Eric Opoku

Health Economist, and Economic Modeler

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• Toronto, ON

Highly trained in health economics research, modelling and data analysis with relevant knowledge, experience, skillset, and data story telling capacity. Adept in presenting modelling and statistical results in a concise and detailed manner. Great communicator, leader, coach, and mentor.

Areas of Expertise

Health Economic Modelling

- Demonstrated ability to critically appraise economic evidence results (i.e., systematic and or scoping review), and construct Budget Impact Analyses and health economic models for submission to Canada Health Technology Assessment (HTA) agencies using Visual Basic for Applications in Microsoft Excel (or TreeAge).
- Possesses adequate insights of HTA processes, private and public payer markets, their drug review processes and reimbursement trends that impact market access.

Quantitative Research and Statistical Analysis

- Highly equipped with skills involving developing research objectives using directed acyclic graphs, data cleaning and transformation using logarithm or inverse hyperbolic sine functions and attaining bootstrapped, clustered, or robust standard errors for model-based regression models (i.e., Ordinary Least Squares, Probit/Logit, Multinomial Logistic regression, Poisson, Hurdle models) using the R software or Stata.
- Highly trained in conducting design-based research in terms of analyzing health policies or economic shocks using matching strategies (i.e., exact matching, nearest neighbor matching, and or propensity score matching), instrumental variable techniques (i.e., two-stage least squares), difference-in-difference approaches (i.e., dynamic treatment effects, and synthetic control and, staggered adoption approaches), Regression Discontinuity and Quantile regression models.
- Proven skills in theory development, literature review, statistical analysis, and preparing manuscripts for submission to peer-review journals and statistical reports to influence health policy decision-making.
- Conversant with cross-sectional, panel and longitudinal data and machine learning techniques.

Teaching Experience

Teaching Assistant

Department of Economics, Memorial University of Newfoundland   08/2019 – 04/2020
-ECON 1010 Introduction to Microeconomics

Department of Economics, University of Ghana (National Service)   09/2014 – 08/2015
-ECON 101   Introduction to Economics I (taught not less than 50 students)
-ECON 102/112 Introduction to Economics II (taught not less than 50 students)
-ECON 201/211 Elements of Economics I (taught not less than 80 students)
-ECON 202/212 Elements of Economics II (taught not less than 80 students)
-ECON 301/311 Microeconomic Theory I (taught not less than 400 students)

Professional Experience

Researcher

Global Health Innovation Lab   01/2022 – 07/2022
University of Toronto, Scarborough
- Worked on a research project to investigate the barriers and facilitators to Polio Vaccination and Eradication Programs.
- Worked on a research project to understand handwashing behaviors on University of Toronto Scarborough campus.

Nocland Business Incorporation   4/2021 – 08/2021
St. John's, Newfoundland and Labrador, Canada
- Was tasked with customer data analysis and reporting.
- Worked on a project to develop a manual for successful business day-to-day operations to best serve clients.

Rose Ricciardelli Research Lab   03/2020 – 02/2021
Memorial University of Newfoundland, St. John's, Newfoundland and Labrador, Canada

- Worked on a research project to examine the effect of social media bullying on students and the role of restorative justice.

Global Partnership for Small-Scale Fisheries Research   04/2020 – 05/2020
St. John's, Newfoundland and Labrador, Canada

- Worked on a research project to investigate whether sub-Saharan African countries have enacted and implement Fisheries Act and Management plans according to the global Small-Scale Fisheries guidelines.

Ghana Chamber of Bulk Oil distributors   08/2017 – 07/2019
Abelemkpe-Accra, Ghana
- Worked on a research project to investigate ways of improving the Health, Safety, Security, and Environment standards at the storage depots of the Bulk Oil Distribution Companies in Ghana.
- Worked on CREPT project to investigate options of improving trade financing in the Downstream Petroleum sector.
- Worked on Pexus Mooring project to investigate ways of expanding ship docking at the port to improve petroleum supply in Ghana.
- Conducted a research project to gauge client satisfaction.
- Wrote monthly newsletters and annual industry reports to inform stakeholders in the Downstream Petroleum sector.

Data collection and Interviewing

English Survey Interviewer

MarketQuest Omnifacts Research   02/2020 – 05/2021
St. John's, Newfoundland and Labrador, Canada

- Interviewed not less than 500 people randomly on the New Brunswick Health Council Primary Health Survey. The survey is aimed at understanding and reporting on New Brunswickers' self-rated health, and their experiences with the primary health services in their communities.
- Interviewed customers of Newfoundland Power, Bell Aliant and Nalcor energy on their service satisfaction.

