Martin J Frigaard

Data Scientist, Co-Founder

📞 +1-503-333-0531   @ **mjfrigaard@gmail.com**   🔗 **https://www.linkedin.com/in/mjfrigaard/**

SKILLS

Programming languages

R   SQL   Python   Stata   Bash

Technical skills

Statistics   Research   Data Visualization   Data Science Communication   Data Wrangling

EDUCATION

Master's in Advanced Training in Clinical Research

University of California, San Francisco

📅 07/2015 - 01/2017   📍 San Francisco, CA

GPA **3.80** / 4.0

Master's in Kinesiology

California State University, Chico

📅 2009 - 2011   📍 Chico, CA

GPA **3.86** / 4.0

EXPERIENCE

Senior Clinical Programmer

BioMarin

📅 09/2020   📍 Remote

BioMarin focuses on developing first-in-class and best-in-class therapeutics that provide meaningful advances to patients who live with serious and life-threatening rare genetic diseases.

- Created and delivered **R training materials** for 12+ topics to the centralized statistical monitoring group
- Accompanying slides for each lesson (see **example**)

R Programmer, Shiny App Developer, Co-Founder

Paradigm Data Group, LLC

📅 2019 - Ongoing   📍 San Francisco, CA

🔗 https://www.paradigmdata.io/

Data science solutions and training

- We provide data analytic solutions (data wrangling, analysis, visualizations, application development, and trainings) from **RStudio certified instructors**
- CSU, Chico's Center for Healthy Communities CalFresh dashboard (see examples below in *ONGOING PROJECTS*)

EXPERIENCE

Instructor

Data + Narrative Workshops

📅 2018 - Ongoing   📍 Boston, MA
🔗 https://combeyond.bu.edu/workshop/data-narrative/

Description of Data + Narrative workshops from Boston University: "*the original data storytelling workshop teaches you how to find, clean, visualize and present data in a compelling narrative to influence clients, colleagues and stakeholders.*"

- Course: **Cleaning Data, The basics with OpenRefine**
- Course: **Beyond Spreadsheets: basic command line tools**
- Course: **Static visualizations with ggplot2**
- Course: **Cleaning data with R in RStudio.Cloud**
- Course: **Data Wash: Advanced Data Cleaning**

Research Associate

Kidney Health Research Collaborative (KHRC)

📅 2015 - 2018   📍 San Francisco, CA
🔗 https://khrc.ucsf.edu/

About the Kidney Health Research Collaborative: "*The KHRC, based at the University of California San Francisco and the San Francisco Veterans Affairs Medical Center, encompasses a group of leading scientists from multiple disciplines working to improve kidney health worldwide.*"

- In this position, I assisted with the preparation of IRB applications, including protocols, informed consent documentation, and obtaining approvals to conduct the trial
- I regularly created clinical study documents that align with trial protocols, including but not limited to, database documentation and guidelines, monitoring visit templates, and lab order reports
- I was responsible for creating and maintaining a database of subject information, and would generate trial reports for the Primary Investigator and other study staff
- My coding work in this role consisted of 1) working with trial investigators to develop complex SQL queries against the electronic health record database (Clarity and the VA's Computerized Patient Record System (CPRS)), and 2) writing Stata/R code to wrangle, visualize, model and report the extracted patient data

R Programmer/Shiny App Developer

Quesgen (contract)

📅 2018 - Ongoing   📍 Burlingame, CA
🔗 https://www.diabetestechnology.org/seg/

Developed a Shiny application for the Diabetes Technology Society's (DTS) Blood Glucose Monitor Surveillance Program

- **Link to Shiny Application**
- I regularly implement updates and feature requests from users
- Continually test application to ensure everything functions optimally
- Example write up for feature request: **http://bit.ly/Example-Shiny-Feature**

Author - Data Journalism in R

Storybench.org

📅 2016 - Ongoing   📍 USA
🔗 https://www.storybench.org/

Storybench.org is a blog featuring digital storytelling tips, tricks, and takeaways from Northeastern University's School of Journalism

