

Elizabeth Wanjala Mwashuma

KEY AREAS OF EXPERTISE

- Public Health
- Information Systems
- Health Management
- Research
- Digital Health Technologies
- Resource Mobilization
- Stakeholder Management
- Data Analysis

ACADEMIC QUALIFICATIONS

PhD Information Systems	University of Nairobi, Kenya	Present
Masters of Science, Applied Computing, Major in Health Informatics	University of Nairobi, Kenya	2016
Diploma in Project Management	Kenya Institute of Management, Kenya	2014
Bachelors of Science, Computer Science	Kenyatta University, Kenya	2011

PROFESSIONAL EXPERIENCE

August 2018 – Present, Public Health Informatics and Research Specialist, Good Partners

Technical Project Director on the following projects:

- **Landscape Analysis of Kenya's Digital Health Status project:** Conducted in-depth interviews with digital health experts from both public and private sector to obtain an overview of the digital health landscape in Kenya and critical input for a roadmap to support the uptake of digital health technologies, in view of maximizing its impact on primary healthcare outcomes.
- **Impact Assessment of VecnaCares' CliniPAK EMR:** Delivered a report following the impact evaluation of the implementation of CliniPAK EMR in two sub counties. The objective of the evaluation was to assess the impact of the EMR solution on healthcare operations at facility level and county level, to comparatively assess the report generation process between facilities using CliniPAK EMR versus those using manual paper based systems, to conduct a technology audit which benchmarks its functionality against the required functional requirements of EMRs as stipulated in the Standards and Guidelines for EMR systems in Kenya and finally assess the financially quantifiable costs and financially quantifiable benefits of implementing CliniPAK EMR.
A mixed method research design was adopted. A research protocol was developed and ethical approval obtained before interviews and focus group discussions were conducted. The data was analyzed according to the research questions and study objectives and report generated and shared.
- **Development of MSF Spain Research Sampling Strategy**
- **Conducting a Usability Assessment of IQCare EMR in Baraka & Kishon Health Centers in Narok County**
- **eHealth Landscape Analysis to assess enabling environment for ICTs for Health in Eastern Africa Region: A review of eHealth Strategies in Kenya, Uganda, Rwanda and Tanzania**
- Support the development of Client Registry System Requirements of Tanzania Health System and Evaluation of National Integrated Health Management Information Systems
- Development of an e-learning management systems for Africa Capacity Alliance

April 2018 – July 2018, Consultant, Public Health Informatics Specialist, IDSR, World Health Organisation (WHO), Tanzania

Provided technical support to strengthen the data flow and management processes for disease surveillance and reporting within the Epidemiological and Disease Control unit of the Ministry of Health, Tanzania. This was done through the delivery of the following outputs:

- Conducted a rapid assessment of IDSR in the country with emphasis on IDSR data flows, data management processes, data quality assurance mechanisms, documenting the status of the ICT infrastructure that supports public health surveillance priorities; describing the workforce capacity related to disease surveillance, health information systems and health ICT staff for disease surveillance, state of community based surveillance, identify public health information systems, stakeholders and existing resources supporting disease surveillance.
- Documented electronic IDSR (e-IDSR) as a best practice following interviews with various disease surveillance partners in Tanzania including AMREF, JSI, Concern, CDC, USAID, WHO and the Ministry of Health
- Supported the development of a Data Quality Assurance guideline for IDSR data including standard operation procedures (SOPs) for eIDSR,
- Strengthened capacity on use and management of data for IDSR priority diseases through training.
- Developed critical information products on IDSR (IDSR country profiles, IDSR annual report and IDSR advocacy tools); including writing of scientific article on IDSR in country and a developing an English version of the weekly IDSR bulletin for disseminating weekly IDSR reports

The assignment employed a research-driven approach and included consultation with various stakeholders. A scientific paper was developed for publication.

