternal Health Epidemiologist**

MEKELLE, ETHIOPIA

*Tigray Regional Health Bureau*

*May 2012-August 2012*

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

**Teacher**

SEWANEE, TN, USA

*St. Andrew's-Sewanee School*

*January 2010-June 2011*

- Taught middle and high school Spanish and Technology

**Assistant Coach**

SEWANEE, TN, USA

*The University of the South*

*August 2009-December 2010*

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

**Health Educator**

AVEDJI CITÉ, TOGO

*Promotion et Développement Humain*

*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**

CIUDAD QUETZAL, GUATEMALA

*Instituto Experimental de Ciudad Quetzal*

*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

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<b>Transdisciplinary Global Health Fellowship</b> Funded by the European Commission to carry out research on economics and malaria	2015
<b>Data Science for Social Good Fellowship</b> Funded by the University of Chicago to spend 3 months tackling big problems with big data	2014
<b>Erasmus Mundus Fellowship</b> European Commission award for full MPH funding	2011
<b>Highest honors ("mention très bien") on MA thesis</b> <i>La Presse comme arme politique: le role des journaux américains dans les négociations des accords de Paris</i>	2009
<b>Highest honors ("summa cum laude") and Phi Beta Kappa</b> Top 5% of graduating class at Sewanee	2008
<b>Linda Wheat Fellowship</b> Full funding for graduate studies at the Institut Catholique de Paris	2008
<b>Fulbright ETA (Andorra)</b> Awarded, but I declined in order to pursue graduate studies	2008
<b>Algernon Sydney Sullivan Award</b> Granted to one graduate annually, Sewanee's "most prestigious prize"	2008
<b>Joseph Cushman Scholarship</b> Highest award given to History major at Sewanee	2007
<b>Gessell Fellowship</b> Funding to carry out research on African-American history at Sewanee	2007
<b>Biehl Social Science Fellowship</b> Full funding to investigate the religious roots of social division in Guatemala	2007
<b>Lilly Grant</b> Full funding for vocational institute and internship in Guatemala	2006
<b>Wright-Bentley Scholarship</b> For strong academic skills and service to the community	2005
<b>Wilkins Scholarship</b> Merit and community award	2004

## Community Service

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### Translator

*Physicians for Haiti*

PORT-AU-PRINCE, HAITI

*2010-present*

- Translated medical education documents between French and English

### Founder

*Weekend English for Migrants*

SEWANEE, TN, USA

*2009-2011*

- Organized language exchanges between high-schoolers and undocumented immigrants

### Co-founder

*ABRE*

SEWANEE, TN, USA

*2006-2008*

- Co-founded and presided over social awareness organization

## Personal

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