- Develop R/data science tutorials for non-technical audiences
- Share and collaborate with journalists on data-related projects
- Provide statistical expertise to non-technical audiences
- 2019 shortlist for GEN Data Journalism Website of the Year

ARTICLES & PUBLICATIONS

Treating Covid-19: When Enthusiasm Trumps Evidence

Ojo Publico

Aleszu Bajak & Martin Frigaard

📅 06/2020   🔗 https://ojo-publico.com/1903/treating-covid-19-when-enthusiasm-trumps-evidence

Several drugs being used to treat Covid-19 could have worrying side effects and adverse reactions, especially among Latin Americans with heart and liver problems. While researchers are rushing to launch clinical trials to test these drugs, current clinical evidence is sparse, and doctors in Peru, Brazil and the United States express caution about their use.

Screening for CKD To Improve Processes of Care among Non-diabetic Veterans with Hypertension: A Pragmatic Cluster-Randomized Trial

Clinical Journal of the American Society of Nephrology

Carmen A Peralta, Martin Frigaard, Leticia Rolon, Karen Seal, Delphine Tuot, Josh Senyak, Lowell Lo, Neil Powe, Rebecca Scherzer, Shirley Chao, Phillip Chiao, Kimberly Lui, Michael G Shlipak, Anna D Rubinsky

📅 2020   🔗 https://cjasn.asnjournals.org/content/15/2/174.abstract

Background and objectives
We conducted a pilot, pragmatic, cluster-randomized trial to evaluate feasibility and preliminary effectiveness of screening for CKD using a triple-marker approach (creatinine, cystatin C, and albumin/creatinine ratio), followed by education and guidance, to improve care of hypertensive veterans in primary care. We used the electronic health record for identification, enrollment, intervention delivery, and outcome ascertainment.

Design, setting, participants, & measurements
We randomized 1819 veterans without diabetes but with hypertension (41 clusters) into three arms: (1) CKD screening followed by patient and provider education; (2) screening, education, plus pharmacist comanagement; or (3) usual care. The primary clinical outcome was BP change over 1 year.

Validating Laboratory Defined Chronic Kidney Disease In The Electronic Health Record For Patients In Primary Care

BMC nephrology

Martin Frigaard, Anna Rubinsky, Lo Lowell, Anna Malkina, Leah Karliner, Michael Kohn, Carmen A Peralta

📅 2019   🔗 https://link.springer.com/article/10.1186/s12882-018-1156-2

Background
Electronic health record (EHR) data is increasingly used to identify patients with chronic kidney disease (CKD). EHR queries used to capture CKD status, identify comorbid conditions, measure awareness by providers, and track adherence to guideline-concordant processes of care have not been validated.

Methods
We extracted EHR data for primary-care patients with two eGFRcreat 15-59 mL/min/1.73 m^2 at least 90 days apart. Two nephrologists manually reviewed a random sample of 50 charts to determine CKD status, associated comorbidities, and physician awareness of CKD. We also assessed the documentation of a CKD diagnosis with guideline-driven care.

Comparison Of Historical Lab-CKD And Clinician Chart Review

American Journal of Kidney Diseases

Martin James Frigaard, Carmen Alicia Peralta, Leah Karliner

📅 2018   🔗 URL

71 (4), 539-539, *Poster presentation*

Implementation Of A Pragmatic Randomized Trial Of Screening For Chronic Kidney Disease To Improve Care Among Non-Diabetic Hypertensive Veterans

BMC nephrology

Carmen A Peralta, Martin Frigaard, Anna D Rubinsky, Leticia Rolon, Lowell Lo, Santhi Voora, Karen Seal, Delphine Tuot, Shirley Chao, Kimberly Lui, Phillip Chiao, Neil Powe, Michael Shlipak

📅 2017   🔗 https://bmcnephrol.biomedcentral.com/articles/10.1186/s12882-017-0541-6

Whether screening for chronic kidney disease (CKD) can improve the care of persons at high risk for complications remains uncertain. We describe the design and early implementation experience of a pilot, cluster-randomized pragmatic trial to evaluate the feasibility, implementation, and effectiveness of a "triple marker" CKD screening program (creatinine, cystatin C and albumin to creatinine ratio) for improving care among hypertensive veterans seen in primary care at one Veterans Administration Hospital.

