# Joe Brew

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## Languages

Native: English Expert: R, SAS

Fluent: Spanish, French, Catalan Professional: Python, Stata Proficient: Portuguese Proficient: Javascript, SPSS

## Education

PhD (in progress)

Institut de Salut Global (host institution)

Vrije Universiteit (secondary institution)

Centro de Investigação em Saude de Manhiça (research site)

January 2016
BARCELONA, SPAIN

AMSTERDAM, HOLLAND

MANHIÇA, MOZAMBIQUE

• Research on the cost effectiveness and efficacy of malaria control 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

### Master of Arts

September 2009-June 2010

Institut Catholique de Paris

Paris, France

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

### Bachelor of Arts

August 2004-May 2008

Sewanee: The University of the South

SEWANEE, TN, USA

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

## **Publications**

## 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.

(Accepted, publication pending)

(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)

## 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

BCN Data: the numbers behind Europe's most vibrant city 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

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

 ${f Analyst}$ 

Washington, DC, USA

April 2014 - April 2015

Analyst Institute

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

### 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

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

Community Service

Translator Port-au-Prince, Haiti

Physicians for Haiti

2010-present

• Translated medical education documents between French and English

Founder Sewanee, TN, USA

Weekend English for Migrants

2009-2011

• Organized language exchanges between high-schoolers and undocumented immigrants

• Co-founded and presided over social awareness organization

## Personal

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