October 2016 – March 2018, Research Scientist, Philips Research Africa, Nairobi, Kenya

- Led Health IT projects, developed annual work plans, developed operational plans, budgets, monthly and quarterly progress reports. Served as a point of contact with both internal and external stakeholders including the MoH, UNICEF, Philips Foundation, County level engagements, digital health solution providers among others.
- Led research validation studies to test the usability, applicability, benefits, and limitations of digital health solutions and to understand their ease of use, flexibility in a traditional workflow, and associated learning difficulties. This included the Digital Intrapartum Solution validated in Kiambu County, Joint Health Equipment Assessment study validated in Kakamega County with UNICEF.
- Developed research study protocols to validate mhealth and ehealth clinical support systems after obtaining internal and external ethical approval from relevant IRB bodies.
- Conducted assessment of Lebanon's Health Information Systems in the context of immunization data workflows and management of measles outbreak.
- Translated research findings into working documents to enhance usability of the solutions, increase adoption and scale up of the digital health solutions in low resource setting areas
- Used data analysis to foster discussions on data demand and use with healthcare professionals at facility level to improve healthcare outcomes
- Pro-actively made knowledge available to contribute to successful transfers of research results to the business arena

April 2016 – October 2016, Surveillance Project Manager, eHealth Africa, Monrovia, Liberia

- Supported the design and development of Liberia HIS Interoperability Layer prototype
- Developed KPI toolkit for visualizations after gathering dashboard requirements from MOH divisions to identify which indicators should be visualized on the dashboards
- Setup a surveillance situation room at the Liberia Ministry of Health
- Strengthen ICT support to MOH Surveillance activities by overseeing provision of internet connectivity support to priority sites
- Stakeholder Management
- Resource Mobilization

September 2011 – March 2016, Technical Officer, Public Private Partnership for Health, Nairobi, Kenya

- Worked on ACA's portfolio of PPP programs which included the Center for Health Market Innovations (CHMI), the Network for Africa (N4A) and the Springboard Africa project
- Technical lead in the implementation of two learning and adaptation accelerators; Learn and Launch aimed at understanding and addressing challenges hindering scale up of emerging private sector health startups in LMIC; and Adaptation of Primary Care Business Models, aimed to support cross-learning and adaptation of success factors from seasoned private health entrepreneurs in the network to identify areas of partnerships, learning and growth.
- Worked as a ICT specialist and ICT intern responsible for supporting various ICT projects and initiatives for Public Private Partnership for Health

SELECTED REPORTS AND PUBLICATIONS

Mwashuma, E., & Chepken, C. C. (2018). Towards effective healthcare information SMS model. Journal of Health Informatics in Africa, 5(2). <https://doi.org/10.12856/JHIA-2018-v5-i2-206>, presented at HELINA 2018

Mwashuma, E. (2018). Towards universal healthcare coverage through adoption of blockchain technology: a literature review. Journal of Health Informatics in Africa, 5(2). <https://doi.org/10.12856/JHIA-2018-v5-i2-205>, presented at HELINA 2018

HELINA 2018 Conference; presenting a paper on Best practices for implementation of EMRs at primary care level, December, 2018

Session Moderator, "Data Confidentiality vs. Shared Data: Enabler or Show Stopper for Development?" Accra, Ghana, Dec 2018, Re:publica Conference

Mobile 360 GSMA Conference, IOT for Africa: Building Smart Communities; July 2017, Dar es Salaam, Tanzania

George.C. Kauki, Elizabeth Mwashuma, Dr. Azma Simba, Dr. Vida Mmbaga, Solomon Moshi¹, Janneth Mghamba et al. Tanzania Electronic Integrated Disease Surveillance and Response (e-IDSR): Best practices and Lessons Learned from a Successfully Ongoing Implementation,

ADDITIONAL INFORMATION

Languages: English (Fluent); Kiswahili (Native);

Country Experience: Kenya; Liberia; Tanzania; Lebanon

Training and Certification: Research Writing in Sciences Course; Monitoring and Evaluation for Research Learning Course; Linux Systems Administrator Certification; Protecting Human Research Participants