ARTICLES & PUBLICATIONS

Behavioral Economics And Social Marketing Campaign Increases Selection And Consumption Of School Lunch Garden Bar Items Among Elementary School Students

The Federation of American Societies for Experimental Biology

Joshua Andre, Cindy Wolff, Keiko Goto, Stephanie Bianco, Martin Frigaard, Garth Hansen, Rachel Riley, Sheila St. Cin

📅 2014 🔗 https://scholar.google.com/scholar?oi=bibs&cluster=4486914124665886741&btnl=1&hl=en

The current study assessed the effects of behavioral economics (BE) and social marketing (SM) on the selection and consumption of garden bar fruits and vegetables in elementary school students. A quasi-experimental study evaluated the immediate and lasting effects of BE and SM on student selection and consumption of garden bar items. The BE component provided verbal prompts to take fruits and vegetables and increased availability of garden bar favorites.

Identifying Red Flags: Using Anthropometry Measures to Screen for Elevated Blood Pressure Risk in Children

ICAN: Infant, Child, & Adolescent Nutrition

Martin Frigaard, Keiko Goto, Cindy Wolff, Stephanie Bianco-Simeral, Thomas Fahey

📅 2013 🔗 https://journals.sagepub.com/doi/full/10.1177/1941406412470719

Childhood obesity is predictive of adulthood obesity, hypertension, and cardiovascular disease risk. The purpose of this study was to examine BMI for age as an independent risk factor for elevated blood pressure (EBP) and pre-EBP in children, controlling for sex, race/ethnicity, and age. The secondary objective was to identify associations among BMI, BP, race/ethnicity, and sex. EBP was defined as having a BP ≥95th percentile for age, gender, and height; measurements ≥90th percentile were considered indicative of pre-EBP. The study sample included 166 fifth-grade students from 5 low-income elementary schools in northern California.

A Longitudinal Study Of Overweight, Elevated Blood Pressure, And Acanthosis Nigricans Among Low-Income Middle School Students

The Journal of School Nursing

Dana Kopping, Holly Nevarez, Keiko Goto, Irene Morgan, Martin Frigaard, Cindy Wolff

📅 2011 🔗 https://journals.sagepub.com/doi/abs/10.1177/1059840511428615

This longitudinal study examined the rates of overweight, elevated blood pressure, acanthosis nigricans, and their associated factors in third through fifth grade students over 4 years. Participants consisted of 279 students who participated in health screenings in 2002 and 2006.

ONGOING PROJECTS

Center for Healthy Communities/CalFresh Outreach Dashboard

📅 08/2020 - Ongoing 📍 Chico, CA

Web application for monitoring grant progress

- Integrated data for over 20 subcontractors throughout the state of California
- This Shiny application allows users to view overall performance, and relevant metrics by individual county
- Take notes using the markdown text box, and then download a customized report as a PDF or Word document
- **Link to current version**

Cannabis Sales Dashboard

📅 2019 📍 CA, USA

CanDash is a week-over-week sales dashboard for visualizing cannabis product sales across states and regions

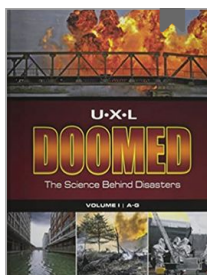- View example app

ONGOING PROJECTS

Tidyverse Tips

📅 2020 - Ongoing   📍 CA, USA

🔗 https://www.tidyverse.tips/

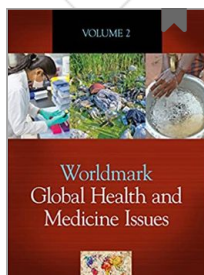Demo/personal blog of how-tos related to #rstats and #tidyverse