Retention Agent
S&P Data   05/2020 – 07/2020
St. John's, Newfoundland and Labrador, Canada

- Resolved the billing queries of Sprint Corporation customers and updated their profile using highly advanced CSM software.

Work In Progress

- Exploring medical expenditure risks using panel data statistical tools and economic modeling strategies (ongoing).
- What are the Barriers and Facilitators to Polio Vaccination and Eradication Programs? A Systematic Review (Co-Author; Accepted for publication).
- Cost-effectiveness of COVID-19 screening strategies (ongoing).
- Handwashing behavior among students on campus (ongoing).

Education

Doctor of Philosophy in Health Services Research (Health Economics Emphasis-Year Two)
University of Toronto
GPA: 3.81/4.0

Dissertation: Investigating medical expenditure risks using panel data statistical tools, machine learning techniques and the Extended Cost-effectiveness analysis method.

Master of Arts in Economics
Memorial University of Newfoundland
GPA: 3.86/4.0

Thesis: Used the Multinomial Logistic Regression model and the Ghana Maternal Health Survey data to examine the determinants of maternal health care utilization in Ghana. Explored factors that affect pregnant women's decision to attend any antenatal care visits and in the first trimester and their decision to use health facility for child delivery. (Link)

Master of Philosophy in Economics
University of Ghana
GPA: 3.42/4.0

Thesis: Employed the Recursive Bivariate Regression model and the Ghana Demographic Health Survey data to investigate the effect of women empowerment and mass media exposure on neonatal mortality in Ghana. (Link)

Bachelor of Arts in Economics
University of Ghana
FGPA: 3.51/4.0

Project: Used survey data to conduct a cost-benefit analysis of building a plastic recycling plant in Adjen-Kotoku in Ghana.

Professional Development and Training

Computer proficiencies: R-software, Stata, Microsoft Excel, Word and Power Point, TreeAge, PostgreSQL, MySQL, Tableau, NVivo, Tex/Latex.
DHIS2 Fundamentals (February 2022), University of Oslo (Link)
Module for Sex and Gender in Primary Data Collection with Human Participants (2022), CIHR (Link)
Cross-Programmatic Efficiency Analysis (September 2021), WHO (Link)
Health Financing for Universal Health Coverage (September 2021), WHO (Link)
Maternal Infections (September 2021), The Global Health Network (Link)
Public Financial Management (September 2021), WHO (Link)
PostgreSQL certification (April 2021), Udemy (Link).
MySQL certification (May 2021), Udemy (Link).
Commercial Banking and Credit Analyst (CBCA), Corporate Finance Institute (Link)
Google Digital Marketing and Analytics, Google (2019) (Link)

Personal Links & Websites

Check out my tableau page for some of my health data visualization works.
Check out my GitHub page for some of my previous works.

Nominations & Awards

Dalla Lana Merit-Based scholarship –University of Toronto, Canada
University of Toronto Fellowship (UTF-funding)–University of Toronto, Canada
School of Graduate Studies fellowships – Memorial University of Newfoundland, Canada

Relevant Coursework

- Applied Health Econometrics I:
  Application of model and design-based econometric tools such as matching strategies (i.e., exact matching, nearest neighbor matching, and or propensity score matching), instrumental variable techniques (i.e., two-stage least squares), difference-in-difference approaches (i.e., dynamic treatment effects, and synthetic control and, staggered adoption approaches), Quantile regression, Ordinary Least Squares, Probit/Logit, Multinomial Logistic regression, Poisson, and Hurdle models.
- Advanced Health Economics and Policy Analysis I & II (Literature, conceptual and theoretical framework review)
- Introduction to Health Services Research (Scoping and systematic reviews)
- Applying Health Services Research (Research and Study Design and Methods)
- Economic Evaluation Methods (Cost-effectiveness and Budget Impact Analysis)
- Advanced Methods in economic Evaluation (Person-level Cost-effectiveness analysis and Extended Cost-effectiveness analysis)

Volunteer Experience

- Peer mentorship coordinator- IHPME (2021-2022)
- Health Support Foundation (2018-2019)
- Project Directorate Member, Rotaract Club, University of Ghana (2017-2018)