

MARK OTIENDE

STATISTICIAN | EPIDEMIOLOGIST

Field: Epidemiology, Data & Statistical Science for Health
Skills: R, STATA, SQL

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Research Experience (13 years)

Consultant: Epidemiology and Statistics - P95, Belgium

Apr. 2022 - Dec. 2023

- * Providing epidemiological and statistical support for a multi-site Lassa Fever incidence study in West Africa.
- * Performing systematic literature reviews and meta-analyses for client pharmaceutical companies.
- * Lead epidemiologist in the development of a protocol to study vaccine safety in LMICs.
- * Providing statistical support for a multi-country, model-based, RSV incidence estimation study.
- * Development of a research proposal to study Global HPV burden in response to a BMGF funding call.

Statistical Epidemiologist - KEMRI-Wellcome Trust Research Programme, Kenya

Jul. 2011 - Mar. 2022

- * COVID-19 response: statistical analyses planning, execution and reporting (manuscripts, policy briefs and seminars).
- * Childhood vaccine effectiveness studies: vaccine impact analysis using observational data.
- * Analysis and reporting of demographic levels, trends and transitions using data from a Demographic Surveillance System.
- * Programme-wide statistical and epidemiological support, including developing proposals, protocols and SOPs.
- * Trial statistician: advising on sample size considerations and generating reports for the Data and Safety Monitoring Board.
- * Day-to-day management and analysis of large clinical and demographic datasets.

Teaching Experience (6 years)

Manuscript writing workshop - Africa Medical Research Foundation, Kenya

2018

- * Reviewing manuscript structures for different study designs.
- * Critical appraisal of research manuscripts.

Statistical analysis using R - Pwani University, Kenya

2021

- * Describing and visualizing data.
- * Analysis of binary outcomes, rates and survival time.

Design and Analysis of Epidemiological Studies (teaching assistant) - LSHTM, UK

2022

- * Design of epidemiological studies.
- * Sample size calculation; multivariate analysis; random error; clustering.

Fundamentals of Epidemiology - P95 - Turning Data Into Evidence, Belgium

2023

- * Epidemiological study designs and their applications.
- * Measures of occurrence, effect and Impact.
- * Estimating hospital catchment area and populations in LMICs: application in AESI background rate studies.

Education

PhD Candidate - Epidemiology and Population Health - LSHTM, UK

Apr. 2020 - May. 2024

- * Thesis: Mortality and its determinants over two decades (2003-2022) in a closely monitored population using data from the Kilifi Health and Demographic Surveillance System.
 - Described mortality levels and trends over space and time.
 - Evaluated the impact of COVID-19 on all-cause mortality.
 - Evaluated the impact of PCV and Rotavirus vaccines on all-cause childhood mortality in sub-Saharan Africa.

Certificate (Epidemiological Evaluation of Vaccines) - LSHTM, United Kingdom

Jul. 2018

- * A short course providing an understanding of the methods used in the evaluation of vaccines; from early human trials through to assessment of population impact and policy.

MSc. in Epidemiology - LSHTM, United Kingdom

Oct. 2014 - Nov. 2016

- * Dissertation: Analysis of the 'healthy vaccinee effect' in observational vaccine effectiveness studies.

BSc. in Applied Statistics - Maseno University, Kenya

Sep. 2007 - Jul. 2011

Selected Publications

Theme 1: Vaccine Effectiveness - Kilifi, Kenya

2017 - Sep. 2019

- * Assessing the efficiency of catch-up campaigns for the introduction of pneumococcal conjugate vaccine: a modelling study based on data from PCV10 introduction in Kilifi, Kenya. PMID:28592303
- * Effect of ten-valent pneumococcal conjugate vaccine on invasive pneumococcal disease and nasopharyngeal carriage in Kenya: a longitudinal surveillance study. PMID:31000194
- * Effect of 10-valent pneumococcal conjugate vaccine on the incidence of radiologically-confirmed pneumonia and clinically-defined pneumonia in Kenyan children: an interrupted time-series analysis. PMID:30784634

Theme 2: SARS-CoV-2 Response - Kilifi, Kenya

2021 - 2023

- * Impact of COVID-19 on mortality in coastal Kenya: a longitudinal open cohort study. PMID:37898630
- * SARS-CoV-2 seroprevalence and implications for population immunity: Evidence from two HDSS sites in Kenya. PMID:37752065
- * SARS-CoV-2 Seroprevalence in three Kenyan Demographic Surveillance Sites, December 2020-May 2021. PMID:36962821
- * Quantifying previous SARS-CoV-2 infection through mixture modelling of antibody levels. PMID:34702829
- * Temporal trends of SARS-CoV-2 seroprevalence during the first wave of the COVID-19 epidemic in Kenya. PMID:34172732
- * Prevalence of SARS-CoV-2 Antibodies From a National Serosurveillance of Kenyan Blood Donors. PMID:34473191
- * COVID-19 transmission dynamics underlying epidemic waves in Kenya. PMID:34618602
- * Anti-SARS-CoV-2 Immunoglobulin G Antibody Seroprevalence Among Truck Drivers and Assistants in Kenya. PMID:34660838
- * Seroprevalence of Antibodies to SARS-CoV-2 Among Healthcare Workers in Kenya. PMID:33893491
- * Seroprevalence of antiSARS-CoV-2 IgG antibodies in Kenyan blood donors. PMID:33177105

Theme 3: Chikungunya - Kilifi, Kenya

2021 - 2022

- * Endemic chikungunya fever in Kenyan children: a prospective cohort study. PMID:33602147
- * Incidence of chikungunya virus infections among Kenyan children with neurological disease. A cohort study. PMID:35550620