Resume or Curriculum vitae

Name **Brian SERUMAGA, PhD**

Status Pharmaceutical Policy Design and Implementation Expert

Contact: (b) (6)

Relevant Experience & Expertise

- Pharmaceutical Policy expert with over 15 years of technical, managerial and fiscal experience in design, implementation, management and evaluation of pharmaceutical health programs, policies and standards at national and international level
- Specific technical expertise in Pharmaceutical policy and regulation planning, pharmaceutical systems strengthening, medicines management, compounding, capacity building and monitoring and evaluation.
- Registered Pharmacist with an active license to practice in Virginia.
- Experience of preparing compounded preparations and other personalized medicines while working within multi-professional teams in a hospital setting
- Significant experience working with the USP compounding expert committee (and its subcommittees) and other committees in the Healthcare Quality and Safety Department of USP to develop and execute their work plans in the 2015 – 2020 cycle
- Track record of positive interaction and successful negotiation with representatives of government agencies (e.g. FDA, CDC), state regulators, implementers of USP standards(e.g. The Joint Commission) and other stakeholders (e.g. ASHP, APHA) on USP compounding standards
- Experience of leading teams to utilize a holistic approach to develop innovative solutions to complex challenges in pharmaceutical regulation, policy and system strengthening at national and international level. Demonstrable ability to conceive, formulate and implement effective solutions to management problems within teams. Proven ability to advise senior management and lead teams to complete tasks and achieve results.
- Excellent track record of leading successful technical teams on bilateral and multilateral public health programs. Experience providing strategic and operational leadership to multicultural technical professionals, built in-country capacity, mentored staff, provided strategic leadership in regulatory policy and landscape analysis, developed host-country partnerships with top government officials, implementing partners and stakeholders to collaboratively sustain program implementation, government ownership, and donor satisfaction.
- Excellent record of scientific and technical writing, publishing influential articles in peer reviewed journals and influential grey literature, as well as delivering presentations at national and international conferences.
- Experience in development of new business, strategy development, mentorship and leadership.

Education

- **Fellowship** **Harvard Medical School, USA (HMS)**
  Fellowship in Pharmaceutical Policy Design and Implementation (FPPR) 2010
- **PhD** **University of Nottingham, England (UON)**
  Doctor of Philosophy in Primary Healthcare – Pharmaceutical systems (Honors) 2010
- **MPH** **University of Nottingham, England (UON)**
  Master of Public Health (Distinction) 2007
- **BPharm** **Makerere University College of Health Sciences, Uganda**
  Bachelor of Pharmacy (First Class Honors) 2004

Other Trainings

- Certificate (2022): APHA Pharmacy-Based Immunization Delivery Training
- Certificate (2019): Microbiology and Sterility Assurance USP

- Certificate (2017): USP <795> *Pharmaceutical Compounding – Nonsterile Preparations* course for compounding professionals
- Certificate (2017): USP <797> *Pharmaceutical Compounding – Sterile Preparations* course for compounding professionals
- Certificate (2017): USP <800> *Hazardous Drugs – Handling in the Healthcare Setting* course for professionals
- Diploma (June 2010). Advanced methods of longitudinal data analysis. School of Public Health, Harvard Medical School
- Competency Certificate (June 2013). Logistics and supply chain modelling using SupplyChainGuru, Llamasoft Corporation, Arlington, VA, USA
- Competency Certificate (April, 2012). Supply Chain Management Training of Trainers, USAID | DELIVER PROJECT, Arlington, VA. USA

Professional Affiliations

- American Society of Health-System Pharmacists (ASHP)
- Alliance for Pharmacy Compounding (APC)
- American Association of Public Health (APHA)
- International Pharmacy Federation (FIP)
- International Association of Public Health Logisticians (IAPHL)
- International Society of Pharmacoeconomics and Outcomes Research (ISPOR)

Appointments

- Honorary Assistant Professor of Public Health and visiting lecturer at University of Nottingham Medical School, United Kingdom (2011 – 2018).
- Fellow – Pharmaceutical policy research in the Department of Population Medicine at Harvard Medical School (2009 – 2010).
- Consultant – WHO collaborating centre in Medicines use and Regulation at Harvard Medical School. (2009 – 2012)

Countries of Work Experience

Worked in: Britain, USA

Consultancy services to: Botswana, Ethiopia, India, Jordan, Kenya, Liberia, Mozambique, Nigeria, Philippines, Rwanda, South Africa, Tanzania, Turkey, Uganda, Zanzibar, Zimbabwe.