- Keeps me up-to-date on current packages, functions, and developments in the larger RStudio universe
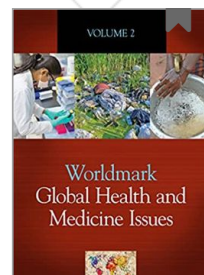
BOOK CHAPTERS

Chilean Earthquake: Warning System Failures in Doomed: The Science Behind Disasters

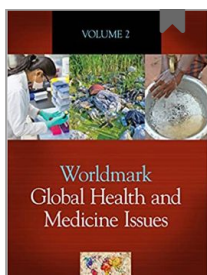K. Lee Lerner (Editor), Brenda Wilmoth Lerner (Editor), Kathleen J. Edgar (Editor)

Vaccines in Worldmark Global Health and Medicine Issues (1st Edition)
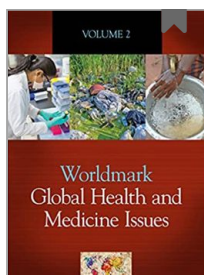
published with K. Lee Lerner (Editor)

Vaccine Preventable Diseases in Worldmark Global Health and Medicine Issues (1st Edition)

published with K. Lee Lerner (Editor)

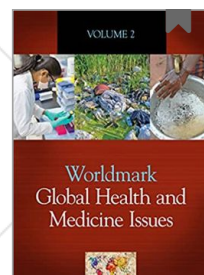**Pharmaceutical Research, Testing, and Access, in Worldmark Global Health and Medicine Issues (1st Edition)**

published with K. Lee Lerner (Editor)

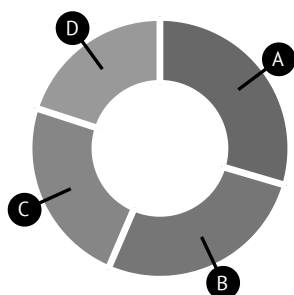**Noncommunicable Diseases (Lifestyle Diseases) in Worldmark Global Health and Medicine Issues (1st Edition)**

published with K. Lee Lerner (Editor)

Genetic Testing and Privacy Issues in Worldmark Global Health and Medicine Issues (1st Edition)

published with K. Lee Lerner (Editor)

HOW I SPEND MY TIME

- **A** Writing code (R, Python, SQL)
- **B** Reading code/documentation
- **C** Project organization, planning
- **D** Career development, learning new skills & technology

PASSIONS

Data science tools (R, Python)   **Data visualization**   **Science & technology**

Media & journalism   **Exercise science**

MILITARY SERVICE

Us Army Healthcare Specialist/Combat Medical Sergeant

US ARMY (Reserve)

📅 2001 - 2007

Sergeant responsibilities included 1) assisting with outpatient care and supervision of facilities under the supervision of a physician or physician's assistant, 2) establishing priorities for medical trainings, 3) providing guidance, training, and supervision to subordinates, 4) managing shifts and duties in the trauma centre, 5) handling various payroll and personnel issues among soldiers under my command, and 6) maintaining confidential medical information

Awards & Commendations

- Awarded Army Commendation Medal (ARCOM) - Awarded for active duty service for Operation Enduring Freedom (OEF) 2004-2006
- Commandant's' List - Awarded for graduating Primary Leadership Development Course in top 10%

FIND ME ONLINE

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www.linkedin.com/in/mjfrigaard/

@mjfrigaard
twitter.com/mjfrigaard

GitHub
www.github.com/mjfrigaard

REFERENCES

Stephanie Bianco - Director, Center for Healthy Communities, Associate Professor, Department of Nutrition and Food Science

Email: sbianco@csuchico.edu
Phone: 530-898-4022

Aleszu Bajak - Senior Data Reporter | USA Today

Email: aleszu.bajak@gmail.com
Phone: (216) 644 - 1952

Joseph Crozier | Statistical Data Analyst | Lifespan

Email: josephcrozier515@hotmail.com
Phone: (916) 765 -8751

CERTIFICATION

Tidyverse Train-the-trainer Certificate

RStudio - Jan, 2019