

INUMIMONTE DAVID ENNIS

Public Health Specialist | Epidemiology & Analytics | Health Systems Strengthening

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Professional Summary

10+ years delivering national health programs & digital MEAL systems across Africa — full-cycle: design, funding, implementation, live dashboards (Python/Streamlit), and results reporting for governments & donors.

CORE COMPETENCIES

- Epidemiology & Disease Burden Modeling
- Global Health Analytics (DALYs, mortality, risk factors)
- Digital Health Solutions (Dashboards, LIS, Data Pipelines)
- Monitoring, Evaluation & Learning (MEL)
- Strategic Planning & Results-Based Management (RBM)
- Program/Project Management (NGO, Government, Donor-funded)
- Data Quality Assurance & Health Information Systems (DHIS2, LIS)
- Forecasting & Predictive Modeling
- Stakeholder Engagement & Capacity Building
- Python (pandas, numpy, matplotlib, scikit-learn), R
- Power BI, Tableau, GitHub, Streamlit, Cloud Deployment

PROFESSIONAL EXPERIENCE

Technical Lead / Program Director (Consultant)

2014 – Present | Multiple Global Health Projects (Government, NGOs, and Health Programs)

- Designed and deployed **digital analytics platforms**, including national disease burden dashboards integrating DALYs, mortality, NCDs, maternal health, risk factors, and forecasting models.
- Provided technical leadership for **laboratory information system (LIS) deployments** across tertiary hospitals, supporting workflow redesign, data quality acceleration, and system integration.
- Led analytics for epidemiological modeling and trend analysis across priority diseases including NCDs, maternal and neonatal disorders, injuries, and communicable diseases.
- Developed **forecasting tools for health planning**, enabling ministries and partners to model future disease trends through statistical and machine learning techniques.

- Designed and implemented **M&E frameworks**, performance indicators, and results-based dashboards for large-scale health programs.
- Conducted training for health workers, program staff, and analysts on data analytics, digital systems, interpretation of epidemiological indicators, and data-driven decision-making.
- Built automated data pipelines for processing, cleaning, and transforming complex datasets into actionable insights for policy and program optimization.
- Supported governments and partners in aligning program objectives with strategic health priorities through evidence-based planning and scenario modeling.

SELECTED PROJECTS

Unified GBD Dashboard – National Disease Intelligence System

Lead Developer & Epidemiological Modeler

- Built a fully automated national disease burden analytics system integrating DALYs, mortality, incidence, prevalence, and risk factors for all Nigerian states.
- Designed advanced analytics pipelines using Python and Streamlit for real-time visualization and interactive exploration.
- Enabled policymakers, donors, and planners to access multi-disease insights, prioritize interventions, and improve resource allocation.
- Deployed publicly on Streamlit Cloud: <https://unified-gbd-dashboard-cloud-rtggkmqz9pr3kweyi9jfdp.streamlit.app/> (accessible to SMOH, UNICEF, Partners) or visit Inumimonte.org and access it under projects

Real-time Complementary Feeding MEAL Dashboard

Rivers State, Nigeria • Dec 2025 – Present

- Designed and deployed an interactive, live-updating Monitoring, Evaluation, Accountability & Learning (MEAL) dashboard using Python (Streamlit, Pandas, Plotly, Folium) for Port Harcourt and Degema LGAs.
- Successfully processed and visualized 500+ caregiver surveys covering IYCF knowledge, attitudes, practices, dietary diversity, timely introduction, and child anthropometry
- Built automated data pipeline that combines multiple Excel sources and instantly reflects new data uploads (zero manual refresh needed)
- Incorporated GIS mapping of Degema wards and health facilities to support equity analysis
- Deployed publicly on Streamlit Cloud: visit: Inumimonte.org

Degema LGA Annual Operational Plan (AOP) & Budget Module

Health Systems Strengthening & Digital Planning Specialist

- Designed and implemented an **integrated AOP and budgeting tool** that streamlined planning, costing, activity scheduling, and performance tracking for Degema LGA's health programs.
- Conducted comprehensive stakeholder engagement with PHC directors, facility heads, M&E officers, and LGA leadership to ensure alignment with state and national priorities.
- Built digital templates that automated **cost projections, activity timelines, resource requirements, and quarterly performance management**, reducing planning time by **more than 50%**.
- Trained **20 M&E** LGA teams on data-driven planning and use of the module to improve accountability, transparency, and evidence-based budgeting.
- Strengthened the LGA's capacity to track progress across RMNCAH+N, routine immunization, community health, malaria, NCDs, and health systems components.

Health System Strengthening Interventions

- Led design and deployment of digital tools for routine immunization performance review, bottleneck analysis, and microplanning support.
- Implemented frameworks for service delivery optimization and quality improvement across health facilities.

Digital Disease Surveillance & Forecasting Models

- Built statistical forecasting models to estimate future burden of priority diseases, enabling proactive planning and resource prioritization.
- Used machine learning and time-series analysis to generate 2030 outlook scenarios for NCDs, injuries, and maternal disorders.

Laboratory Information System (LIS) Optimization Projects

- Supported installation, configuration, and capacity building for LIS deployments in major referral hospitals.
- Enhanced workflow automation, reduced reporting delays, and improved data accuracy.

Education

DrPH (In Progress) – Public Health Leadership, Health Systems Strengthening

M.Sc., Epidemiology – University of Port Harcourt | 2023

M.Sc., Statistics – Ignatius Ajuru University of Education |2021

PGD., Public Health – University of Port Harcourt | 2020

PGD., Statistics – Rivers State University | 2018

Professional Courses

- Certified in Public Health (CPH) - National Board of Public Health Examiners (NBPHE) – Candidacy
- MEAL DPro (Monitoring, Evaluation, Accountability & Learning Certification) – PM4NGOs
- Results-Based Management and M&E Planning – ELD Impact
- Blocking Blocks of effective National Monitoring & Evaluation System – World Bank Academy
- Public Expenditure & Financial Accountability (PEFA) – World Bank Academy
- Nutrition Responsive Budgeting – World Bank Academy
- Statistical Genomics – Coursera
- Data Analytics – WorldQuant University

Technicals Skills

- **Programming:** Python, R, SQL
- **Data Tools:** Power BI, Tableau, Excel Power Query
- **Libraries:** pandas, numpy, scikit-learn, matplotlib, plotly
- **Platforms:** Streamlit, GitHub, Linux
- **Health Systems:** LIS, DHIS2, routine immunization tools
- **Documentation:** SOPs, MEL plans, AOPs, dashboards, strategy notes

Membership

- **Fellow, Royal Statistical Society (RSS)**
- Member, Global Public Health & Analytics Communities