Employment Record

United States Pharmacopeia Convention. (USP), Rockville, MD, USA

- ***Director – Personalized Medicines* (*June 2020 – to present*)**
  - *Provide strategic thought leadership, analytical skills, project management skills as well as mentorship of senior scientists in order to oversee the business operations of the healthcare and safety program unit to ensure successful development and completion of the USP personalized medicines workplan for the 2020 – 2025 cycle*
  - *Lead the development of strategic plans in understanding the needs of global stakeholders, current awareness of, and utilization of USP standards. Create and manage global activities to encourage the uptake and implementation of USP personalized medicine standards in developing countries*
  - *Lead the execution of the Compounding Expert Committee's work plan which includes development and review of several compounding documentary standards (e.g. general chapters, compounded preparation monographs) and adhoc recommendations for compounders during public health emergencies*
  - *Develop plans for and supported timely and strategic external communication of activities and events related to USP compounding standards such as through developing new and updating existing information on the USP compounding website*
  - *Lead cross-functional teams in performing due diligence to assess new business development opportunities, project feasibility and risk in both the public and private sector*
  - *Apply knowledge, skills and experiences to develop fact-based approaches to drive business recommendations and decisions*

- *Interface with cross-functional and global staff to ensure work integration and alignment with the global pharmaceutical sector workplan*

- ***Senior Scientific Liaison – Compounding Expert Committee* (*Sept 2017 – May 2020*)**
  - *Supported the execution of the Compounding Expert Committee's work plan which includes development and review of several compounding documentary standards (e.g. general chapters, compounded preparation monographs) and adhoc recommendations for compounders during public health emergencies*
  - *Worked collaboratively with program unit leadership, project managers and others to develop briefings and communications for senior management on current and future activities of the program unit*
  - *Interacted and Communicated with representatives of regulatory agencies, implementation bodies, member organizations and other stakeholders leading to the development of new workplan areas and identification of potential new members of the compounding expert committee and expert panels*
  - *Supported innovation by actively participating in and representing the scientific liaisons in the healthcare quality and safety department at companywide initiatives to accelerate, transform and progress the development of USP standards*
  - *Supported the utilization of USP compounding standards such as through responding to customer enquiries, developing and availing frequently asked questions on the USP website, and supporting the development and delivery of USP educational courses*
  - *Supported the on boarding of new staff at USP through the buddy system as well as mentored interns and acted as preceptor for pharmacy students on rotation*
  - *Authored and made several presentations on USP compounding standards at external workshops, stakeholder meetings and national conferences*
  - *Supported the USP standard setting process by creating briefing materials for the official and working meetings of the compounding expert committee and its subcommittees including commentary summaries, and relevant documents for appeals and postponement procedures*
  - *Led the coordination of efforts of USP Research Scientists such as in the compendial development laboratory and other USP departments for the internal verification of the suitability USP reference standards for USP compounded preparation monographs*
  - *Coordinated the activities of and served as the main USP contact person with contract labs engaged by USP to carry out stability studies for the development of Compounded Preparation Monographs. Liaised with the monograph development subcommittee to develop and modify study protocols, troubleshoot stability challenges and manage study pipeline*
  - *Worked with stakeholder organizations to develop survey for and review periodically collected shortage data to identify priorities for and implement innovative actions to obtain USP compounded preparation monographs in particular and other USP compounding standards in general*
- ***Science Program Manager, HQS* (*July 2016 – Aug 2017*)**
  - *Used a holistic approach to leverage existing internal processes and develop new strategies for the design and launch of the USP Compounded Preparation Monograph Donation Program leading to significant savings for the organization*
  - *Led the development and execution of an outreach program to sponsors to negotiate their commitment and provision of donations of compounding formulas, stability studies and other data relevant to the creation of USP Compounded Preparation Monographs*
  - *Worked with HQS leadership, USP meeting services, Global External Affairs and other USP departments to develop programs for and host annual USP Compounding Stakeholder workshops on innovations and advances in compounding*
  - *Worked cross-functionally to support other areas of development of USP compounding standards*

John Snow Inc. (JSI), Arlington, VA, USA

- ***Senior Technical Manager /Technical Advisor* (*June 2011 – June 2016*)**
  - *Negotiated with donor clients (e.g. USAID) to determine technical strategies, priorities, and approaches for pharmaceutical systems strengthening projects*
  - *Led and managed teams of technical advisors who provided technical assistance in pharmaceutical system strengthening to a host of country partners, including Ministries of Health, UN agencies, USAID missions and other donors, and other institutions such as PEPFAR implementing partners*
  - *Technical manager for the USAID | DELIVER Project's work on pharmaceutical system leadership development. Led the creation of a pharmaceutical supply chain leadership development initiative that was implemented for federal and state level leaders in India leading to the formation and implementation of key strategic interventions in 5 states impacting over 200 million lives.*
  - *Led the design and implementation of initiatives to strengthen logistics systems. Specific activities included: Performance- based financing, vendor managed inventory (VMI), supply chain HR assessment, Risk Management, quantification of health commodities, Supply chain evolution, central level and system wide logistics management*

information systems, capacity building activities focused on development of skills for supply chain management, promotion of donor collaboration and communication at both national and international levels

- *Technical manager of the USAID | DELIVER Project's work on health care financing. Contributing author to the interagency technical guide on results based financing for public health supply chains. Led the design and implementation of Results-Based Financing (RBF) interventions for supply chains in Mozambique, Rwanda, Ghana and Tanzania. In Mozambique, led the design and implementation of the RBF scheme for the central medical store (CMAM) worth $1.25 million over two years that reduced order cycle times from 40 to15 days. In Tanzania, worked with the World Bank to design and implement on ongoing RBF scheme worth $0.5M per year for 4 years*
- *Technical manager of the USAID | DELIVER Project's work on vendor managed inventory (VMI). Lead author of the blue print on VMI in public sector supply chains, which has been used by the USAID|DELIVER Project to implement VMI interventions in Nigeria (Direct Delivery and Information Capture – DDIC) and India*
- *Led the design and implementation of the USAID | DELIVER Project's human resource assessment guide and toolkit. The assessment has been implemented in Zimbabwe, Rwanda, Tanzania, Zanzibar, Ethiopia, Ghana, Liberia and other countries over the last 4 years. It has been the basis for the selection and implementation of key human resource interventions in those countries*
- *Developed a wide variety of practical tools to improve financing processes in developing country pharmaceutical supply chains. e.g. developed the service fee estimator that is widely used in central medical stores (e.g. Tanzania, Malawi) to calculate charges for third party inventory holding and management.*
- *Led multi-stakeholder teams to develop five year national supply chain strategic plans andpharmaceutical sector action plans in Tanzania and Zanzibar. This has led to the mobilization of resources worth about $200 million from multiple development partners to implement over 40 interventions from 2014 – 2020.*
- *Facilitated multiple trainings and participated in high-level global meetings to represent JSI on supply chain management for commodity security (e.g. World Bank, WHO, UNFPA)*
- *Technical manager of the long-term agreement between JSI and UNFPA to develop the methodology and tools for forecasting and supply planning for health commodities for population in emergency circumstances*
- *Lead technical writer on several successful bids for new business development in supply chain management and health system strengthening projects.*

WHO Collaborating Centre for Medicines Use and Regulation Policy, Harvard Medical School. Boston, USA

- ***Pharmaceutical policy Research Fellow/consultant* (*08/2009 – 06/2012*)**
  - *Working with countries to develop and implement pharmaceutical regulatory policies to ensure that:*
    - *medicines on the market in both public and private health care facilities are of the required quality, safety and efficacy;*
    - *medicines are appropriately manufactured, stored, distributed and dispensed;*
    - *illegal manufacturing and trade are detected and adequately sanctioned;*
    - *health professionals and patients have the necessary information to enable them to use medicines rationally;*
    - *promotion and adverting is fair, balanced and aimed at rational drug use;*
    - *access to medicines is not hindered by unjustified regulatory work.*
  - *Implementation and analysis WHO surveys on medicines' use and regulation in Uganda, Ghana, Liberia, Zimbabwe, Tanzania, Jordan and Philippines*
  - *Development of indices for measuring access to medicines in developing countries*
  - *Customization of data collection and analysis systems for WHO surveys*
  - *Worked with international staff of diverse backgrounds on pharmaceutical policy development and research*
  - *Reviewer, Journal of General Internal Medicine and International Journal of Pharmacy Practice and Policy*

University of Nottingham Medical School, Nottingham, Britain

- ***Post-doctoral Research Fellow/Lecturer in Medicines Use and Patient Safety*(08/2007 – 04/2011)**
  - *Led the development and scale up patient safety toolkits in primary healthcare. The toolkits were implemented in over 50 primary care centres in Nottingham county and adopted as part of the standard operating procedures for prescribers in the East Midlands National Health Service Primary Care Trust*
  - *Developed teaching plans and conducted lectures in public health for MBCHB and MPharm courses for over 200 students. Pass rate for students was over 95% for two years.*
  - *Preparation of Cochrane systematic reviews for the patient safety research group. The reviews have since been published by the Cochrane review group and have been cited by over 150 authors in the last 5 years.*
  - *Lead Statistical programmer in SAS, STATA and SPSS for the University's public health research interest group*
  - *Co-supervision of PhD students who both completed their PhDs on time and have since gone on to assume academic positions at major universities in their home countries (Saudi Arabia and Nigeria).*

The Cooperative Pharmacy, Surgery and Nursing Home at Radcliffe-on-Trent, Nottingham, Britain

- ***Staff Pharmacist*(*08/2007 – 08/2011*)**
  - *Compounding of medications for patients*
  - *Preparation of medicines for patients in long-term care facilities*
  - *Dispensing NHS prescriptions and private prescriptions to the community*
  - *Provision of medicines information to prescribers and general medicines counselling for patients*
  - *Supervision of 4 pharmacy technicians*
  - *Supporting the administrative role of the senior pharmacist*

Publications

- Parrish RH, Gilak L, Bohannon D, Emrick SP, **Serumaga B** and Guharoy R. (2019) Minimizing Medication Errors from Electronic Prescription Transmission – Digitizing Compounded Drug Preparations. Pharmacy (Basel).7(4):149
- Vialle-Valentin C, **Serumaga B**, Wagner AK, Ross-Degnan, D. (2014). Evidence on access to medicines for chronic diseases from household surveys in five low – and middle – income countries. Health Policy and Planning 2014, 1 – 9, doi:10.1093/heapol/czu107
- ***Serumaga B***,Ross-Degnan D, Avery AJ, Elliott RA, Majumdar SR, Zhang F, Soumerai SB (2011). *Has pay-for-performance improved the management and outcomes of hypertension in the United Kingdom? An interrupted time-series study*. *BMJ* 2011; 342: d108
- ***Serumaga B*,** et al. *Using performance-based financing (PBF) to motivate health commodity supply chain improvement at a central medical store in Mozambique*. BMC Health Services Research 2014, 14(Suppl 2):P148
- **Serumaga B,** and Rosen J. 2015. *Developing and implementing a tool to estimate service fees for central medical stores in developing countries*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.
- **Serumaga B,**Bahirai E and Rosen J. 2014. *Experiences and Lessons Learned from Pay-for-Reporting Schemes in Public Health Supply Chains*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.
- Avery A J, ***Serumaga B,*** Campbell S, Dex G, Mulvaney C, Spencer R. Systematic review of interventions in Primary care to prevent medicine associated drug events and hospital admissions. *Cochrane Database of systematic reviews.* (June 2014)
- **Serumaga, Brian** and Innocent, Ibegbunam. 2014. *Updated design of the Bauchi state revolving drug fund.* Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.
- Eichler, Rena, **Brian Serumaga,** James Rosen, Greg Miles, MavereTukai. August 2012. Options Guide: Performance-Based Incentives to Strengthen Public Health Supply Chains – Version 1. Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.
- **Serumaga**, **Brian**, Yusuf Babaye, and Minnie Bowier. *Liberia: Nationwide Forecast and Funding Gap Analysis for essential medicines and Commodities.* 2014. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.
- Takang, Eric, **Brian Serumaga**, ChuksOkoh, and Elizabeth Obaje. 2013. *Nigeria: Nationwide Forecast and Funding Gap Analysis; Maternal, Newborn, and Child Health Commodities.* 2013. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.
- Printz, Naomi, **Brian Serumaga**, Johnnie Amenyah, and Dirk Van Wyk. 2013. Tanzania: Strategic Review of the National Supply Chain for Health Commodities. SCMS Project
- **Serumaga B** and Rosen J. 2013.*Commercial Sector Performance-Based Financing Offers Lessons for Public Health Supply Chains in Developing Countries*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 4.
- ***Serumaga B***, Avery AJ, Campbell S, Dex G, Mulvaney C, Spencer R, Lester E. (In-press). *Development of prescribing safety indicators for general practitioners using RAND Appropriateness Methods*. *British Journal of General Practice,* 0(0), 0. eScholarID:93532
- Spencer R, ***Serumaga B***, Avery AJ, Crowe S. *Prescribing errors general practice and how to avoid them.Clin Risk*. 2011; 17(2): 39-42
- ***Serumaga B,***Avery AJ, Elliott RA (2010). *The impact of pay-for-performance and clinical guidelines on physician selection of drug therapy for newly diagnosed patients with hypertension in the UK.Pharmacoepidemiology and Drug Safety:* Volume 19 (supp 1) s 344.
- Avery A J, ***Serumaga B,*** Campbell S, Dex G, Mulvaney C, Spencer R. Report for the Royal College of General Practitioners on potential prescribing indicators for use in revalidation. *University of Nottingham,* 2009.

References

- Available on request